



Italian National Agency for New Technologies,  
Energy and Sustainable Economic Development



Co-funded by the Horizon 2020 programme  
of the European Union

# Rapporto Annuale Efficienza Energetica 2018: principali risultati

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*Bologna, 24 luglio 2018*



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# Italy's National Energy Strategy 2017 - Targets

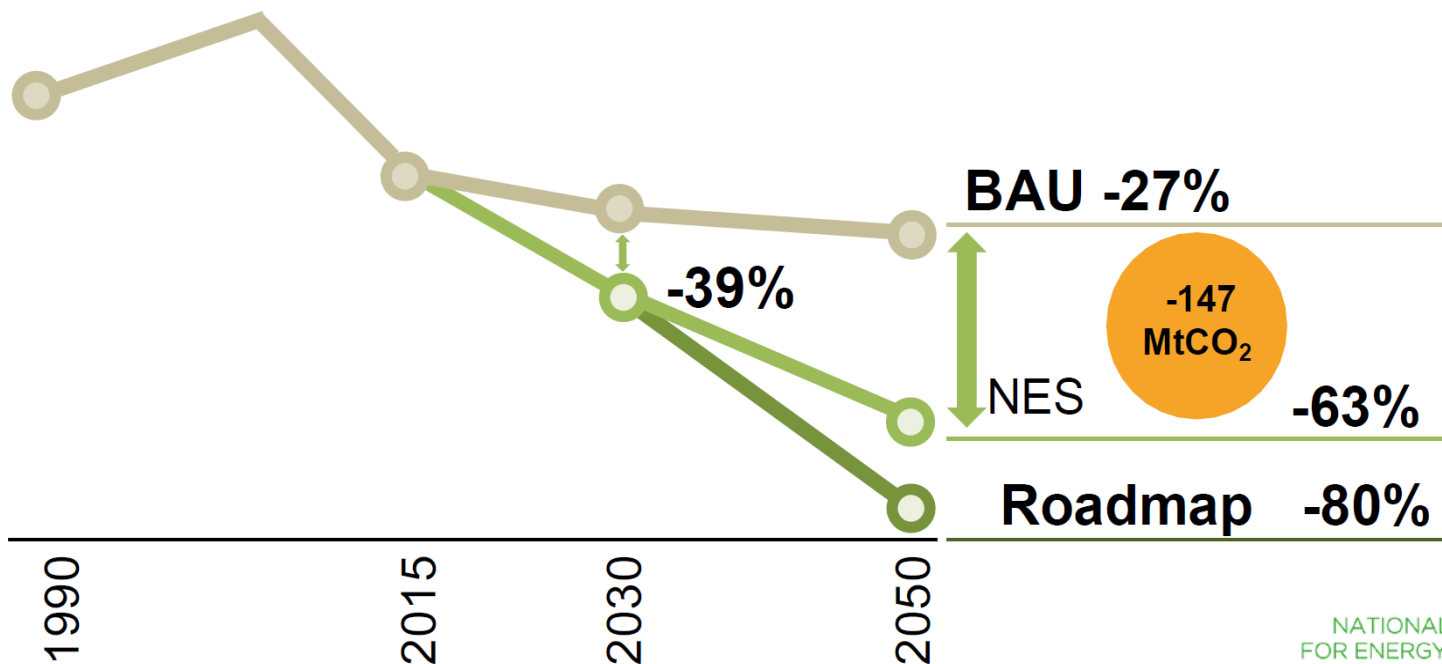
Targets to be achieved by 2030 are in line with both the plan of the European Energy Union and the EU Energy Roadmap 2050:

- Enhancing Italy's competitiveness, by continuing to bridge the gap between Italian energy prices and costs and European ones, in a global context of rising energy prices.
- Attaining Europe's environmental and decarbonisation targets by 2030 in sustainable ways, in line with the future targets set by COP21.
- Continuing to improve the security of energy supply and the flexibility of energy systems and infrastructures.

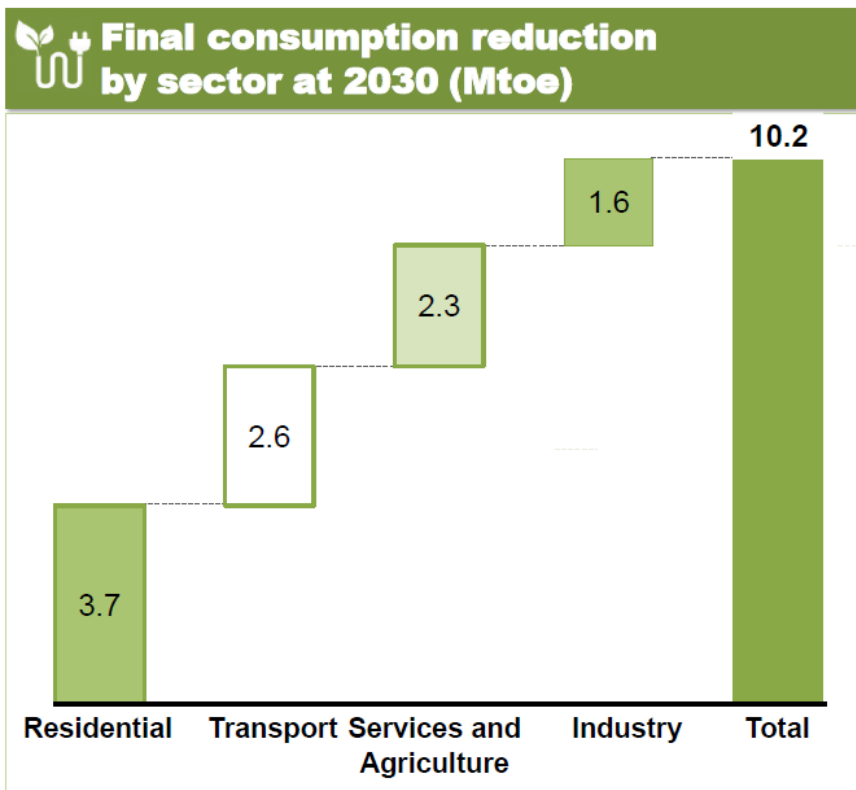
# Italy's National Energy Strategy 2017 - Energy sector

The path towards a decarbonized energy sector by 2050.

CO<sub>2</sub> emissions in the energy sector (MtCO<sub>2</sub>)



# Italy's National Energy Strategy 2017-Energy efficiency



**Residential:** revising, strengthening and confirming the tax deduction scheme for energy-efficiency investments (so-called “Ecobonus”); putting the energy-efficiency fund into operation.

**Services:** adoption of Energy Performance Contracting (EPC) for the renovation of public buildings; energy renovation programme for public buildings.

# Italy's National Energy Strategy 2017 - Governance

**“Control room” between the Ministry of Economic Development and the Ministry of the Environment and Protection of Land and Sea, with:**

- **Other Ministries:** Ministry of Economy and Finance; Ministry of Infrastructure and Transport; Ministry of Cultural Heritage and Activities and Tourism .
- **Public Bodies:** Representatives from Regions and Autonomous Provinces; periodic update from local government units.
- **Technical bodies:** if necessary, support from ENEA, GSE, ISPRA, RSE, etc.

# About ENEA



ENEA is the Italian National Agency for New Technologies, Energy and Sustainable Economic Development.

It is a public Research and Technology Organization operating in the fields of energy, environment and new technologies to support Country's competitiveness and sustainable development.

# National Agency for Energy Efficiency



An integral part of ENEA is the National Agency for Energy Efficiency, established by the Italian legislative decree no. 115 of 30th May 2008, as transposition of directive 2006/32/EC on energy end-use efficiency and energy services, which offers technical and scientific support to companies, supports the Public Administration in the preparation, implementation and control of national energy policies, and promotes training and information campaigns for the dissemination of energy efficiency culture.



# Key figures – International studies



The 2018 International Energy Efficiency Scorecard of the American Council for an Energy-Efficient Economy (ACEEE) examines the efficiency policies and performance of 25 of the world's top energy-consuming countries.

Germany tied with Italy for the top spot in the ranking with a score of 75.5 out of 100.



2016 RISE – Regulatory Indicators for Sustainable Energy of World Bank grades 111 countries in three areas: energy access, energy efficiency and renewable energy.

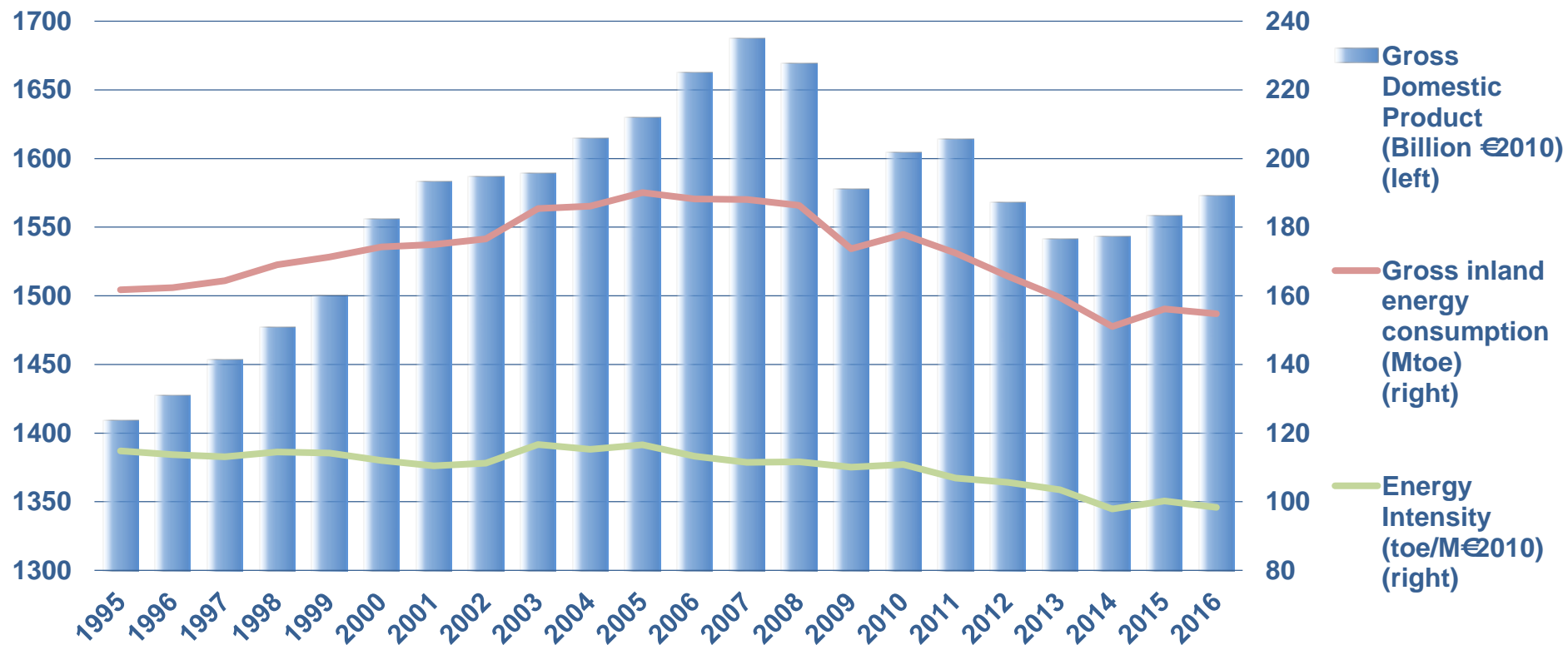


Italy is in the “Top Ten”.



