



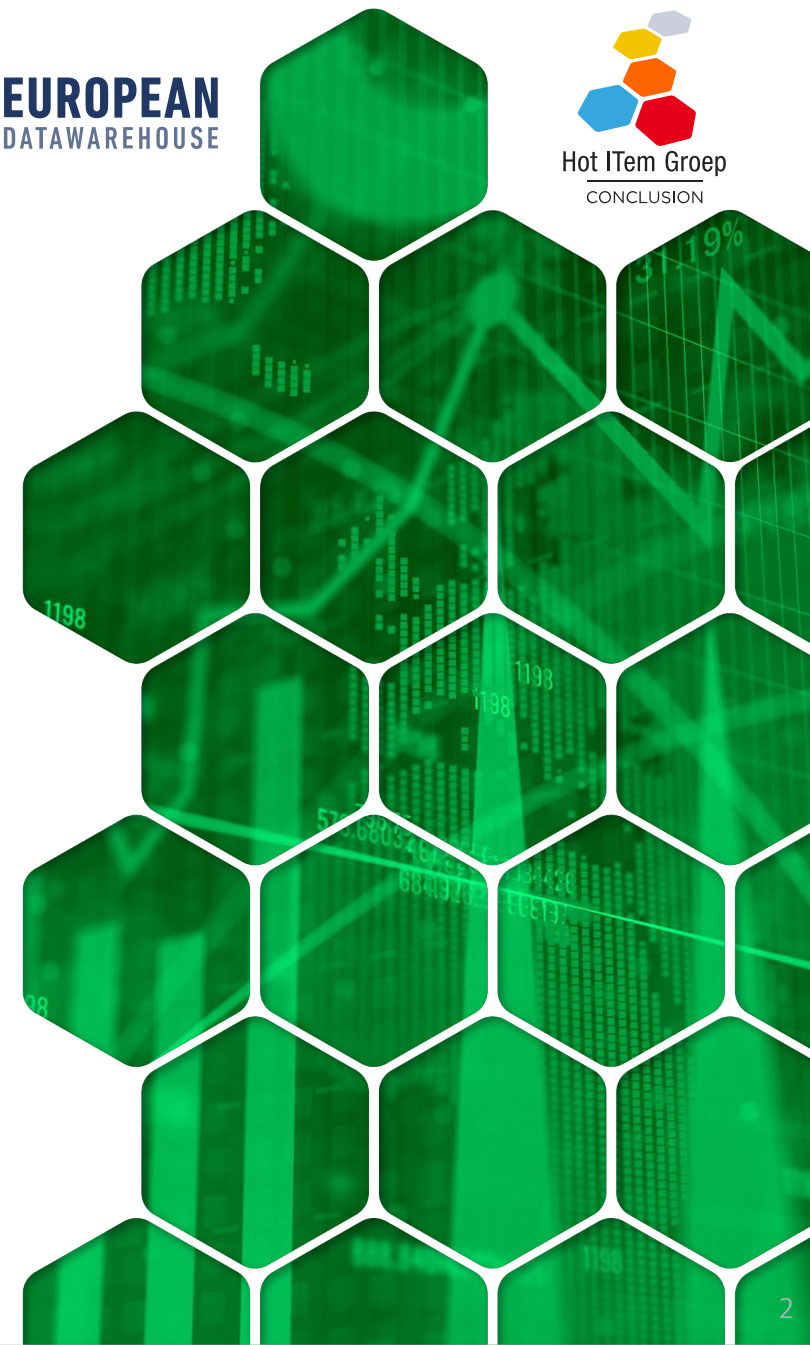
# 1. Energy.Score.Gathering.

## Summer Networking Event

July 5th 2022



1. Welcome & Intro Hot IItem  
Adam Knoop, Sander van Gelderen
2. Update from Energy Efficiency Mortgages Hub NL  
Piet Hein Schram, Vincent Mahieu
3. Contributions to the EU Green Deal and Renovation  
Wave - EDW  
Dr. Christian Thun
4. Data privacy solution – Hot IItem | Viacryp  
Myra Ruers
5. Energy Score Gathering - Networking





# Collaboration EDW and Hot ITem

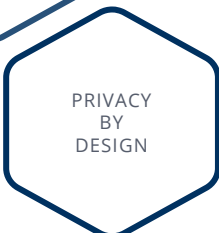
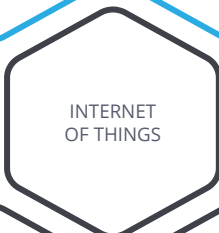


