

Thematic seminar on Split Incentive Quantification Tool

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THE SPLIT INCENTIVES QUANTIFICATION TOOL

The concept

Split incentives: the benefits of a transaction do not accrue to the actor who pays for the transaction



Energy efficiency in Private Rented Sector (PRS)

“Split incentives” among landlords and tenants



Main barrier to implementing energy efficiency measures in the PRS

Failure of distributing effectively financial obligations and rewards between concerned actors



- Identify the **share of the triggered benefits** from the implementation of energy efficiency interventions between **landlords and tenants**.
- Quantify the **appropriate allocation of costs or subsidy rates for both sides**, towards specific renovations scenarios in several **geographical/national contexts**.



Actions to Mitigate Energy Poverty
in the Private Rented Sector

Welcome to The "*ENPOR Split Incentive Quantification*" Tool.

"*Split Incentives*" refer to any situation where the **benefits** of a **transaction** do not accrue to the actor who pays for the transaction.

In the context of energy efficiency in buildings, split incentives are linked with **cost recovery issues** related to **energy efficiency upgrade investments**.

The main **objective** of the tool is to **identify the share of the triggered benefits** from the implementation of energy efficiency interventions between **landlords and tenants** in order to quantify the appropriate **allocation of costs or subsidy rates** for both sides, towards **specific renovation scenarios** in the private rented sector (PRS) in several geographical/national contexts.