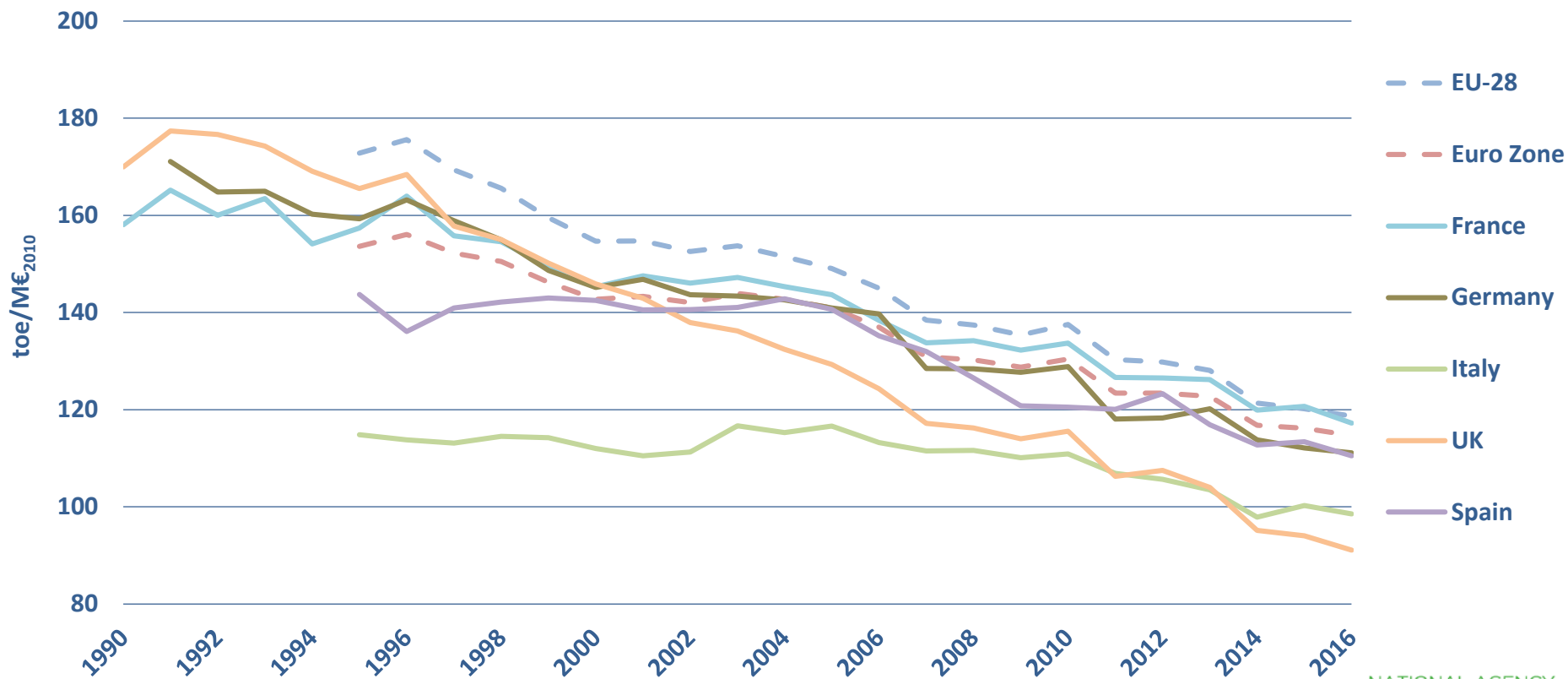


# Key figures – Primary energy intensity, Italy



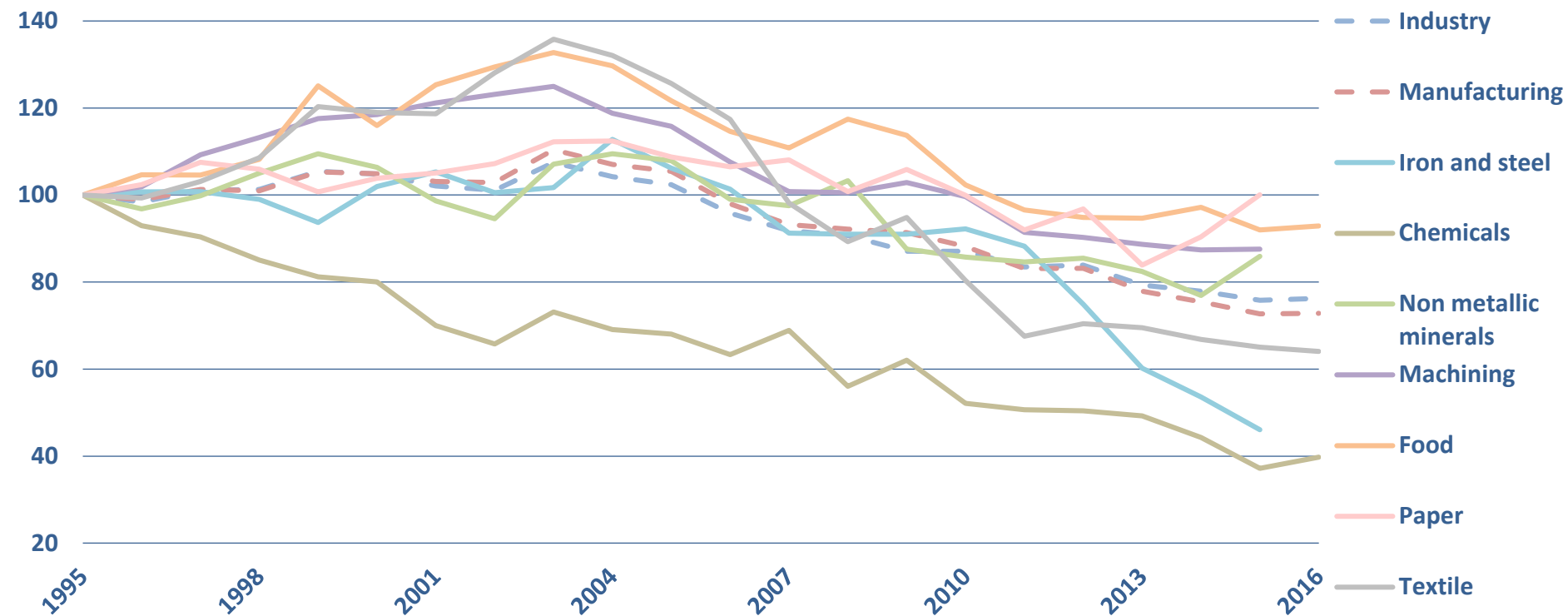
Source: ENEA elaboration of EUROSTAT, ISTAT data

