

**XBRL EUROPE**

**25<sup>th</sup> XBRL EUROPE  
DIGITAL WEEK**

**Online conference**

**15-18th June 2020**



# SBR Working Group

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- Frans Hietbrink
- SBR NL
- XBRL NL
- a personal update from Tax
  - SBR 2.0 developing an ecosystem
  - Banking and Taxes: a match made in heaven?
  - And more and more!

# Agenda

I. The succes of SBR

II. The limitations of SBR

III. The next step: a modernized ecosystem approach

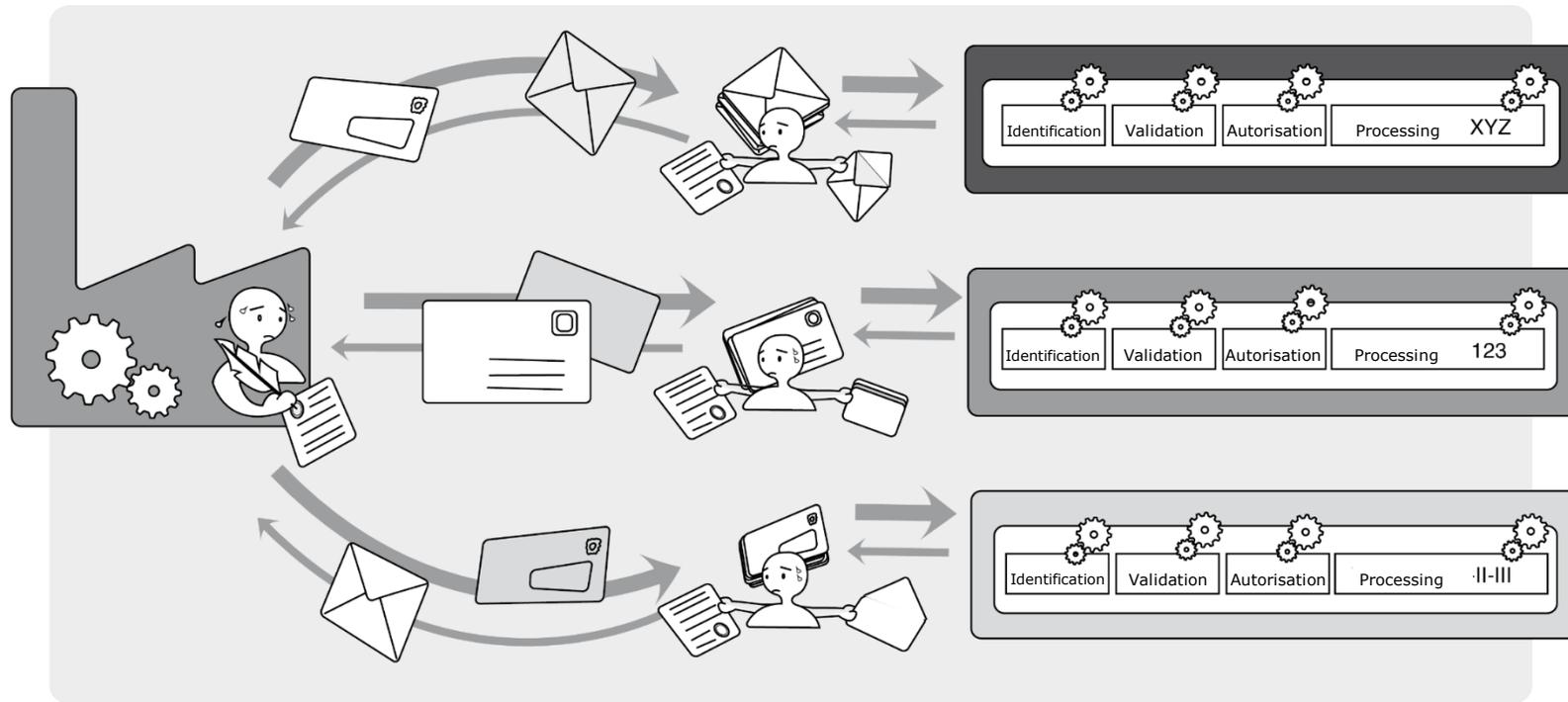
IV. Tax and Banks

V. And more and more

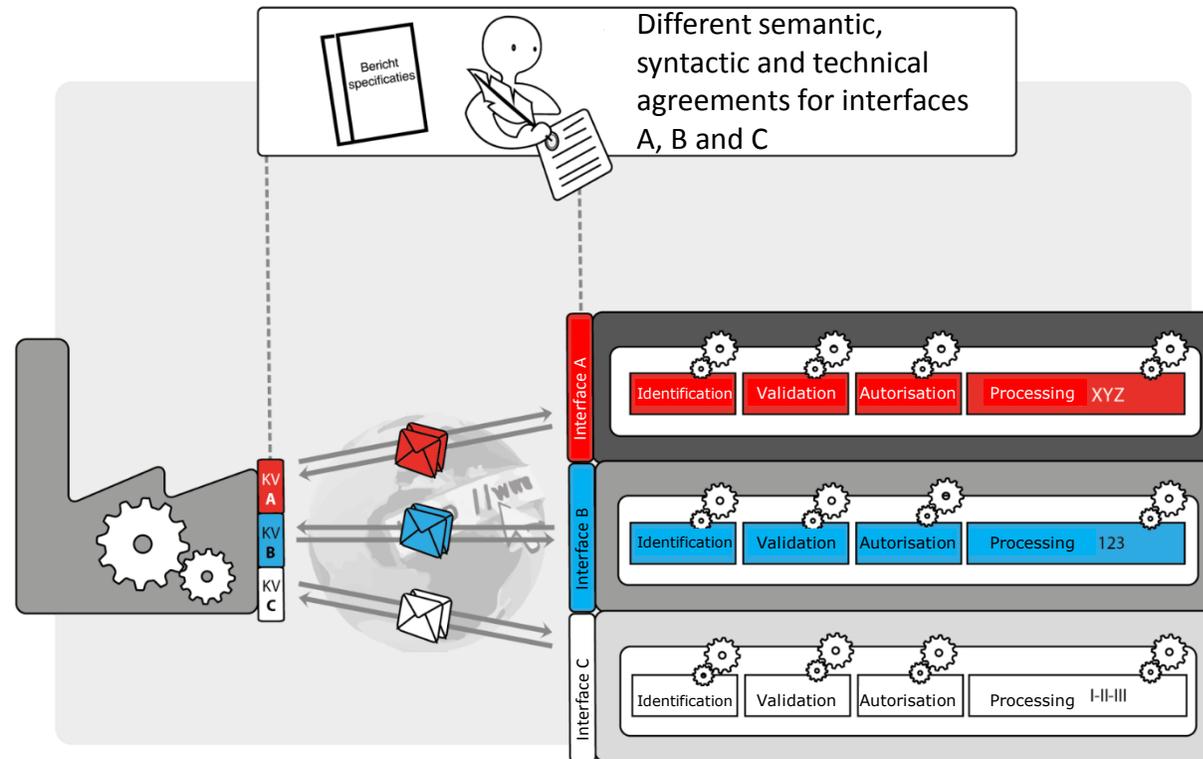
VI. Questions

Annex

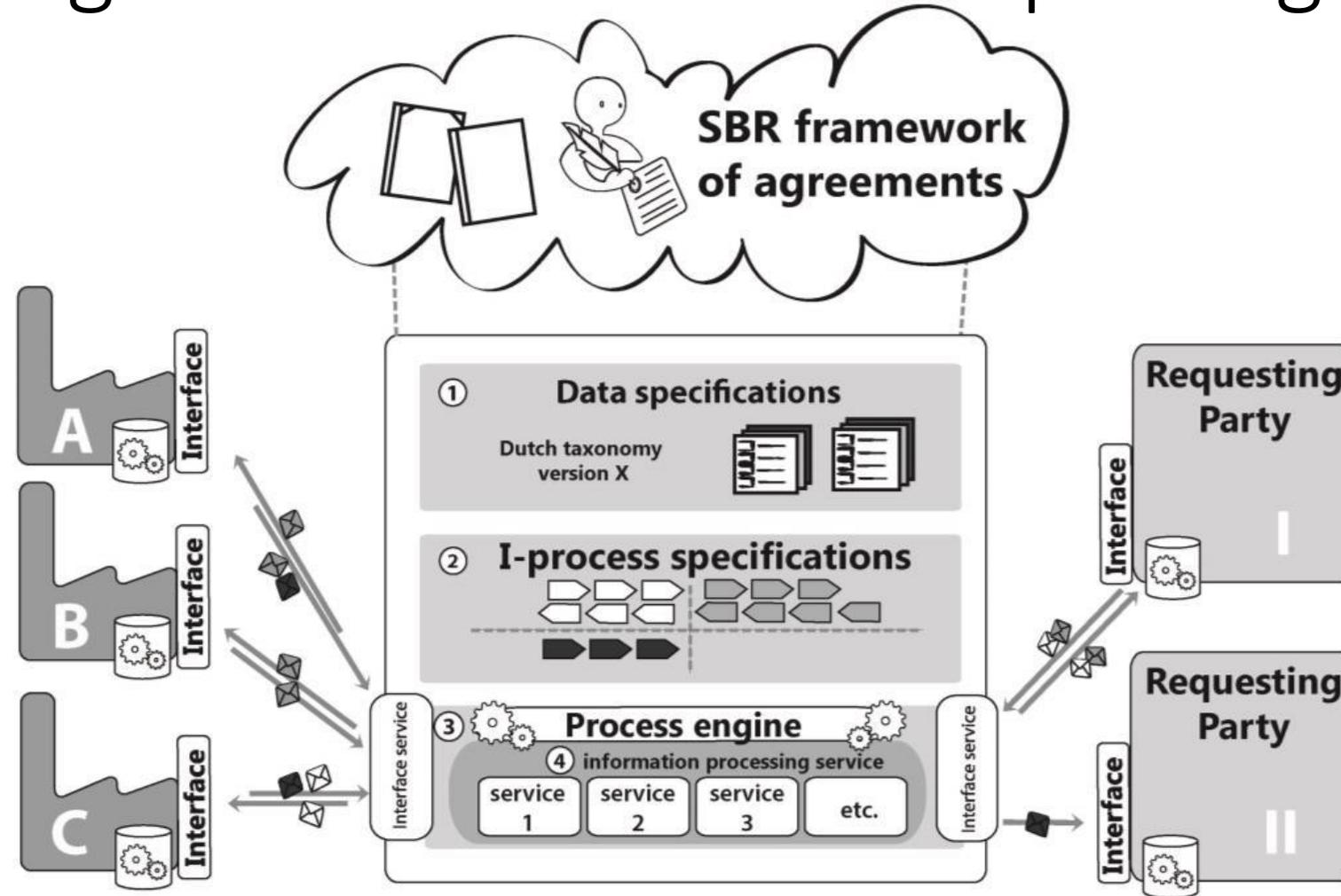
# Challenge 1: paper interaction



# Challenge 2: digital interaction via different interfaces



# Introducing Standard Business Reporting



# Standard Business Reporting



### SBR 2018

-  **42,8 million**  
messages
-  **11,5%**  
growth compared to 2017
-  **52**  
incoming message flows
-  **6**  
outgoing message flows
-   **117.260**  
messages on average per day

### Highlights

Since 2018, medium-sized companies have been filing their financial statements for the year 2017 and onwards exclusively digitally via SBR at the Business Register. Since 2017, micro-enterprises and small legal entities have been able to file their financial statements exclusively via SBR. Therefore, more and more standardized data from companies have come available in the Trade Register.

