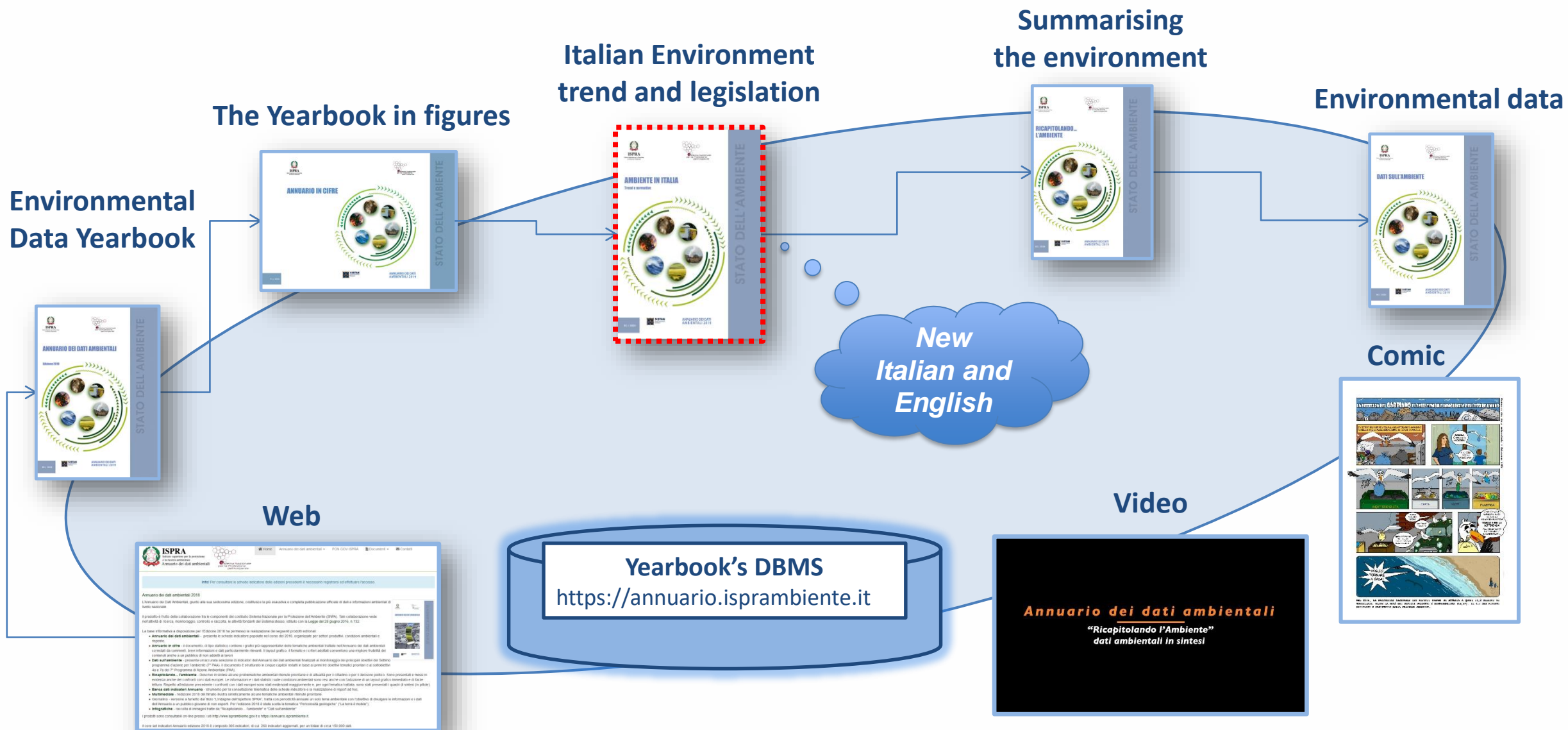


Italian Environment 2020

ALESSANDRO BRATTI

DIRECTOR-GENERAL, ISPRA



ITALIAN ENVIRONMENT – contents and objectives

- To provide an overview of the environmental situation in Italy through two keys: **time-series** and **indices**
- To provide an explanation of the time-series based on **legislation** & **targets** to check regulations' effectiveness

Indicators refer to **three priority** of the 7th Environmental Action Programme:

- Natural capital
- Resource-efficient, low-carbon economy
- Human health and wellbeing

Reference is made as well to

✓ EU Green Deal



✓ SDGs 2030



Italian Environment
Trend and legislation



NATURAL CAPITAL



The impact of biodiversity loss in Italy is as alarming as climate change

The level of threat to the Italian flora and fauna remains high. It goes hand in hand with the climate change, causing environmental impacts

