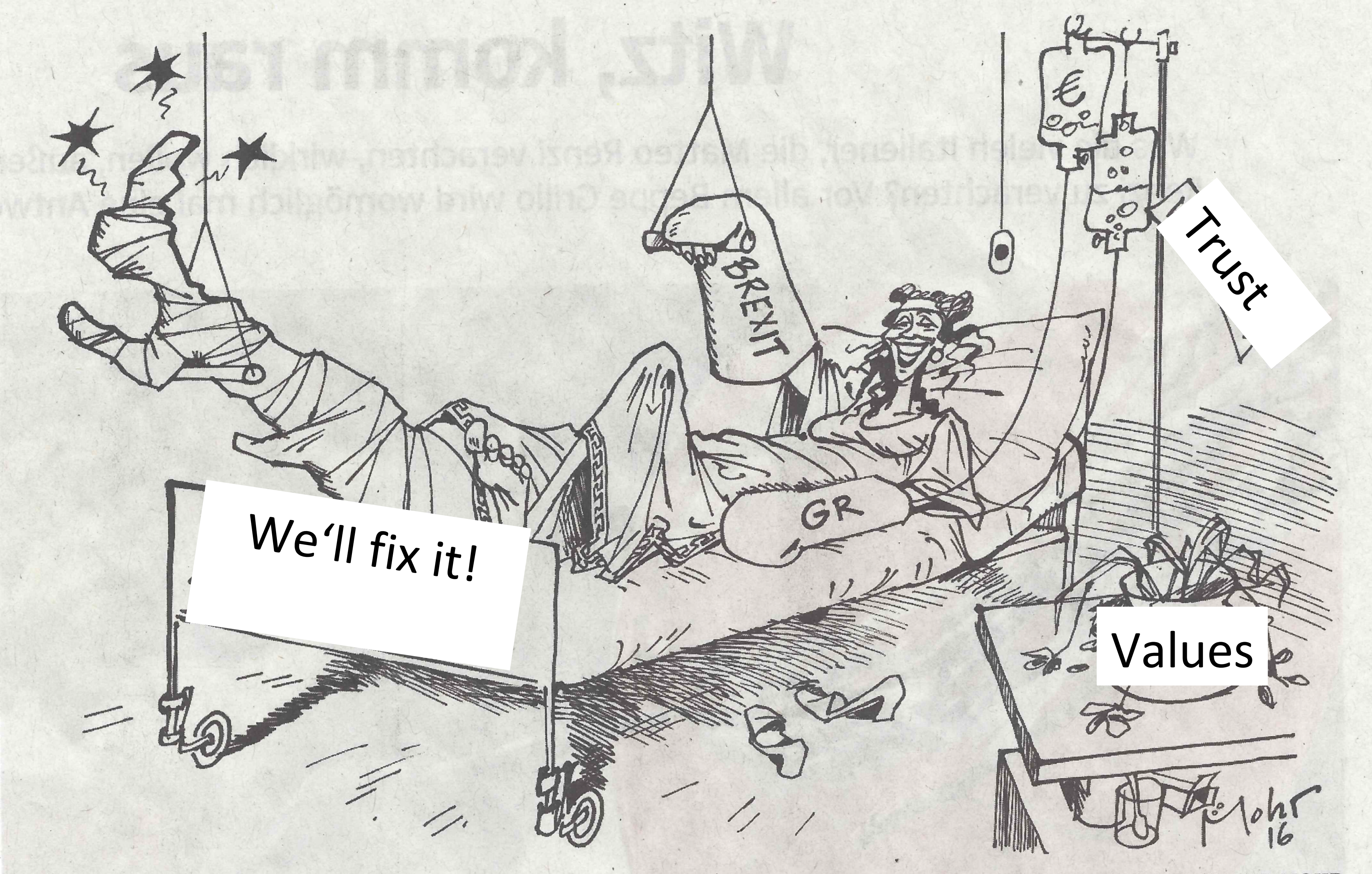
Living well, within the limits of our planet

The role of a Resource-Efficient, Green, and Competitive Low-Carbon Economy – learnings from the 7th EAP and options for the 8th EAP


Healthy environment for healthy people
Information
Implementation
Resource-efficient economy
Natural capital
Living well, within the limits of our planet
Investments
Integration
International challenges
Sustainable cities

We must, indeed, all hang together or, most assuredly, we shall all hang separately.

