



**4th AIEE Energy Symposium:
“Current and Future Challenges to Energy Security”**

The main results of the 2nd Italian Catalogue of Environmentally Harmful and Friendly Subsidies

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(*) The views expressed in this presentation are those of the author and should not be reported as or attributed to the Ministry or to the organizations with which he cooperates



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

(Rome, December 11, 2019 – LUMSA University)

SOGESID SPA
INGEGNERIA TERRITORIO AMBIENTE

CATALOGUE of ENVIRONMENTAL SUBSIDIES (CSA)



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

CATALOGO DEI SUSSIDI AMBIENTALMENTE FAVOREVOLI E DEI SUSSIDI AMBIENTALMENTE DANNOSI 2016

COME STABILITO DALL'ARTICOLO 68 DELLA LEGGE 28 DICEMBRE 2015, N. 221
("DISPOSIZIONI IN MATERIA AMBIENTALE PER PROMUOVERE MISURE DI GREEN ECONOMY
E PER IL CONTENIMENTO DELL'USO ECCESSIVO DI RISORSE NATURALI")
DETTA COLLEGATO AMBIENTALE
(GU SERIE GENERALE N. 13 DEL 18-1-2016)



Direzione Generale per lo sviluppo sostenibile, per il danno ambientale e per i rapporti con l'Unione
Europea e gli organismi internazionali (SVI) - U.A.T. Sogesid

DICEMBRE 2016



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LUGLIO 2018

Seminar Overview

- The aim of the Catalogue.
- Definition and classification of subsidies.
- Evaluation methodology.
- Overview of the main results.
- The most important subsidies on energy sector in Italy.
- Conclusions.

Introduction - The guiding principles

- The Catalogue is a **technical tool at the service of Parliament, Government and the scientific community**; it attempts to report all the information made available and the possible and legitimate various evaluations of experts and public bodies. The final evaluations expressed in the Catalogue remain the responsibility of the Directorate General on Sustainable Development, which has taken care of the final drafting.

What's new in CSA 2

- Initiated an **initial screening** on any subsidies in the **tariffs for public services** (electricity, gas, water and waste bills), taking into account the different positions on their inclusion in the list of subsidies (and how to quantify them).
- Expanded the portion of **“implicit” subsidies** to include **royalties**, concession fees that do not take into account the environmental costs associated with the use of natural resources such as gas and oil.
- The “implicit subsidy” also applies to **extraction** activities **from quarries** and riverbeds.

What's new in CSA 2 (2)

- Focus on new measures such as:
 - Tax relief for **company cars** (fringe benefit);
 - **First analysis of the system of waste tariffs** and the link between taxation and circular economy;
 - In-depth analysis dedicated to **fees, taxes and water levies**;
 - **Export credits**.

- **First analysis on Subsidies to Biodiversity:**
 - Main pressures: (i) climate change and greenhouse gases; (ii) land use change, (iii) pollution, (iv) over-exploitation of resources, (v) standardised preferences and (vi) invasive alien species.

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Possible definitions of subsidy

**A subsidy
is...**

...a **transfer of** the state to a private entity

(Source: WTO)

...the result of state action which provides an **advantage** to certain producers and consumers with the aim of reducing their costs or increasing their income

(Source: OECD)

...the difference between the observed price and the marginal social cost of production, which internalizes the damage to society

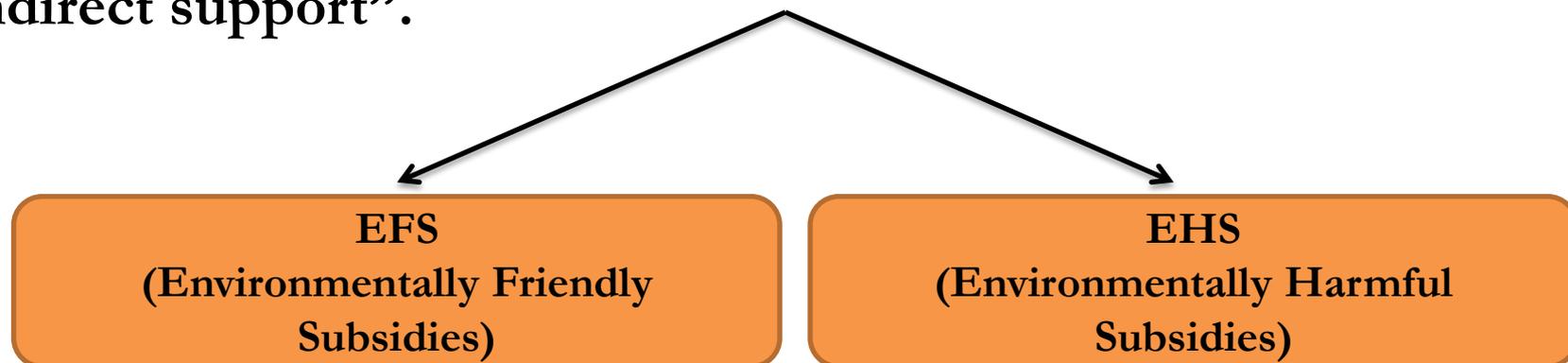
(Source: IMF)