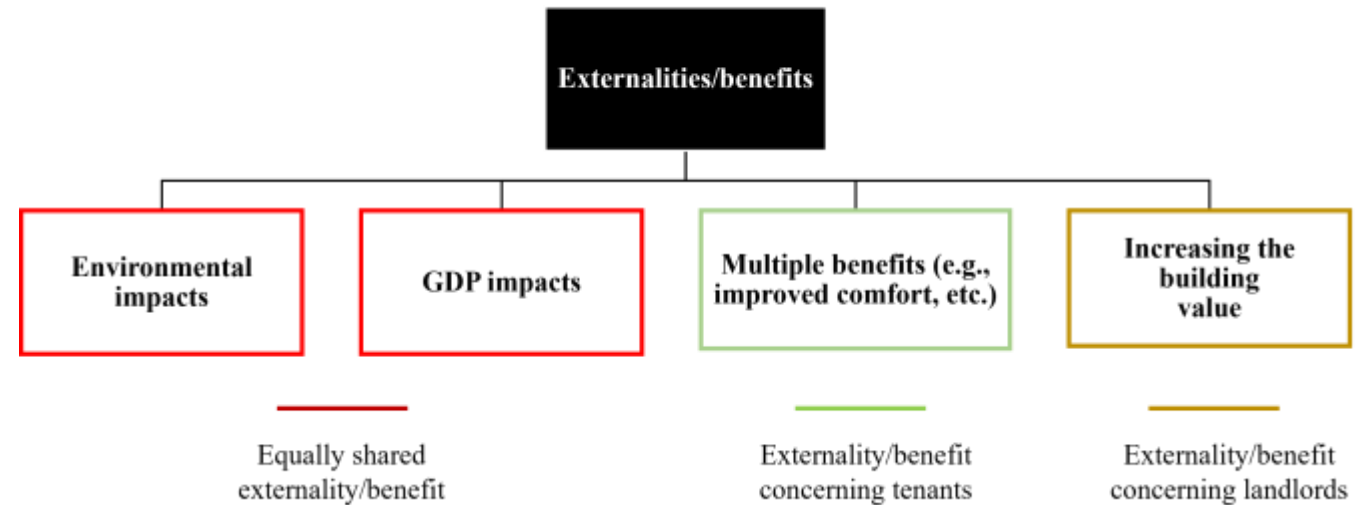
THE SPLIT INCENTIVES QUANTIFICATION TOOL

Methodology

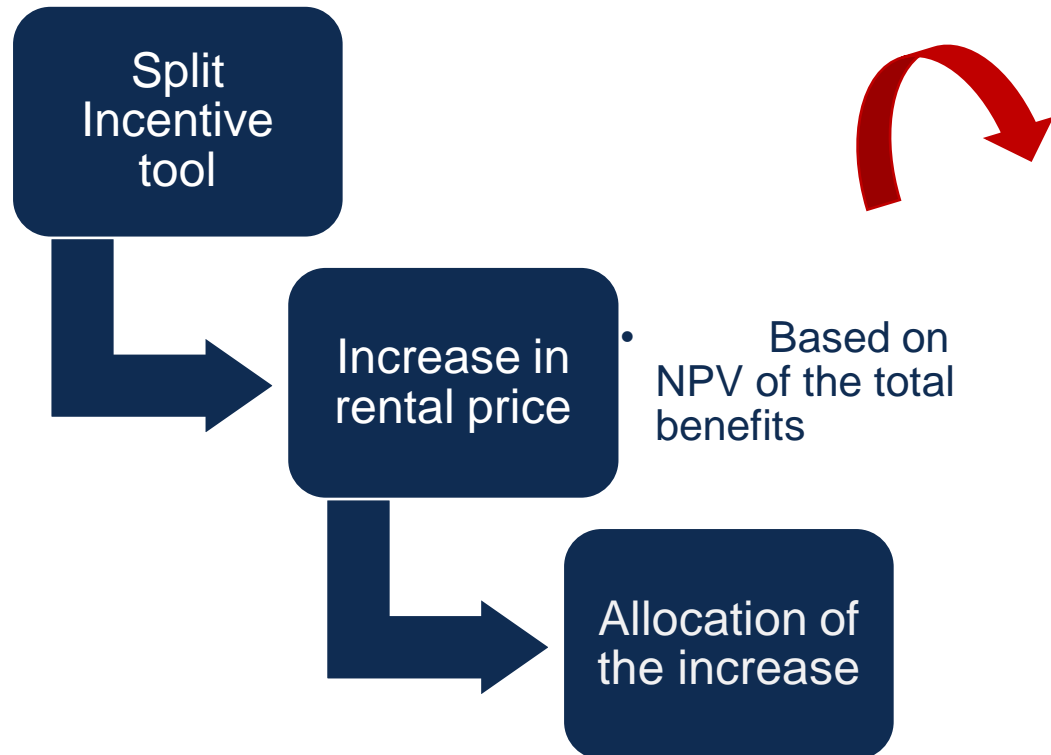
⑩ Quantification of the estimated energy savings

⑩ Quantification of the positive externalities

⑩ Estimation of increase in rental price due to both sides' benefits



Rental Price Increase



Three different cases can be distinguished:

Energy efficiency interventions paid by the landlord

Total monthly increase of rent attributed to

Energy efficiency interventions paid by both the landlords and the tenants

Tenants should pay the monthly increase of the rent related to the share of landlords' expenses

Energy efficiency interventions paid by the tenants

Tenants pay reduced rent equal to the landlords' benefits

Step 1

Basic characteristics of the household under study (i.e., country, construction year, building area (m²), and heating source).

Application of the tool in the 7 ENPOR countries, i.e., Austria, Croatia, Estonia, Germany, Greece, Italy, and Netherlands.

Step 2

Choose among specific **energy efficiency intervention** scenarios for the household under study.

- windows upgrade
- thermal insulation
- windows upgrade & thermal insulation
- heat pump
- windows upgrade & thermal insulation & heat pump