Benjamin Franklin

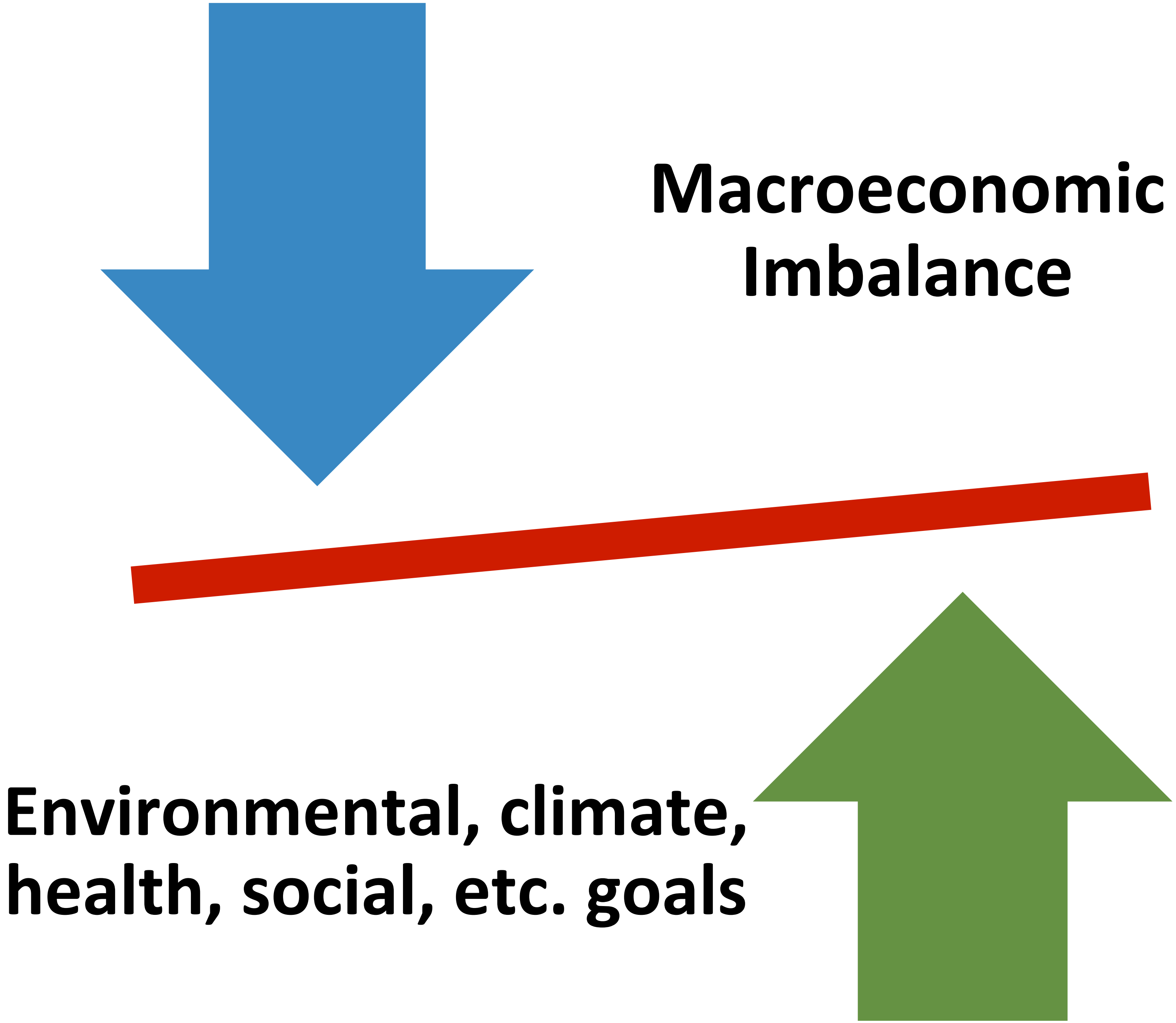


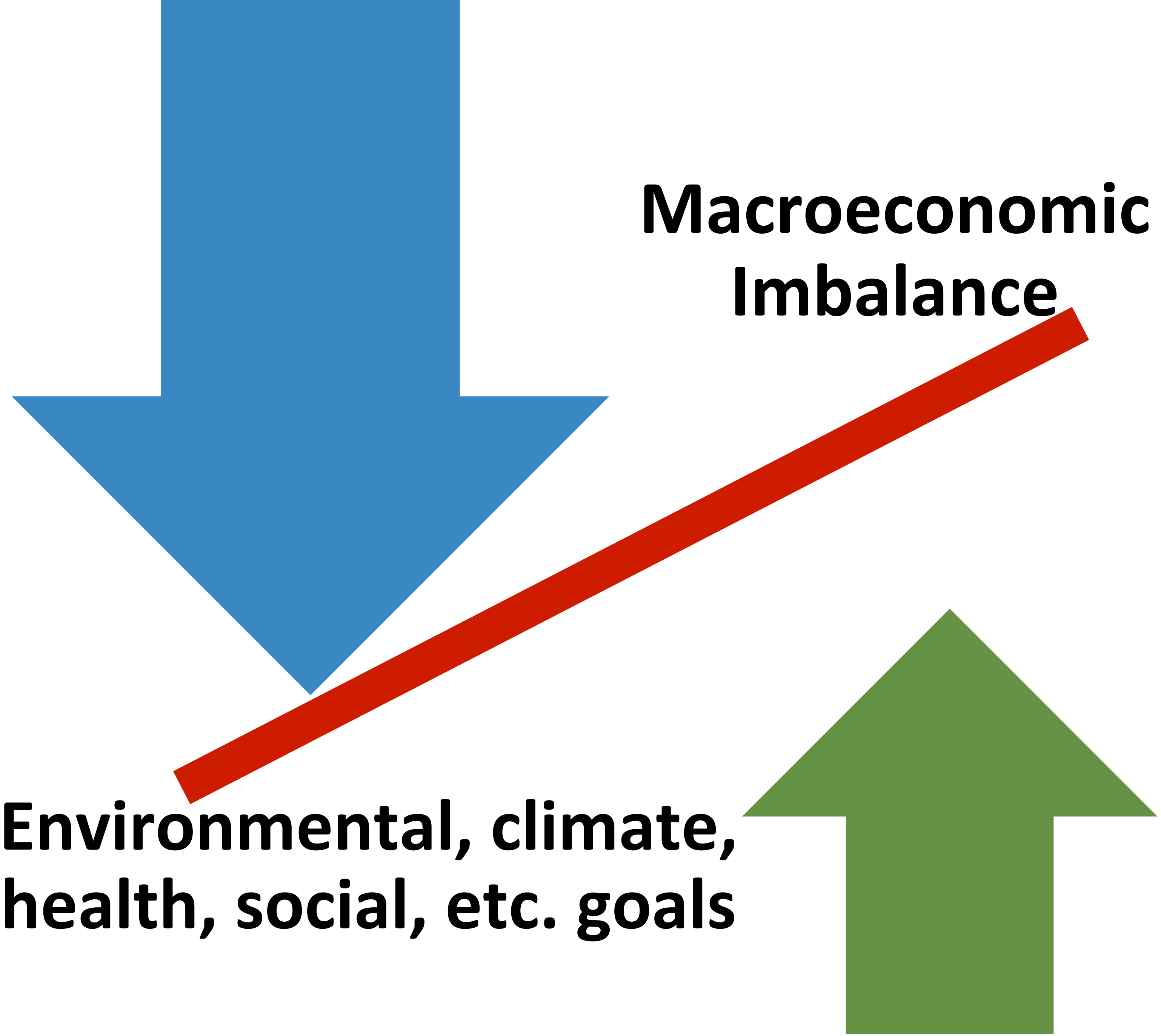
SZ-ZEICHNUNG: BURKHARD MOHR

Süddeutsche Zeitung Nr. 282, Dienstag, 6. Dezember 2016

7th EAP Goal by 2050:
Our young children of today will live half their lives in a low-carbon society, based on a circular economy and resilient ecosystems.

Source: European Commission


Macroeconomic Imbalance
Environmental, climate, health, social, etc. goals


Macroeconomic
Imbalance
Environmental, climate,
health, social, etc. goals

Macroeconomic Imbalance

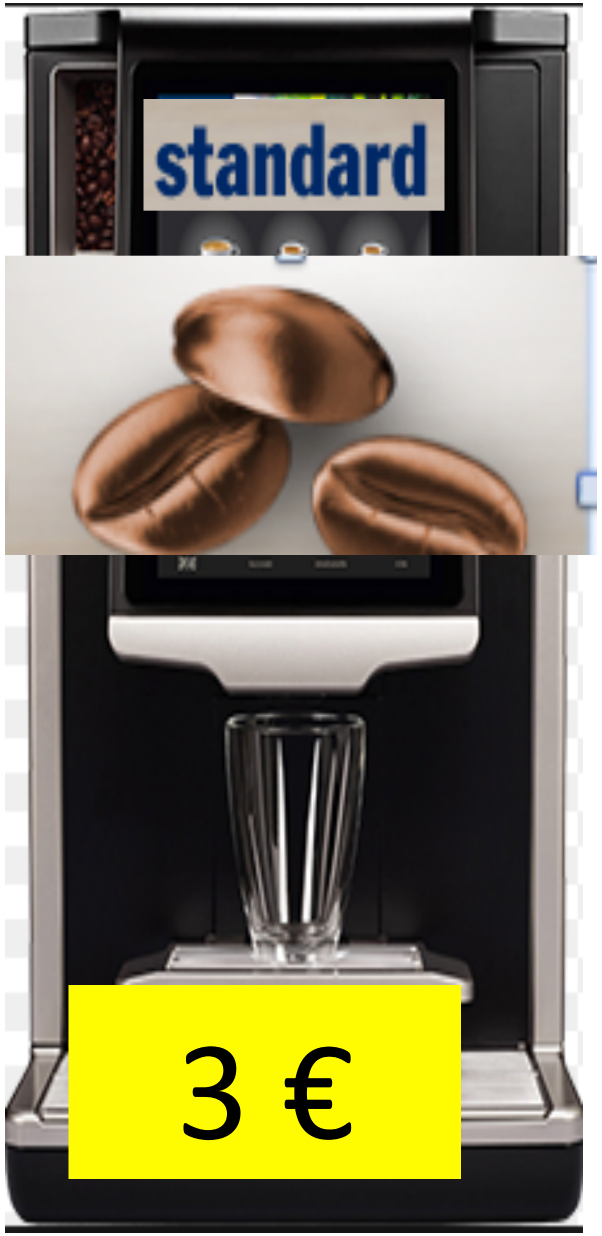
Increased **green growth & jobs**: environmental economy grew by 50% since 2000 – this 8 times faster than the overall economy!