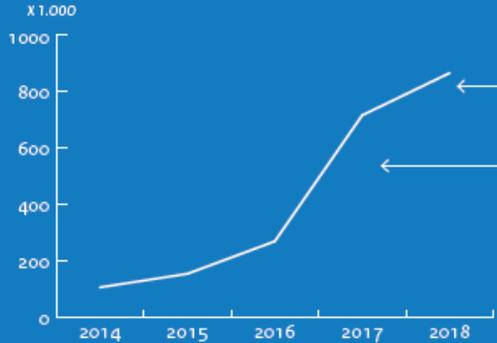
Since 2018, housing corporations have been supplying forecast information about the market and policy value of homes to the Housing Corporation Authority through SBR.

The Ministry of Education, Culture and Science has started a pilot by which educational institutions can provide their annual reports fully digitally through SBR.

SBR Banken has changed their name to SBR Nexus and broadens their focus. New message flows will be developed in 2019 and other types of receiving parties will be connected.

The Tax and Customs Administration has been receiving a growing number of message types since 2008. In 2018, message types for gift tax, country-by-country reporting and dividend tax were added. In addition, last year the Tax and Customs Administration also started sending new message types: dividend tax and motor vehicle tax.

### Development of number of reports at Chamber of Commerce



Since 2017 medium-sized businesses are obliged to deposit their annual statement via SBR

Since 2016 micro businesses and small legal entities are obliged to deposit their annual statement via SBR

### 6 affiliated parties

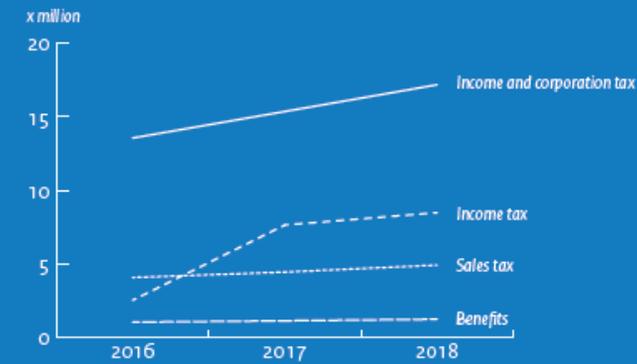
Tax and Customs Administration, Chamber of Commerce, Housing association (SBR Wonen), Ministry of Education, Culture and Science, banks (Rabobank, ING, ABN AMRO, Volksbank via SBR Nexus), Central Bureau of Statistics.

### International

The Netherlands is the first country in the world where financial statements can be signed with an electronic auditor's opinion and filed digitally via SBR.

In 2018, the European Commission (EC) agreed with the Regulatory Technical Standards (RTS) for an European Single Electronic Format (ESEF). This proposal requires issuers to submit their annual financial statements in Inline XBRL to the local regulator from the year 2020 and onward.

### Development of number of reports at the Tax and Customs Administration



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V. And more and more

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Annex

# Limitations in the current design

1. Identification of the sender
2. Expression of will by the sender (can be an intermediary)
3. Expression of will by the beneficiary
4. Authenticity of data
5. Quality of data

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# Co-create a trusted online ecosystem based on eIDAS

28.8.2014

EN

Official Journal of the European Union

REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 23 July 2014  
on electronic identification and trust services for electronic transactions in the internal market and  
repealing Directive 1999/93/EC

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee <sup>(1)</sup>,

Acting in accordance with the ordinary legislative procedure <sup>(2)</sup>,

*“trust in the online environment is key to economic and social development.”*

*“This Regulation seeks to enhance trust in electronic transactions [...] by providing a common foundation for secure electronic interaction [...]”*

Regulation (EU) No 910/2014

eIDAS provides the requirements for the electronic equivalent of the handwritten signature 

*“A qualified electronic signature shall have the equivalent legal effect of a handwritten signature” (Art. 25:3, eIDAS)*



*“ ‘qualified electronic signature’ means an advanced electronic signature [...] based on a qualified certificate for electronic signatures” (Art. 3:12, eIDAS)*



*“ [...] a certificate for electronic signatures, that is issued by a qualified trust service provider [...]” (Art. 3:15, eIDAS)*

# Phase 1 - Research - completed

## When Willeke can get rid of paperwork: a lean infrastructure for qualified information exchange based on trusted identities

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### ABSTRACT

As a frequent participant in eSociety, Willeke is often preoccupied with paperwork because there is no easy to use, affordable way to act as a qualified person in the digital world. Confidential interactions take place over insecure channels like e-mail and post. This situation poses risks and costs for service providers, civilians and governments, while goals regarding confidentiality and privacy are not always met. The objective of this paper is to demonstrate an alternative architecture in which identifying persons, exchanging information, authorizing external parties and signing documents will become more user-friendly and secure. As a starting point, each person has their personal data space, provided by a qualified trust service provider that also issues a high level of assurance electronic ID. Three main building blocks are required: (1) secure exchange between the personal data space of each person, (2) coordination functionalities provided by a token based infrastructure, and (3) governance over this infrastructure. Following the design science research approach, we developed prototypes of the building blocks that we will pilot in practice. Policy makers and practitioners that want to enable Willeke to get rid of her paperwork can find guidance throughout this paper and are welcome to join the pilots in the Netherlands.

### CCS CONCEPTS

• Computer systems organization → Cloud computing;

### KEYWORDS

Qualified information exchange, digital infrastructures, personal data management, distributed systems, privacy, data minimisation, authentication, authorisation, data portability, EIDAS, GDPR

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ACM ISBN 978-1-4503-6526-0/18/05...\$15.00  
<https://doi.org/10.1145/3209281.3209324>

### ACM Reference Format:

Sander Dijkhuis, Remco van Wijk, Hidde Dorhout, and Nitesh Bharosa. 2018. When Willeke can get rid of paperwork: a lean infrastructure for qualified information exchange based on trusted identities. In *Proceedings of 19th Annual International Conference on Digital Government Research (dg.o'18)*, Anneke Zuidervijk and Charles C. Hinnant (Eds.), ACM, New York, NY, USA, 10 pages. <https://doi.org/10.1145/3209281.3209324>

### 1 INTRODUCTION

Meet Willeke, a fictional character that personifies the interactions of a citizen in our eSociety. Willeke leads a busy life and does her Christmas shopping online, as well as most of her freelance work. For her business, she can do more and more formal interactions with the Dutch government online, such as filing sales tax returns on the Tax Office portal and requesting permits using a standardised login scheme. However, she frequently has to print contracts on paper, sign these with 'wet signatures' (pen and ink), and deliver these using postal services. She's somewhat happy that retrieving her medical records still requires physical identification at the doctor's office, instead of logging in to an insecure online portal.

Sometimes Willeke is shocked to see the private information others are sharing with her over an unsafe channel such as email [12]. Over the years, our eSociety – referring to the coexistence of several e-communities such as e-business, e-government and e-health that use information and communication technologies (ICT) in order to facilitate interactions – has gained traction. Due to major investments and standardization efforts, many types of interactions (e.g. online sales and access to public services) have undergone transformations that harness the potential of information technologies. The latest analysis of ICT developments from the International Telecommunication Union [10] shows that the availability, access and use of internet communication has grown substantially over the past decade, resulting in more persons online than ever before (almost 4 billion). Social media usage and online sales are breaking record numbers and many people like Willeke reap the benefits. Surely, this is progress. However, as we have already stated in the case of Willeke, there are still some concerns.