- European Datawarehouse mission is to increase transparency and restore confidence in the ABS market and supporting the energy transition
- The associated challenges include data quality, compliance, scattered and non-matching data and data privacy (GDPR, pseudonymization)
- Hot ITem and European DataWarehouse have joined forces to provide solutions to the market
- For illustrative purposes, a following agenda item in this presentation describes a PoC used to address one of these challenges



# Hot ITem Group Ecosystem

We help organizations to improve their performance





# Sustainability is embedded in our strategy

Hot ITem is measuring its externalities, and facilitates clients accordingly

- Hot ITem employees and board are intrinsically motivated to actively support sustainable development
- Besides a push for fully implementing ESG in the business processes of our own organisation and our supply-chain, we implement use-cases with our clients to enhance measurement and management of sustainability themes
- Our [2022 ESG-data benchmark\\*](#) provides a status update on how FI's manage in leveraging ESG-data for double materiality reporting and creating datadriven impact

ENERGY  
EFFICIENT  
MORTGAGES  
Netherlands



EUROPEAN  
DATAWAREHOUSE



Raymond van Ek – CEO Hot ITem

\* In Dutch

# Relevant data developments

ENERGY  
EFFICIENT  
MORTGAGES  
Netherlands



EUROPEAN  
DATAWAREHOUSE

Hot ITem Groep  
CONCLUSION



MCD (Mortgage Credit Directive)



Predictive & AI software



Digital Twinning



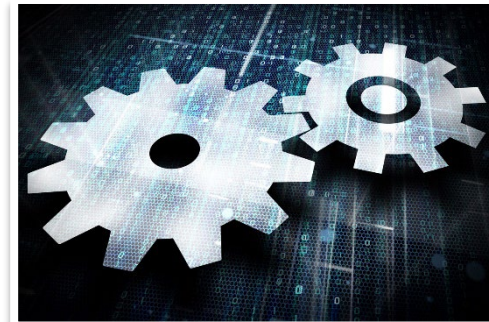
EU-SOCIAL & CSRD



Green bonds & Green projects



Digital servicing



Process automation



Disintermediation



# ENERGY EFFICIENT MORTGAGES

Netherlands



EUROPEAN  
DATAWAREHOUSE



## 2. Update from EEMH NL

Piet Hein Schram, Vincent Mahieu





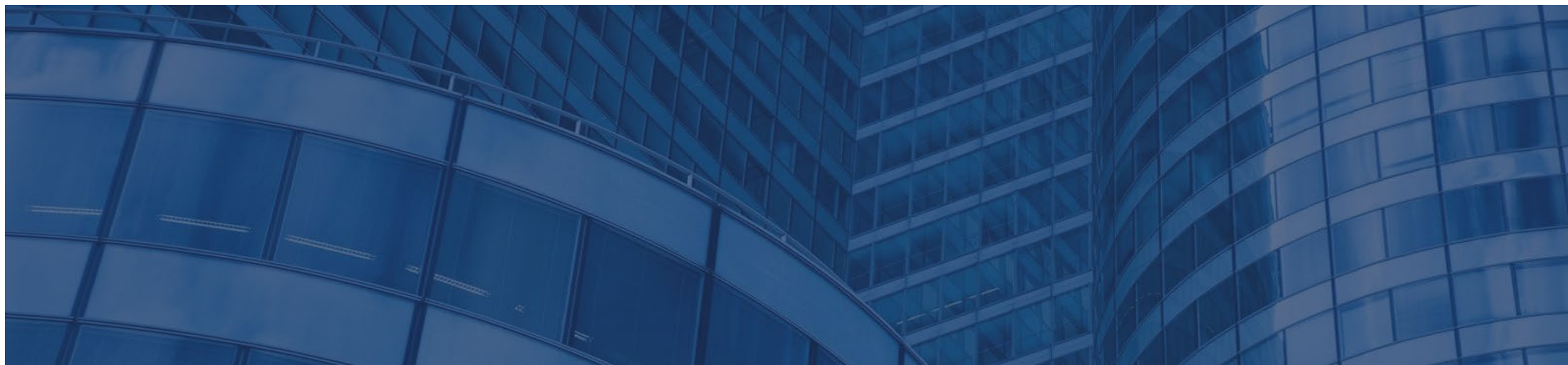
# 3. Contributions to the EU Green Deal and Renovation Wave