Source: European Commission

- Circular Economy Package (COM/ 2015/614)
- Resource productivity increase to 30% by 2030 could create over two million jobs
- Overall savings potential of € 630 billion per year for European industry
- Potential GDP boost by up to 3,9%
- A reduction of total annual GHG emissions by 2.4%

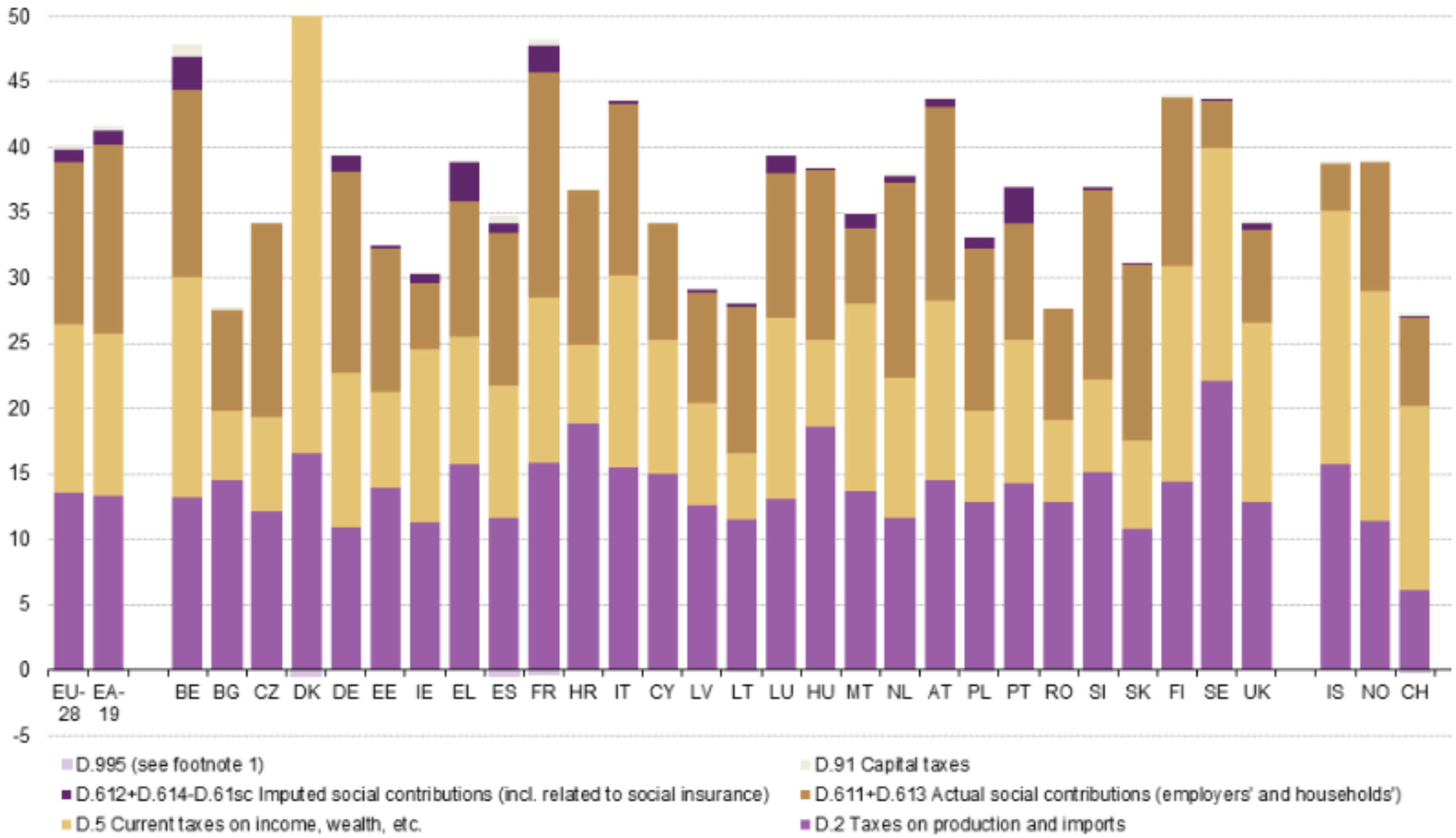
source: *EC Communication "Towards a circular economy: A zero waste programme for Europ*
(COM(2014) 398 final/2)


Is this enough?


standard
3 €

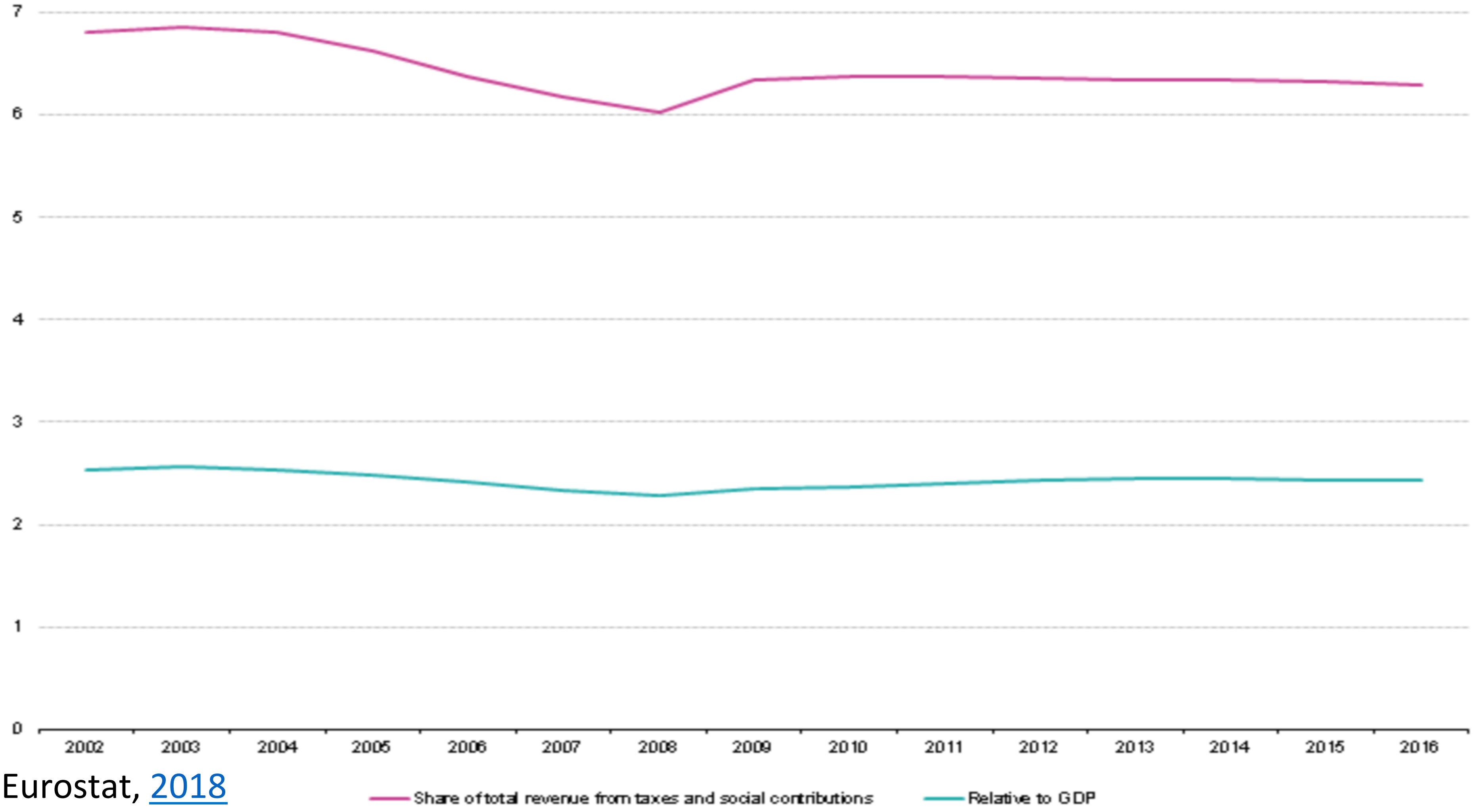

CERTIFIED
FAIRTRADE
1 €

Breakdown of tax revenue by country and by main tax categories (percentage of GDP) 2014