Definition of subsidies - the approach of the Catalogue

Article 68 of the Environmental Annex establishing the Catalogue provides a **very broad definition of subsidy, which includes «incentives, tax benefits, tax credits and exemptions».**

The definition that perhaps comes closest to the provisions of the Environmental Annex is the following, OECD (2006):

“...a measure that either keeps prices for consumers below market levels, or keeps prices for producers above market levels, or reduces costs for producers and consumers, through direct or indirect support”.



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The classification of CSA subsidies: EHS, EFS, or uncertain?

- **EHS:** a subsidy which, *ceteris paribus*, leads to a higher level of pollution, waste, or use of a scarce natural resource or which damages ecosystems and biodiversity.
- **EFS:** a subsidy that leads to a lower level of pollution, waste, or that reduces the use of scarce natural resources or that preserves and increases the quality of ecosystems and biodiversity (includes transfers provided to production activities that have as their primary purpose the protection of the environment).
- **Uncertain:** a subsidy that causes different types of environmental effects that have contrasting effects (some positive, some negative) and for which the available literature does not provide adequate tools to arrive at an assessment of the overall net effect. These subsidies are examined in the Catalogue, but as more detailed information is required, they are classified as “Uncertain”.
- **Subsidies that do not have significant environmental effects (neither positive nor negative) are excluded from the Catalogue.**

The procedure for the environmental assessment of subsidies

The assessment of the environmental effects of an incentive scheme is a complex activity, which must be based on scientific evidence, in particular when examining aspects of uncertainty.

The evaluation involves the following activities, which are often interlinked:

- 1) The **review and selection** of subsidies of potential environmental relevance, present in the existing legislative system, in particular by examining budget laws.
- 2) **Analysis of the effects on the environment**, including any externalities, positive or negative (impacts of direct environmental effects, such as human well-being and health, ecosystems, economic activities), and the final assessment by classification (EHS, EFS, uncertain).
- 3) The quantification of the **financial effect of the grant**. Where possible, the MEF source (e.g. annual tax expenditure report) has been used. In some cases of indirect subsidies, the estimate was made by the working group, adopting the method of the increase (or loss) of revenue resulting from the removal (or introduction) of the measure in question, *with unchanged behaviour on the part of taxpayers*.

The evaluation form of each subsidy

Sector:	Energy (Energy, Transport, Agriculture and Fisheries, Other, reduced VAT)		
Subsidy name (title)	Reimbursement of the additional burden resulting from the increase in excise duty on diesel used as fuel for the carriage of goods by road and other categories of passenger transport.		
[Subsidy CSA Code]	-		
Regulatory reference:	DPR 277/2000; Art. 6, paragraph 2, of Legislative Decree no. 26/2007, and related provisions; 2) Art. 61, paragraph 4, of Legislative Decree no. 1 of 24 January 2012; art. 24-ter of the TUA. This article was inserted in the same TUA by art. 4-ter, paragraph 1, letter f) of Legislative Decree no. 193 of 22 October 2016, converted, with amendments, by Law no. 225 of 1 December 2016. (The advantage is to be understood as a continuation of art. 6, paragraph 2, of Legislative Decree no. 26/2007).		
Co-financing from the EU:	No (Yes/No)		
Year of introduction:	2010		
Year of cessation (if any):	None		
Description:	Information on the main characteristics of the subsidy		
Type of subsidy:	Tax credit - Indirect subsidy		
Rate:	Ordinary:	Reduced:	
- Diesel fuel:	617,40 €/1000 litres	403,21 €/1000 litres	
Level of “reformability”:	National		
Subsidy qualification	EHS		
Reason (environmental assessments, scientific literature, indicators, etc.)			
Financial effect (mln €)*	2016	2017	2018
	1,264.42	1,257.34	1,264.40
* Actual disbursement until 2017			

Environmental analysis and assessment tools

1) Literature Review:

- Studies of scientific literature.
- Reports.
- Environmental assessment manuals.
- Institutionally Approved Environmental Assessment Guidelines.