Dr. Christian Thun



## KEY NOTE – “DATA INSIGHTS INTO GREEN FINANCE”

**05 JULY 2022**





# A UNIQUE ORGANISATION



# A UNIQUE ORGANISATION

EDW was created in 2012 as part of the implementation of the European Central Bank ABS Loan Level Initiative. EDW became fully operational in January 2013 and is funded and owned by a mix of market participants. EDW operates as a utility to respond to the need for improved transparency to investors and other market participants in ABS.

**SUPERVISORY BOARD:** Consists of currently 13 representatives and is responsible for the strategy and monitoring EDW's operations as a market initiative.

**PRICING COMMITTEE:** Consists of currently 8 members from the ABS industry and is responsible for setting the fee structure for EDW clients. The fees are set in line with EDW's utility approach



## 16 SHAREHOLDERS



# KEY FIGURES



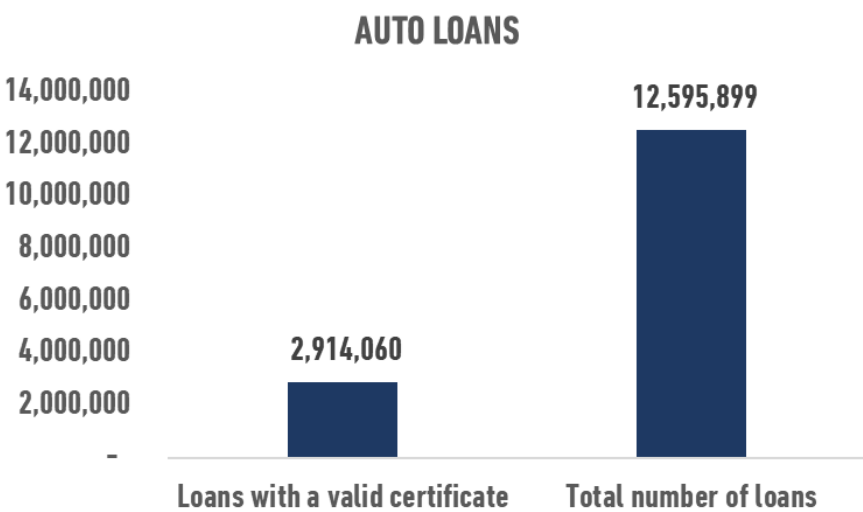
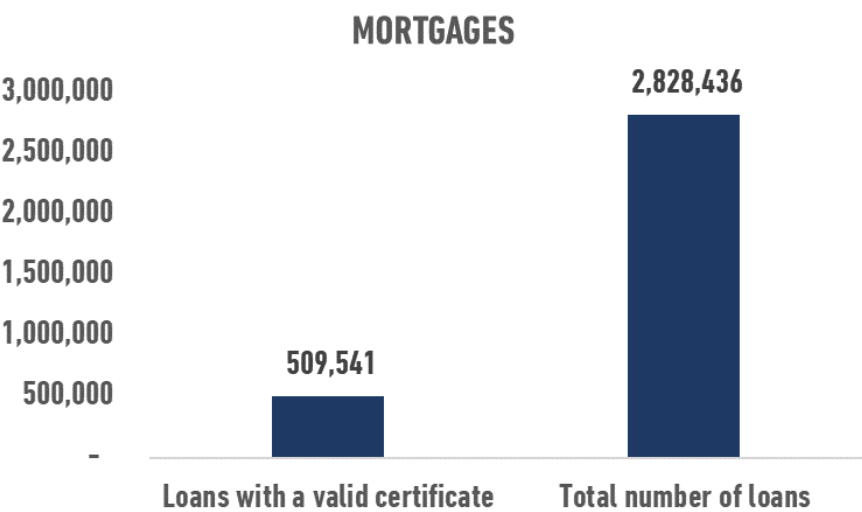