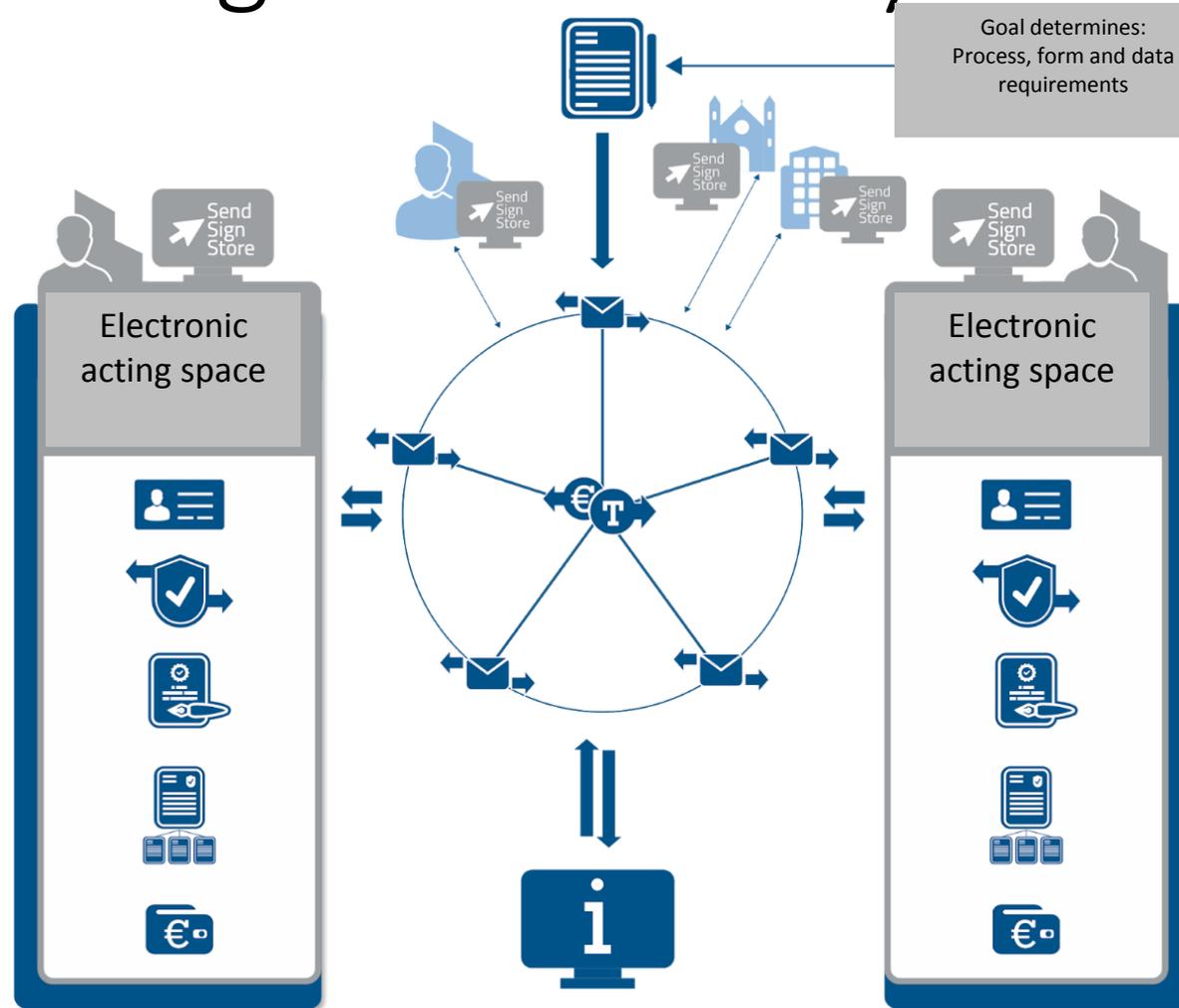
First, there is the concern of provider centricity. Giovanni Buttarelli, the European Data Protection Supervisor (EDPS), warns<sup>1</sup>: "Our online lives currently operate in a provider-centric system, where privacy

<sup>1</sup>[https://edps.europa.eu/press-publications/press-news/press-releases/2016/tow-ards-new-reality-taking-back-control-our-online\\_en](https://edps.europa.eu/press-publications/press-news/press-releases/2016/tow-ards-new-reality-taking-back-control-our-online_en)

## Propositions:

1. use QTSPs for trust services and data exchange
2. get persons online with a high level eID
3. sign expression of will with qualified electronic signatures

# High level design of the ecosystem approach



# Functional Ingredients of a trusted ecosystem



**Electronic acting space** - a system that is under the sole control of one responsible actor. From here, an actor can perform actions on his own behalf with the highest level of certainty.

**Qualified eID** - A unit containing person identification data, which can be used for online authentication.

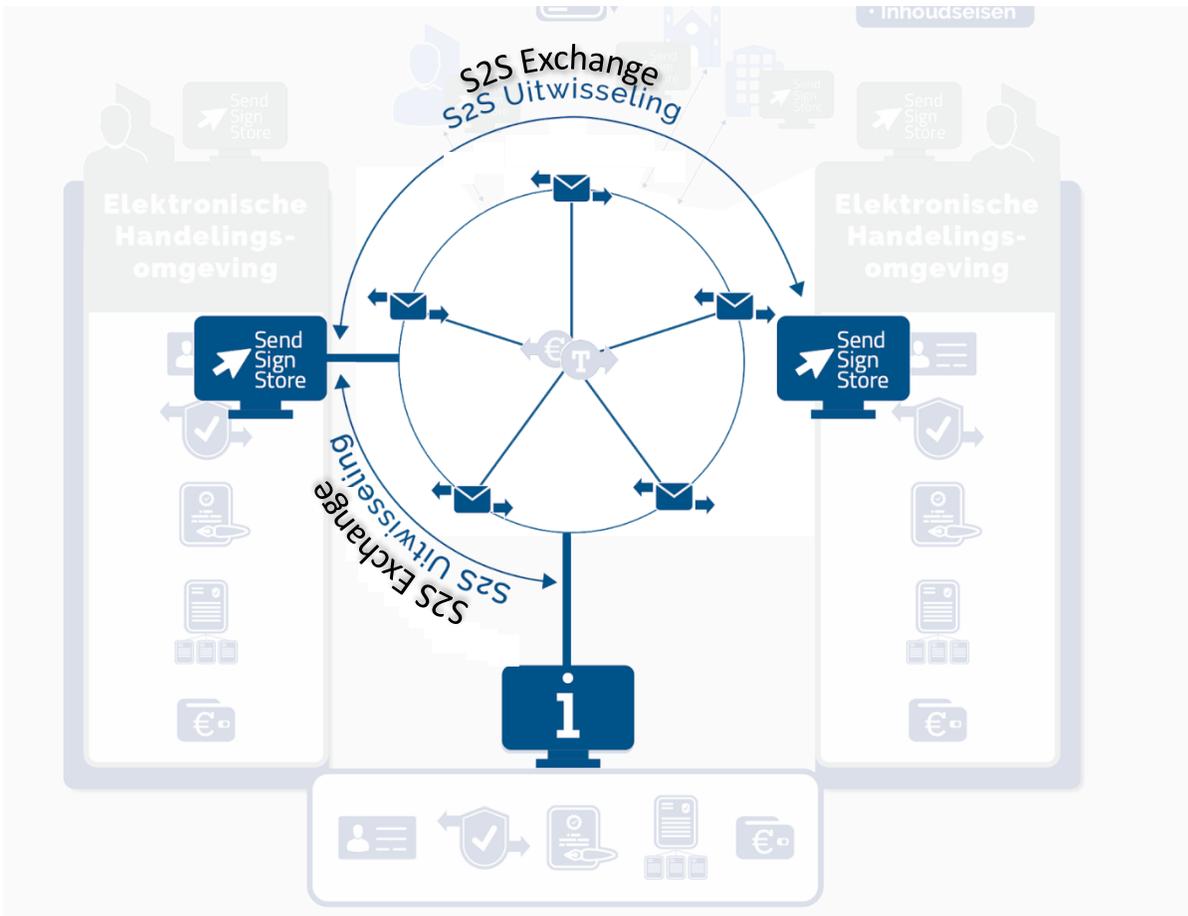
**Electronic Registered Delivery Service** - a service for **transmitting data** between parties which ensures data integrity and provides evidence of sending and receive.

**Qualified Signatures & Seals** - An advanced electronic signature/seal, meeting specific legal requirements. The electronic equivalent of a handwritten signature/seal.

**Qualified Archive** - For the safe storage with guaranteed authenticity of electronic documents and signatures.

**Wallet** – used for payments in the context of the use of collective functionalities. The chain specifications of exchange processes describe which actor (s) should provide the payments for this.

# Data is exchanged peer-2-peer via ERDS

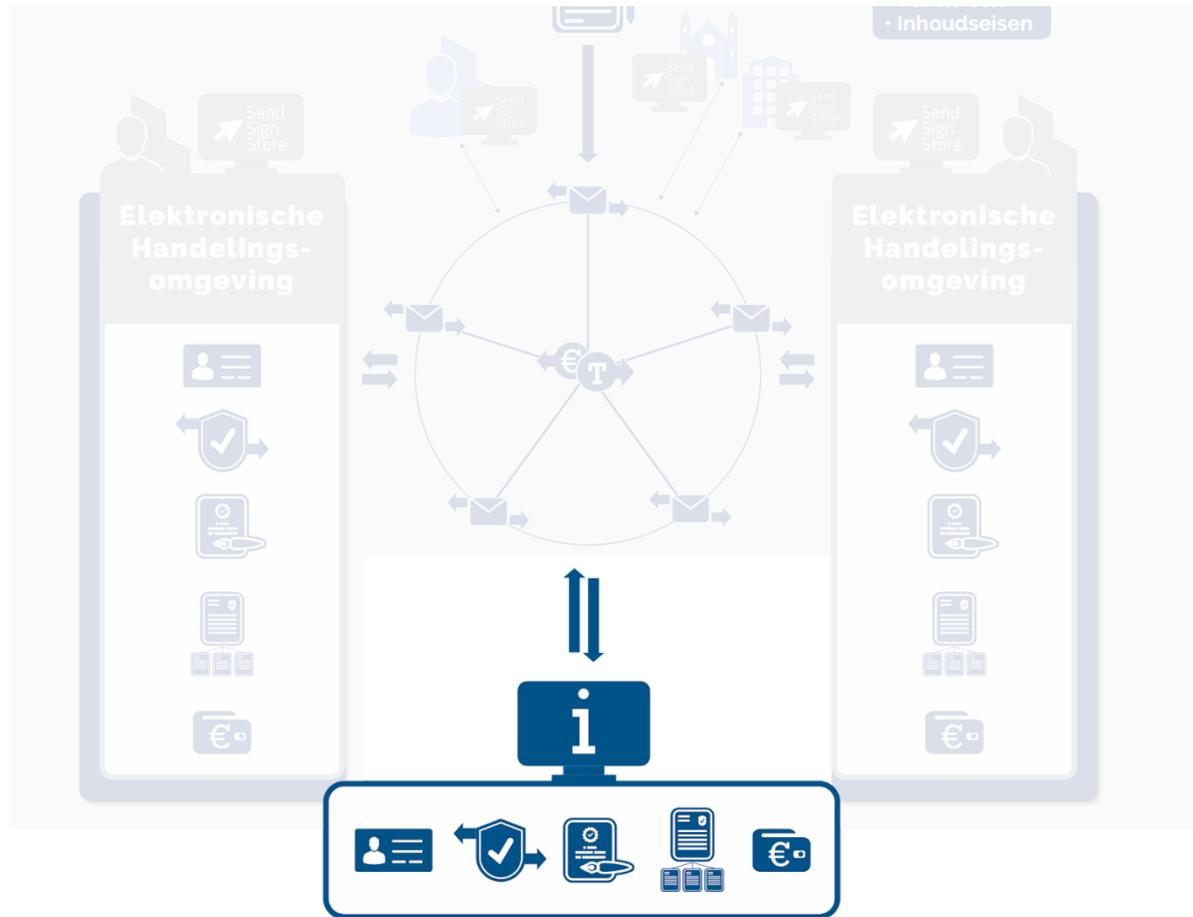


Centralized functionality solely consists of:

1. addressing & routing
2. published chain-specifications.
3. ledger of tokens to fund the above and clear optional third party service consumption

ERDS: Electronic Registered Delivery Service

# Consume third party (market) services



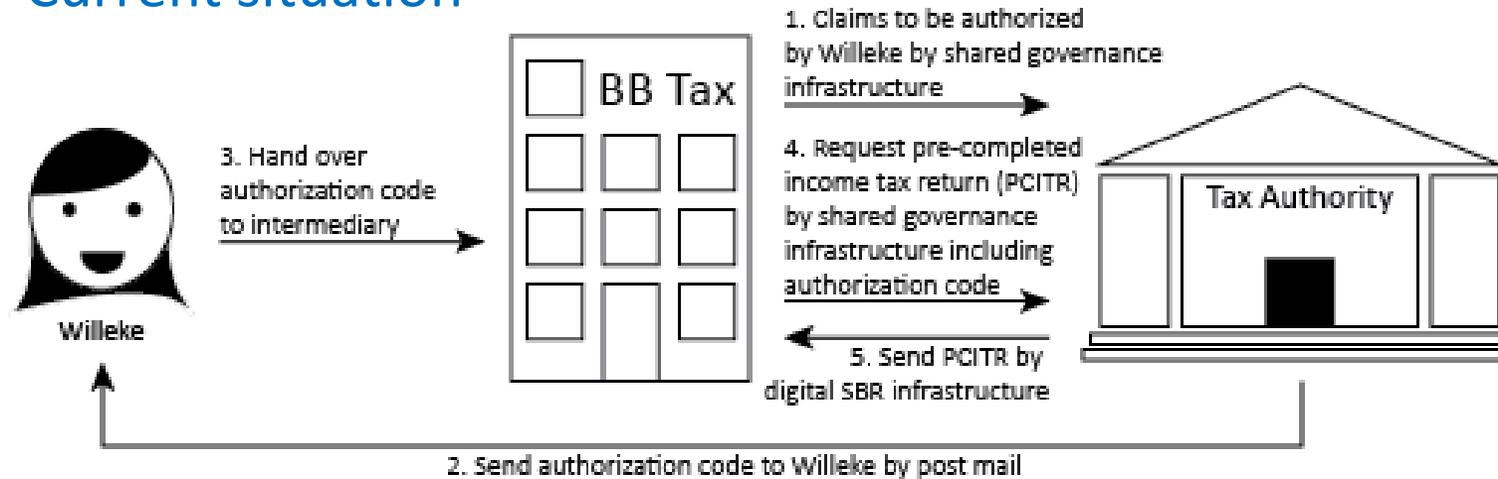
Trusted (certified) third party service providers can provide value added services in the ecosystem.

Examples:

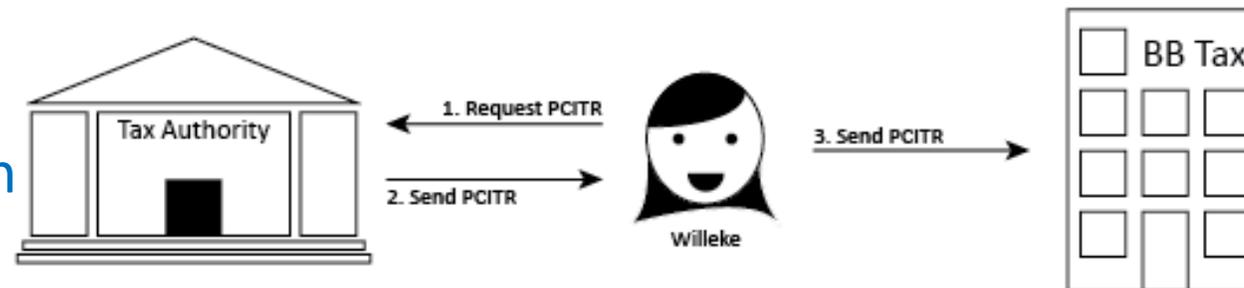
- data conversion and validation
- checks via authentic registers
- assurance services

# Phase 2 – proof of concept-

## Current situation



## Anticipated situation



# Anticipated improvements: annex

Improvement goal	Research question	Measure
Expression of will by the taxpayer	Is it possible to guarantee the expressions of will?	<i>eID + qualified signature from taxpayer</i>
Authentication of the sender	<i>Is it possible to authenticate the sender with a high level of certainty?</i>	<i>eID + qualified signature from sender, while PKI remains relevant for secure connection</i>
Expression of will by the sender (can be an intermediary)	Is it possible to guarantee the expressions of will?	<i>eID + qualified signature from both sender and taxpayer</i>
No use of third-party services	Is it possible to consume third party services in a secure way?	<i>Consume trusted third-party services via electronic acting space Data exchange via ERDS</i>
Data authenticity	Is it possible to guarantee that the same data(set) is being sent?	<i>eID + signature from filer hashes are included in the digital signature file eSeal (hashing, envelope)</i>
Data quality	Is it possible to explicitly state the quality of data?	<i>eID + qualified signature from auditor / actuary / appraiser / ...hashes are included in the digital signature file assurance taxonomies and assurance statements eSeal (hashing, envelop)</i>

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IV. Tax and Banks

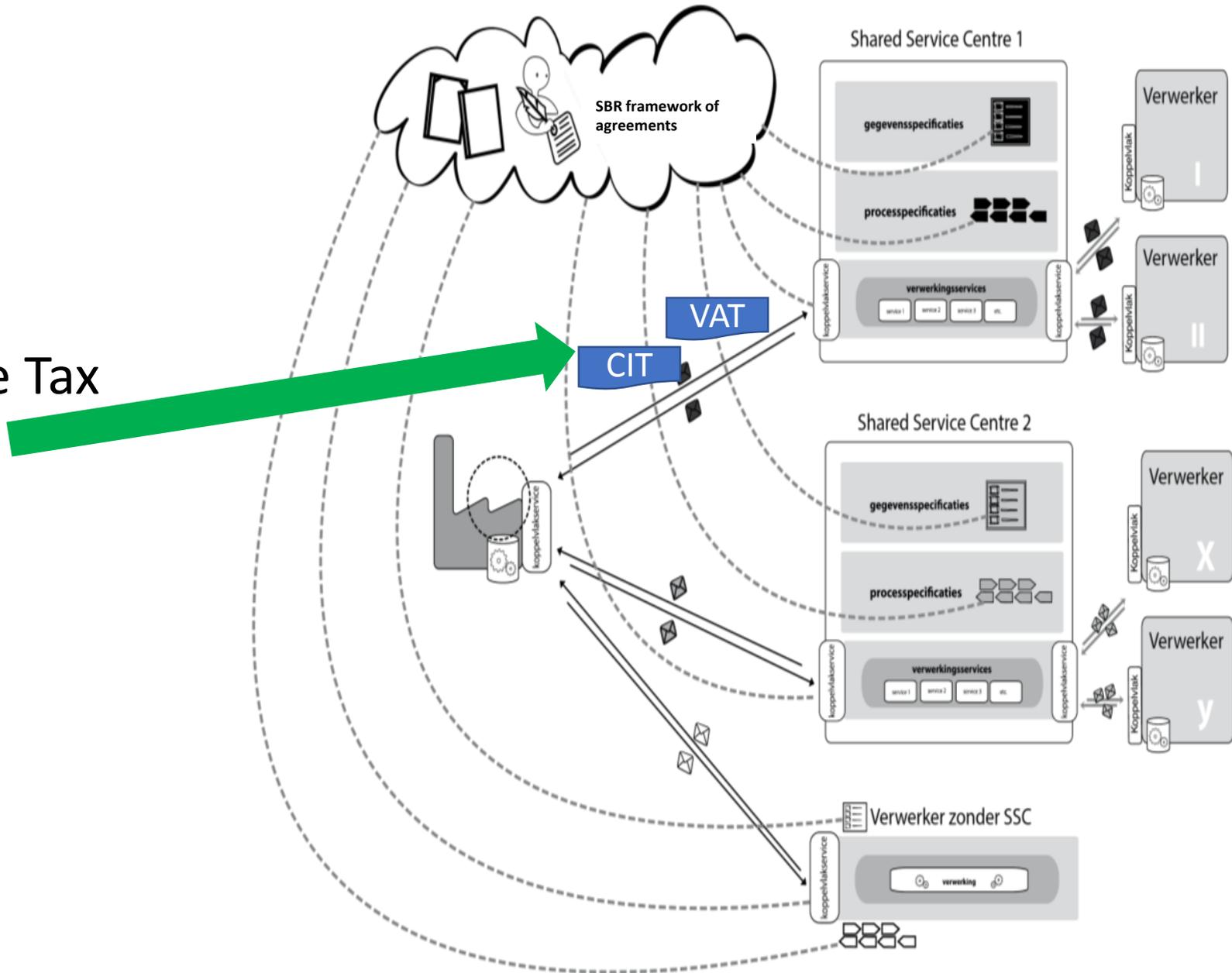
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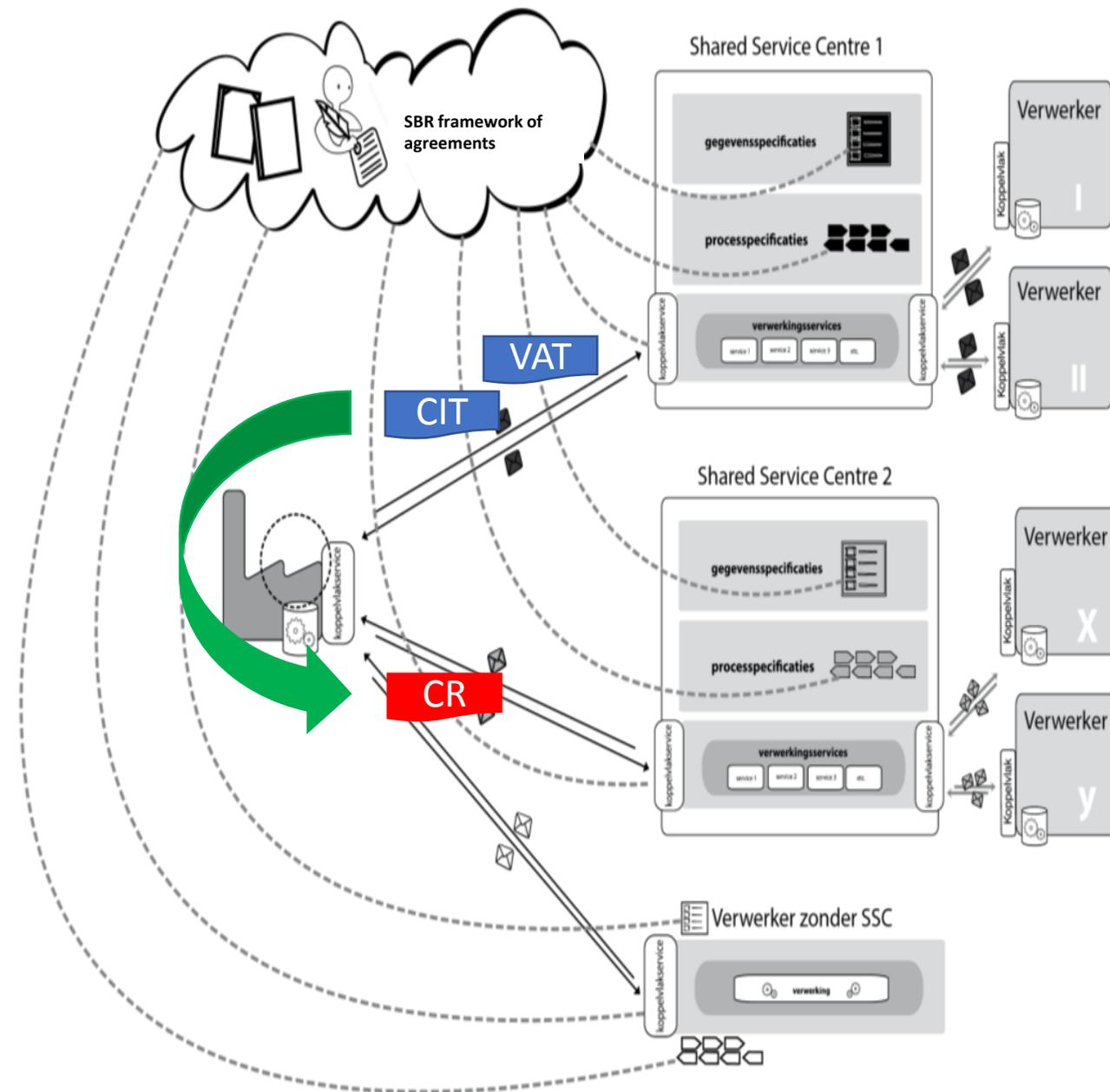
# Tax and Banks