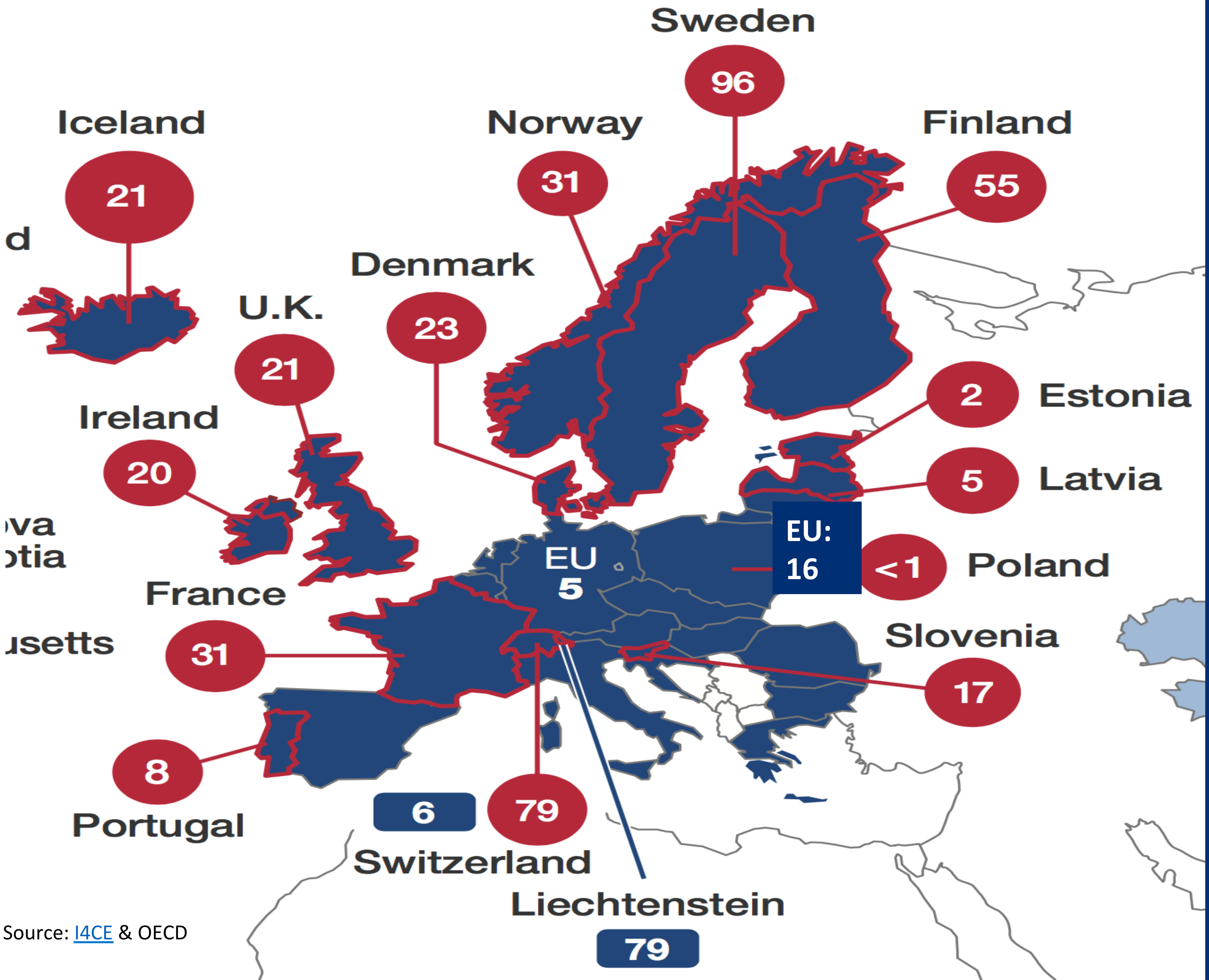
Source: Eurostat, 2016 (online data code: gov_10a_taxag)

Total environmental tax revenue, EU-28, 2002 - 2016



Source: Eurostat, [2018]