2) Environmental indicators:

- Environmental accounting Istat (Namea).
- Emission inventories and ISPRA indicators.
- Environmental indicators of sustainable development.

3) Regulatory references.

Examples:

- Definition of alternative fuels (Directive 2014/94/EU «DAFI»).
- Definition of renewable energy sources (Directive 2018/2001/EU).

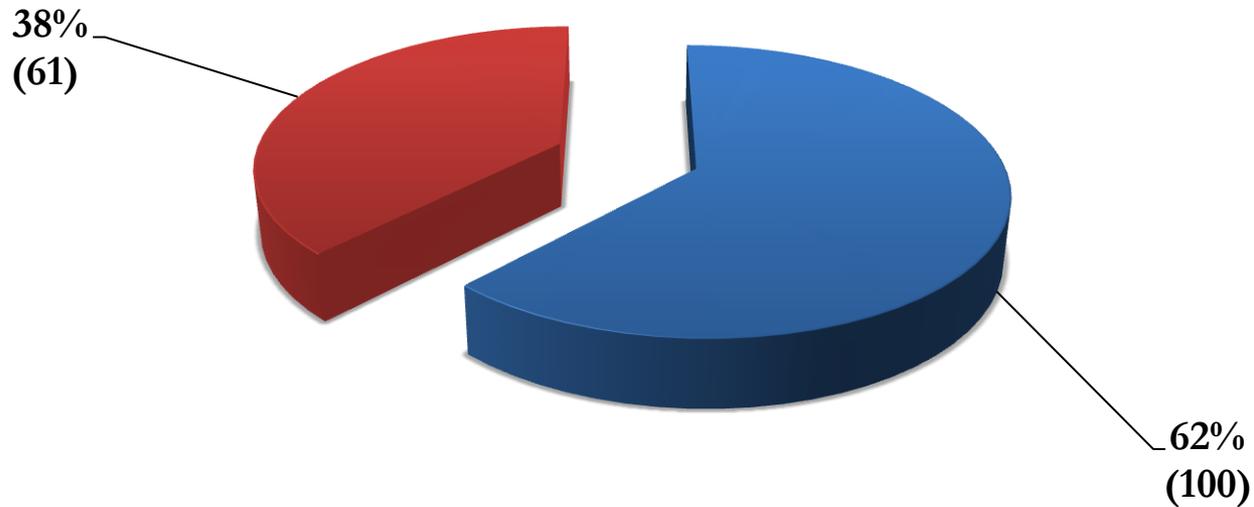
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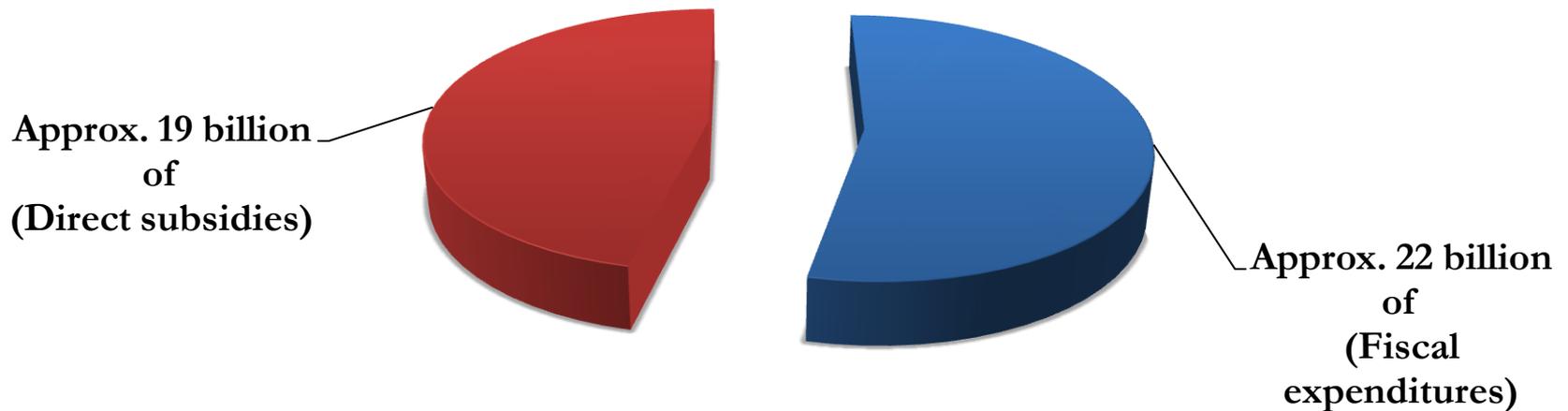
Overview of the main results CSA 2