- CIT = Corporate Income Tax
- VAT = Value Added Tax



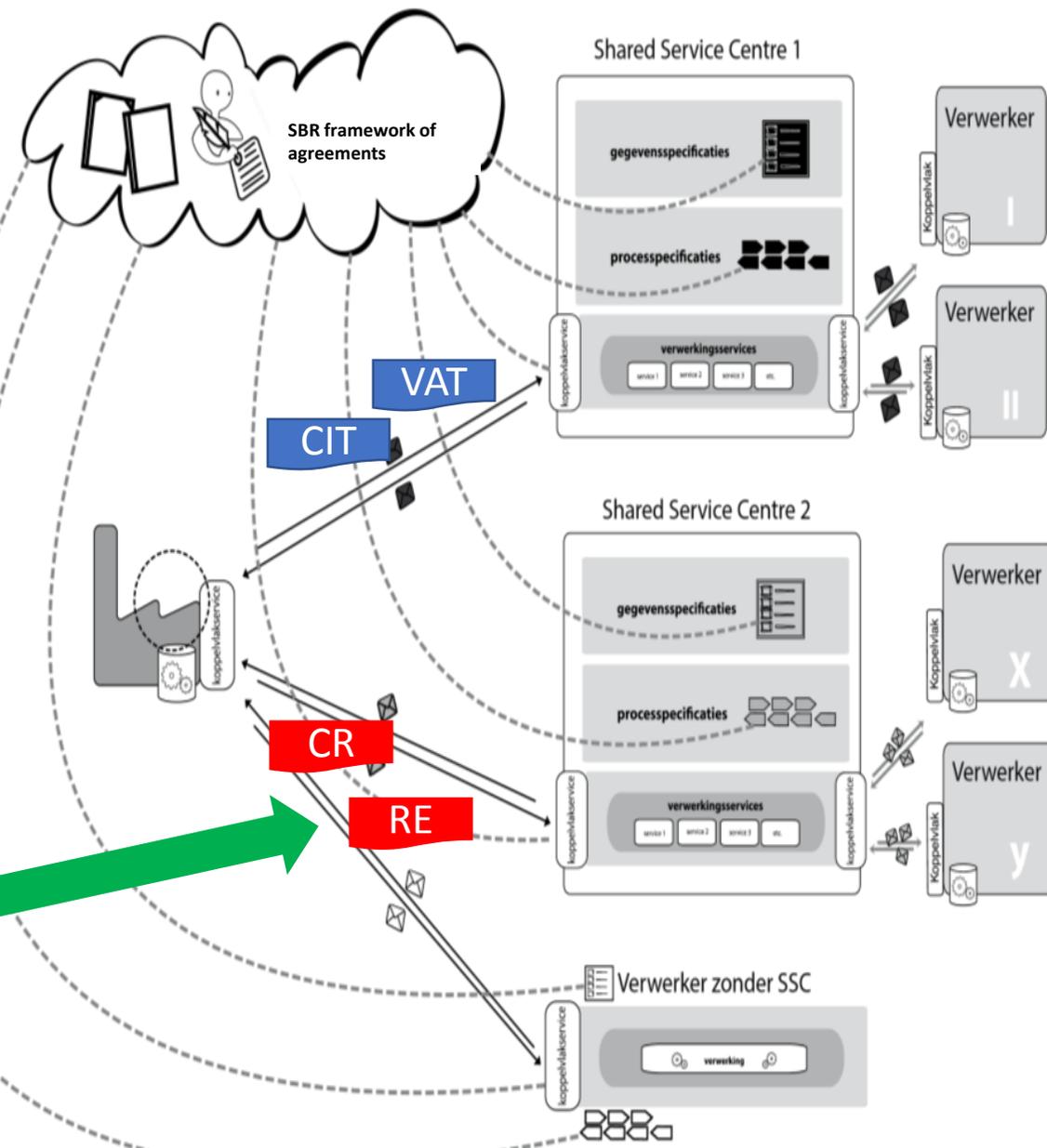
# Tax and Banks

- CIT = Corporate Income Tax
- VAT = Value Added Tax
- CR = Credit Revisioning



# Tax and Banks

- CIT = Corporate Income Tax
- VAT = Value Added Tax
  
- CR = Credit Revisioning
- RE = Real Estate
  - new players
  - SBR assurance



# Standardisation of (collateral) data

- For the valuation of Real estate four different standard are used:
  - RICS
  - IVS
  - EVS
  - Open Standard Commercial Real Estate – OSCRE
- All four standards have overlapping definitions (approximately 400.000-500.000 unique elements).

# Standardisation of (collateral) data

- Most of the data is manually processed which increases potential data quality issues
- A lot of the collateral data is requested for reporting to regulators e.g. the Assesed Quality Review, Ana Credit, CRD IV, etc.
- Regulators are not aware of the different standards, manual filling problems and the DQ issues involved! Using SBR with one standard (Taxonomy) will resolve a lo of regulation issues.

# Standardisation of (collateral) data



- In The Netherlands the banks work together with relevant parties on retrieving information from clients in XBRL.
  - A special working group is started with three banks and several vendors (e.g Flux, SBR Nexus) and Appraisers (E.g. CBRE, Cushman & Wakefield, MVGM).
  - We started with the AQR report (only 200 elements in 2016)
  - Now we have a Real Estate Taxonomy (VT14) covering Valuation reports, Rental lists, Assignment letters and Environmental reporting.

