

# A!

Aalto University  
School of Business



# Real-Time Economy as a Cornerstone in Financial Value Chain Development 2006-2018 Views on RTE Readiness

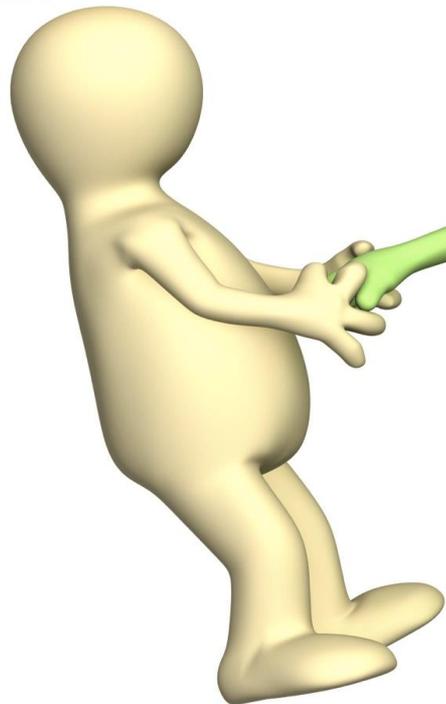
*Esko Penttinen*

*Professor of Practice, Information Systems Science, Aalto University School of Business*

