



EINSTEIN Energy Audits

Overview of energy audits carried out in the Framework of the EINSTEIN – II project

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Overview

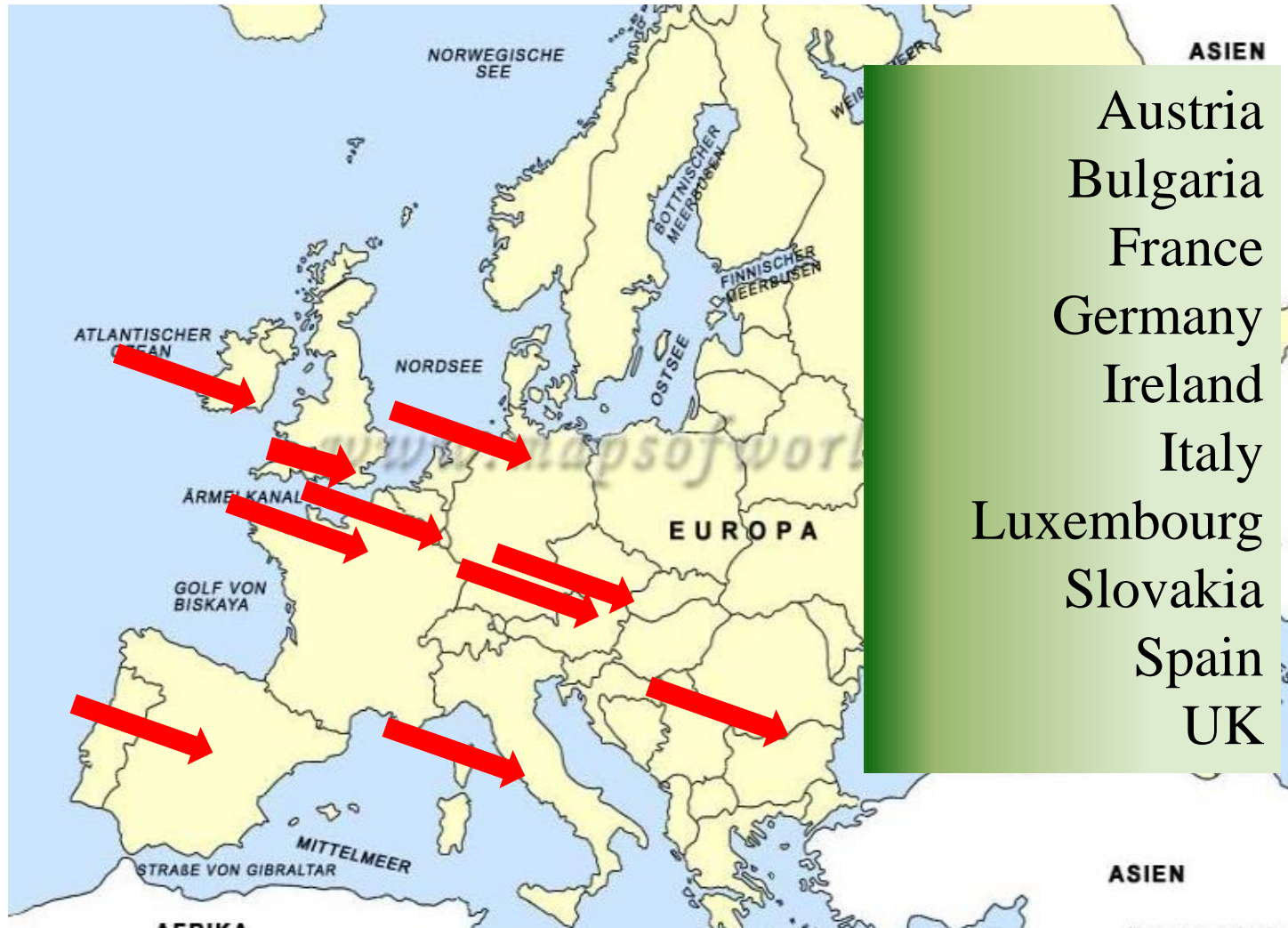
- **Targets defined in the project**
- **Overview of the audits**
- **Evaluation of the audits**
- **Next steps**