# Key figures – Primary energy intensity, EU countries



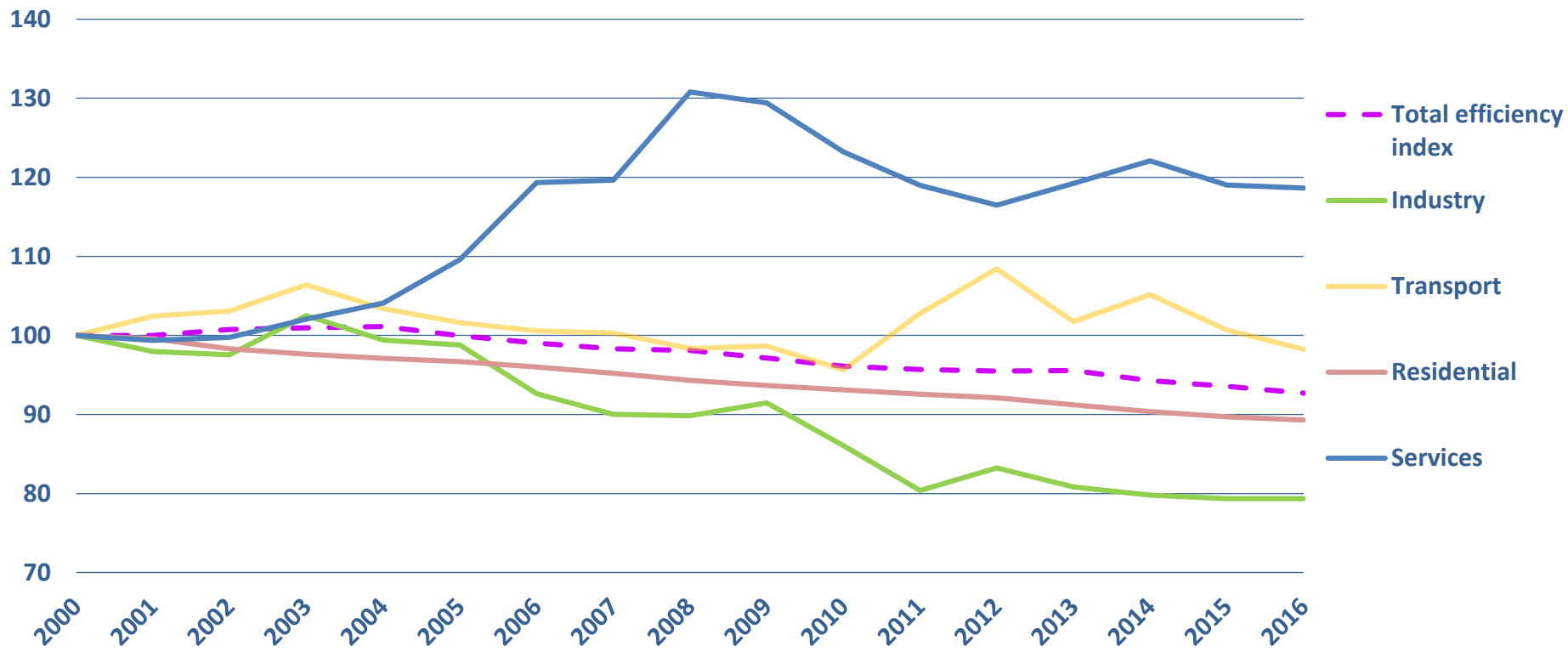
Source: EUROSTAT

# Key figures – Final energy intensity in industry, Italy



Source: ENEA elaboration of EUROSTAT, ISTAT data

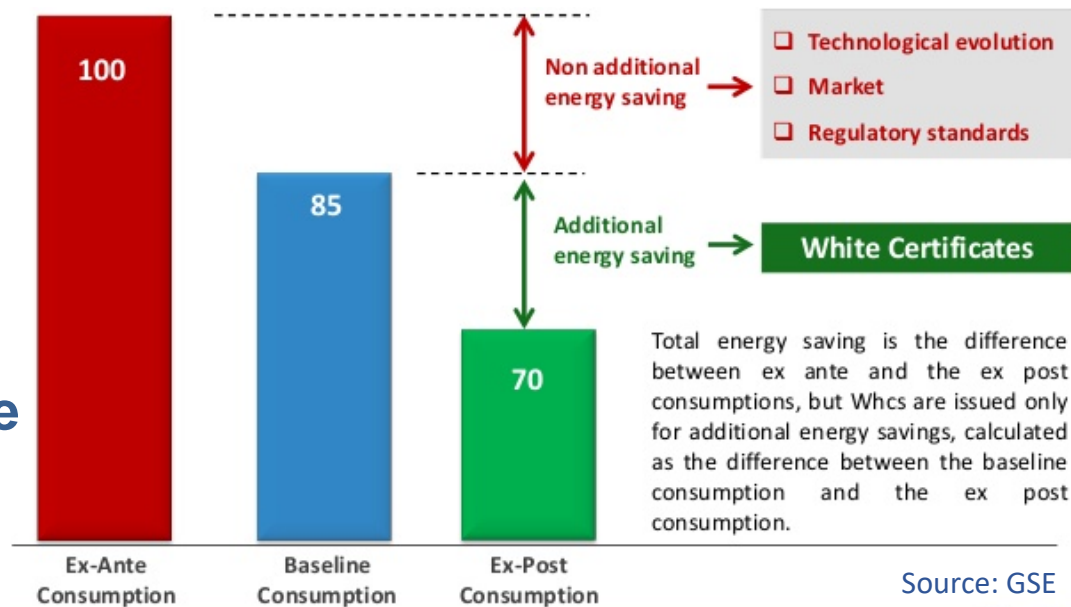
# Key figures – ODEX index, Italy



Source: ODYSSEE project

# EED art. 7 – Obligation Scheme – White Certificates / 1

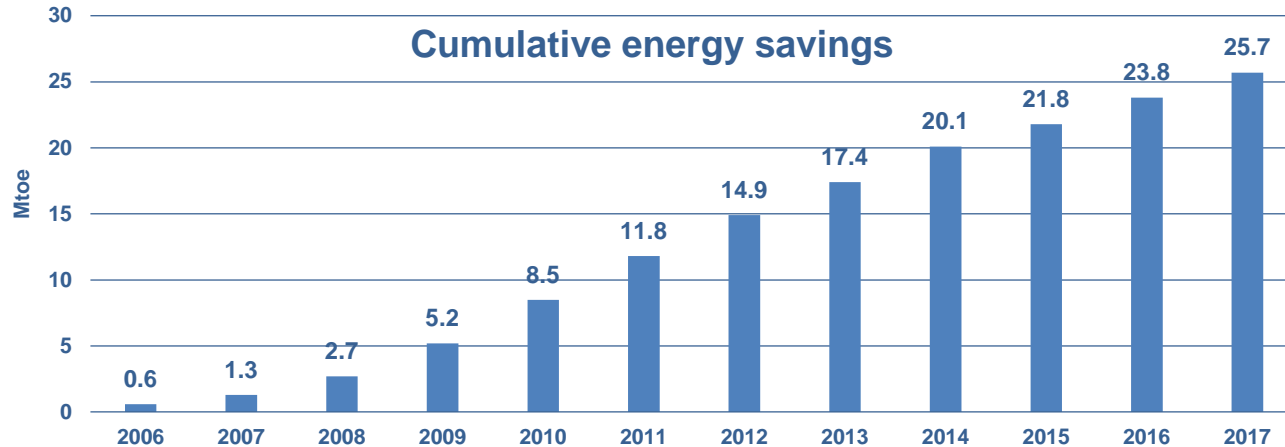
White Certificates are tradable securities certifying achieved energy saving in the final uses of energy through energy efficiency measures and projects. The obligation scheme was introduced by the legislative decrees that liberalised the electricity and the natural gas markets (Ministerial Decrees of 20 July 2004).



**WhCs issued only for  
additional savings**

# EED art. 7 – Obligation Scheme – White Certificates / 2

The system rests on the obligation for electricity and gas distributors with more than 50 000 end users to generate each year a certain amount of savings or, alternatively, to purchase an equivalent amount of certificates from non-obliges parties. Non obliged parties are electricity and gas distributors with less than 50 000 end users, ESCOs, companies with an energy manager or ISO 50001 certified.



Source: GSE

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# EED art. 7 – Alternative measures – Ecobonus / 1

Tax deductions scheme for the energy renovation of existing residential buildings were introduced in Italy by the Budget Law for 2007.

Ecobonus has been a key driver of energy efficiency improvements in the housing sector:

- More than 3.3 million of implemented actions
- Almost 35.5 billion euros of leveraged private investments



65% FISCAL DEDUCTIONS  
FOR ENERGY RENOVATION  
OF EXISTING BUILDINGS



# EED art. 7 – Alternative measures – Ecobonus / 2

Eligible  
actions  
1/2

Code	Action	Maximum eligible deduction (€) (^)	Maximum eligible expense (€)	Deduction (%)
344	Reduction of heating energy demand of the whole building	100,000.00		65%
345	a) insulation of vertical walls, roof, slabs (*)	60,000.00		65%
	b) windows and shutters replacement (*)	60,000.00		50%
	c) installing solar shades (*)	60,000.00		50%
	d) actions on common parts, involving over 25% of the building surface area		40,000.00 (#)	70%
	e) same actions as in d) to achieve at least the average quality as per tables 3 and 4 of Annex 1, of the Italy's Ministerial Decree 26/06/2015 "Guidelines for the Energy Certification Decree"		40,000.00 (#)	75%
	f) actions as in d) and e) implemented in seismic zones 1,2 and 3, aimed to reduce seismic risks also, resulting in one lower class of the seismic risk classification		136,000.00 (#)	80%
	g) actions as in d) and e) implemented in seismic zones 1,2 and 3, aimed to reduce seismic risks also, resulting in two or more lower classes of the seismic risk classifications		136,000.00 (#)	85%



# EED art. 7 – Alternative measures – Ecobonus / 3

Eligible  
actions  
1/2

346	Installing solar panels to produce domestic hot water		60,000.00		65%
347	a) full or partial replacement of heating systems with systems equipped with (**)	i. condensing boilers that are at least class A efficient	30,000.00		50%
		ii. condensing boilers that are at least class A efficient and require the installation of advanced thermoregulation systems	30,000.00		65%
		iii. condensing hot air generators	30,000.00		65%
		iv. high efficiency heat pumps, with low enthalpy geothermal systems	30,000.00		65%
		v. hybrid appliances with heat pump integrated with a condensation boiler	30,000.00		65%
		vi. micro-CHP systems	100,000.00		65%
		vii. replacing conventional water heaters with heat pump boiler for domestic hot water	30,000.00		65%
	b) installation of biomass heating system		30,000.00		50%
	c) installation of Building Automation systems				65%

# EED art. 7 – Alternative measures – Ecobonus / 4

The Budget Law 2018 has extended the possibility of tax credit transfer to all taxpayers and all eligible actions: tax credit can be transferred to suppliers who implemented works or to other private entities, with the possibility of an only one subsequent transfer to other entities than suppliers, as long as they are linked to the works that implied the tax deduction.

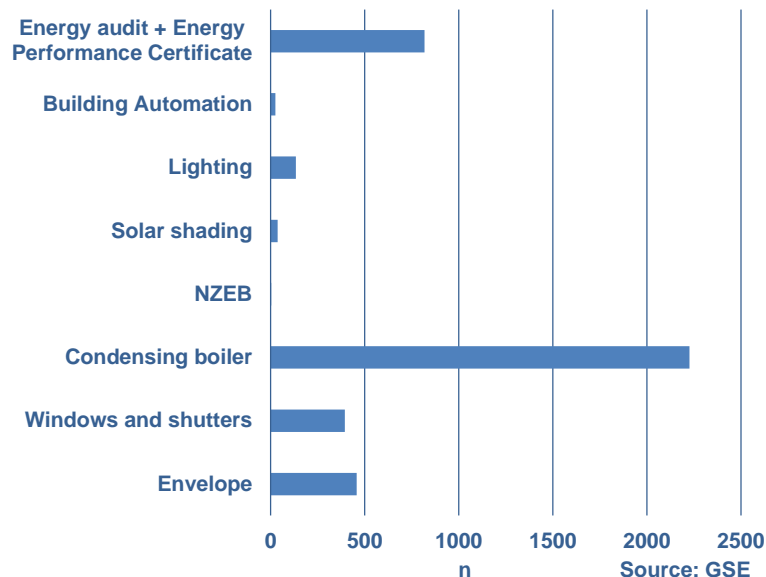
For taxpayers out of the no-tax area, credit cannot be transferred to credit institutions and financial intermediaries.

ENEA will develop a programme for both documentary and on-site checks of the main implemented actions, carried out on a sample basis.

# EED art. 7 – Alternative measures – Thermal Account

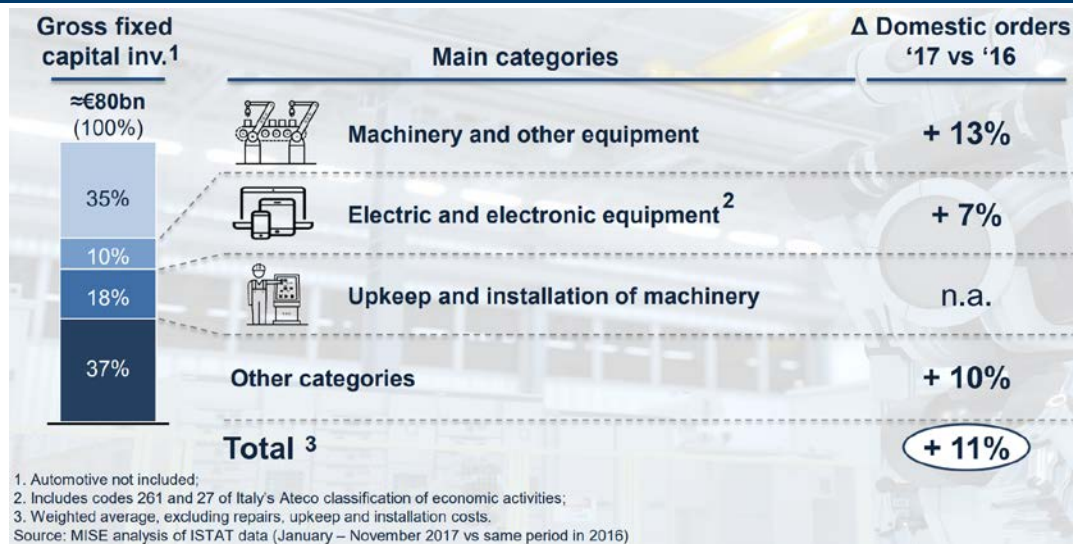
The Ministerial Decree of 28 December 2012 introduced a new incentive system for actions to improve energy efficiency and generate thermal energy from renewable sources. It is the first scheme encouraging public administrations to implement energy efficiency improvement actions in buildings and technical installations.

In 2017 the Thermal Account showed a clear acceleration for the public administration (from 141 requests in 2016 to 333 in 2017, +136%), for almost 62 million euros of investments.



# EED art. 7 – Alternative measures – Impresa 4.0

Hyper depreciation (250%) investments in new tangible assets, devices and technologies enabling companies' transformation to “Impresa 4.0” standards.



Nuova Sabatini: contribution partially covering interest paid by business on bank loans of between 20,000 and 2,000,000 euros, with an annual interest rate of 2.75% and is increased by 30% in the case of investment in “Impresa 4.0” technologies.

# Achieved savings (final energy, Mtoe/year), 2011-2017

Measure  Sector	White Certificates	Tax Relief *	Conto Termico	Impresa 4.0 National Plan *	European Regulations and High-Speed Rail *	Italian Legislative Decreets 192/05 and 26/6/15 **	Energy savings		Achieved target (%)
							Achieved in 2017 **	Expected by 2020	
<b>Residential</b>	0.71	2.08	-	-	-	0.85	<b>3.64</b>	<b>3.67</b>	<b>99.2%</b>
<b>Services</b>	0.15	0.02	0.005	-	-	0.04	<b>0.22</b>	<b>1.23</b>	<b>17.5%</b>
<b>Industry</b>	2.1	0.03	-	0.3	-	0.07	<b>2.5</b>	<b>5.1</b>	<b>49.0%</b>
<b>Transport</b>	0.01	-	-	-	1.68	-	<b>1.69</b>	<b>5.5</b>	<b>30.7%</b>
<b>Total</b>	<b>2.97</b>	<b>2.13</b>	<b>0.005</b>	<b>0.3</b>	<b>1.68</b>	<b>0.96</b>	<b>8.05</b>	<b>15.5</b>	<b>51.9%</b>

\* Estimate for the year 2017.