# INSIGHT INTO GREEN FINANCE



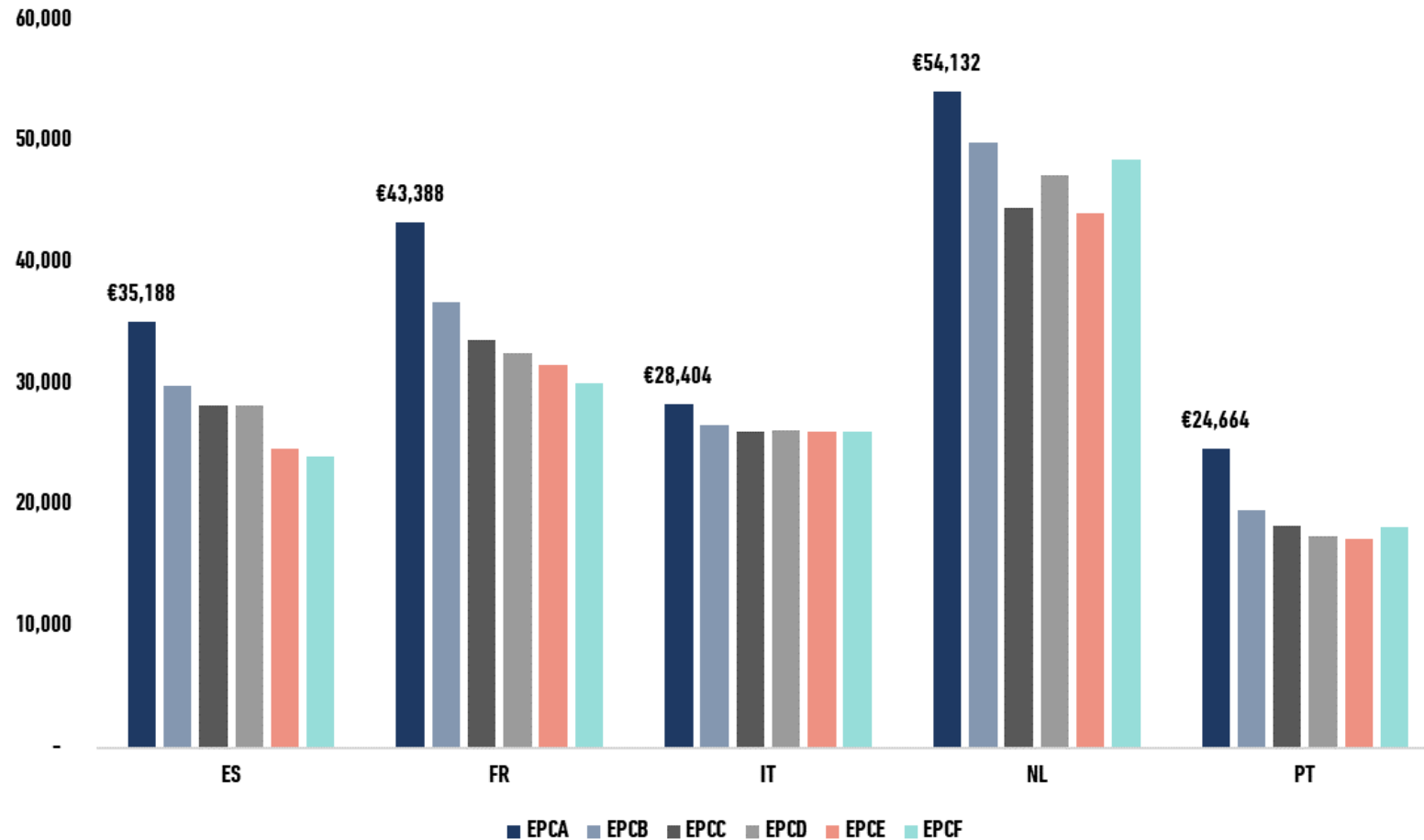
# ENERGY PERFORMANCE CERTIFICATES – HOW MUCH DATA IS AVAILABLE?