Audits overview

➤ EINSTEIN II

- ⇒ 10 participating countries
- ⇒ Audits to be performed
 - **within work package 3 – audits**
 - **within work package 2 - project work of trainees**
- ⇒ WP 3: 72 audits
 - **Industrial**
 - **Non-industrial**
- ⇒ WP 2: Trainings in all countries
 - **Introductory training**
 - **Advanced training**

Participating countries



Austria
Bulgaria
France
Germany
Ireland
Italy
Luxembourg
Slovakia
Spain
UK

Audit allocation to countries – WP2

local partner / country		INDUSTRIES (numbers and sectors)		NON-INDUSTRIAL USERS (numbers and sectors)		status	TOTAL	
		should	is	should	is		should	is
Austria	AEA, AEE	6	9	2	2	2	8	11
France	CCI DRÔME	8	6	-	-		8	6
Germany	ZAB	5	5	3	5	3	8	10
Italy	TCA	8	8	-	-	5	8	8
Spain	COCIM	5	5	3	3		8	8
UK	WMEC	8	6	2	4	3	10	10
Ireland	CIT	4	4	-	-	1	4	4
Luxembourg	CRP HENRY TUDOR	1	2	1	1	1	2	3
Bulgaria	AKU	6	6	2	3		8	9
Slovakia	SCPC	8	3	-	-		8	3
Total		59	54	13	18	15	72	72

Challenges identified

➤ **Company acquisition**

⇒ Delay in the confirmation and postponement

⇒ Free of charge → free of value

➤ **Data acquisition**

⇒ Data is incomplete

⇒ Data is inconsistent

➤ **Modeling**

⇒ Hand in hand with the development of the software

⇒ Development of the experience using EINSTEIN

Performance of audits

➤ Company and data acquisition

- ⇒ done by local partners
- ⇒ supported by the technical core group (audit performing group)

➤ Performance of the audits

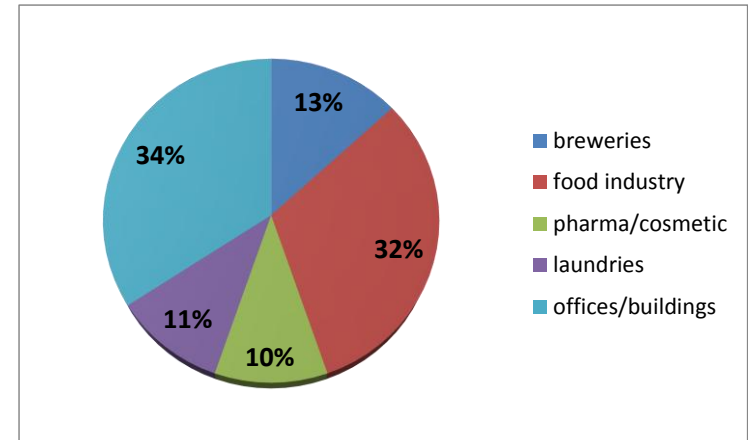
- ⇒ 10 EINSTEIN audit steps
- ⇒ Modeling of the present state
- ⇒ Close discussion with the companies
- ⇒ Development of at least 2 alternativ proposals (process optimisation, HX network, H&C supply)
- ⇒ Presentation of the results on-site
- ⇒ Follow-up

Overview of audits

➤ Audits evaluated: 38

➤ Sectors:

⇒ Breweries:	5
⇒ Food industry:	12
⇒ Pharmaceutical/cosmetics:	4
⇒ Laundries:	4
⇒ Offices/buildings:	13