\*\* Estimate for the period January-September 2017. The residential sector includes the savings from the replacement of large household appliances also.

Source: ENEA elaboration of data from the Ministry of Economic Development, ISTAT, Gestore dei Servizi Energetici S.p.A., ENEA, FIAIP, GFK

# EED art. 7: achieved savings (final, Mtoe), 2014-2017

Notified measures	New Savings achieved				Cumulative savings	
	2014	2015	2016	2017 *	2014-2017	Expected in 2020
Mandatory scheme White Certificates	0.872	0.859	1.101	1.341	4.174	12.51
Alternative measure 1 Conto Termico	0.003	0.008	0.019	0.045	0.075	0.43
Alternative measure 2 Tax relief	0.306	0.597	0.873	1.164	2.940	8.39
Alternative measure 3 National Energy Efficiency Fund	0.000	0.000	0.000	0.000	0.000	0.18
Alternative measure 4 Impresa 4.0 National Plan	0.000	0.000	0.000	0.300	0.300	4.00
<b>Total savings</b>	<b>1.181</b>	<b>1.465</b>	<b>1.993</b>	<b>2.850</b>	<b>7.489</b>	<b>25.50</b>

\* Preliminary estimate on data not yet consolidated

Source: Elaboration of the Ministry of Economic Development based on data from ENEA and Gestore dei Servizi Energetici S.p.A

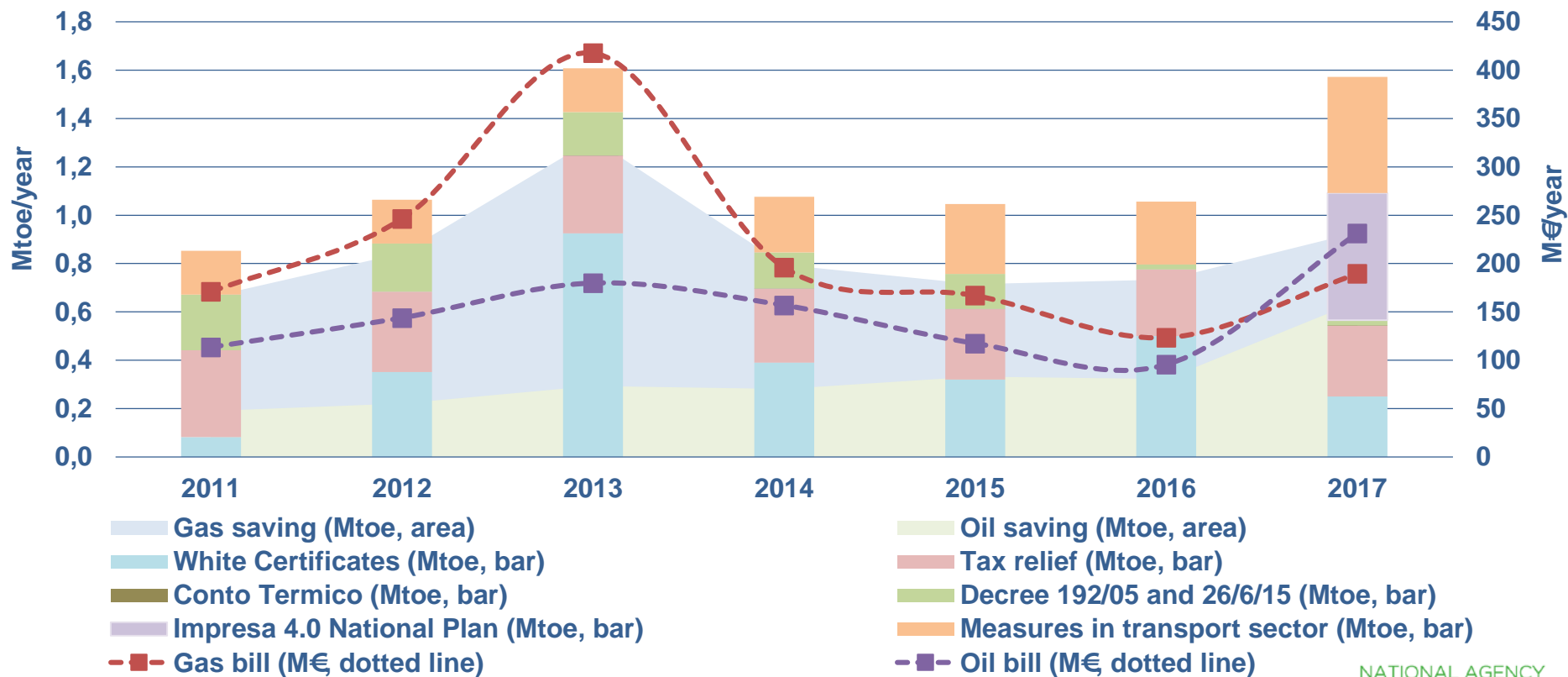
# Cost-effectiveness of incentive schemes

A preliminary assessment of the economic balance of the main incentive schemes takes into account the cumulative amount over time of: economic savings; excise duties; expenditure for investments in efficient components/plants business turnover; tax and contributory income (IRES, IRPEF, social security contributions, VAT, etc.).

Mechanism	Years	I <sub>0</sub>	Savings		Costs		Cost-effectiveness
	(n)	(G€)	Energy (Mtoe)	Financial (G€)	(G€)		(c€/kWh)
White Certificates	13	12.0	57.3	38.0	7.0		2.9
Ecobonus	11	34.6	8.6	5.4	20.5		8.6
PV (Feed-in Tariff)	12		82.7		134	(20 y)	32.0
Other electric RES	<25				110	(20 y)	

Source: ENEA elaboration of data from ARERA, CSEA, Chamber of Deputies, ENEA, GME, Gestore dei Servizi Energetici S.p.A., Ministry of Economic Development

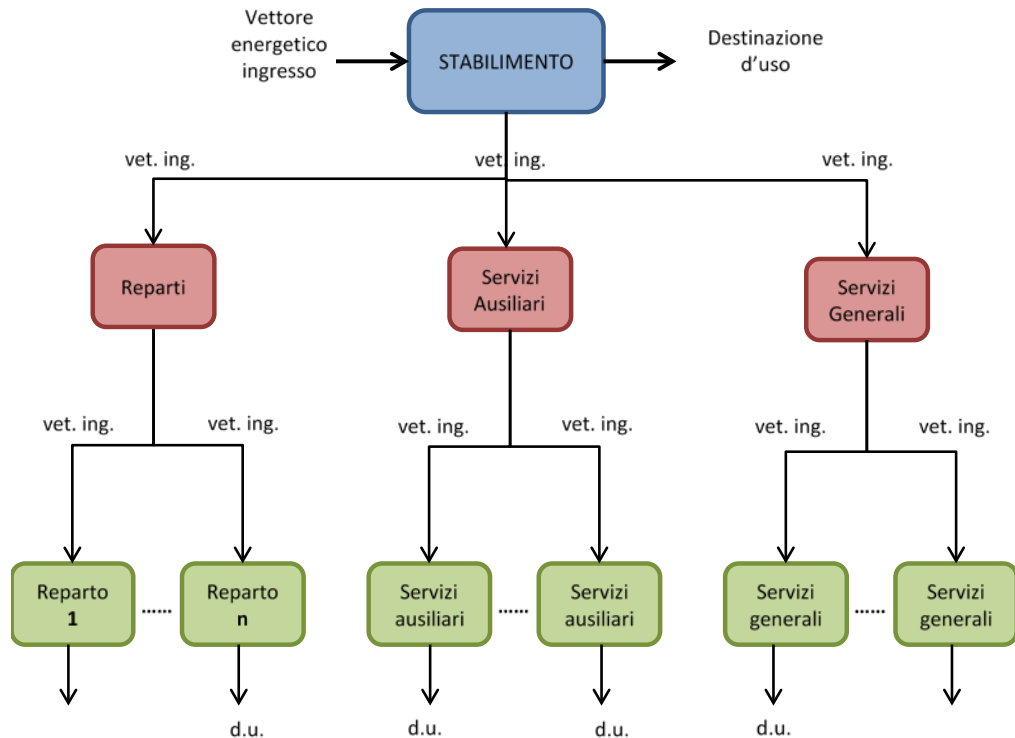
# Savings in the national energy bill





# Energy audit in the industry / 1

Together with the main stakeholders, ENEA developed an innovative scheme to analyse the energy structure of the audited production site. Through a multi-level procedure, a tree scheme allows to better define the energy performance, for each energy vector (electric, thermal, steam, hot water, etc.), splitting annual consumption by the different users within the production site.



Source: ENEA

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# Energy audit in the industry / 2

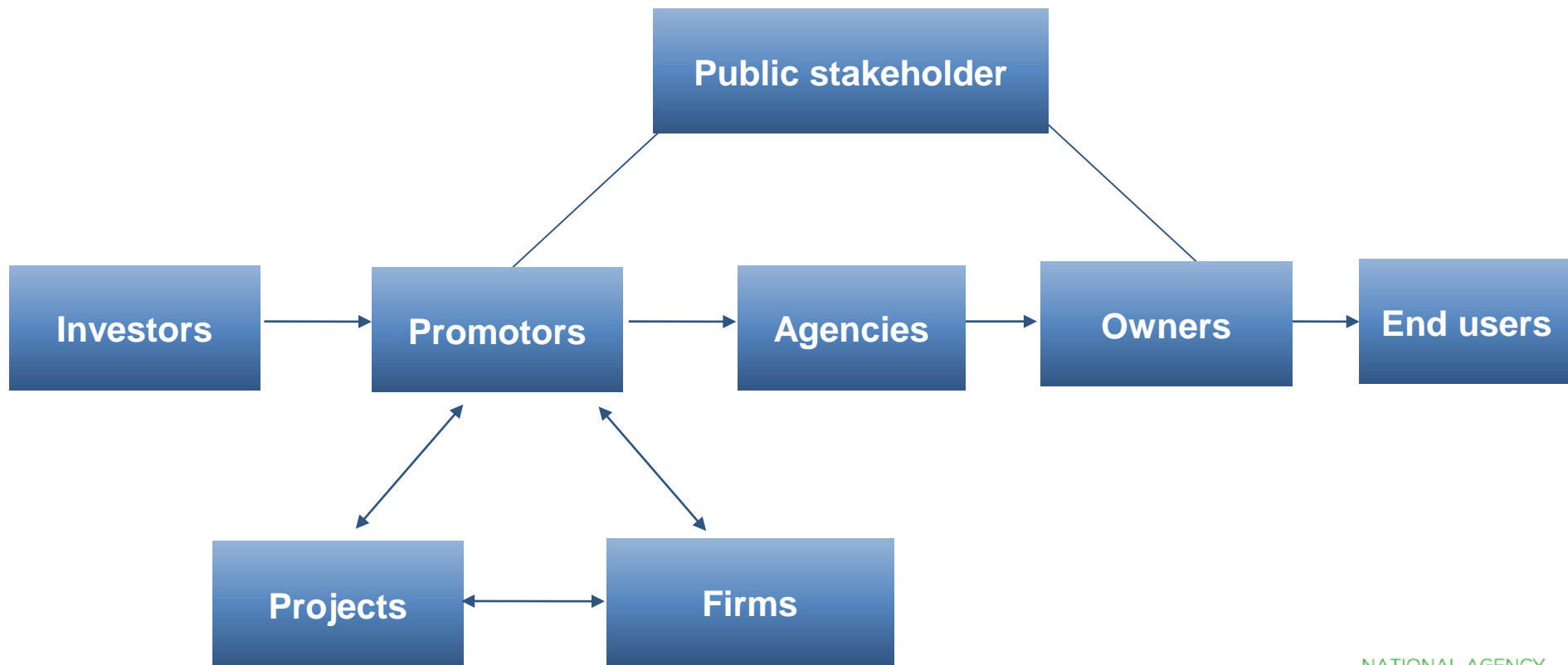
ENEA developed different documents to provide operational advices to auditors, to standardise reporting and accounting. A logic operational path has been proposed, along which structuring and organising the energy audit. Together with different trade associations, specific guidelines were conceived to make the enterprises fully comply with Legislative Decree 102/2014, in particular for multi-site enterprises.