Still early days and most originators are struggling to provide this data



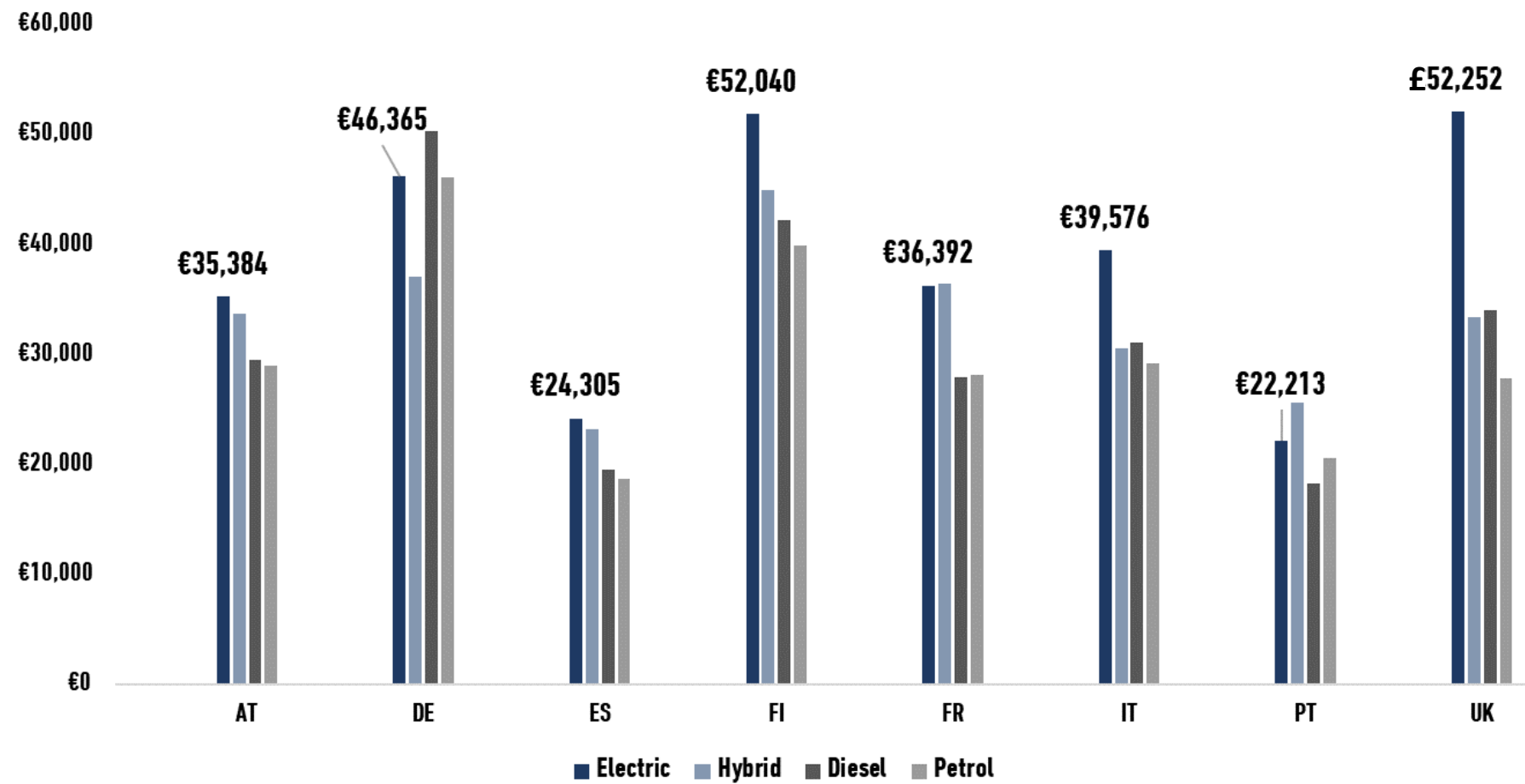
# ANNUAL INCOME OF BORROWERS BY COUNTRY & EPC OF MORTGAGED PROPERTY

Borrowers with Energy Efficient properties tend to have the highest average Incomes



# ANNUAL INCOME OF BORROWERS BY COUNTRY AND CAR ENGINE TYPE

Borrowers choosing to buy electric cars often have the highest incomes





## CONTACT US

### EUROPEAN DATAWAREHOUSE GMBH

**Walther-von-Cronberg-Platz 2 60594**

**Frankfurt am Main**

 **[www.eurodw.eu](http://www.eurodw.eu)**

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# 4. Data privacy Solution - Pseudonymization Energy Performance Certificates

Myra Ruers

# Overview

- Problem definition
- Introduction Viacryp
- Source data
  - Dataset 1: EPC data
  - Dataset 2: ECB and/ or ESMA RMBS templates
- Proving the concept
- Pseudonymization





# Problem definition



- Desire to combine RMBS data with data about energy performance certificates (EPC)
- The Netherlands is forerunner with regard to gathering EPC data, which is made publicly available
- RMBS data contains privacy sensitive attributes, such as postal codes
- How to facilitate that these datasets can be combined whilst keeping in mind GDPR laws without losing valuable information?