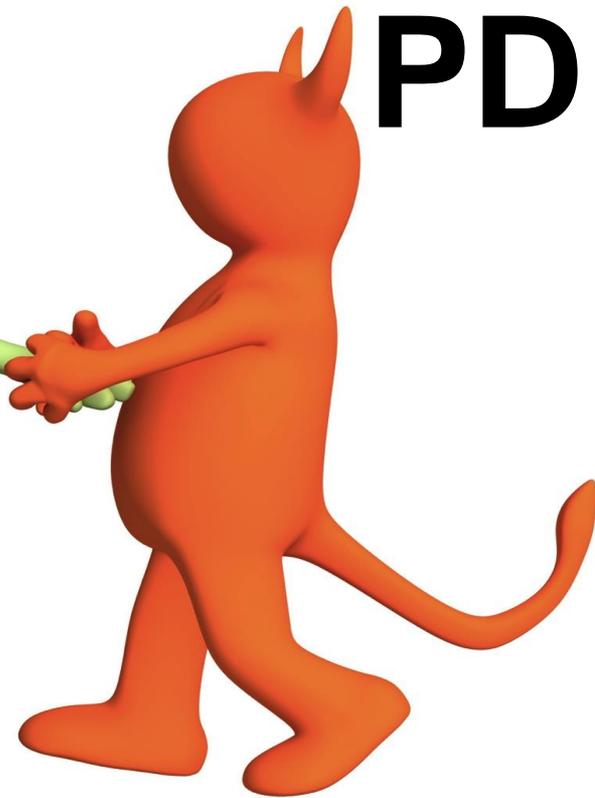
*Chairman, XBRL Finland*

*Director, Real-Time Economy competence center*

**XML**

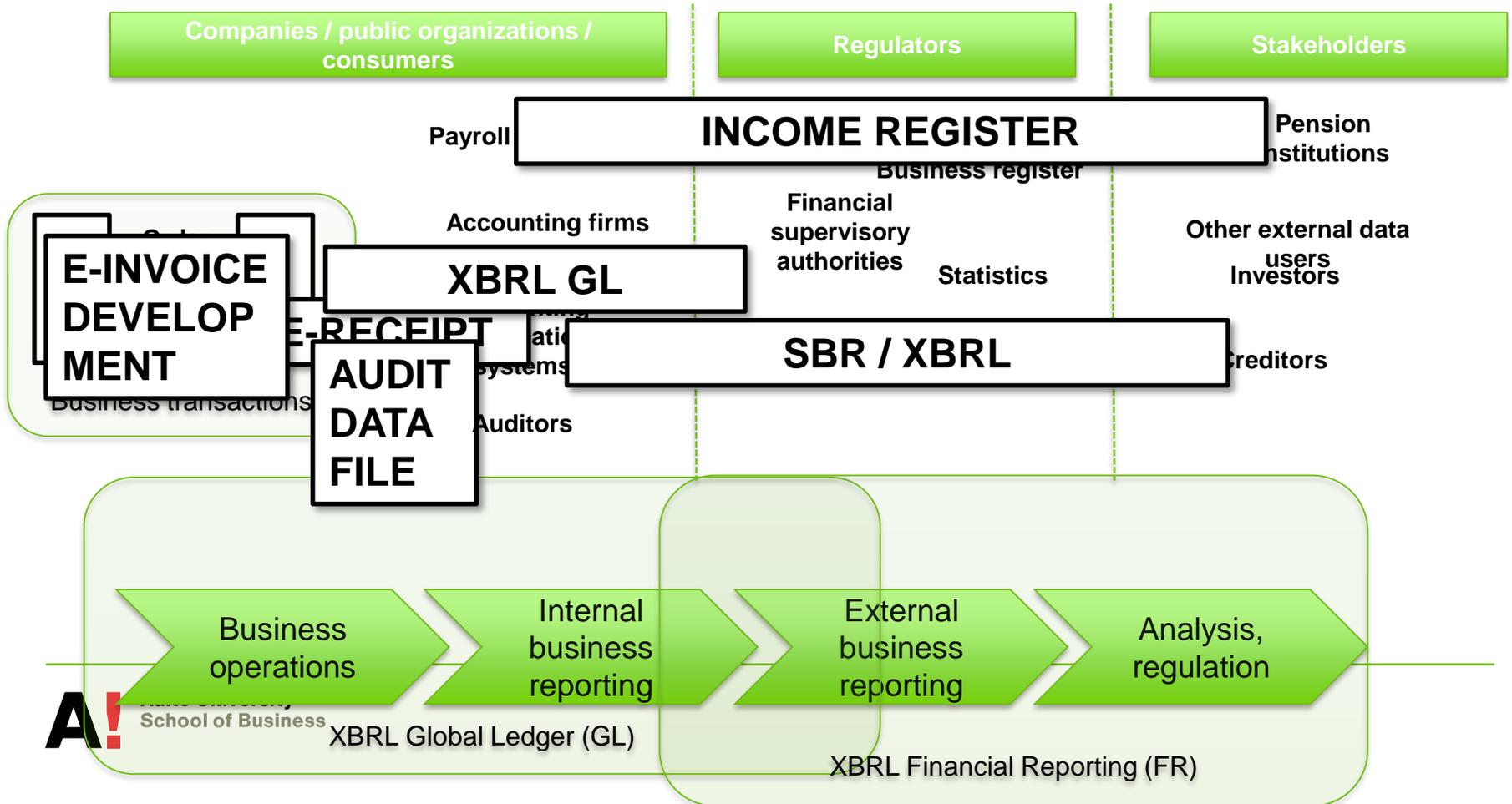


**XYZ  
Ltd.**



**PDF**

# Financial value chain and RTE



# Data

Regulating the internet giants

The world's most valuable resource is  
no longer oil, but data

*The data economy demands a new approach to antitrust rules*

*The Economist 6.5.2017*

APR 13, 2017 @ 02:22 PM 5,459

The Little Black Book of Billionaire Secrets

What Will We Do When The World's Data Hits 163  
Zettabytes In 2025?