GAS NATURALE			CONSUMO	TEP ING.	lpg		Consumi monitorati	Altro	% copertura	E' necessario dettagliare maggiormente la suddivisione dei consumi	
			Smc	tep	tipo misura [costaso, spot o altro]	Smc /					
LB	i=2	GAS NATURALE	0				#DIV/0!	0	0		#DIV/0!
			CONSUMO	TEP ING.	lpg		D.s.		lps		
LC	1.1	ATTIVITA' PRINCIPALI	0				valore	u.m.	tipo misura [costaso, spot o altro]	valore	u.m. [Smc/D.s.]
LD	1.1.1	Attività Principale 1									
	1.1.2	Attività Principale 2									
	1.1.3	Attività Principale 3									
	1.1.4	Attività Principale 4									
LC	1.2	SERVIZI AUSILIARI	0				valore	u.m.	tipo misura [costaso, spot o altro]	valore	u.m. [Smc/D.s.]
LD	1.2.1	Servizio Ausiliario 1							...		
	1.2.2	Servizio Ausiliario 2									
	1.2.3	Servizio Ausiliario 3									
	1.2.4	Servizio Ausiliario 4									
LC	1.3	SERVIZI GENERALI					valore	u.m.	tipo misura [costaso, spot o altro]	valore	u.m. [Smc/D.s.]
LD	1.3.1	Servizio Generale 1							...		

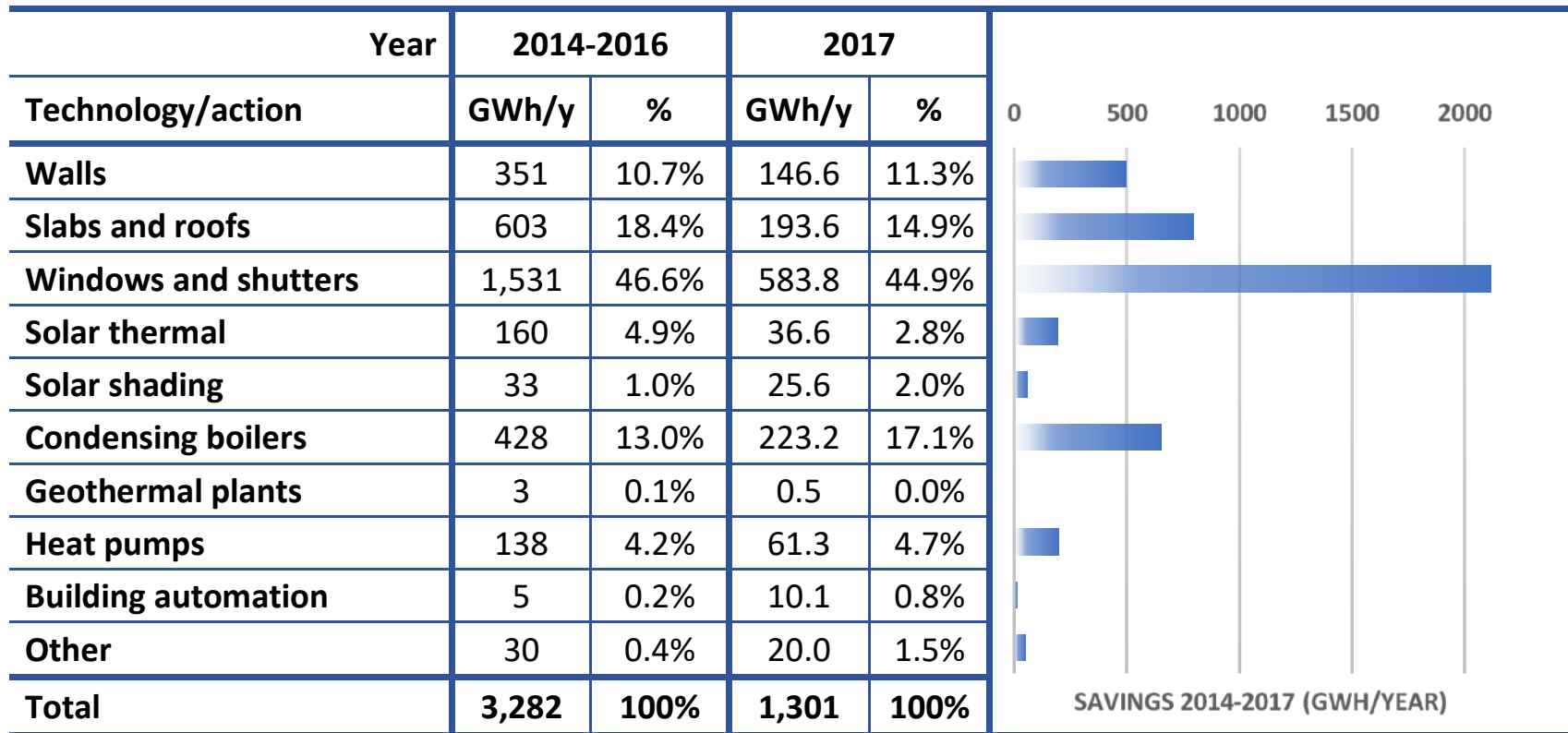
# Energy audit in the industry / 3

	Number of enterprises	Audited sites	Projects with payback time less than 3 years	Potential savings (ktoe)	Necessary investments (M€)
<b>ATECO sector</b>					
<b>A - Agriculture, forestry and fishing</b>	61	108	59	2.5	2.2
<b>B - Mining and quarrying</b>	40	75	31	5.7	3.5
<b>C - Manufacturing</b>	5,131	7,032	5,271	595.3	491.4
<b>D - Electricity, gas, steam and air conditioning supply</b>	232	492	194	38.1	32.2
<b>E - Water supply, sewerage, waste management and remediation activities</b>	324	921	276	24.3	18.7
<b>F - Construction</b>	175	323	97	10.1	6.9
<b>G - Wholesale and retail trade; repair of motor vehicles and motorcycles</b>	892	2,433	896	24.2	21.2
<b>H - Transportation and storage</b>	416	934	272	27.7	18.1
<b>I - Accommodation and food service activities</b>	110	309	112	2.6	3.1
<b>J - Information and communication</b>	160	664	255	19.6	20.6
<b>K - Financial and insurance activities</b>	244	597	151	2.4	2.3
<b>L - Real estate activities</b>	59	114	52	2.2	2.2
<b>M - Professional, scientific and technical activities</b>	255	316	66	1.4	1.0
<b>N - Administrative and support service activities</b>	250	449	62	1.0	0.8
<b>Other</b>	337	693	570	22.5	22
<b>Total</b>	<b>8,686</b>	<b>15,460</b>	<b>8,364</b>	<b>779.6</b>	<b>646</b>

# The whole decision process



# Energy renovation of existing residential buildings / 1



# Energy renovation of existing residential buildings / 2

Energy consumption in households



Source: ISTAT



Fuel	Annual average expense of households (€)		
	2014	2015	2016
Expenses			
Electricity	550.0	574.4	595.0
Gas (b)	727.7	706.0	639.3
Diesel	21.7	19.5	18.6
Solid fuels (c)	71.3	71.1	68.0
Thermal energy	10.1	7.3	8.3
Total	1,380.7	1,378.3	1,329.2

Source: ISTAT

# Energy renovation of existing residential buildings / 3

Energy efficiency actions can account for average savings of 15% on total annual household spending on energy products (30% of the annual expenditure for gas).

	2014	2015	2016	2017
Overall Ecobonus savings (Mtoe/year)	0.093	0.094	0.096	0.112
Natural gas saved (Mm <sup>3</sup> )	107.73	109.19	111.25	130.14
Average cost of natural gas (€/m <sup>3</sup> , current values)	0.82	0.79	0.72	0.73
Financial savings (M€)	88.6	86.7	80.4	95.2
Real estate units incentivized with Ecobonus actions (n)	353,732	415., 28	465,751	625,646
Saving per household (€/year)	250.52	208.56	172.53	152.17

Source: ENEA



# Energy renovation of existing residential buildings / 4

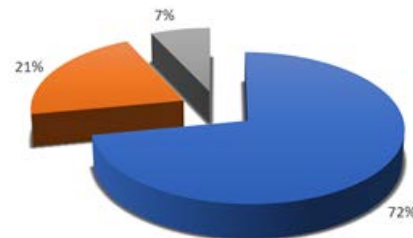
Year	Investments (M€)	Directly employed (n)	Allied industries (n)	Total employees (n)
2007	1,453	14,460	7,230	21,690
2008	3,500	34,832	17,416	52,248
2009	2,563	25,507	12,753	38,260
2010	4,608	45,859	22,929	68,788
2011	3,309	32,931	16,466	49,397
2012	2,883	28,692	14,346	43,037
2013	3,612	35,947	17,973	53,920
2014	3,066	30,513	15,256	45,769
2015	3,088	30,732	15,366	46,098
2016	3,309	32,931	16,466	49,397
2017	3,724	32,931	18,531	51,462
Average	3,192	31,394	15,885	47,279



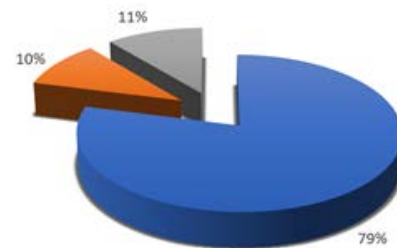
# Barriers to energy renovation of buildings / 1

Barrier type and interview questions	Agreement	Neutral	Disagreement
<b>Economic or socio-economic barriers</b>			
Despite the possibility of credit transfer, 20%/30% of expenses to be covered is in any case too burdensome for a block of flats, regardless of the benefits from energy-efficient renovation.	31%	41%	28%
The different economic situation of residents makes the decision difficult.	72%	21%	7%
<b>Technical and administrative barriers</b>			
Difficulty in efficiently managing the procedures (time management, cost of operations in terms of work done).	48%	42%	10%
<b>Information barriers</b>			
Residents struggle to understand the benefits of investments per energy efficiency.	79%	10%	11%
Residents are not informed about incentives.	48%	42%	10%
<b>Conflicts of interest and social barriers</b>			
Owners and tenants have too many different and conflicting interests.	79%	-	21%
The various age brackets make it difficult to identify a common interest with respect to contingent energy-efficient interventions.	73%	17%	10%
Bad relations among residents, differences between households, the negative spirit and unfavorable residents' atmosphere make the decision impossible.	39%	45%	24%
So-called experts, who suggest solutions contrary to the majority, represent an obstacle to energy-efficient solutions.	31%	34%	35%