Photo: iStock

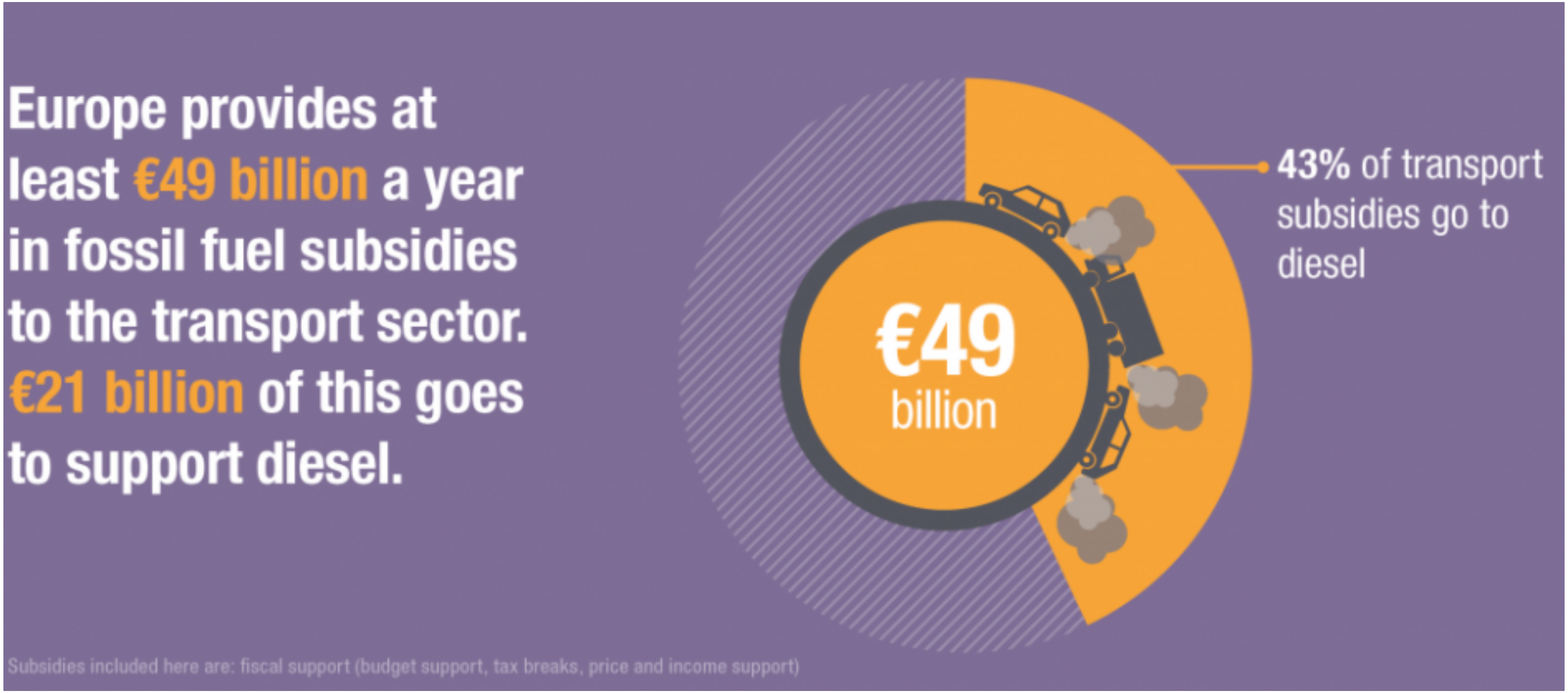


Source: I4CE & OECD

Low carbon society?

- 60% of emissions are subject to no price whatsoever.
- 90% of emissions from energy use are priced at less than EUR 30 per tonne CO2
- **No economic incentives: EU Carbon prices are still too low to prevent climate change, to provide investor certainty**
- **No Paris Compatibility**

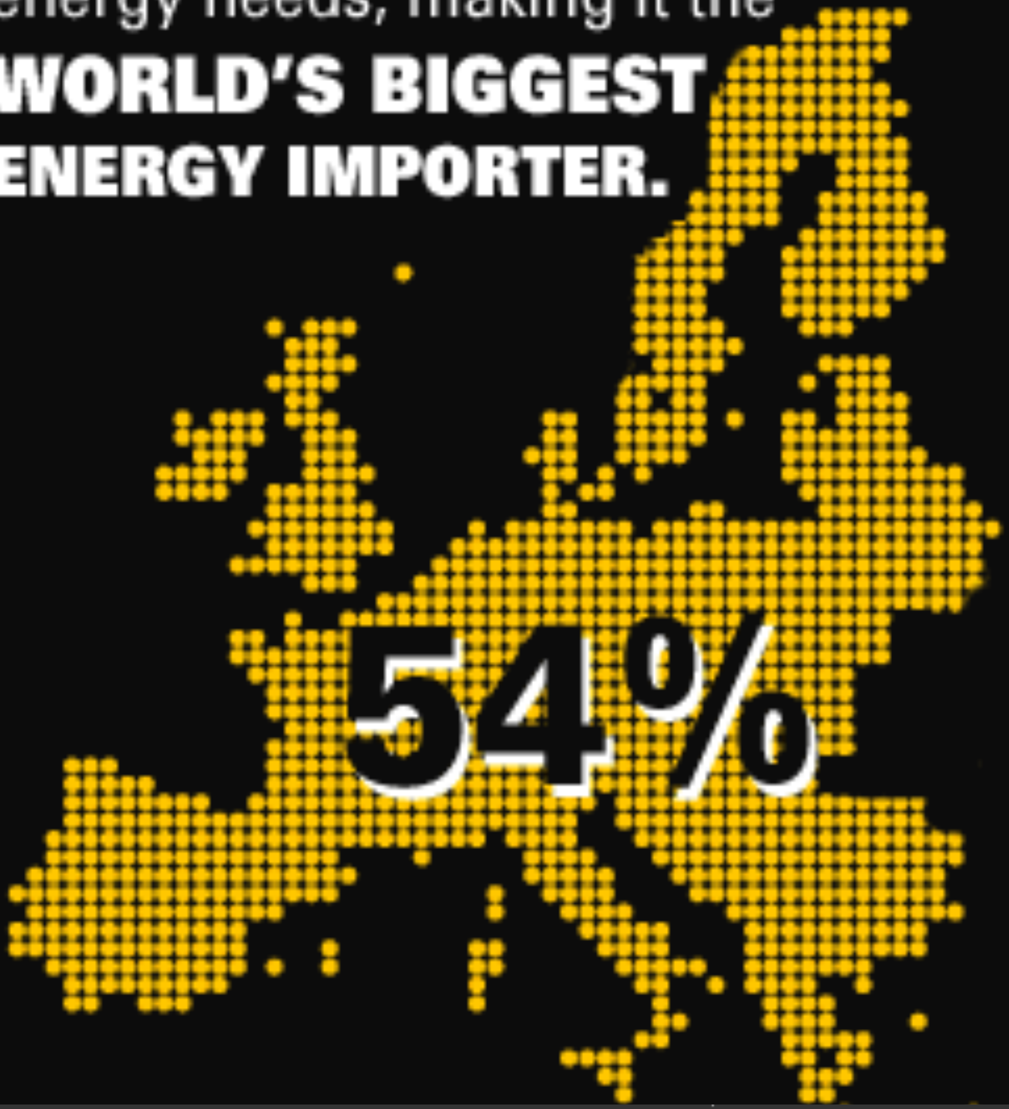
Source: ODI/CAN-E (2017): Phase-out 2020 . Monitoring Europe’s fossil fuel subsidies



Source: ODI/CAN-E ([2017](#)): Phase-out 2020 . Monitoring Europe's fossil fuel subsidies

In 2011, the **EU** relied on foreign imports to meet over 54% of its energy needs, making it the

WORLD'S BIGGEST ENERGY IMPORTER.



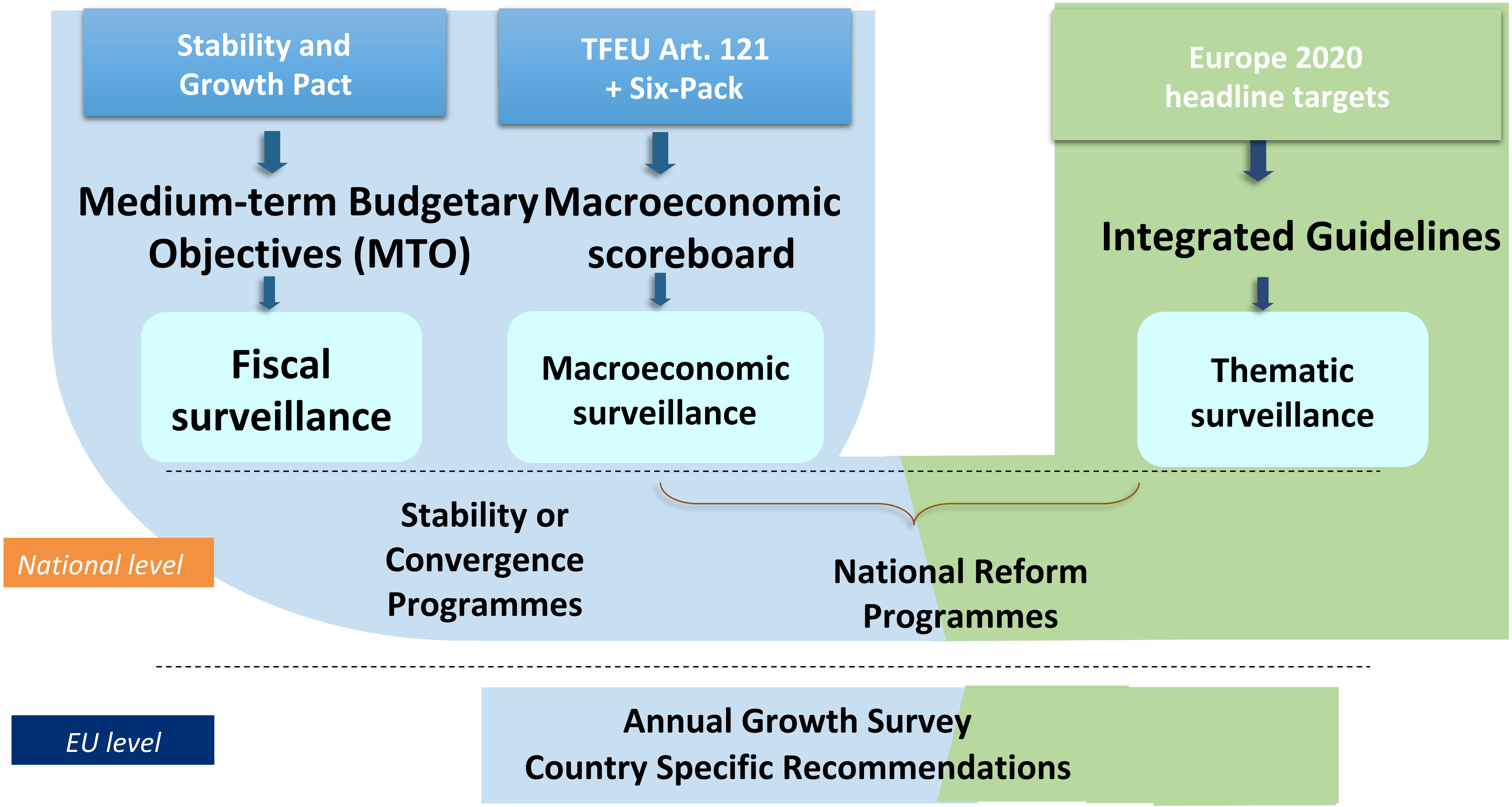
In 2011, **EU oil imports alone** reached **USD488 billion.**

