

HORIZON
2020

Calculating and Operationalising the Multiple Benefits of Energy Efficiency Improvements in Europe

Rapports

Informations projet

COMBI

N° de convention de subvention: 649724

[Site Web du projet](#)

DOI

[10.3030/649724](#)

Projet clôturé

Date de signature de la CE

5 Février 2015

Date de début

1 Mars 2015

Date de fin

31 Mai 2018

Financé au titre de

SOCIETAL CHALLENGES - Secure, clean and efficient energy

Coût total

€ 996 548,75

Contribution de l'UE

€ 996 548,75

Coordonné par

WUPPERTAL INSTITUT FÜR KLIMA, UMWELT, ENERGIE GGMBH



Germany


Periodic Reporting for period 2 - COMBI (Calculating and Operationalising the Multiple Benefits of Energy Efficiency Improvements in Europe)

Période du rapport: 2016-09-01 au 2018-05-31

[Résumé du contexte et des objectifs généraux du projet](#)





Energy Efficiency has always been a means to achieve higher ends such as fossil fuel savings for saving greenhouse gas emissions. In Europe, with the adoption of the energy efficiency first principle under the Energy Efficiency Directive (EED, 2012/27/EU), multiple impacts of energy efficiency are explicitly named as policy targets. But in the discourse and negotiations between institutions and national representatives, they are often out of sight. This may be because the causal link from investments in energy efficiency to the impacts is often complex and indirect, so effects cannot be seen immediately.

Following the momentum of the 2014 IEA book on multiple benefits and the interest raised at European level of policy making, the COMBI research team identified the knowledge gap of having multiple impacts of energy efficiency quantified in one common framework rather than disperse and non-comparable studies on individual impacts. The COMBI project thus aimed at quantifying the multiple non-energy benefits of energy efficiency together with the research partners University of Antwerp, University of Manchester, Copenhagen Economics and ABUD/Advanced Buildings and Urban Design, and was coordinated by the Wuppertal Institute for Climate, Environment and Energy. Main objectives of the project were to gather existing knowledge, methodologies and resources and to quantify as many as possible multiple impacts based on one common database for the difference between a reference and an energy efficiency scenario in the year 2030, for all EU28 member states and by energy efficiency improvement actions. Results were gathered and are now available from a common project database, graphically analysable through an online tool (<https://combi-project.eu/tool/> ) and publicly downloadable.

Project results are intended to further inform policy-making and evaluations and to broaden the scope of energy efficiency policy assessments, because an inclusion of multiple impacts leads to improved outcomes of cost-benefit analyses. On average, the multiple impacts that COMBI was able to monetise would increase economic benefits of energy by almost one third of direct energy cost savings. This extra saving but also the multiple direct additional impacts are an argument for more ambitious policy targets and for enhanced cooperation between departments of energy, and others affected by the multiple impacts, such as economy, health, environment, social affairs.

Travail effectué depuis le début du projet jusqu'à la fin de la période considérée dans le rapport et principaux résultats atteints jusqu'à présent

COMBI gathered existing approaches and evidence from the EU area, developed modelling approaches and came up with consolidated data on different benefits such as air pollutant emissions (effects on health, ecosystems, crops, built environment), resources (biotic/abiotic, metals and nonmetals), social welfare (energy poverty-related health and labour productivity), macroeconomy (labor market, public finance, GDP), and the energy system (grid, supply-side, energy security). Project reports are available from the project website (combi-project.eu) and all impact quantification data are accessible via an online tool on the website (<https://combi-project.eu/tool/> ). This required the previous development of a synthesis/aggregation methodology. Finally, COMBI derived policy recommendations from the findings.


All project reports are available for download from the combi website, see <https://combi-project.eu/downloads/project-reports/> 

Below, we give an overview on the main public project deliverables.

Report on the existing literature of methodologies and challenges of multiple benefits quantification (D2.1)

Elaboration of detailed list of (technical) energy efficiency improvement actions forming the basis for quantification (D2.2 Annex with scenarios)

Literature reviews on quantification methodologies for multiple benefit/impact categories (D#.1); # = 3, 4, 5, 6 or 7 (the numbers of the work packages for the 5 groups of multiple impacts)

Provision of quantified impacts (D#.3): all data available from the online tool (<https://combi-project.eu/tool/>) 

Full impact quantification reports (D#.4)

Report on synthesis methodology (D2.4)

Overview on project quantifications (D2.5)

Online tool manual & guide (D8.1)

Full policy report (incl. recommendations) (D8.2)

Project summary brochure (D8.3)

COMBI online tool (D9.5): <https://combi-project.eu/tool/> 

External publications (D9.7): <https://combi-project.eu/downloads/publications/> 

Progrès au-delà de l'état des connaissances et impact potentiel prévu (y compris l'impact socio-économique et les conséquences sociétales plus larges du projet jusqu'à présent)

Impact on policy-making

This project contributes to a more comprehensive overview on effects of energy efficiency improvements and thus motivates policy-making authorities to design and implement more ambitious and cost-effective energy efficiency policies. As EU Member States now better understand multiple impacts of energy efficiency, this in turn may result in more effective energy efficiency policies in the future and help reaching the EU energy savings targets. In addition, in other than energy policy departments (e.g. health, economics, environment, social), interest in energy efficiency policy can be raised, as awareness of respective benefits increases.

Impact for research and evaluation

Today, the consideration of multiple benefits in policy evaluations is often not possible, due to highly complex modelling requirements and often limited resources devoted to evaluations and research. This project gives a first general assessment of multiple benefits for concrete EEI actions. Respective data is published open-access at the website for allowing further investigations of their implications for policy design or evaluation of existing policies by third parties. The methods and quantified values (laid down in D#.4 reports) can be included in future evaluation models. The impact will be an increased consideration of multiple energy efficiency benefits in policy evaluations and impact assessments.

Impact on the public

For the interested public and especially NGOs and associations, the project provides valuable communication materials. These include reports and brochures with graphs, figures and rationales, as well as the website and online tool for customisable benefit assessments. The information serves the public communication of multiple benefits and further advancement of energy efficiency improvements. The overall impact is a higher awareness and improved public image of energy efficiency and the respective policies.

Impact on industry/commerce

The project provides valuable information materials for the public communication of multiple benefits that will be useful for industry and commerce. The manufacturing industry of energy efficiency goods and services can use the materials for their public relation activities and for demonstrating the aggregate benefits. Furthermore, other industrial and commercial companies implementing energy efficiency actions in their facilities may be enabled to calculate the wider impacts of their investments and possibly improve their competitiveness.

Other environmental and socially important impacts

This project explicitly focuses on environmental and social impacts of energy efficiency actions. Corresponding indicators include e.g. the material consumption, energy use for production and energy savings, pollution and eco-system impacts by technological measures. Social indicators include e.g. poverty alleviation, health effects and distributional issues. Considering the comprehensive environmental and social impacts, a more holistic view is created by the project.



COMBI project logo



COMBI team at final conference

Dernière mise à jour: 3 Avril 2024

Permalink: <https://cordis.europa.eu/project/id/649724/reporting/fr>