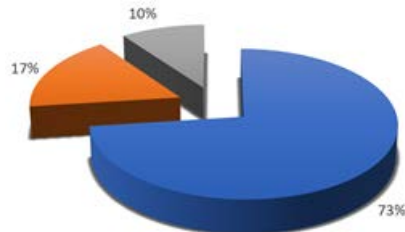
**Economic availability**



**Difficult to understand**



**Lack of common interest**



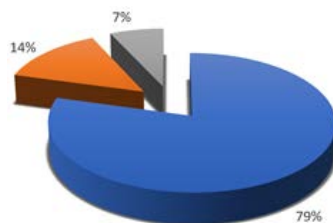
■ Agree ■ Undecided ■ Disagree

# Barriers to energy renovation of buildings / 2

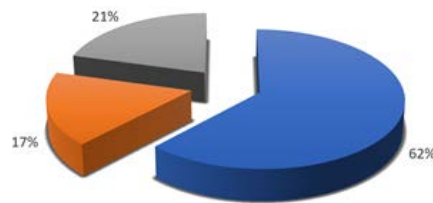
Type of information tool	Agreement	Neutral	Disagreement
Transparent description of the legal measures and type of works that can be incentivized	79%	14%	7%
Support in spreading information to residents	76%	7%	17%
Notions on how to evaluate the economic benefits of investments	76%	10%	14%
Tips on how to present an investment proposal at a meeting	72%	7%	21%
Support to handle meetings on these issues	62%	17%	21%
Defining the no-tax area and documents required to prove it	62%	14%	24%
Information on how to collaborate with energy service companies	59%	17%	24%
Interventions aggregator (es. Community-led interventions for renovation)	45%	21%	34%

Source: ISINNOVA - ENEA

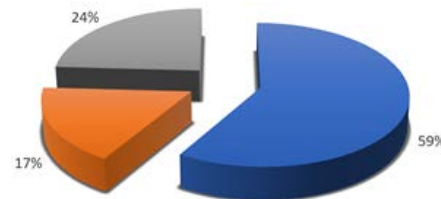
Economic assessment



Handling meetings



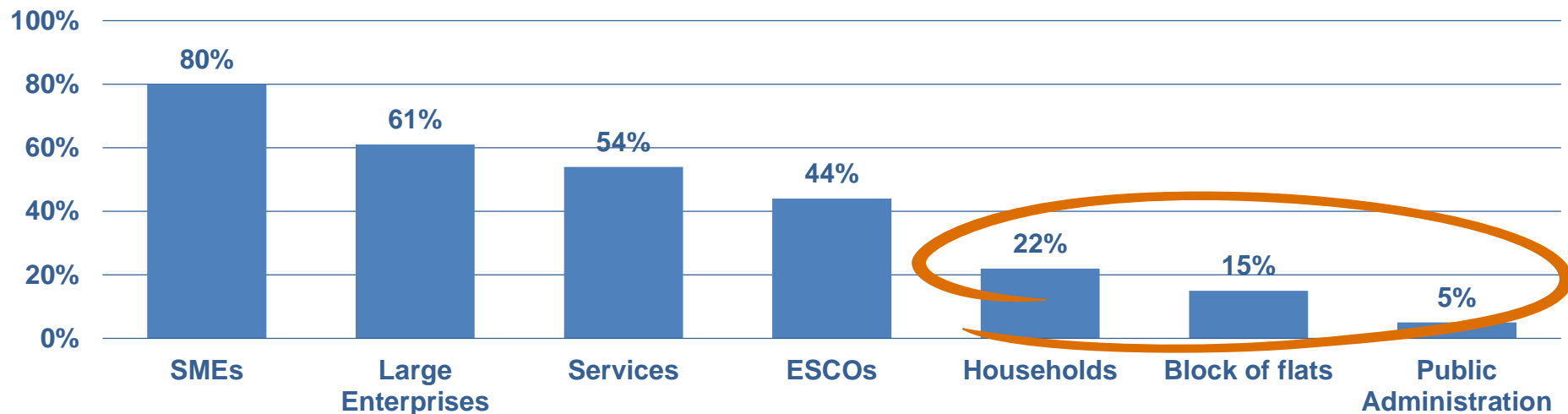
ESCOs' involvement



■ Agree ■ Undecided ■ Disagree

# Financial tools / 1

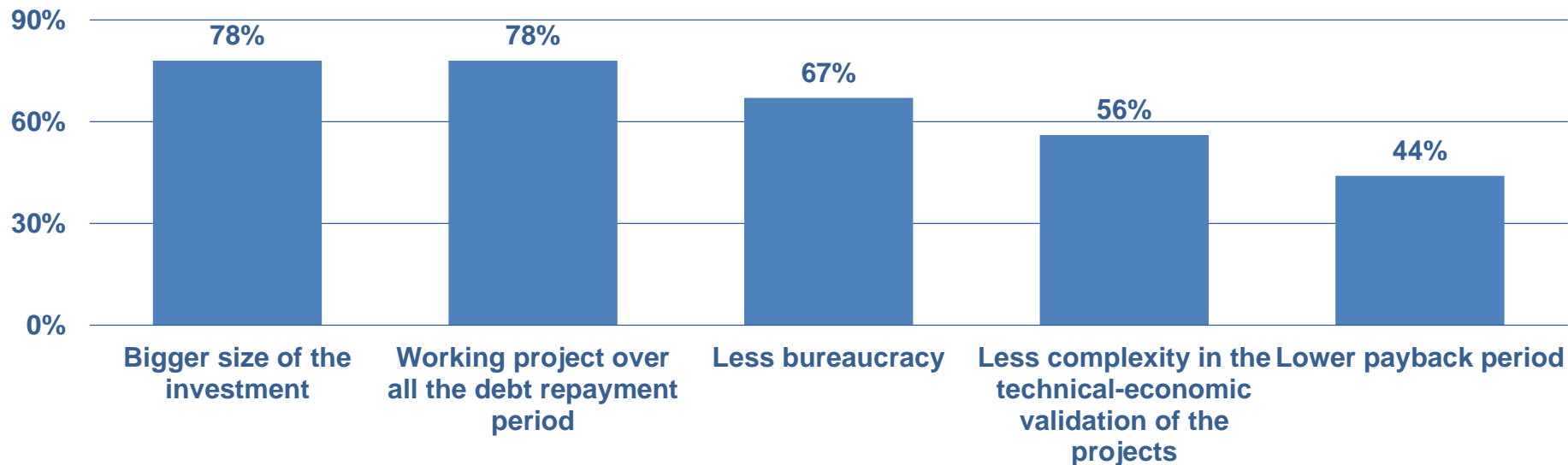
## Targets of financial tools



Source: Abi Lab, Bank and Green Economy Observatory

# Financial tools / 2

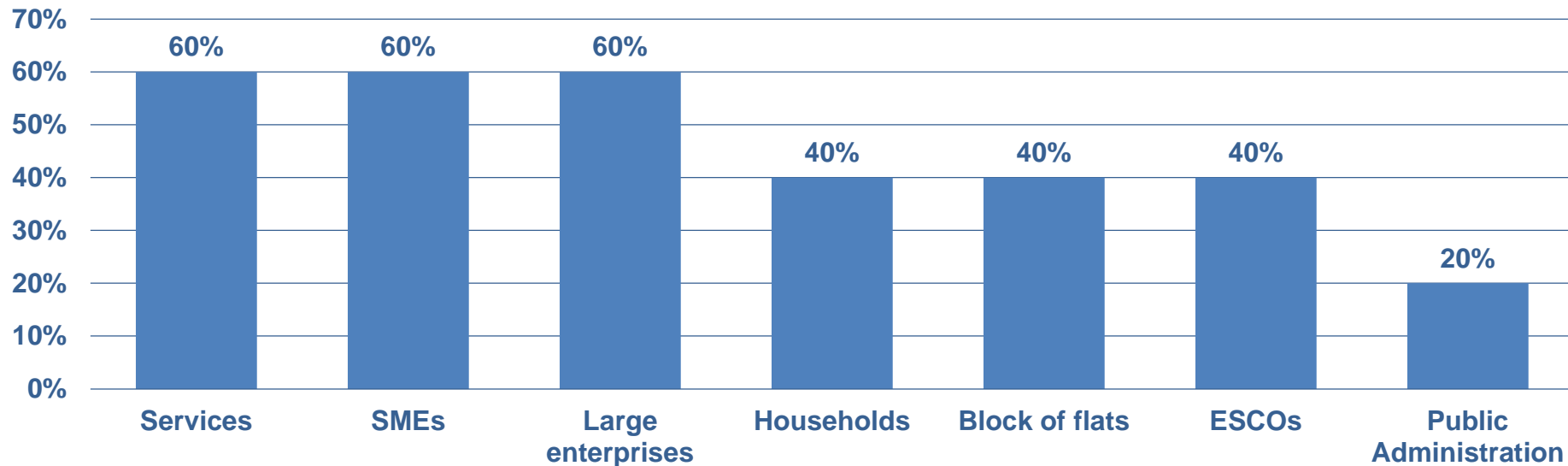
## Enabling factors for a successful financing



Source: Abi Lab, Bank and Green Economy Observatory

# Financial tools / 3

## Target sectors for new financial products



Source: Abi Lab, Bank and Green Economy Observatory

# Energy Performance Contracts (EPC)

New EPC guidelines, released by ENEA in March 2017 and updated in October 2017, aim to provide public administrators with a tool to support and guide the drafting of EPC, customized on specific individual projects. In November 2017, the updated guidelines were under public consultation of the main involved stakeholders.

A new version will be soon released.

New guidelines are consistent with the Energy Efficiency Directive and the latest legislation, such as the Italian Legislative Decree 50/2016 as amended (New Code of Public Contracts), and the Italian Ministerial Decree 11 October 2017 concerning the Minimum Environmental Criteria of the assignment of design and works services.

# Renovation of Central Government buildings

## Programme for the Energy Renovation of Buildings of the Central Government

Year	Submitted projects	Selected projects	Budget of selected projects (€)
2014	30	22	10.769.620
2015	122	47	62.228.613
2016	89	32	60.207.917
2017	83	39	37.412.007
<b>Total</b>	<b>324</b>	<b>140</b>	<b>170.618.157</b>

Source: Ministry of Economic Development

**2014-2020 budget of 355M€, with the technical validation and selection of submitted projects by ENEA and GSE.**

**Final ranking on the basis of the possibility of Public Private Partnership for the implementation of the action also.**