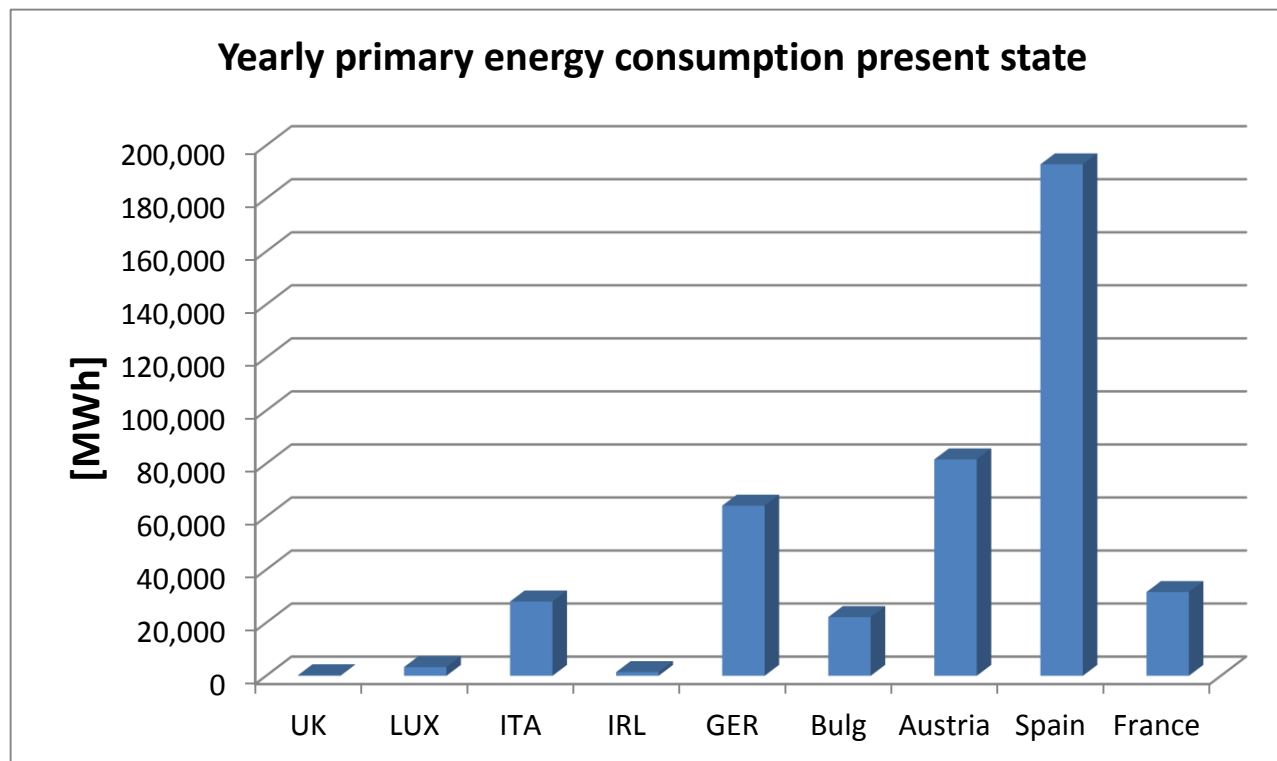


➤ Countries:

- ⇒ Austria, Italy, Spain, Germany
- ⇒ Bulgaria, France, Luxembourg, UK, Ireland

Evaluation of the results (1)