- 161 measures identified and estimated at approx. 41 billion Euro.
- 5 sectors (Agriculture & Fisheries, Energy, Transport, Other subsidies and reduced VAT).
- 100 tax expenditures, 61 direct subsidies.
- Estimate of approx. 22 billion Euros of Tax Expenditures.
- Estimate of about 19 billion Euros of Direct Subsidies.
- Estimated 19,3 billion Euros of EHS.
- Estimate of 15,2 billion Euros of EFS.

Total number of measures (n°)



Financial Effects (€)

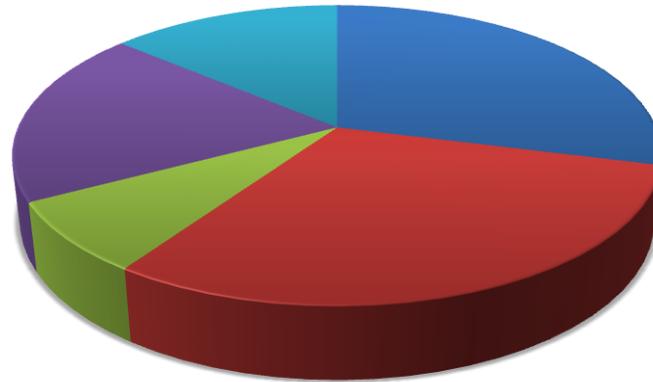


Number of subsidies - Sectors (n°)

Reduced VAT 14%
(22)

Other subsidies 22%
(36)

Transport 8%
(11)



Agriculture 28%
(46)

Energy 28%
(46)

- Agriculture & Fisheries
- Energy
- Transport
- Other subsidies
- Reduced VAT

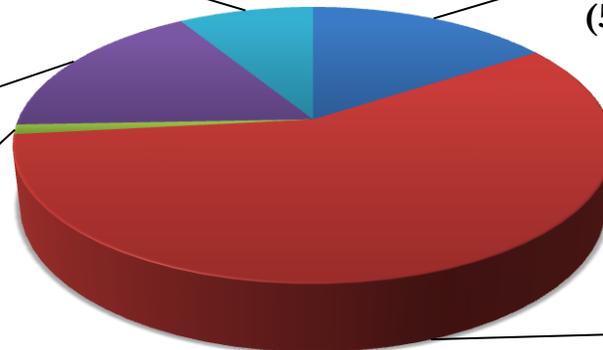
Financial effects - Sectors (€)

Other subsidies 8%
(3 billion €)

Agriculture
& Fisheries 15%
(5,9 billion €)

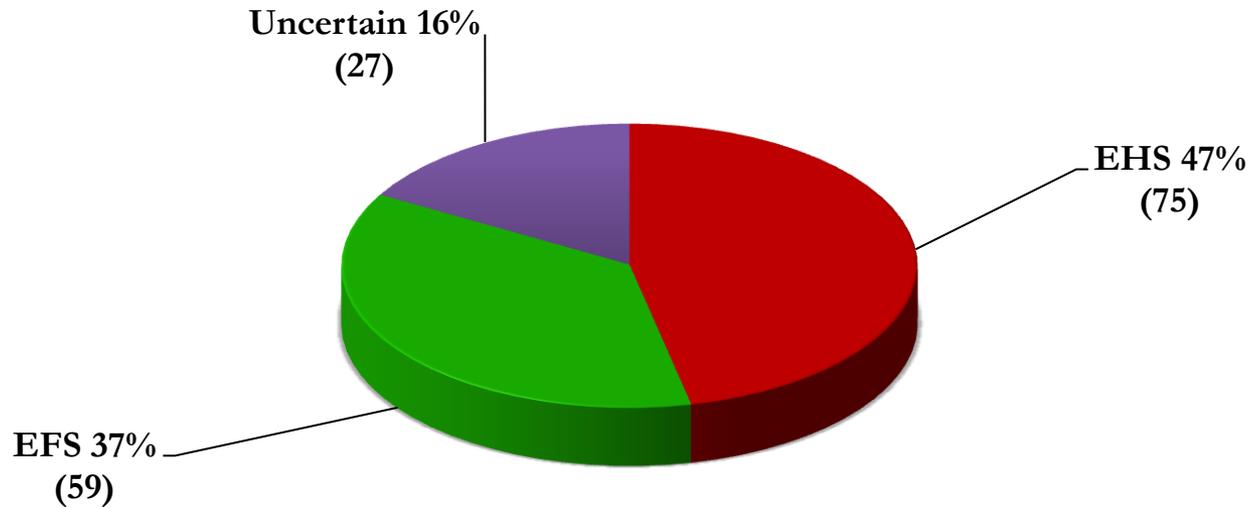
Reduced VAT 15%
(6,1 billion €)