Step 3

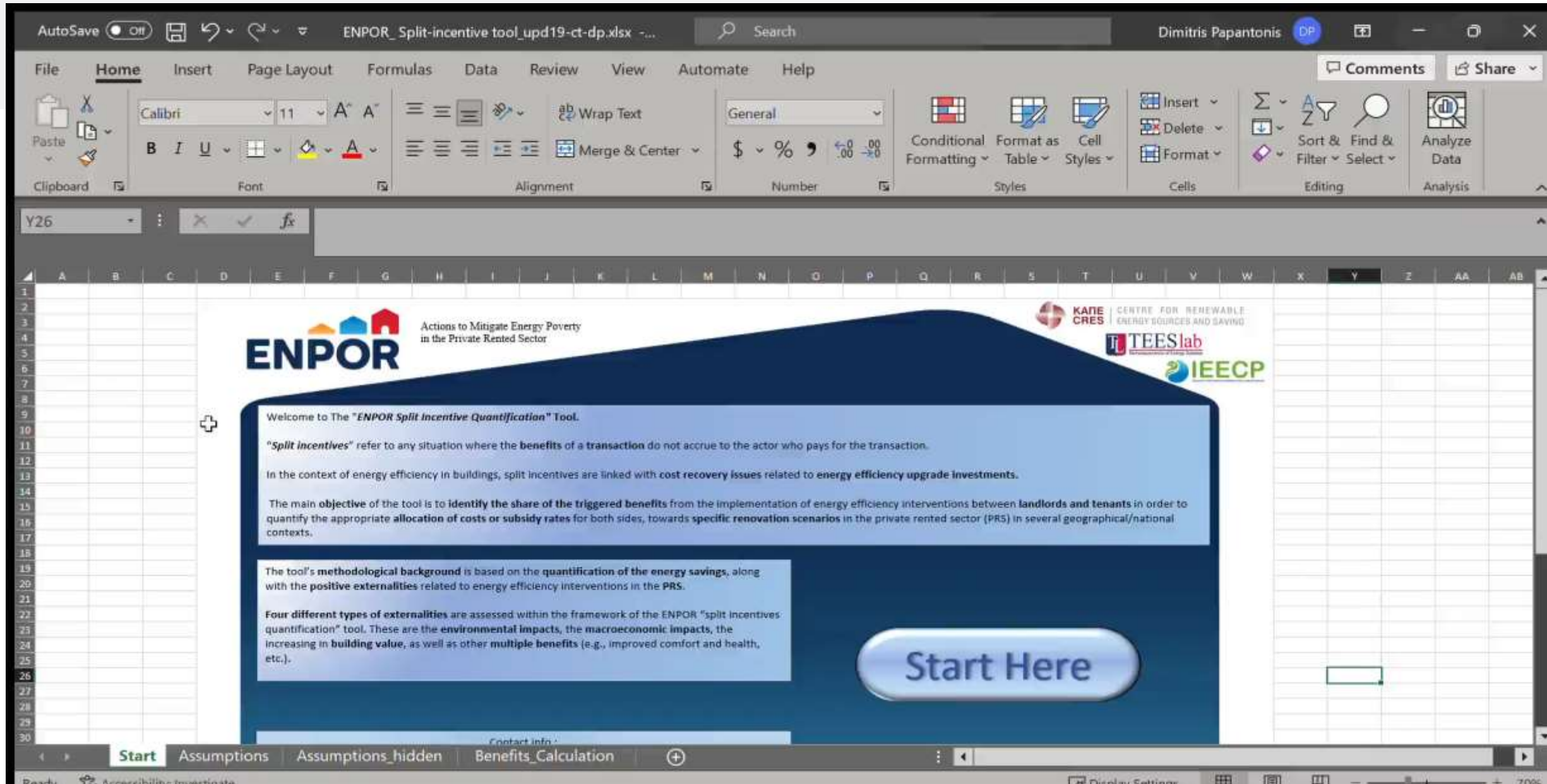
Calculation of benefits based on proposed assumptions according to the dwelling's characteristics (i.e., country, construction year, etc.)

The user can choose either to proceed with the provided assumptions or insert more detailed data for the specific case study-if available.

Step 4

The tool calculates the annual energy cost savings (in €) due to the energy efficiency interventions.

Finally, it calculates the monthly increase in rental price due to each side's benefit (i.e., landlords' and tenants' benefits).



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ENPOR Actions to Mitigate Energy Poverty in the Private Rented Sector

KANE CRES CENTRE FOR RENEWABLE ENERGY SOURCES AND SAVING

TEESlab

IEECP

Welcome to The "ENPOR Split Incentive Quantification" Tool.

"Split incentives" refer to any situation where the **benefits** of a transaction do not accrue to the actor who pays for the transaction.

In the context of energy efficiency in buildings, split incentives are linked with **cost recovery issues** related to **energy efficiency upgrade investments**.

The main **objective** of the tool is to **identify the share of the triggered benefits** from the implementation of energy efficiency interventions between **landlords and tenants** in order to quantify the appropriate **allocation of costs or subsidy rates** for both sides, towards **specific renovation scenarios** in the private rented sector (PRS) in several geographical/national contexts.

The tool's **methodological background** is based on the **quantification of the energy savings**, along with the **positive externalities** related to energy efficiency interventions in the **PRS**.