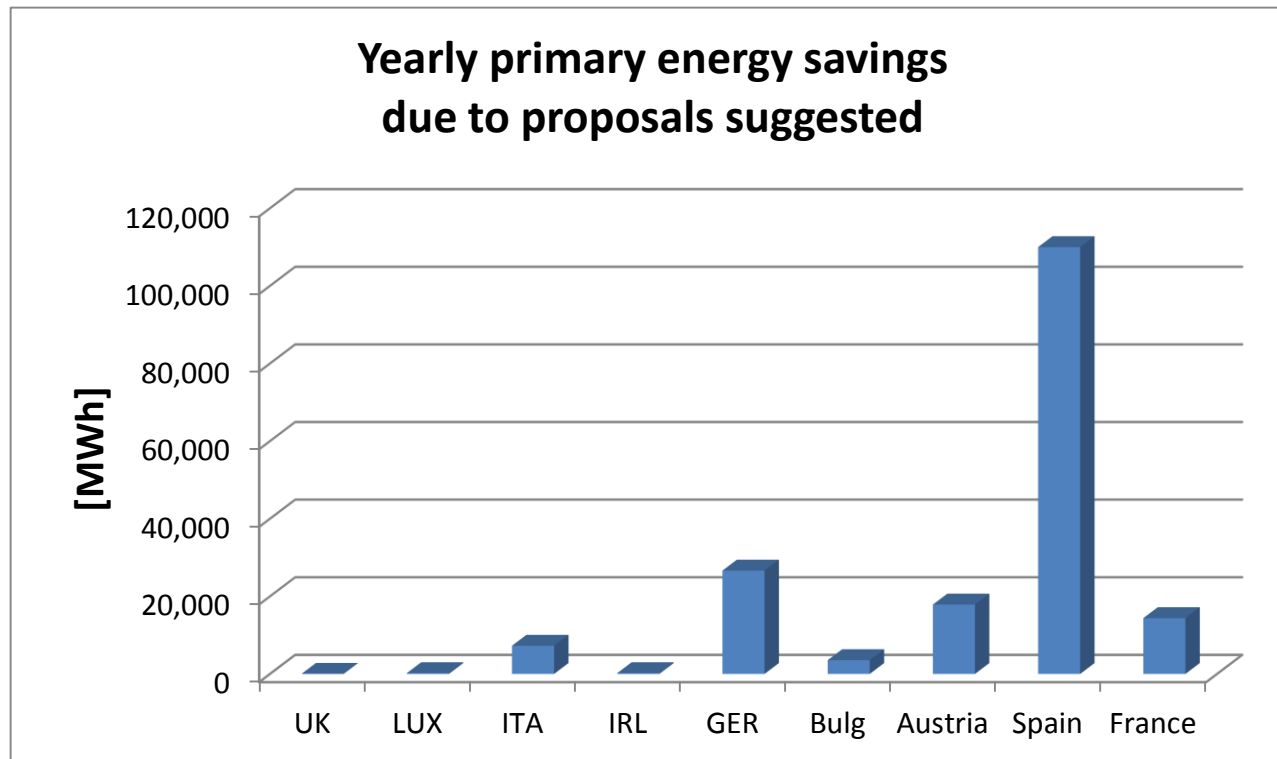
- **PEC present state: 425,279 [MWh/a]**



Based on the evaluated results of 38 audits

Evaluation of the results (2)

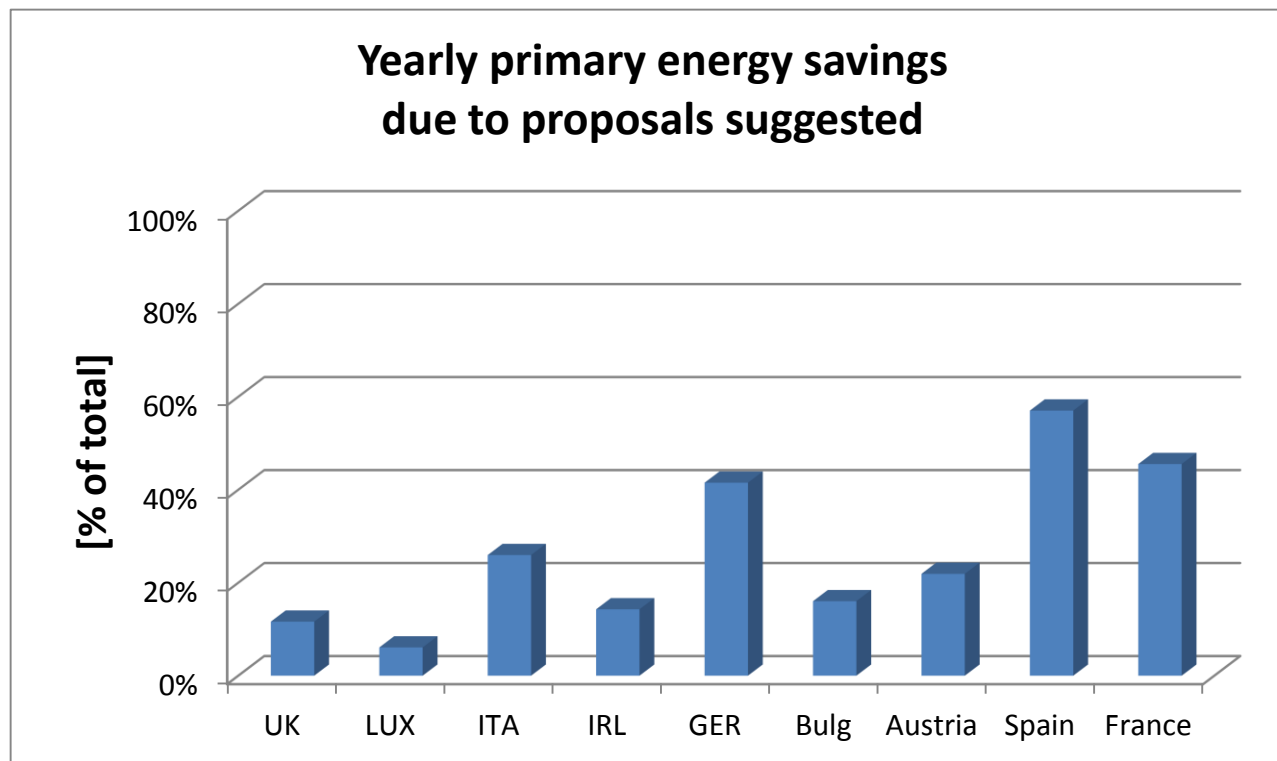
➤ PEC savings identified: 180,115 [MWh]