This was **larger** than Poland's entire GDP

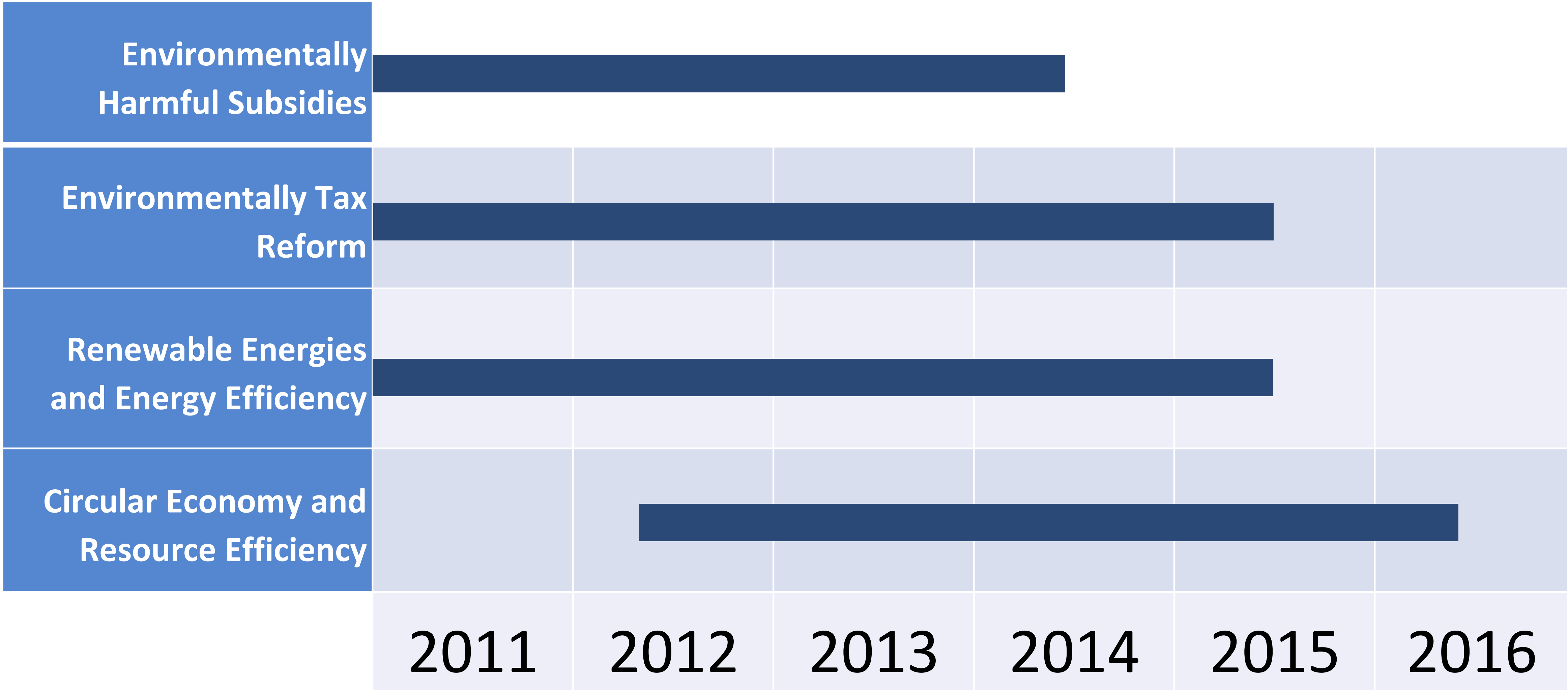
Sources: Eurostat, International Energy Agency, Sustainable Energy Authority of Ireland