# 2007-2013 ERDF and Cohesion Funds

## Energy efficiency projects concluded and paid off, and related available resources (M€)

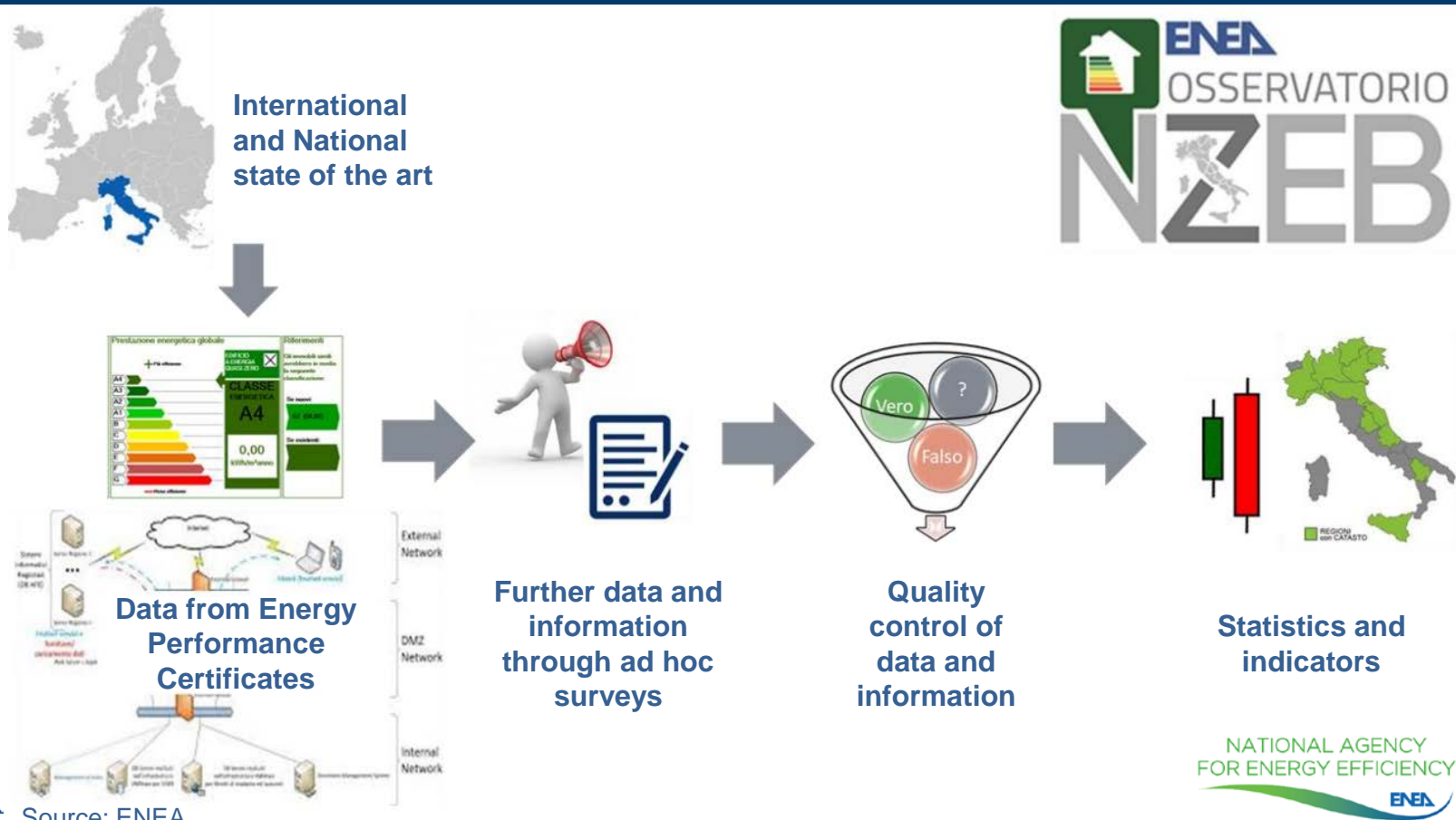
Programme	Projects (n)	Total public financing (M€)	Committment (M€)	Total payment (M€)
Regional Operational Programmes (ROP), Regional Competitiveness and Employment (RCE) - ERDF	1,781	676.3	711.9	679.1
Regional Operational Programmes (ROP), Convergence (CONV) - ERDF	457	492.4	520.4	494.4
Interregional Operational Programme (IOP) "Renewable energy and energy saving", Axis II	1,091	742.6	722.5	731.7
Regional Action Plan of Cohesion and Development Fund (CDF)	92	586.9	588.3	587.4
Cohesion Plan of Action	14	60.8	62.8	61.1
National Operational Programme (NOP) ERDF Convergence "Networks & Mobility"	13	473.3	472.8	473.3
<b>TOTAL energy efficiency projects concluded and paid off</b>	<b>3,448</b>	<b>3,032.3</b>	<b>3,078.7</b>	<b>3,027.0</b>
<b>TOTAL energy efficiency projects</b>	<b>4,130</b>	<b>10,011.9</b>	<b>6,839.8</b>	<b>5,320.3</b>
of which started from 2014 onwards, concluded and paid off	1,752	1,251.8	1,320.7	1,275.2

Source: ENEA elaboration

**More than 10 billion euros of public financing for energy efficiency 4,100 projects (about 83% of the total were concluded and paid off). Around 42% of all selected projects have been launched from 2014 onwards and are concluded or paid off (1.25 billion euros of public funding).**



# NZEBs – ENEA national observatory



# NZEBs – ENEA national observatory

The NZEB characteristics in Italy were set through the Italian Decree 26 June 2015 “Minimum requirements”: new and existing buildings are considered NZEBs if both the decree's performance requirements and the obligations regarding the integration of renewable sources dictated by Italian Legislative Decree 28/2011 are met. Thanks also to more stringent obligations, imposed in advance with respect to the 2019 and 2021 deadlines, in 2016-2017 period the NZEBs in Italy are approximately 600, mainly new (80%) and residential buildings (88%).

Without an approach focused on the life cycle of the building, the payback time of investment in NZEBs is in many cases longer than the useful life of the building itself. Initial costs vary from 3,000-3,500 €/m<sup>2</sup> for detached houses to around 1,500 €/m<sup>2</sup> for multi-family buildings.

# Energy poverty / 1

The main causes of energy poverty are linked to a complex interaction between low income, inadequate energy efficiency in housing and energy costs, all of which are grafted into the debate on the fight against climate change and the fight against poverty.

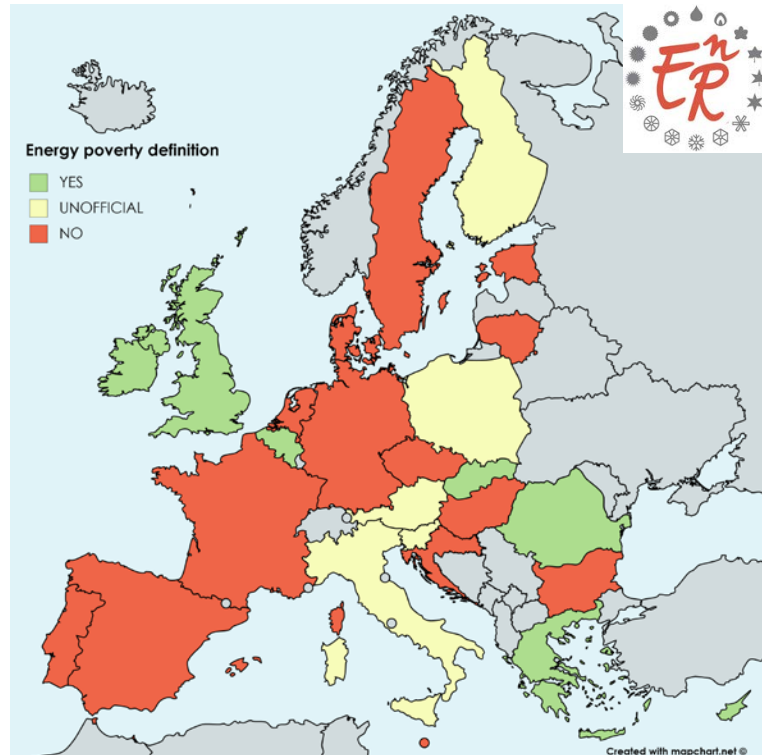
Fuel poverty

Energy poverty

Energy vulnerability

Energy insecurity

Common and  
acknowledged  
definition

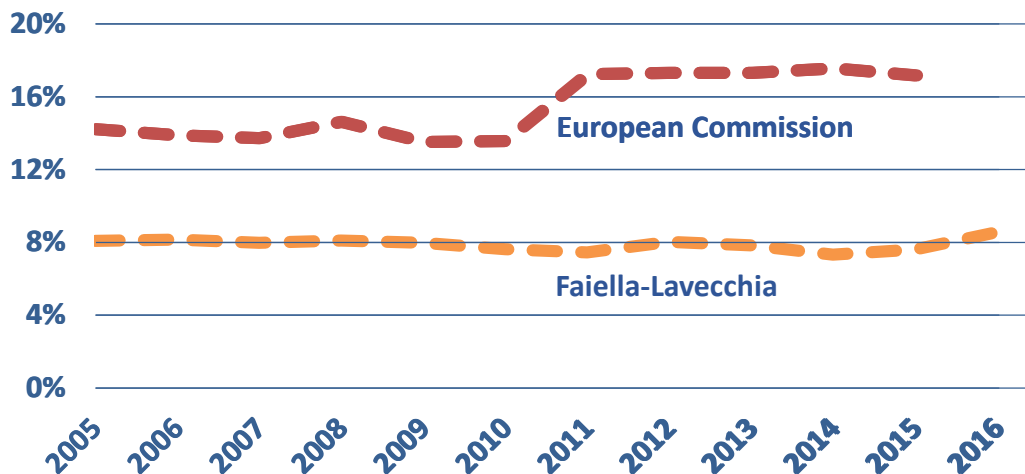


Source: ENEA elaboration on ASSIST project

# Energy poverty / 2

For 2017 Italy's National Energy Strategy, approach based on UK *Low Income - High Costs* (\*) for assessing the incidence of energy poverty (\*\*):

- High level of energy expenditure
- Total expenditure (net of energy expenses) below the relative poverty threshold
- Null value for the purchase of heating products for households with an overall expenditure lower than the median



Source: Ministry of Economic Development

\* Hills, John (2011), "Fuel poverty: the problem and its measurement", CASEreport, 69. Department for Energy and Climate Change, London, UK.

\*\* Faiella, Ivan e Lavecchia, Luciano, (2015), "Energy Poverty in Italy" *Politica economica*, Società editrice il Mulino, issue 1, pages 27-76.

# Energy poverty / 3

Barrier	Description
Behaviour	Lack of awareness
Lack of information about:	Domestic energy consumption Available solution and incentives
Conflicts	Split incentives
Incentives	Distorsion due to subsidies
Financial	Lack of savings Low credit standing
Perception of risk	Risk aversion

Source: Energy Efficiency for Low-Income Households, ITRE Report, European Parliament, 2016

# Energy poverty / 4

## MATRIX OF ENERGY POVERTY TOOLS



IMPACT

HIGH

LOW

Financial  
tools

Market-based  
tools

Informative  
tools

Normative  
tools

Fiscal tools

TEMPORARY

STRUCTURAL

IMPACT

# Energy poverty / 5

## MATRIX OF ENERGY POVERTY TOOLS



Gas and  
electricity bonus



ECOBONUS

TEMPORARY

STRUCTURAL

IMPACT

# One-Stop-Shops

Data, information, advise and good practices about:

- high quality energy renovation project
- analysis and identification of potential savings
- implementation of the projects
- guidance in the choice of companies
- study of the related financing plan based on concessions, mortgages and/or incentive mechanisms,
- after-sales assistance
- insurance products