Four different types of externalities are assessed within the framework of the ENPOR "split incentives quantification" tool. These are the **environmental impacts**, the **macroeconomic impacts**, the increasing in **building value**, as well as other **multiple benefits** (e.g., improved comfort and health, etc.).

Start Here

Start Assumptions Assumptions_hidden Benefits_Calculation

Ready Accessibility: Investigate Display Settings 70%

RESULTS (1/7)

Case study Croatia



Croatia

Single household
Heating source: Oil
Construction year: 1981-2010



Energy
efficiency
scenarios

Building envelope and windows
upgrade



Interventions
Assumptions

Cost of interventions: 5,850 €
Total annual savings: 4,132.2
kWh



Benefits

Monthly increase in rental price due to
tenants' benefits: 28 €
Monthly increase in rental price due to
landlord benefits: 33 €

RESULTS (2/7)

Case study
Germany



Germany

Single household
Heating source: Natural Gas
Construction year: 1965



Energy
efficiency
scenarios

Building envelope upgrade



Interventions
Assumptions

Cost of interventions: 20,150 €
Total annual savings: 16,740.0 kWh



Benefits

Monthly increase in rental price due to tenants' benefits: 168 €
Monthly increase in rental price due to landlord benefits: 212 €

RESULTS (3/7)

Case study Greece



Greece

Single household
Heating source: Oil
Construction year: 1981-2010



Energy
efficiency
scenarios

Building envelope and windows
upgrade
Heating technology change



Interventions
Assumptions

Cost of interventions: 13,000 €
Total annual savings: 10,000.3
kWh



Benefits

Monthly increase in rental price due to
tenants' benefits: 98 €
Monthly increase in rental price due to
landlord benefits: 171 €

RESULTS (4 / 7)

Case study Italy



Italy

Single household
Heating source: Natural Gas
Construction year: 1990



Energy
efficiency
scenarios

**Building envelope and windows
upgrade**
Heating technology change



Interventions
Assumptions

Cost of interventions: 23,000 €
**Total annual savings: 26,318.0
kWh**



Benefits

**Monthly increase in rental price due to
tenants' benefits: 327 €**
**Monthly increase in rental price due to
landlord benefits: 472 €**

RESULTS (5/7)

Case study
Netherlands



Netherlands

Single household
Heating source: Natural Gas
Construction year: 1965-1974



Energy
efficiency
scenarios

Building envelope and windows
upgrade
Heating technology change



Interventions
Assumptions

Cost of interventions: 35,924 €
Total annual savings: 13,256.0
kWh



Benefits

Monthly increase in rental price due to
tenants' benefits: 137 €
Monthly increase in rental price due to
landlord benefits: 218 €

RESULTS (6/7)

Case study Austria



Austria

Building with 10 apartments
Heating source: Natural Gas
Construction Year: 1970



Energy
efficiency
scenarios

**Building envelope and windows
upgrade**
Heating technology change



Interventions
Assumptions

Cost of interventions: 444,000 €
**Total annual savings: 127,500.0
kWh**



Benefits

**Monthly increase in rental price due to
tenants' benefits: 1,014 €**
**Monthly increase in rental price due to
landlord benefits: 1,191 €**

RESULTS (7/7)

Case study Estonia



Estonia

Multi-apartment building
Heating source: Other
Construction year: 1989



Energy
efficiency
scenarios

**Building envelope and windows
upgrade**
Heating technology change



Interventions
Assumptions

Cost of interventions:
8,977,704 €
**Total annual savings: 643,000
kWh**



Benefits

**Monthly increase in rental price due to
tenants' benefits: 4,958 €**
**Monthly increase in rental price due to
landlord benefits: 7,146 €**

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ENPOR

Join us to improve
your community's
living conditions
at home!

www.enpor.eu

The poster features a dark blue background with a white candle at the bottom. The ENPOR logo is at the top, with three small house icons above the text. The text 'Join us to improve your community's living conditions at home!' is centered in the middle. The website 'www.enpor.eu' is at the bottom left.

#ENPOR #H2020 #energyvulnerability

This project received funding from the EU's
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The poster features a red-to-yellow gradient background with a glowing white lightbulb in the center. The text '#ENPOR #H2020 #energyvulnerability' is written vertically on the right side. At the bottom, there is text about EU funding and the Horizon 2020 Programme, accompanied by the European Union flag logo.