Based on the evaluated results of 38 audits

Evaluation of the results (3)

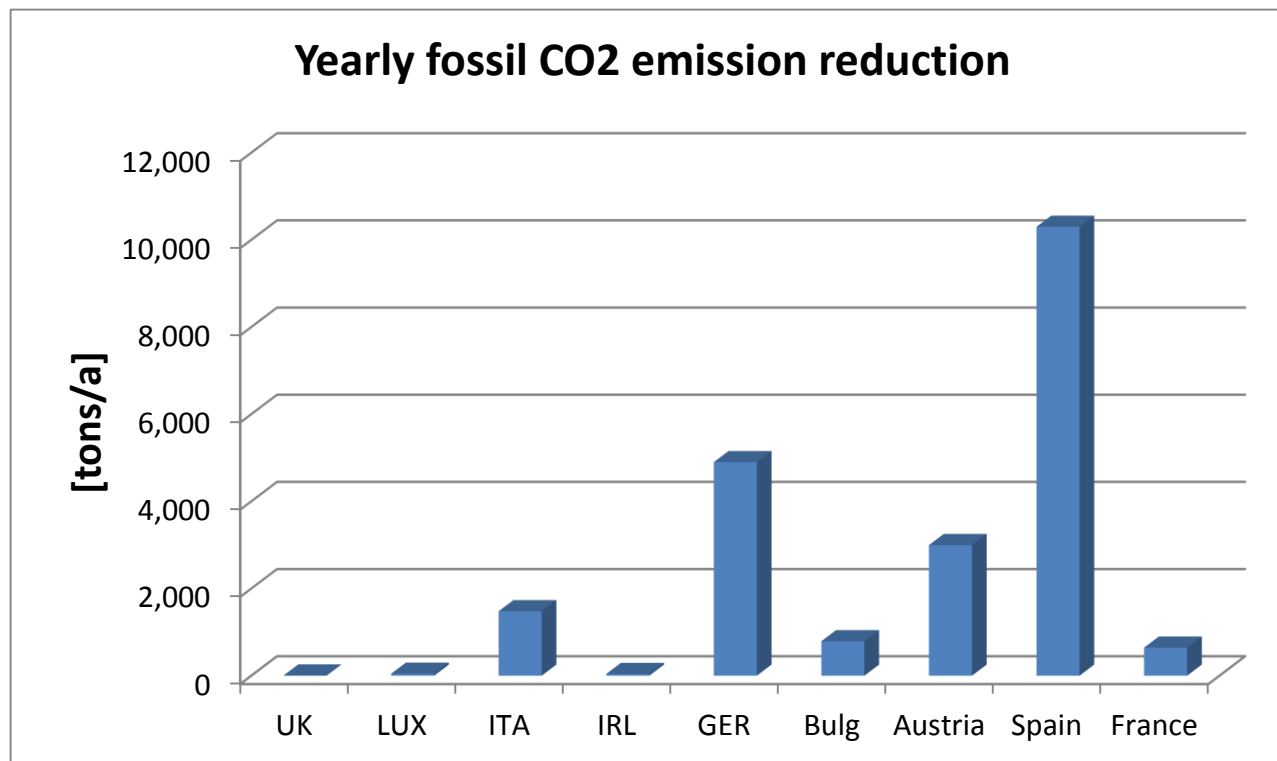
- **PEC savings identified: 42 [%]**



Based on the evaluated results of 38 audits

Evaluation of the results (4)