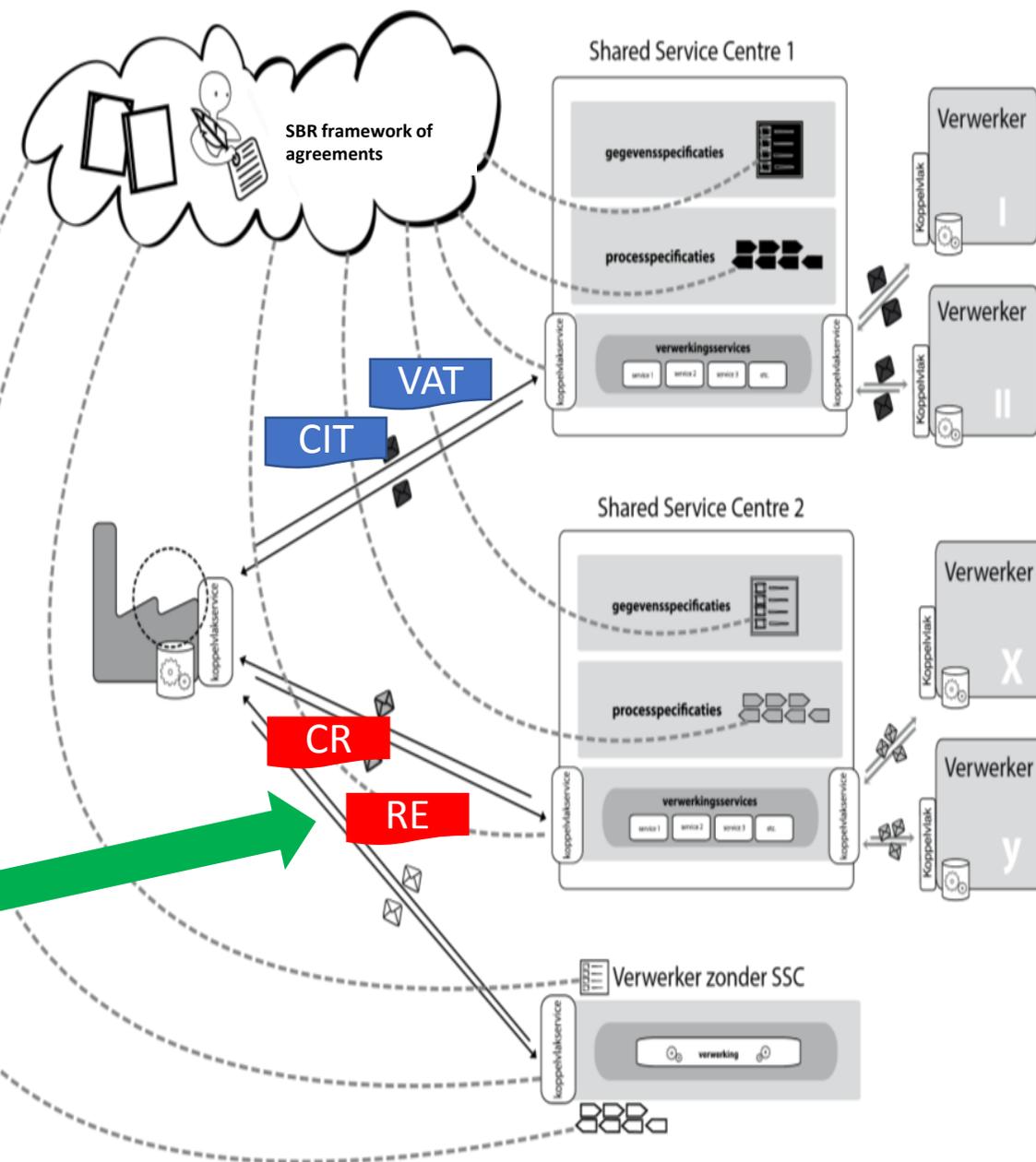
# Standardisation of processes



- SBR is not only taxonomy driven, but has also a specific process for assurance
  - A signature of a 'register real estate'-professional has more value than a regular one
  - A POC by ING, SBR Nexus, Flux and CBRE (as appraiser) to re-use the SBR assurance solution from the accountants in the real estate world
- The authenticity of signed claims must be evaluated to determine their true value
  - eIDAS provides the requirements for the electronic equivalent of the handwritten signature

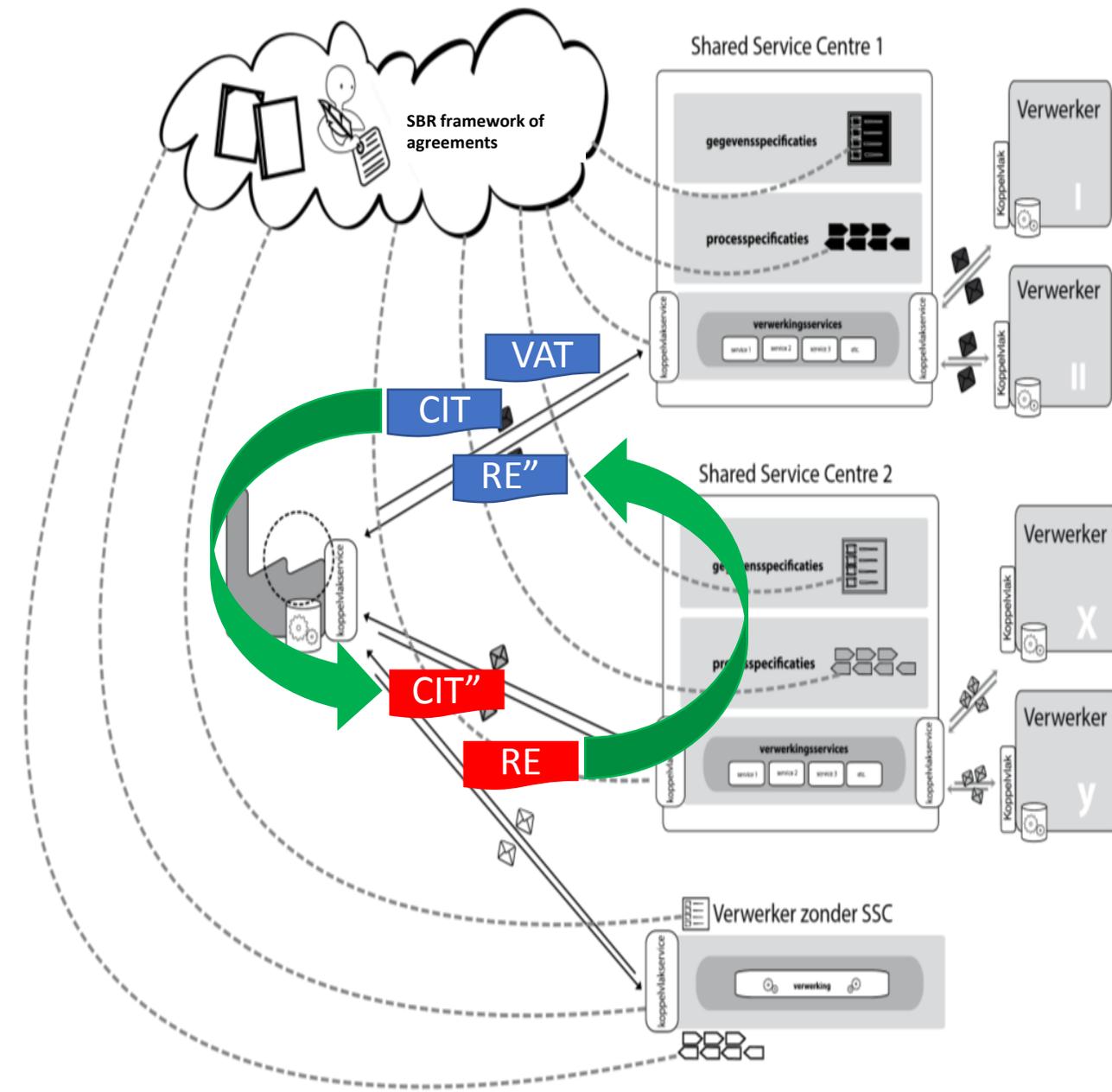
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- CIT = Corporate Income Tax
- VAT = Value Added Tax
  
- CR = Credit Revisioning
- RE = Real Estate
  - new players
  - SBR assurance



# Tax and Banks

- CIT = Corporate Income Tax
- VAT = Value Added Tax
- RE'' = Real Estate
- ~~CR = Credit Revisioning~~
- RE = Real Estate
- CIT'' = Corporate Income Tax