Transport 4%
(1,5 billion €)

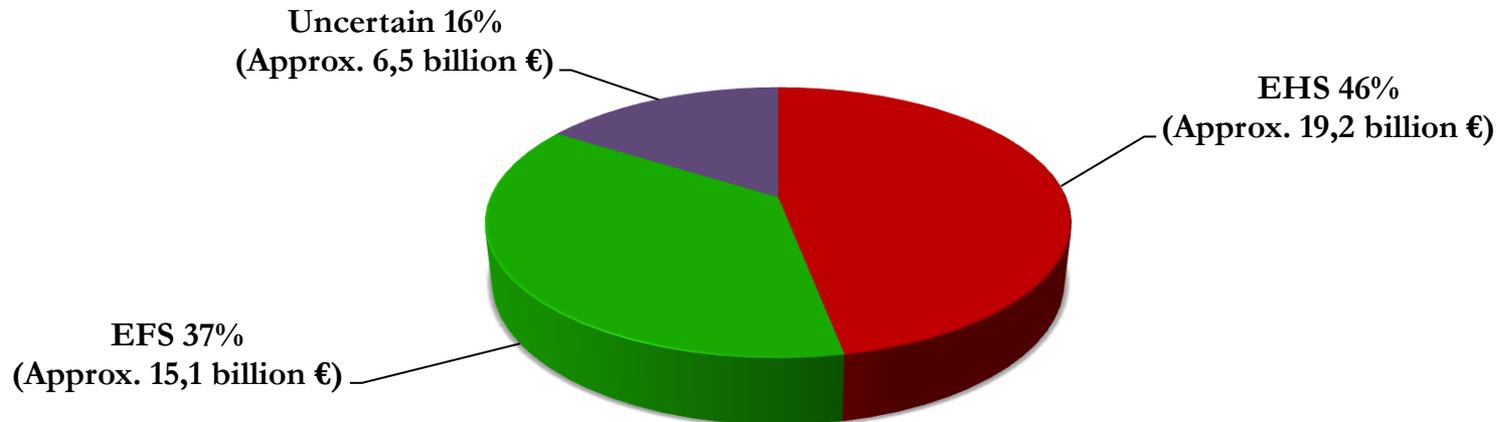


Energy 58%
(24,4 billion €)

Number of subsidies – Env. Effects (n°)



Value of subsidies – Financial Effects(€)



CSA 1 vs CSA 2 and FFSs

Sector	2016		2017	
	Number of measures	Financial effect (mln €)	Number of measures	Financial effect (mln €)
Agriculture & Fisheries				
Indirect subsidies	4	308.09	5 (1)	305.99
Direct subsidies	38	5,513.55	41 (3)	5,630.86
Total	42	5,821.64	46 (4)	5,936.85
Energy				
Indirect subsidies	37	10,836.63	37	11,556.06
Direct subsidies	9	13,011.33	9	12,872.93
Total	46	23,847.96	46	24,428.99
Transport				
Indirect subsidies	5	1,425.00	6 (1)	1,437.70
Direct subsidies	4	105.40	5 (1)	99.10
Total	9	1,530.40	11 (2)	1,536.80
Other subsidies				
Indirect subsidies	20	1,980.36	30 (8)	2,534.24
Direct subsidies	5	198.92	6	490.01
Total	25	2,179.28	36 (8)	3,024.25
Reduced VAT				
Indirect subsidies	22	6,188.90	22	6,127.48
Total II CSA	144	39,568.18	161 (14)	41,054.37
of which FFS	45	16,085.30	45	16,807.03