Policy Coherence

Hybrid legal architecture



Climate and Energy in Annual Growth Surveys



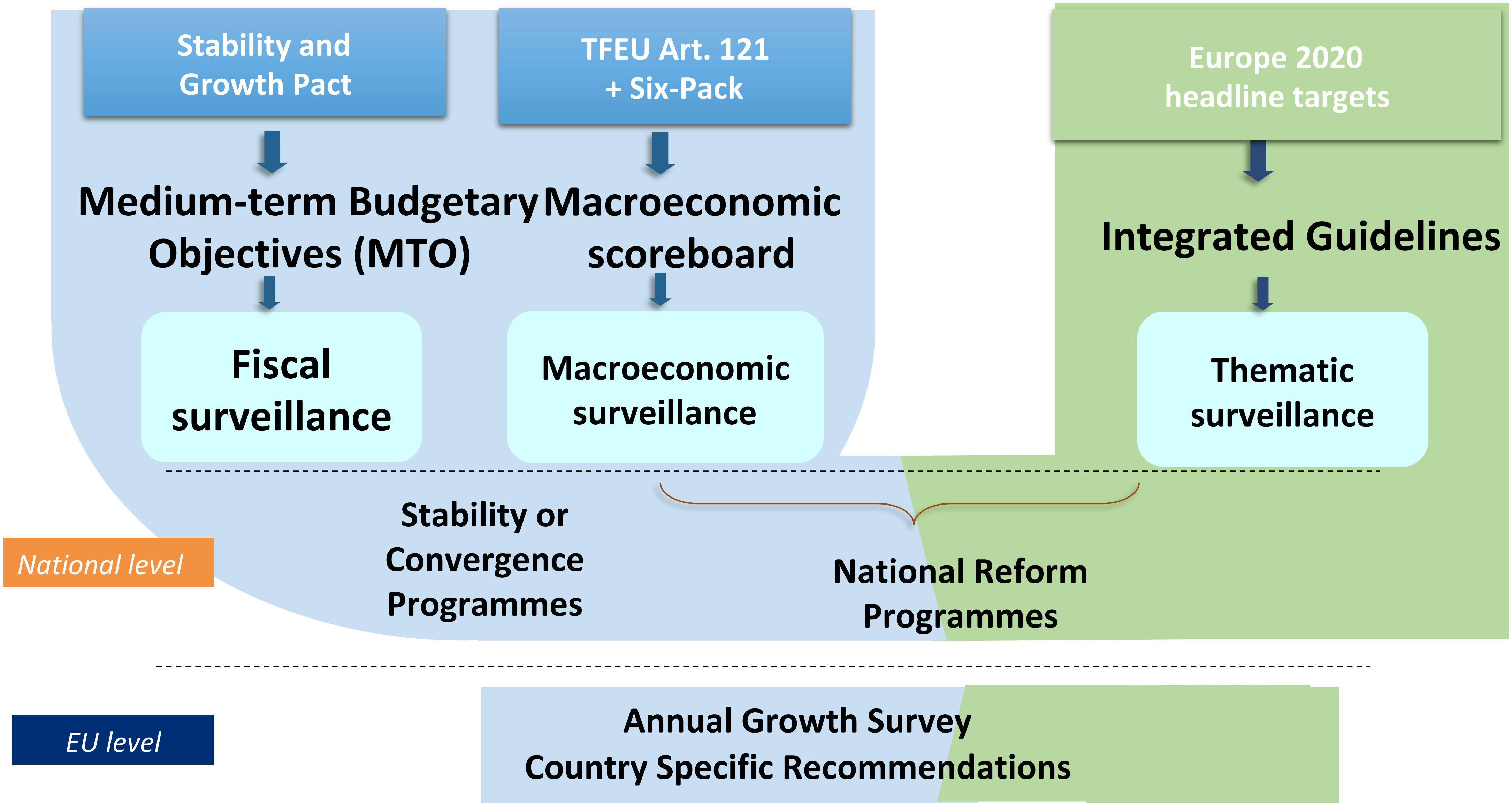
source: European Commission Annual Growth Surveys 2011-2016

2015 and 2016 Country Reports of the EC

	Reports	Reports	Reports	**Reports**	**Diff.**
Summary per issue	2013	2014	2015	**2016**	**16-15**
Environmental taxation	18	22	23	**21**	-2
Environmentally harmful subsidies	8	13	11	**14**	3
Circular economy/ resource efficiency	6	13	14	**18**	4
SMEs resource efficiency	2	4	2	1	-1
Eco-innovation	5	1	2	2	0
Waste management	17	19	15	**16**	1
Water management	7	10	10	**12**	2
Costs of floods / green infra	1	11	2	4	2
Air pollution	5	16	13	**10**	-3
Transport/Congestion & air poll.	4	12	11	**10**	-1
Green growth/Investments	0	2	1	4	3
Green jobs	0	2	0	0	0
Green public procurement	0	0	0	3	3
Sustainable tourism	0	1	2	1	-1
Land management	0	1	1	0	-1
Streamlining env. permits	0	2	4	2	-2
Env. expenditure	1	0	2	0	-2
Impact assessments	2	5	4	0	-4
Total env. references	**76**	**134**	**117**	**118**	**1**

source: European Commission, DG Environment (2015 and 2016) Country Reports

The European Semester: Hybrid legal architecture



Country-Specific Recommendations 2012-2016

	2012	2013	2014	2015	2016
Energy	0	8	17	0	4 BE, CZ, PL, UK
Implement a tax shift / green taxes	12	11	8 CZ, ES, IE, HU, IT, LI, LU, LV	1 LU	1 LV
Remove / reduce environmentally harmful subsidies	0	0	3 BE, FR, IT	0	0

source: GBE analysis on the basis of the CSRs 2012-2016

Scoreboard of Indicators 2017

Indicator	Unit
Current account balance (% of GDP)	3 year average
Net international investment position	% of GDP
Real effective exchange rate	3 years % change
Export market share (% of world exports)	5 years % change
Nominal unit labour cost index (2010=100)	3 years % change
House price index (2010=100), deflated	1 year % change
Private sector credit flow, consolidated	% of GDP
Private sector debt, consolidated	% of GDP
General government gross debt	% of GDP
Unemployment rate	3 year average
Total financial sector liabilities, non-consolidated	% change (1 year)
Activity rate (% of total population aged 15-64)	3 years change in p.p.
Long-term unemployment rate (% of active population aged 15-74)	3 years change in p.p.
Youth unemployment rate (% of active population aged 15-24)	3 years change in p.p.

Auxiliary Indicators

Indicator	Unit
Real GDP	1 year % change
Gross fixed capital formation	% of GDP
Gross domestic expenditure on R&D	% of GDP
Current plus capital account (Net lending-borrowing)	% of GDP
Net external debt	% of GDP
Foreign direct investment in the reporting economy - flows	% of GDP
Foreign direct investment in the reporting economy - stocks	% of GDP
Net trade balance of energy products	% of GDP
Real effective exchange rates – euro area trading partners	3 years % change
Export performance against advanced economies	5 years % change
Terms of trade	5 years % change
Export market share - in volume	1 year % change
Labour productivity	1 year % change
Nominal unit labour cost index (2010=100)	10 years % change
Unit labour cost performance relative to euro area	10 years % change
House price index (2010=100) - nominal	3 years % change
Residential construction	% of GDP
Private sector debt, non-consolidated	% of GDP
Financial sector leverage, non-consolidated	% debt to equity
Employment rate	1 year % change
Young people neither in employment nor in education and training	% of total population aged 15-24
People at risk of poverty or social exclusion	% of total population
People at risk of poverty after social transfers	% of total population
Severely materially deprived people	% of total population
People living in households with very low work intensity	% of total population aged 0-59

Scoreboard of Indicators 2017

Indicator	
Current account balance (% of GDP)	3 year average
Net international investment position	% of GDP
Real effective exchange rate	3 years % change
Export market share (% of world exports)	5 years % change
Nominal unit labour cost index (2010=100)	3 years % change
House price index (2010=100), deflated	1 year % change
Private sector credit flow, consolidated	% of GDP
Private sector debt, consolidated	% of GDP
General government gross debt	% of GDP
Unemployment rate	3 year average
Total financial sector liabilities, non-consolidated	% change (1 year)
Activity rate (% of total population aged 15-64)	3 years change in p.p.
Long-term unemployment rate (% of active population aged 15-74)	3 years change in p.p.
Youth unemployment rate (% of active population aged 15-24)	3 years change in p.p.