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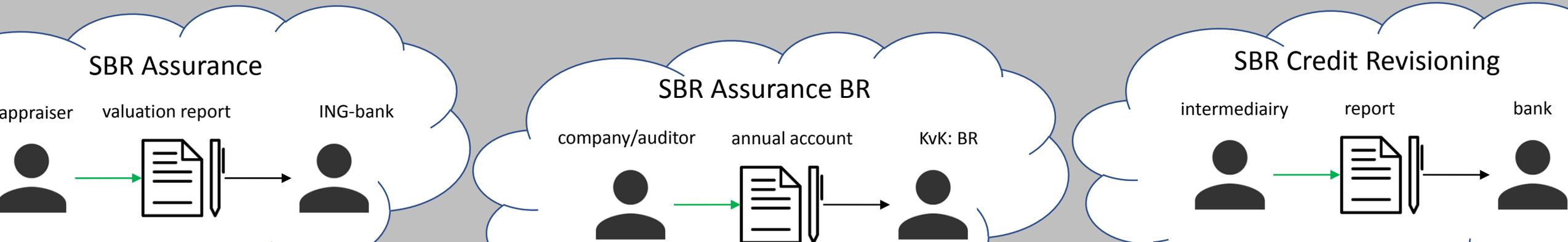
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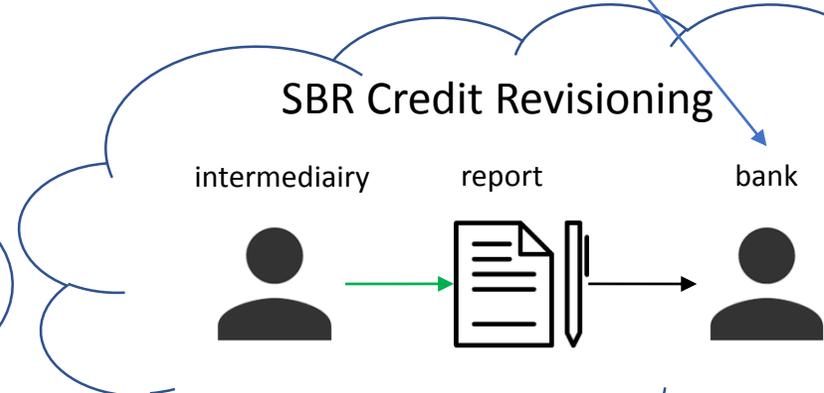
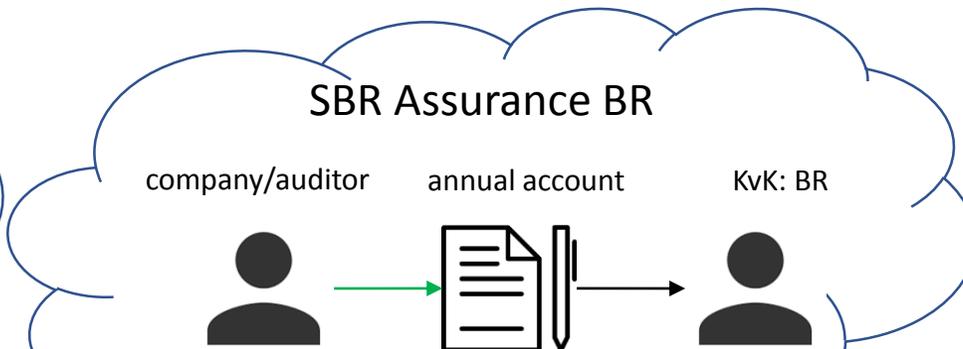
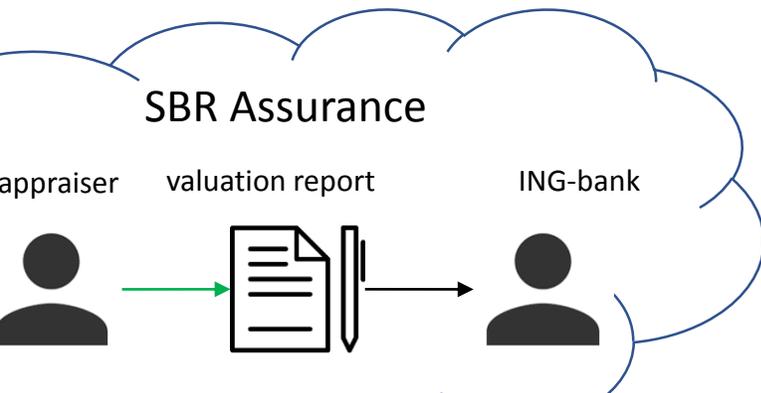
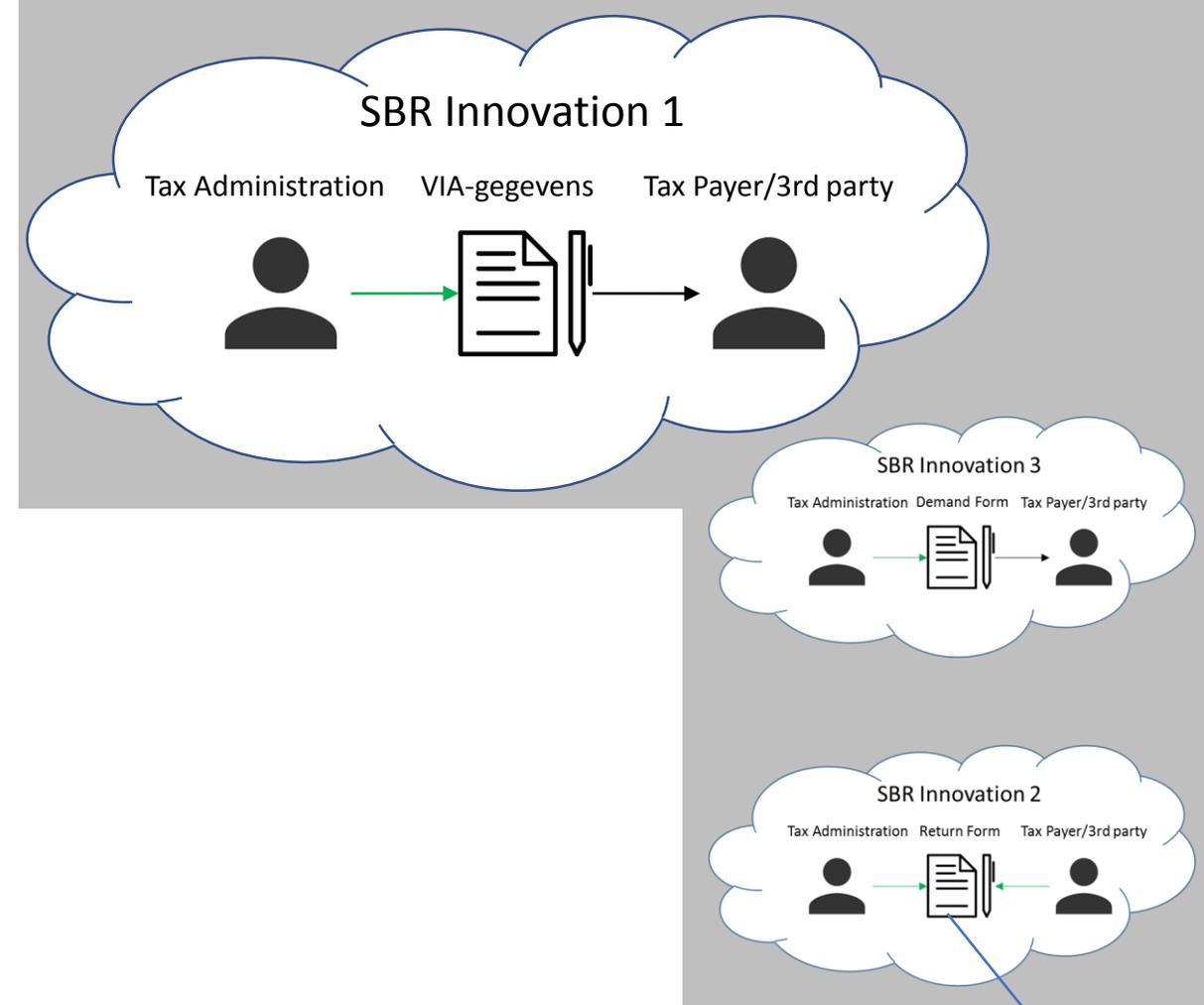
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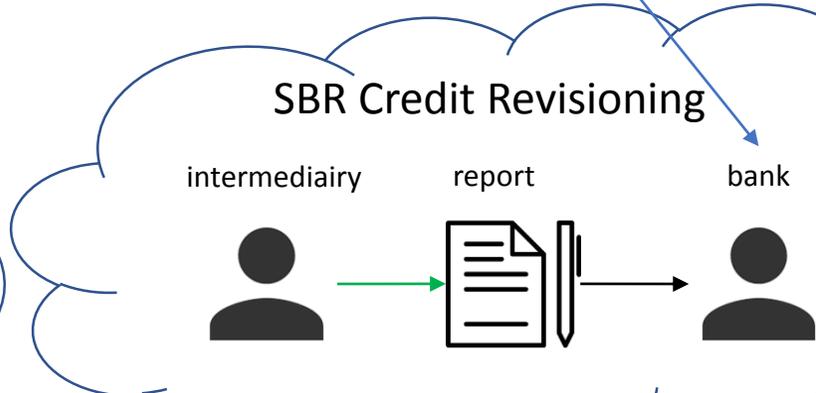
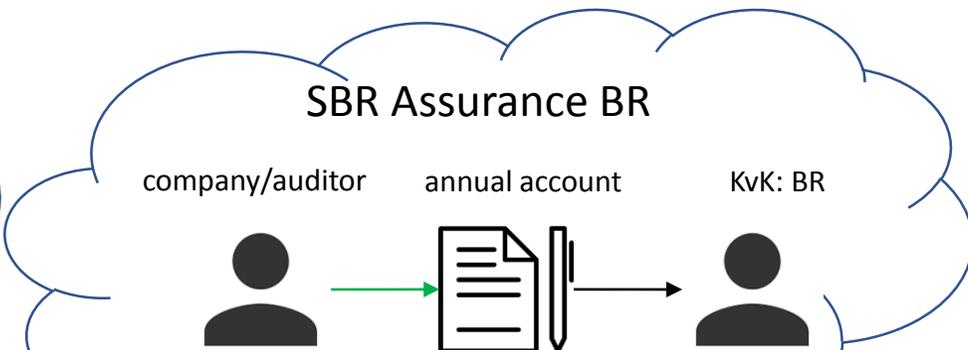
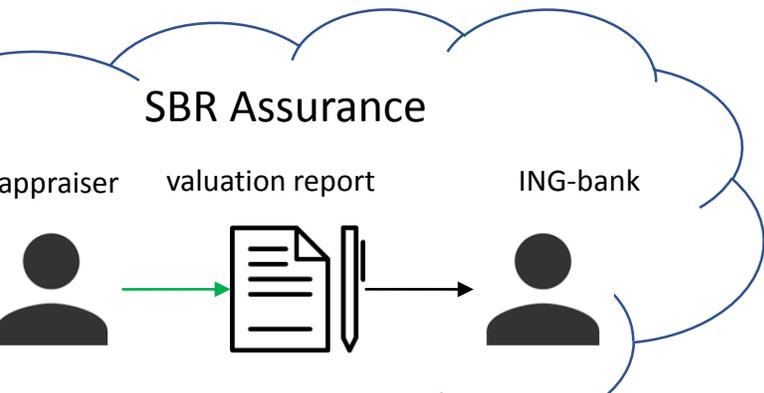
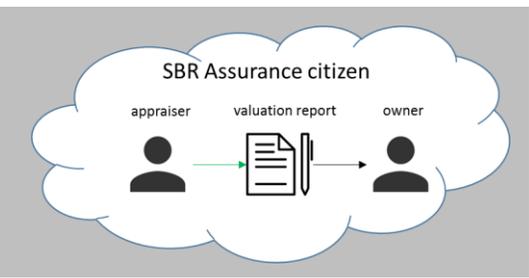
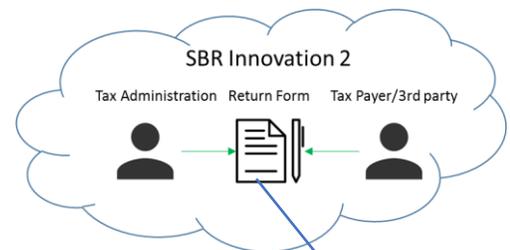
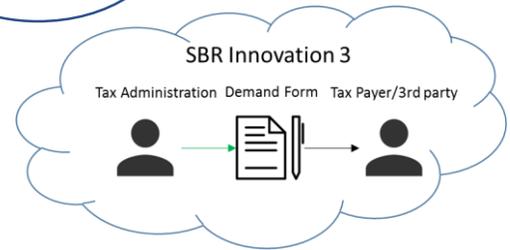
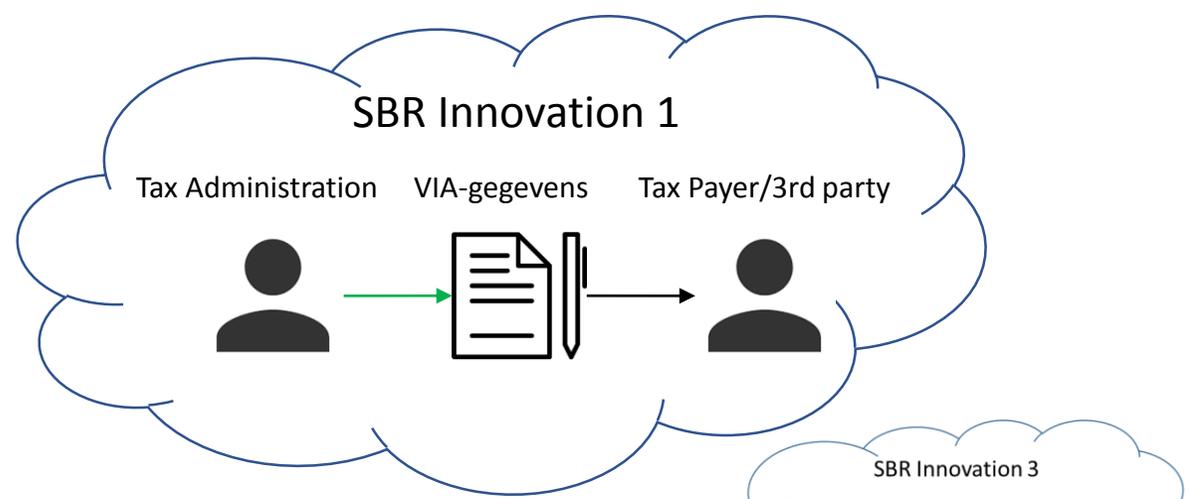
# 2020: in production