CSA 2 and FFSs

	Financial effect (€ million)	
	2016	2017
EHS	18,789.79	19,367.55
<i>of which FFS</i>	<i>16,085.30</i>	<i>16,807.03</i>
Uncertain classification	6,285.26	6,433.91
EFS	14,493.13	15,252.91
Total	39,568.18	41,054.37

Overview of the main results CSA 2

Subsidy Sectors	EHS	EFS	Uncert ain	Total (mln €)	Total (%)
Agriculture	279	1.336	4.322	5.937	14,5%
Energy	12.237	12.116	76	24.429	59,5%
Trasport	1.435	38	64	1.537	3,7%
Other	655	1.675	694	3.024	7,4%
VAT	4.685	27	1.416	6.127	14,9%
Total (mln €)	19.292	15.191	6.572	41.054	100,0%
Total (%)	47,0%	37,0%	16,0%	100,0%	

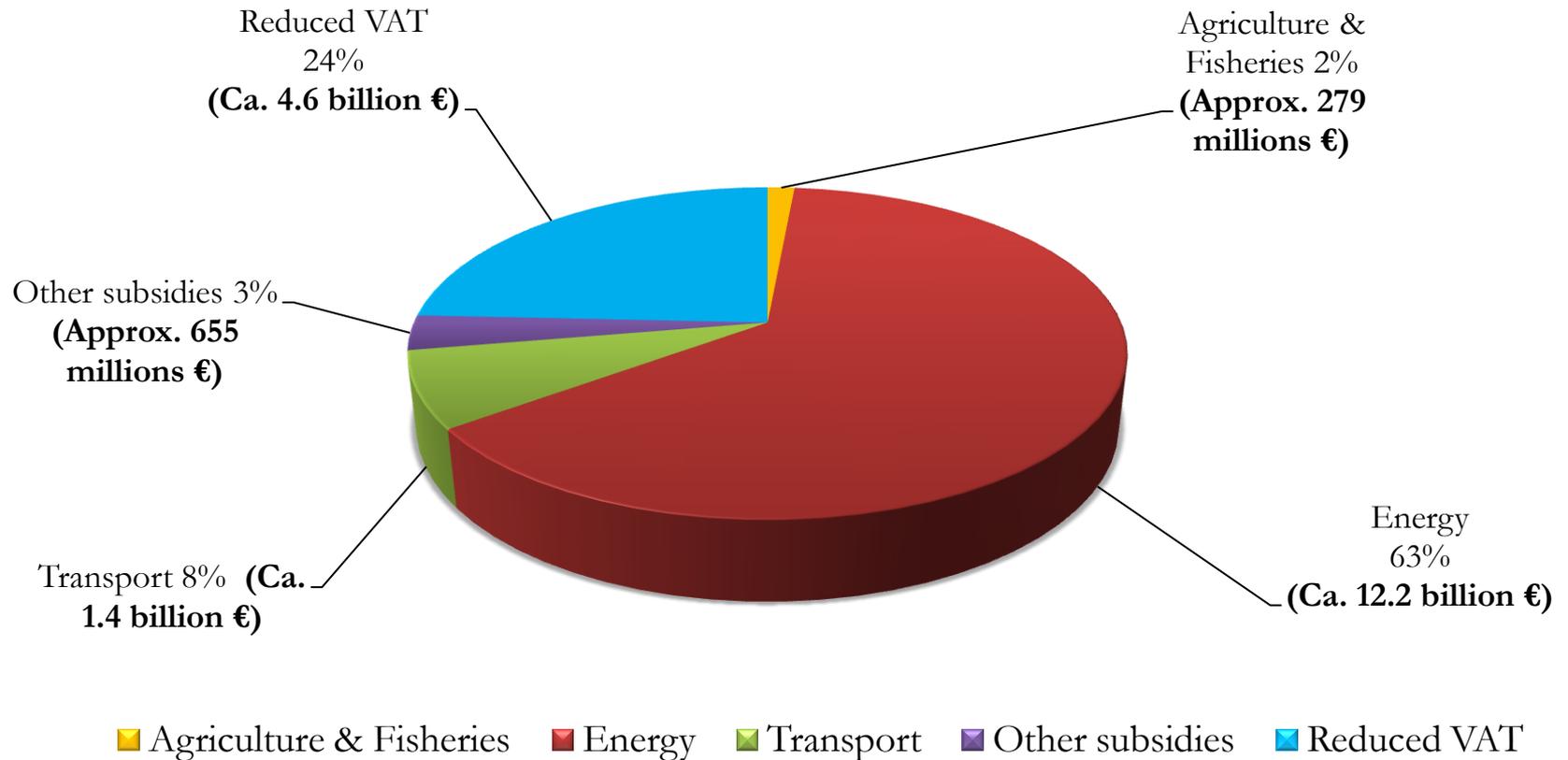
Of the approximately 41 billion subsidies analysed, tax expenditures are higher than direct subsidies.