# 3-year Information & Training Programme: definition



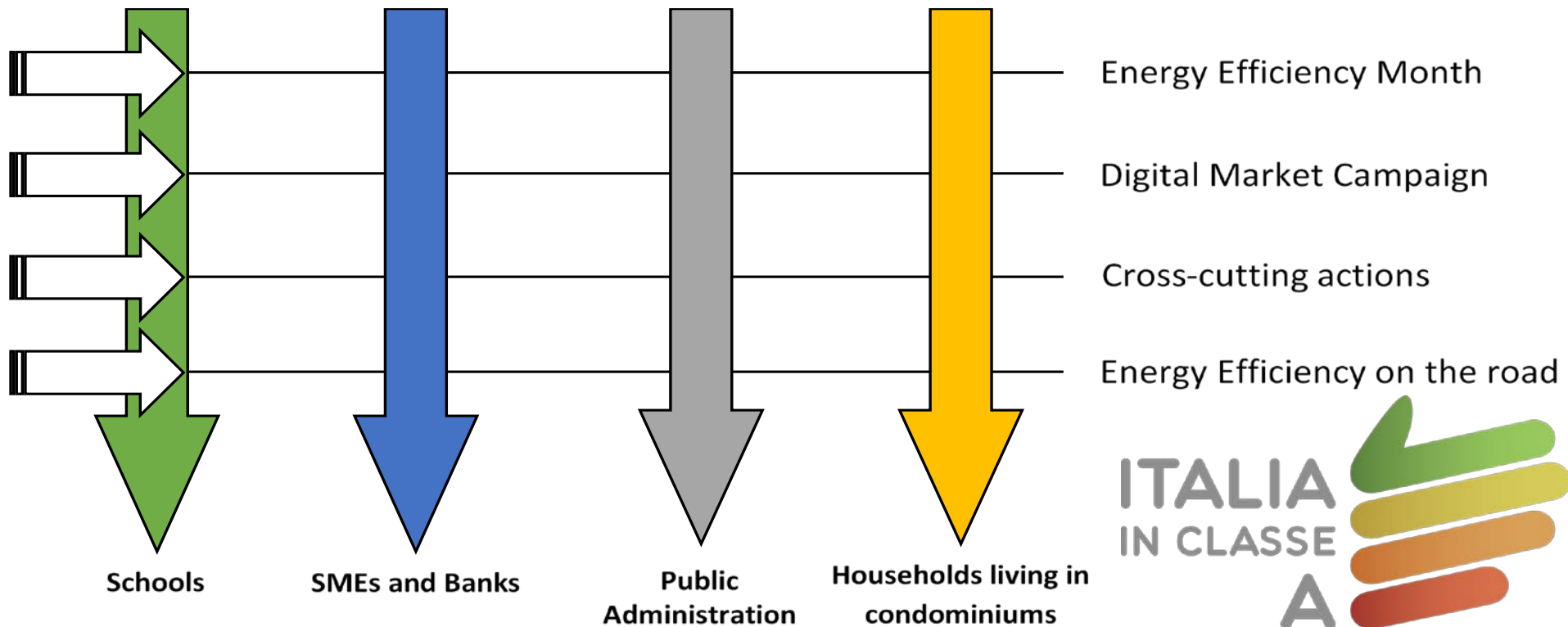
February 7<sup>th</sup>, 2017: one day of brain storming for the definition of the activities of the second year of the Programme.

Anaylisys of barriers, key messages to be delivered and related tools and actions for:

- SMEs and large enterprises
- Credit sector
- Public bodies
- Households and blocks of flat



# 3-year Information & Training Programme: projects



Source: ENEA



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FOR ENERGY EFFICIENCY  
ENEA

# 3-year Information & Training Programme: language / 1



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Twitter



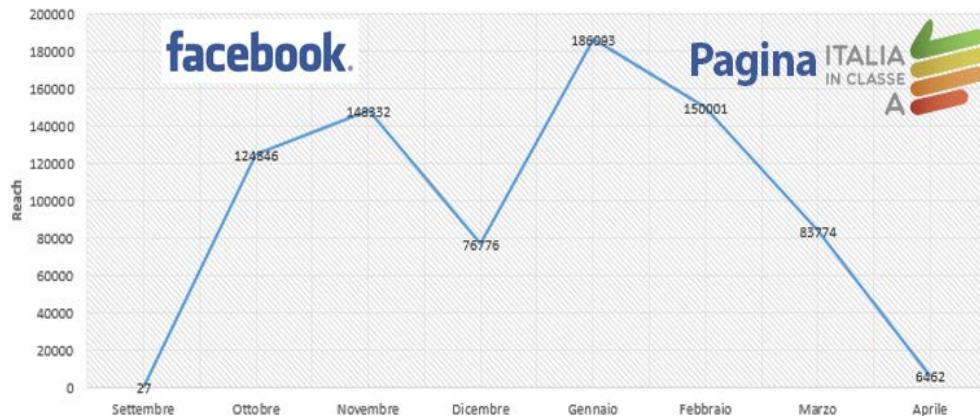
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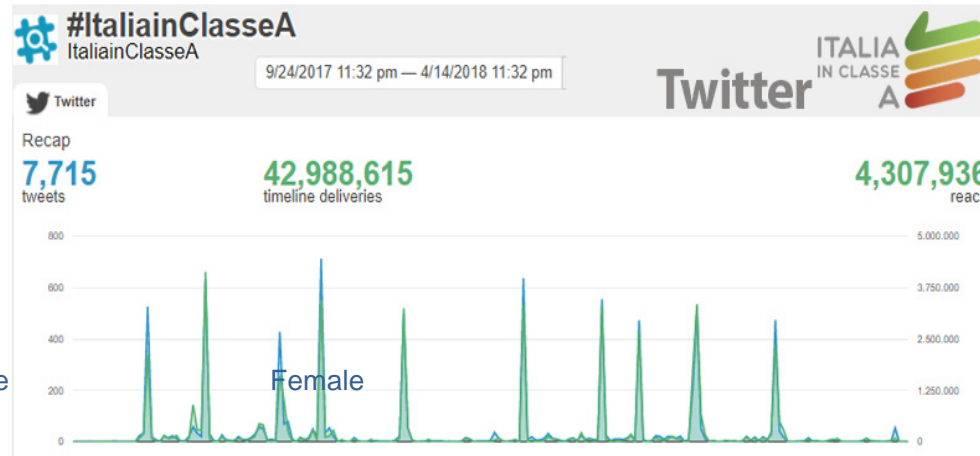
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LinkedIn



Source: Facebook



Source: Twitter

# 3-year Information & Training Programme: language / 2



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Twitter



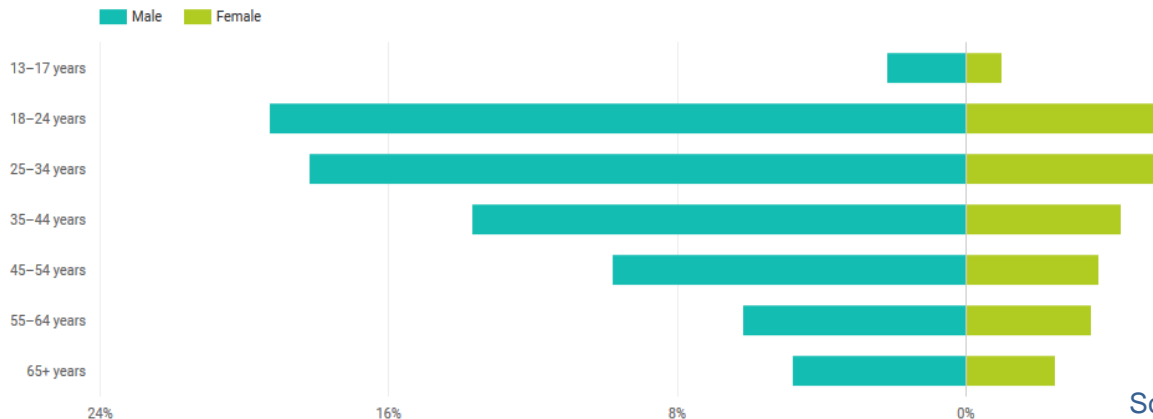
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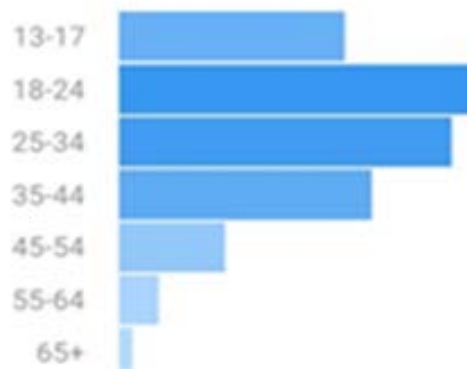
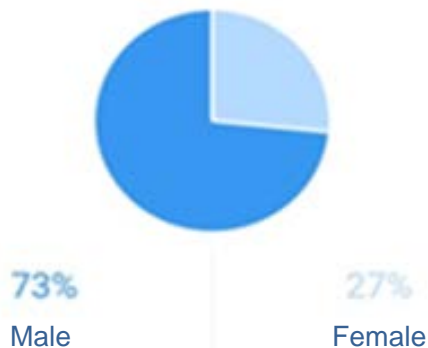
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# 3-year Information & Training Programme: language / 3



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Twitter



Youtube

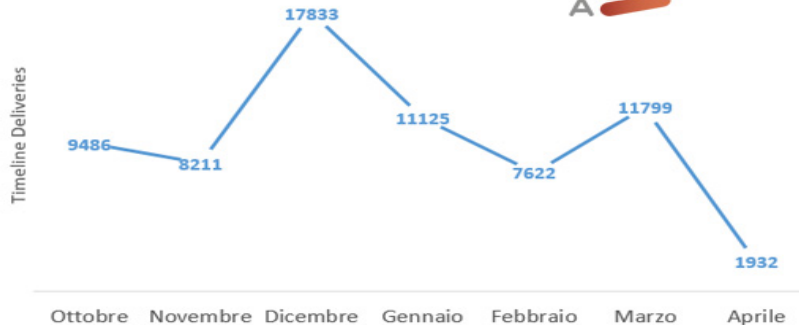


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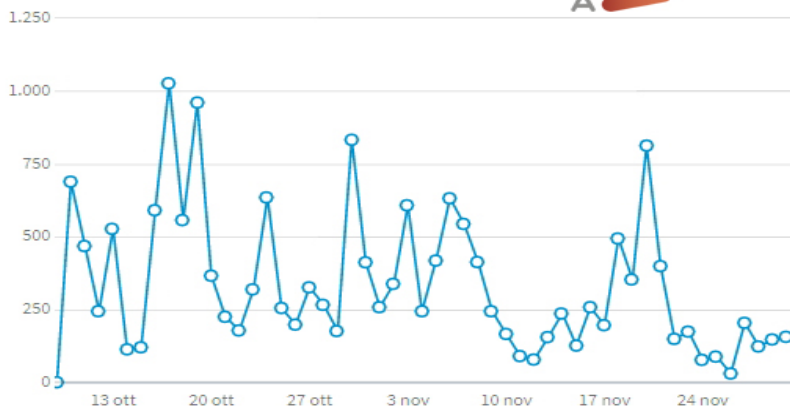


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Source: LinkedIn

# Next steps



- **Ecobonus: credit transfer**
- **(Deep or NZEB) Renovation of (public) buildings**
- **Energy audits (in SMEs)**
- **Energy poverty**
- **Bankability of projects**
- ***One-stop-shops***
- **ERDF and Cohesion Funds**



# SWOT analysis

## Strengths

- Consolidated incentive mechanisms
- Developed ESCo sector
- Developed accreditation/certification system
- Structural Funds planned at a regional level
- High participation in the Covenant of Mayors

## Weaknesses

- Requirement of specialised skills for ESCos and the banking sector
- Difficulty in implement long-term projects with the best cost/effectiveness ratio
- Low participation in life-long learning
- Negative trend in the construction and automotive sectors

## Opportunities

- Potential still high in different areas, with long-term effects
- Flexibility of Energy Performance Contract
- Sharing information and project standardisation
- Readdressing measures towards 2020 goals
- Dissemination of an energy saving culture

## Risks

- Difficulty in accessing credit
- Constraints on public spending for public sector projects
- Short-term vision of entrepreneurs
- Poor economic attractiveness of projects/investments
- Regulatory instability

GRAZIE!  
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