# 2020: experimentation Tax Administration

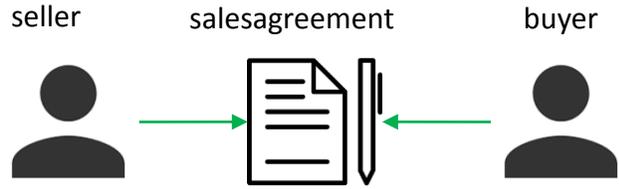


# 2020: development Banks



# 2020: development Real Estate transactions

GeWoon Makkelijk: Real Estate Just Easy



SBR Innovation 3

Tax Administration Demand Form Tax Payer/3rd party



SBR Assurance citizen

appraiser valuation report owner



SBR Innovation 2

Tax Administration Return Form Tax Payer/3rd party



SBR Assurance

appraiser valuation report ING-bank



SBR Assurance BR

company/auditor annual account KvK: BR



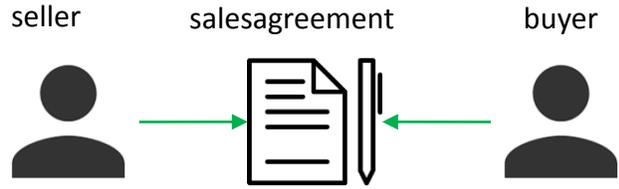
SBR Credit Revisioning

intermediary report bank

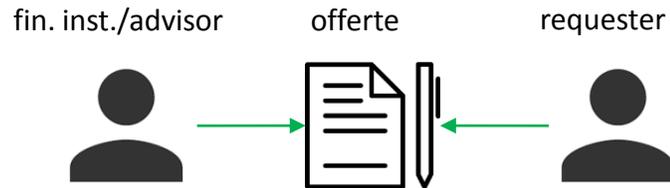


# 2020: development Real Estate financing

GeWoon Makkelijk: Real Estate Just Easy



Goed Idee: Good Idea



SBR Innovation 3

Tax Administration Demand Form Tax Payer/3rd party



SBR Innovation 2

Tax Administration Return Form Tax Payer/3rd party



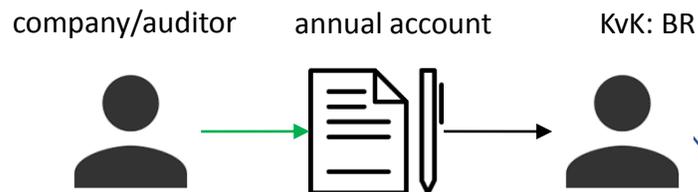
SBR Assurance citizen



SBR Assurance

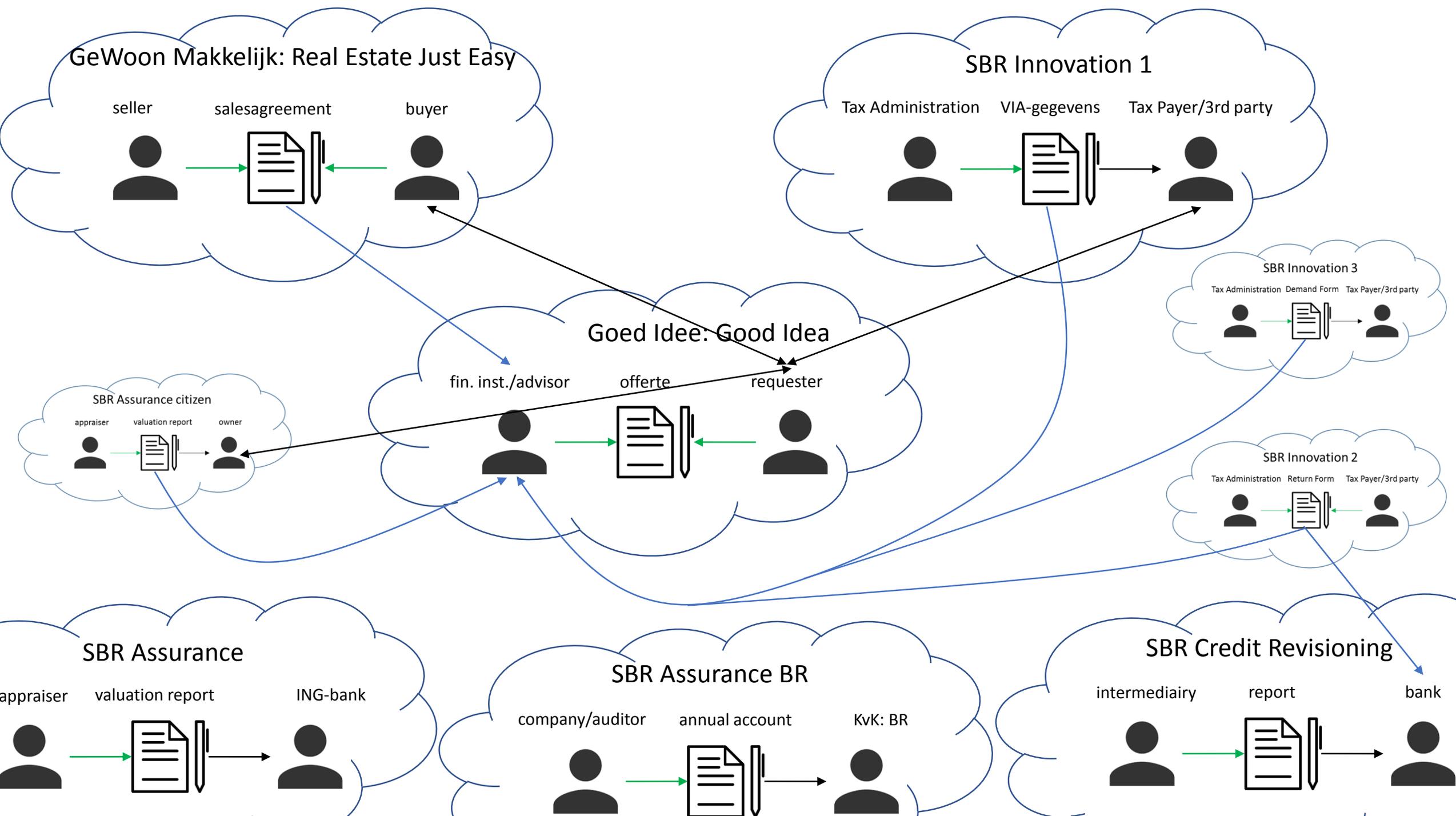


SBR Assurance BR



SBR Credit Revisioning





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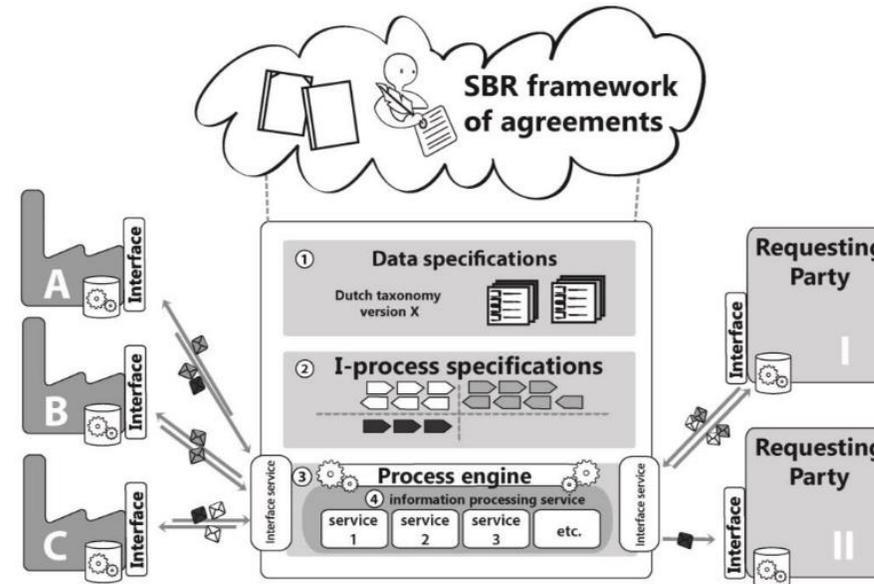
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# Anticipated improvements: annex

Improvement goal	Research question	Measure
Expression of will by the taxpayer	Is it possible to guarantee the expressions of will?	<i>eID + qualified signature from taxpayer</i>
Authentication of the sender	<i>Is it possible to authenticate the sender with a high level of certainty?</i>	<i>eID + qualified signature from sender, while PKI remains relevant for secure connection</i>
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Data quality	Is it possible to explicitly state the quality of data?	<i>eID + qualified signature from auditor / actuary / appraiser / ...hashes are included in the digital signature file assurance taxonomies and assurance statements eSeal (hashing, envelop)</i>

# Identification of sender

- SBR: PKI-certificate is used to
  - setup a secure connection
  - identify sender:
    - company
    - intermediary
    - software supplier



- *Is it possible to identify the sender?*
- *eID + qualified signature from sender, while PKI remains relevant for secure connection*

# Expression of will by .....

- Sender
  - SBR: implicitly
- Represented party (tax payer)
  - SBR: implicitly
- *Is it possible to guarantee the expressions of will?*
- *eID + qualified signature from both sender and tax payer*

# Authenticity of data

- SBR: data is:
  - stored at the company
  - sent to a requesting party
  - can be-re-sent to other parties
- *Is it possible to guarantee that the same data(set) is being sent?*
- *eID + signature from filer*
  - *hashes are included in the digital signature file*
- *eSeal (hashing, envelop)*

# Quality of data

- SBR: data is:
  - prepared by a company
  - reviewed by an auditor / actuary / appraiser / .... / Tax Administration?
- *Is it possible to explicitly state the quality of data?*
- *eID + qualified signature from auditor / actuary / appraiser / ...*
  - *hashes are included in the digital signature file*
- *assurance taxonomies and assurance statements*
- *eSeal (hashing, envelop)*