Resource efficiency indicator to be included in scoreboard of indicators

RATIONALE:

- Further economic growth will only be possible if absolute decoupling from resource use is achieved
- Increasing resource efficiency leads to job creation and an increased supply security
- Increasing resource efficiency leads to lower environmental impacts, better health and a higher level of well-being
- Circular Economy has got to be embedded in the Semester
- The tax burden needs to be shifted from labour to resource use and the use of eco-system services

Gross d	
Curren	
Net ext	
Foreign flows	
Foreign stocks	
Net tra	
Real e partner	
Export	
Terms	
Export	
Labour	
Nomin	
Unit la	
House	
Reside	
Private	
Financ	
Employ	
Young educati	n
People	
People at risk of poverty after social transfers	% of total population
Severely materially deprived people	% of total population
People living in households with very low work intensity	% of total population aged 0-59

- Hard law against soft law
- Can GDP be the right indicator for a low-carbon society?
- Courage! It is complex!
  How can we find a balance between being able to handle the complexity and not loosing our way / “lost in translation?“

"Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development"

Paris Agreement, Article 2


1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

THE EU BUDGET IS PULLING BOTH WAYS AND GETTING NOWHERE

CONFLICTED, THE EU IS FUNDING BOTH HIGH CARBON AND LOW CARBON FUTURES. THERE'S NO CONSISTENT DIRECTION OF TRAVEL

Source: https://goo.gl/images/FiCP1k

Hintergrund

The Greens | European Free Alliance
in the European Parliament

GreenBudgetEurope

GREEN TAXES AS A MEANS OF FINANCING THE EU BUDGET: POLICY OPTIONS

Dr Constanze Adolf & Klaus Röhrig

July 2016

COMMUNICATING GREEN OWN RESOURCES

A New Narrative for the EU Budget

October 2016

Authors:
Dr Constanze Adolf
Klaus Röhrig

Study commissioned by:
MEP Helga Trüpel
MEP Ernest Maragall
MEP Monika Vana
MEP Indrek Tarand

The Greens | European Free Alliance
in the European Parliament

GreenBudgetEurope

63 policy makers, leading academics, businesses and civil society call for an innovative reform of the EU budget

26th January 2017 Briefings, News, Press releases, Publications

The EU budget in its current form is not a driver of sustainable development – neither in terms of how revenues are raised, nor how they are spent. A reform of the budgetary system to address and overcome current complexities could green EU budgets and enhance the transparency and visibility of the EU.

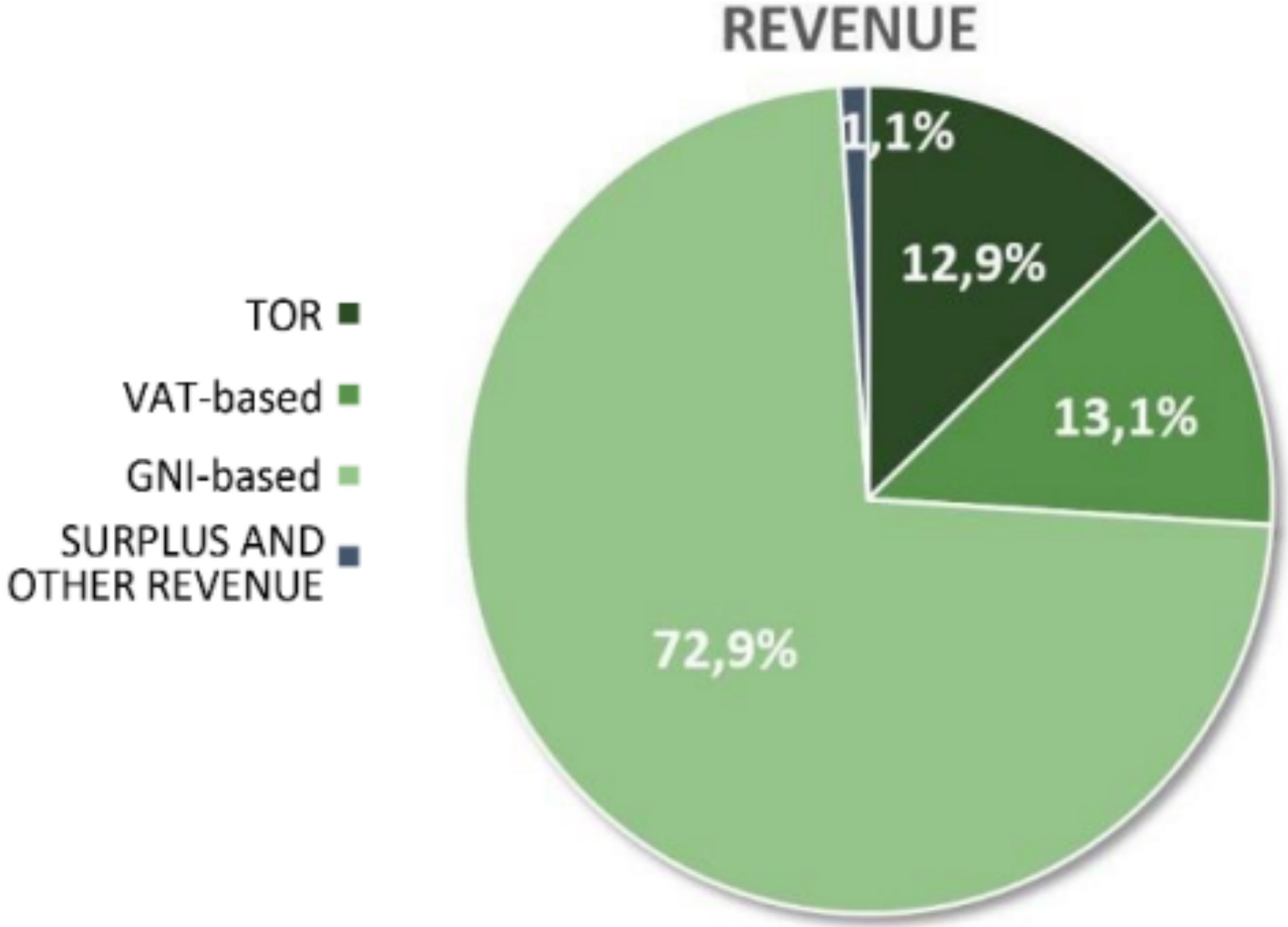
Ahead of the presentation of the final report of the High-Level Group on Own Resources chaired by Mario Monti to the Council of Ministers on 27 January, Green Budget Europe led a joint call for green own resources.

Background:

The founding treaties of the Union envisaged a directly controlled funding model, yet currently less than 13% of total revenues for the EU budget stem from genuine 'own resources', i.e. funding streams under the EU's direct control. As a consequence, EU budget negotiations have turned into a zero-sum game between national governments that focus on minimising their national contributions rather than a shared responsibility to deliver a fairer and more sustainable distribution of wealth for all Europeans.

Downloads

Composition of current EU budget income side



Source: Green Budget Europe (2016). Green Taxes as a Means of Financing the EU Budget: Policy Options. Study published in July 2016.

Green own resources

- Aim: create genuine EU resources targeting social and environmental challenges
- Make use of transformative power of EU budget
- Apply polluter-pays-principle
- In the case of tax-based resources:
  - Less tax competition/favour advances towards tax harmonisation
  - Better allocation of resources

- Positioning +

SEGMENTS OF STORAGE SOLUTIONS

- **Peak load storage** and **sector coupling** make it technologically possible to **implement a significant share of renewables**.

A 100% renewable energy supply needs a new system.

SEGMENT	**SHORT-TERM BUFFER** FREQUENCY AND VOLTAGE MAINTENANCE	STORAGE & SECTOR COUPLING	**SEASONAL STORAGE**
TECHNOLOGY	• **BATTERIES** • **FLYWHEELERS** • **CAPACITORS**	• **LUMENION STORAGE** • **PUMPED HYDRO STORAGE PLANT**	• **POWER-TO-GAS** • **NEW TECHNOLOGIES**
	up to 40 % renewables	up to 60 % renewables	up to 100 % renewables

LUMENION

CONTACT

Lumenion GmbH
Tempelhofer Weg 11
10829 Berlin
Germany

constanze.adolf@lumenion-energy.com
@ConstanzeEU

THANK YOU!