# Introduction Viacryp



- For this PoC we worked together with Viacryp
- Combining data from different parties and still being able to analyze and redistribute the data
- This is done by introducing the concept of pseudonymization
- To analyze the data in detail it is not necessary to store the data on a personal level





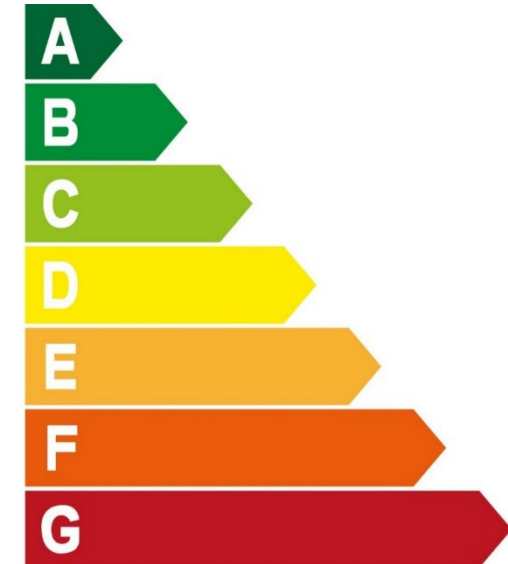


# Dataset 1: EPC data

Obtained from the Dutch Government ([energielabel.nl](https://energielabel.nl))

- Open source dataset with postal codes, house number and more about energy performance of properties
- The unique key to match RMBS and EPC data is the postal code and the house number
- Example rows from this dataset:

Date	Energy Index	Energy Certificate	Postal Code	House number
20170705	0.66	A	1024MK	41
20200622	2.98	G	1911MB	10



# Dataset 2: RMBS data

Provided by EDW



- A dataset that contains information on residential mortgage-backed securities dataset
- Information about for example the obligor
- To comply with GDPR a complete postal code was not provided
  - For the PoC additional data was added
- Example rows from this dataset:

Date	Obligor	Underlying Exposure	Postal Code	House number
20210531	C658C533	90980.67	1024MK	41
20210531	B973JDB0	54709.33	1911MB	10