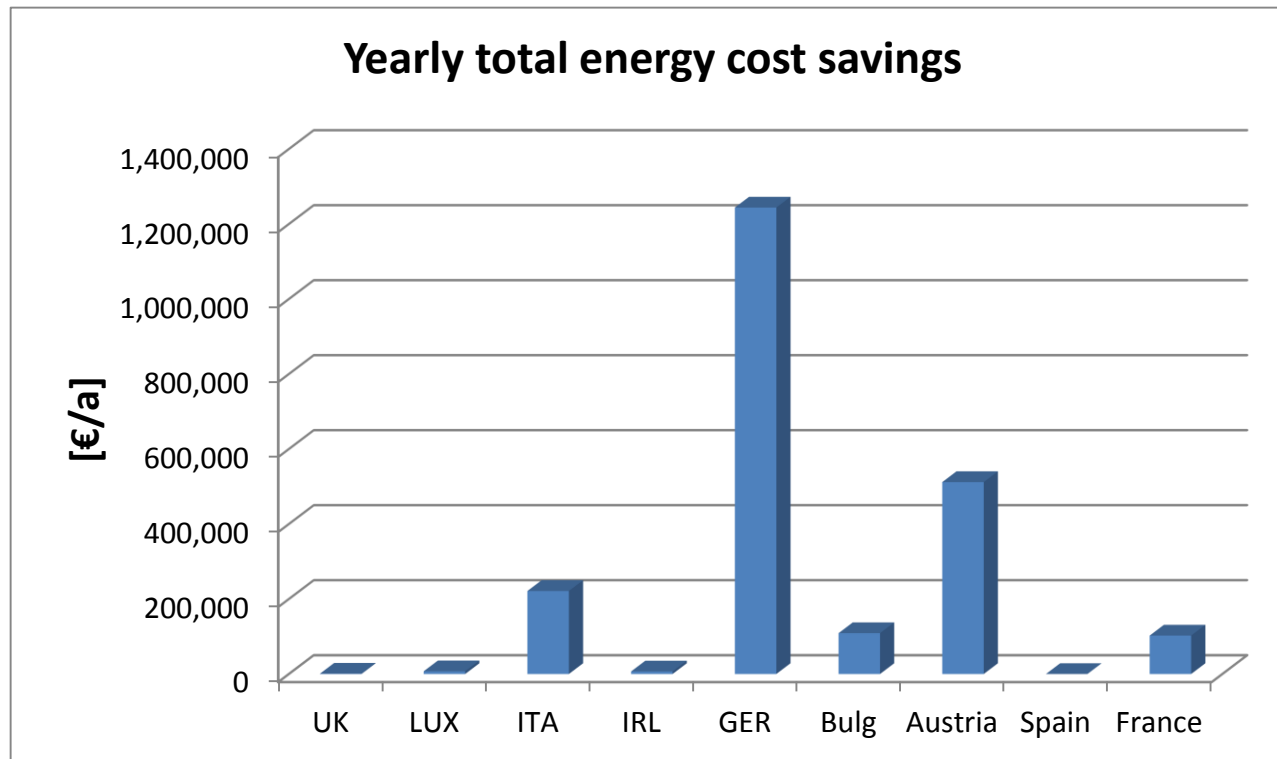
- **Fossil CO₂ emission saving: 21,201 [t/a]**



Based on the evaluated results of 38 audits

Evaluation of the results (5)

- **Total energy cost savings: 2,2 [Mio €/a]**



Based on the evaluated results of 38 audits

Next steps

- **Finalisation of all 72 audits**
- **Evaluation of the results of the audits**
- **Evaluation of the project work of the trainees**
- **Follow up**



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