- Estimate of 19.3 billion Euros of EHS
- Estimate of 15.2 billion Euros of EFS

Summary table of EFSs - 2017

Sector	EFS		
	number of measures	Financial effect (mln €)	
		2016	2017
Agriculture & Fisheries			
Indirect subsidies	2	3.80	3.80
Direct subsidies	22	1,186.11	1,394.08
Total	24	1,189.91	1,397.88
Energy			
Indirect subsidies	4	79.81	83.20
Direct subsidies	5	12,058.00	12,032.40
Total	9	12,137.81	12,115.60
Transport			
Indirect subsidies	2	3.00	3.00
Direct subsidies	3	40.00	35.00
Total	5	43.00	38.00
Other subsidies			
Indirect subsidies	16	1,089.56	1,663.84
Direct subsidies	3	8.10	10.86
Total	19	1,097.66	1,674.70
Reduced VAT			
Indirect subsidies	6	24.75	26.73
Total measures (2017)	63	14,493.13	15,252.91

EHS by Sectors (%/€)



Energy:

Tax expenditures (30) = approx. 11,3 billion € (93%)

Direct subsidies (3) = approx. 840 million € (7%)

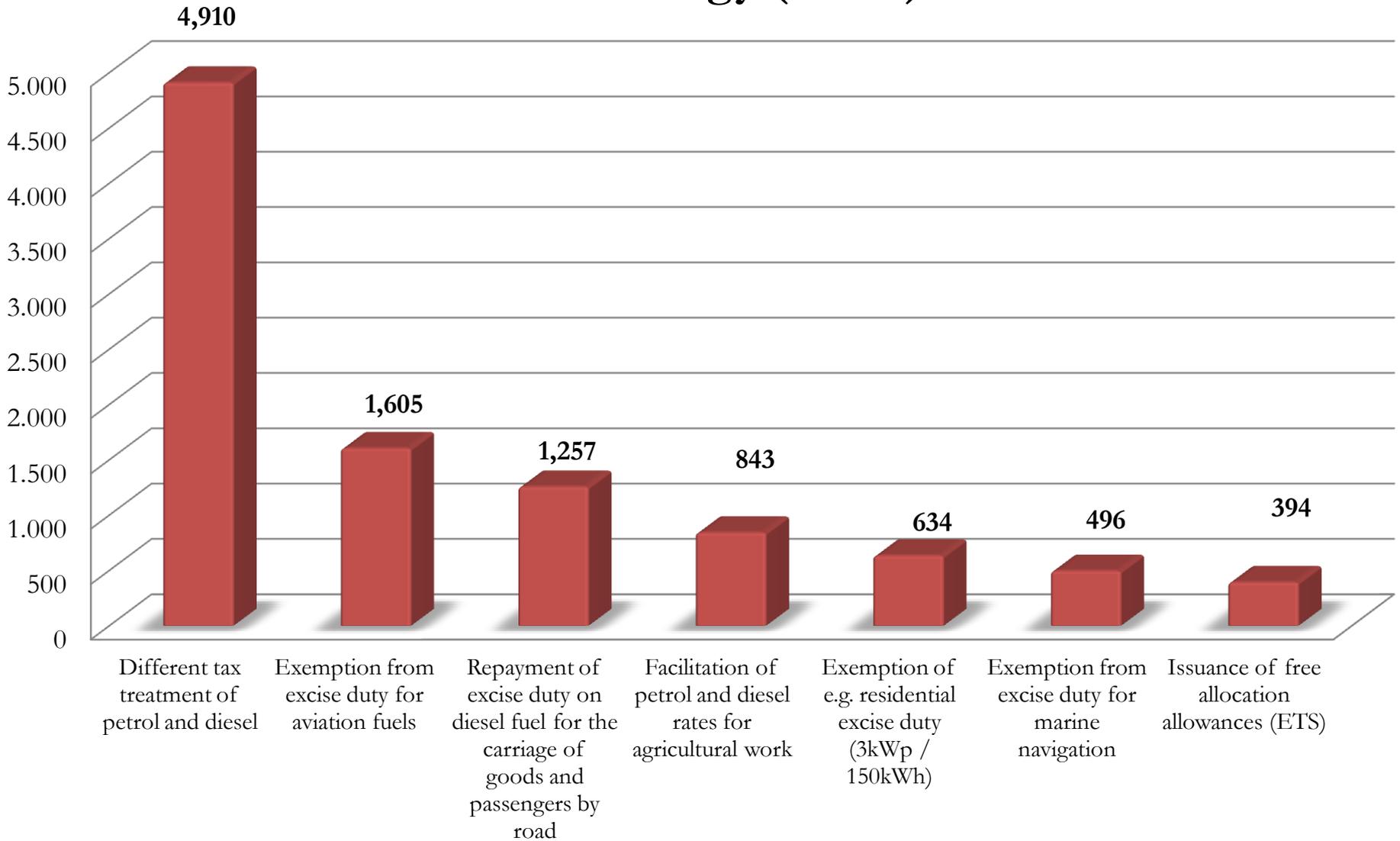
VAT:

Tax expenditures = 4,6 billion €

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EHS Energy (mln €)



EHS by sector and level of reformability (year 2017)

Level of reformability	Agriculture & Fisheries	Energy	Transport	Other sectors	Reduced VAT	Total
International level						
International/national level		2,101.9		d.sth.		2,101.9
European level	271.9	394.6				666.5
European/national level						
National level	7.5	9,816.9	1,434.7	655.3	4,684.7	16,599.1
Total EHS	279.4	12,313.4	1,434.7	655.3	4,684.7	19,367.5

Uncertain by sector and level of reformulability (year 2017)

Level of reformability	Agriculture & Fisheries	Energy	Transport	Other sectors	Reduced VAT	Total
International level						
International/national level						
European level	3,650.3					3,650.3
European/national level	4.0					4.0
European/Regional level	310,6					310.6
National level	294.7		64.1	694.3	1,416.0	2,469.1
Total Uncertain	4,259.6		64.1	694.3	1,416.0	6,433.9

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Conclusions

Reforming friendly subsidies and eliminating harmful subsidies remains in the hands of **political will**, as does **reusing revenues**. From this point of view, analysts can offer, inspired by OECD and EU, at least 5 main **options**:

- (a) **to eliminate** other forms of taxation that are more market and production-distorting (e.g. labour and business);
- (b) finance **environmentally relevant activities**, starting with eco-innovation;
- (c) finance other **non-environmental activities** relevant to sustainable development (e.g. schools, hospitals, mobility);
- (d) contribute to the reduction of accumulated **public debt**;
- (e) finance **international environmental cooperation** (e.g. climate and biodiversity) and **SDGs**;
- (f) a **mix of** the above.

SDG Indicator 12.c: fossil fuel subsidies

- SDG 12.c “Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities”.
- UNEP (UN Environment) is the “custodian” of the indicator. We participated in the Experts Group which developed the methodological document.
- The indicator was promoted by UN-IAEG from Tier III (*no internationally established methodology*) to Tier II (*conceptually clear, has an internationally established methodology and standards are available, but not all countries are collecting data on a regular basis*).

The latest recommendations of the European Semester

- European Semester 2017: “**Shifting the tax burden** from production factors to forms of taxation that do not harm growth, taking steps to reduce the purpose and number of tax expenditures”.
- European Semester 2019: “The number and size of **tax expenditures**, particularly reduced VAT rates, are high and their reform has been systematically postponed in recent years”.

Other international recommendations

- **European Semester:** the need to phase out environmentally harmful subsidies, including those for fossil fuels, and to shift the tax burden from labour to environmental pollution.
- **Green Budget Europe:** Reform of EHSs and removal of fossil fuel subsidies with the introduction of a carbon tax.
- **IEEP/European Commission:** Roadmap for the removal of EHSs:
 - Need for good quality and transparent information
 - Do not act in isolation
 - Build a large coalition

*“We Will Only Attain Ecological Conversion
When It Becomes Socially Desirable.”*

Alexander Langer

*10.9.1994, Speech held at the Talks from
Toblach/Dobbiaco, 10 September 1994.*

**THANKS FOR THE
ATTENTION!**