# Proving the concept

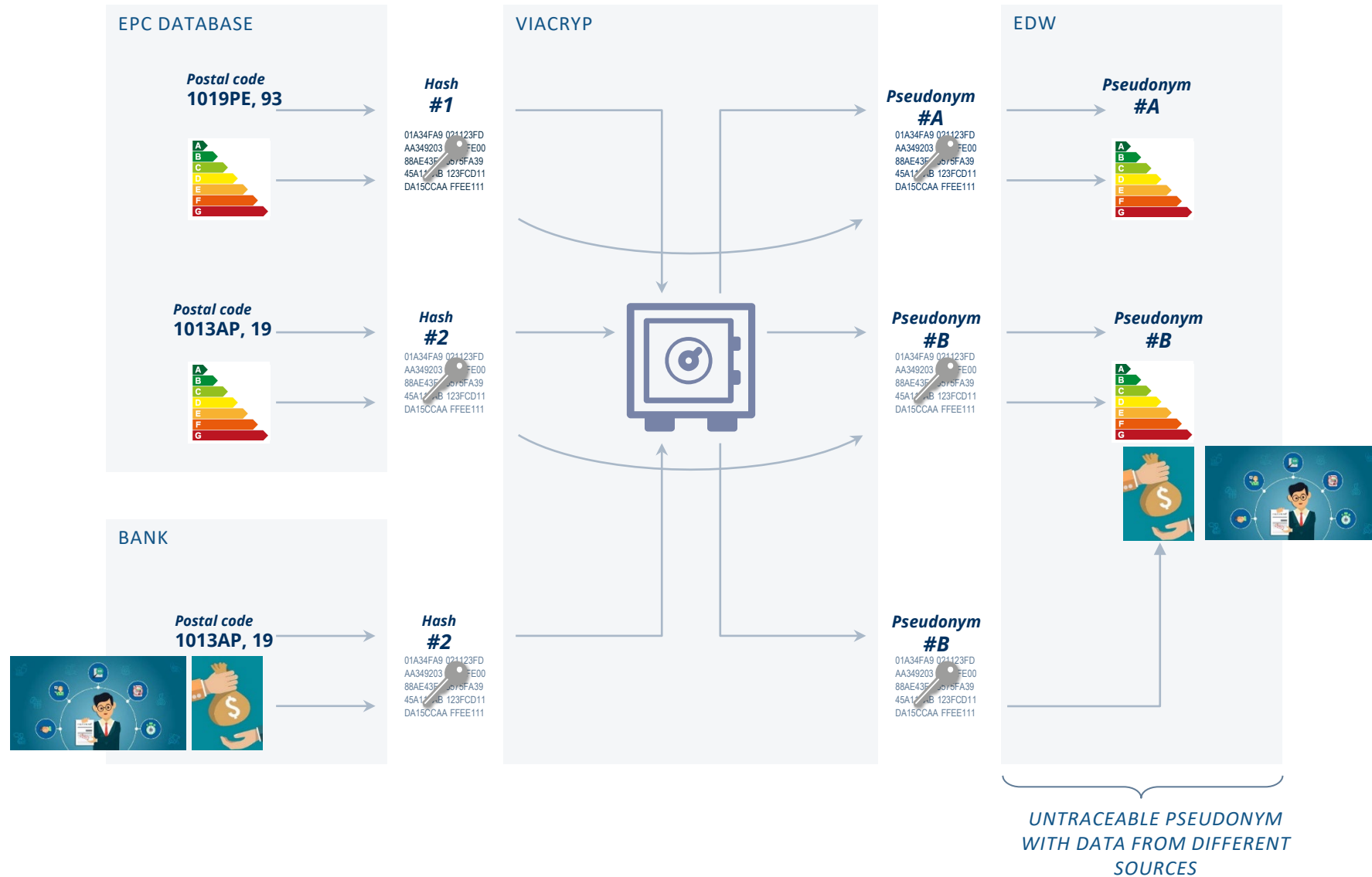
- Source files were sent to Viacryp separately
- The unique key was defined as the combination of postal code and house number
- These values were pseudonymized following the Viacryp concept
- Viacryp arranged to send the files to the receiving party in a safe manner, without any GDPR sensitive data
- Both the column postal code and house number were pseudonymized in the EPC file and the RMBS file in a similar matter
  - All the valuable information is still present and can be used for analyses
  - The receiving party never handles any GDPR-sensitive data

PostalCode	HouseNumber
1111AA	2
4231EA	2
2136LX	5



PostalCode	HouseNumber
7b715e4b-0332-4ec6-b26f-0dece06	66033809-ca58-4660-8ea2-e8f40f9
db6cc584-0490-49d6-a505-983fdf8	66033809-ca58-4660-8ea2-e8f40f9
38a45bcd-a6ce-48de-aa71-275610	bad869a6-bc48-4076-959b-8796a3

# Pseudonymization of personal data







Enjoy the drinks and canapés!







# 5. Energy Score Gathering - Networking







# Thank you!

## European Datawarehouse:

**Dr.Christian Thun**

CEO

[christian.thun@eurodw.eu](mailto:christian.thun@eurodw.eu)

+49 (0)69 50986 9305

**Marco Angheben**

Head of Business Development

[marco.angheben@eurodw.eu](mailto:marco.angheben@eurodw.eu)

+49 (0)160 415 9944

## Energy Efficient Mortgages NL Hub:

**Piet-Hein Schram**

Expert Lead EEMNL

[piet.hein.schram@eemnl.com](mailto:piet.hein.schram@eemnl.com)

+31 (0)615 05 66 30

**Vincent Mahieu**

Head of Energy Efficiency &  
Technology

[vincent.mahieu@eemnl.com](mailto:vincent.mahieu@eemnl.com)

+31 (0)65 05 15 053

## Hot ITem Group:

**Adam Knoop**

CCO Hot ITem

[knoop@hotitem.nl](mailto:knoop@hotitem.nl)

+31 (0)651 29 34 72

**Tim Linger**

Program Manager Finance &  
Expert Lead Sustainability

[linger@hotitem.nl](mailto:linger@hotitem.nl)

+31 (0)682 22 80 56