*Forbes 13.4.2017*

## Structured vs. Unstructured Data

*Structured data is far easier for Big Data programs to digest, while the myriad formats of unstructured data creates a greater challenge. Yet both types of data play a key role in effective data analysis.*

*Datamation 3.8.2017*

# Automation

BUSINESS DAY

***A.I. Has Arrived in Investing. Humans Are Still Dominating.***

By CONRAD DE AENLLE JAN. 12, 2018

*The New York Times 12.1.2018*

Big Data + Add to myFT

How machine learning creates new professions  
– and problems

Leaders face an explosion in demand for knowledge and skills

*Financial Times 29.11.2017*



The next acronym you  
need to know about: RPA  
(robotic process  
automation)

By Xavier Lhuer

*McKinsey&Co December 2016*

# Research themes at RTE competence center

## Information-intensive knowledge work

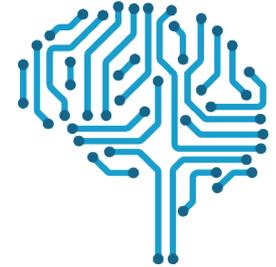
Electronic, machine-readable, structured data



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0011001

**x**BRL | FI

Automation tools (RPA, ML, AI)



### Research themes

1. Interplay between computers and humans

2. Governance issues

3. Choice-making in digital environments

# Impact of Cloud Computing on Business Process Outsourcing

Case: Accounting in Small and Medium-sized Enterprises

Aleksandre Asatiani



## INDEX OF ADVANCEMENT OF EU COUNTRIES IN REAL TIME ECONOMY

### CONTENTS OF THE REPORT:

- RTE Readiness Index and four sub-indices ranking the EU countries according to their advancement in Real-Time Economy.
- Description of the measurement model and relevant criteria for assessment of countries' RTE advancement.
- Two-page country-specific reports including detailed description of a country's performance and additional information about the market conditions.



### RTE READINESS INDEX AND COMPONENTS

| RTE READINESS INDEX              |                   |                 |                                    |                            |                         |
|----------------------------------|-------------------|-----------------|------------------------------------|----------------------------|-------------------------|
| Potential Purchasing Power Index | E-Invoicing Index | E-Payment Index | Infrastructure and Ecosystem Index |                            |                         |
|                                  |                   |                 | E-Invoicing Adoption Score         | Accounting Ecosystem Score | Banking Ecosystem Score |

### RTE READINESS INDEX 2014

| Country     | RTE Readiness Index |      | Sub-indices                     |                  |                |                                   |
|-------------|---------------------|------|---------------------------------|------------------|----------------|-----------------------------------|
|             | Score               | Rank | Potential Purchasing Power Rank | E-Invoicing Rank | E-Payment Rank | Infrastructure and Ecosystem Rank |
| Finland     | 0,98                | 1    | 7                               | 1                | 1              | 1                                 |
| Norway      | 0,97                | 2    | 1                               | 8                | 26             | 2                                 |
| Denmark     | 0,88                | 3    | 3                               | 2                | 3              | 10                                |
| Sweden      | 0,82                | 4    | 4                               | 14               | 6              | 5                                 |
| Austria     | 0,77                | 5    | 9                               | 11               | 4              | 4                                 |
| Switzerland | 0,74                | 6    | 5                               | 12               | 27             | 7                                 |
| Belgium     | 0,73                | 7    | 6                               | 10               | 11             | 15                                |
| Germany     | 0,73                | 8    | 12                              | 22               | 2              | 9                                 |
| Netherlands | 0,72                | 9    | 8                               | 26               | 9              | 11                                |
| Ireland     | 0,70                | 10   | 10                              | 8                | 17             | 18                                |
| UK          | 0,68                | 11   | 13                              | 25               | 8              | 8                                 |
| Spain       | 0,65                | 12   | 15                              | 17               | 14             | 3                                 |
| France      | 0,64                | 13   | 11                              | 20               | 13             | 20                                |
| Italy       | 0,63                | 14   | 14                              | 23               | 18             | 16                                |
| Estonia     | 0,57                | 15   | 20                              | 13               | 5              | 12                                |
| Latvia      | 0,56                | 16   | 23                              | 4                | 12             | 14                                |
| Lithuania   | 0,56                | 17   | 24                              | 3                | 21             | 6                                 |
| Greece      | 0,50                | 18   | 18                              | 28               | 25             | 19                                |
| Poland      | 0,49                | 19   | 27                              | 20               | 23             | 13                                |
| Hungary     | 0,47                | 20   | 26                              | 24               | 22             | 17                                |