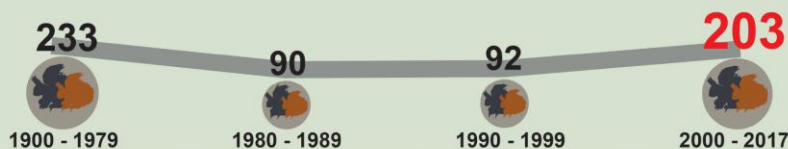


Preserving Europe's
natural capital

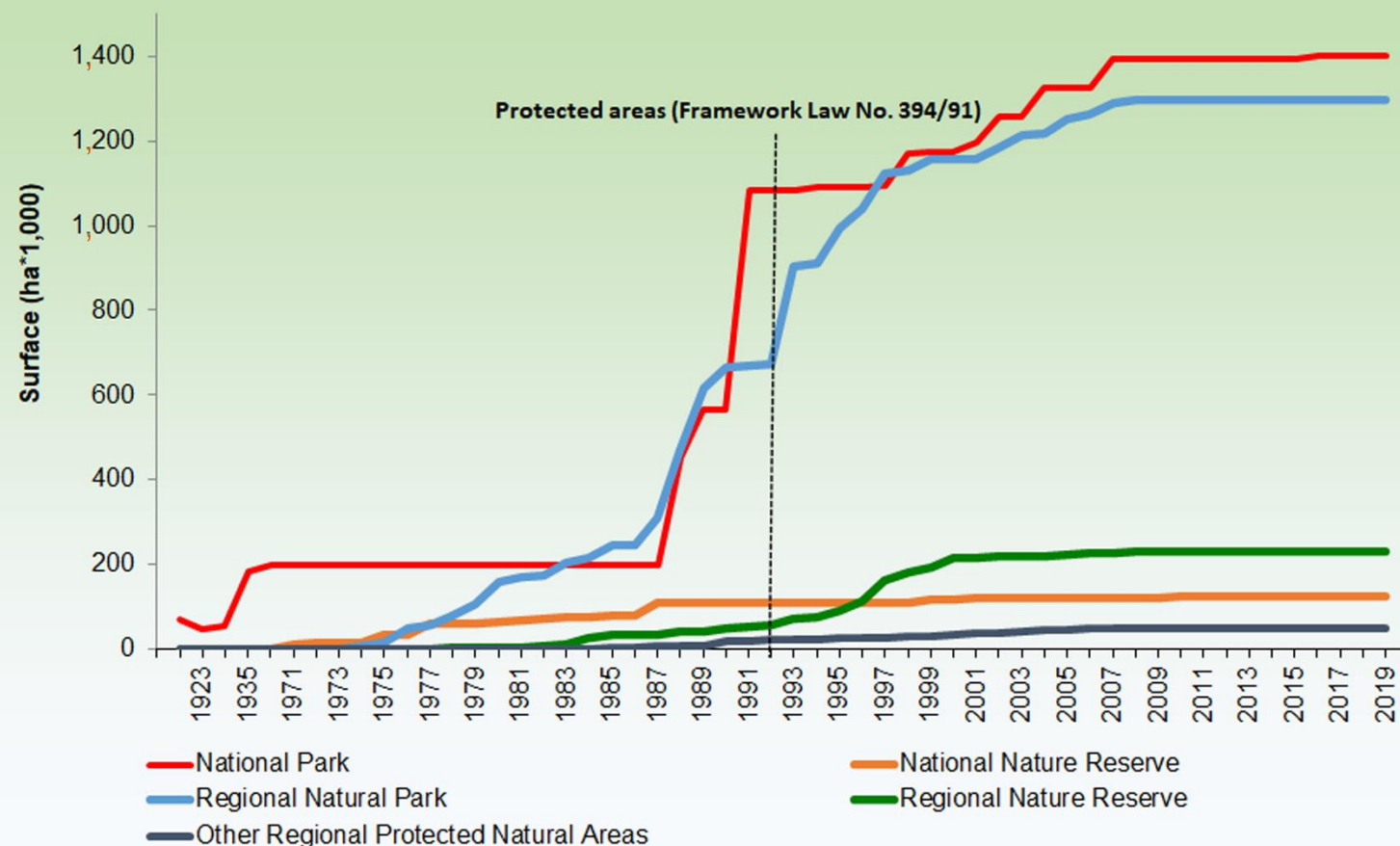
Terrestrial Protected Areas



NUMERO DI SPECIE INTRODOTTE



The introduction of
potentially invasive
allochthonous species
is a serious risk factor for
the biodiversity



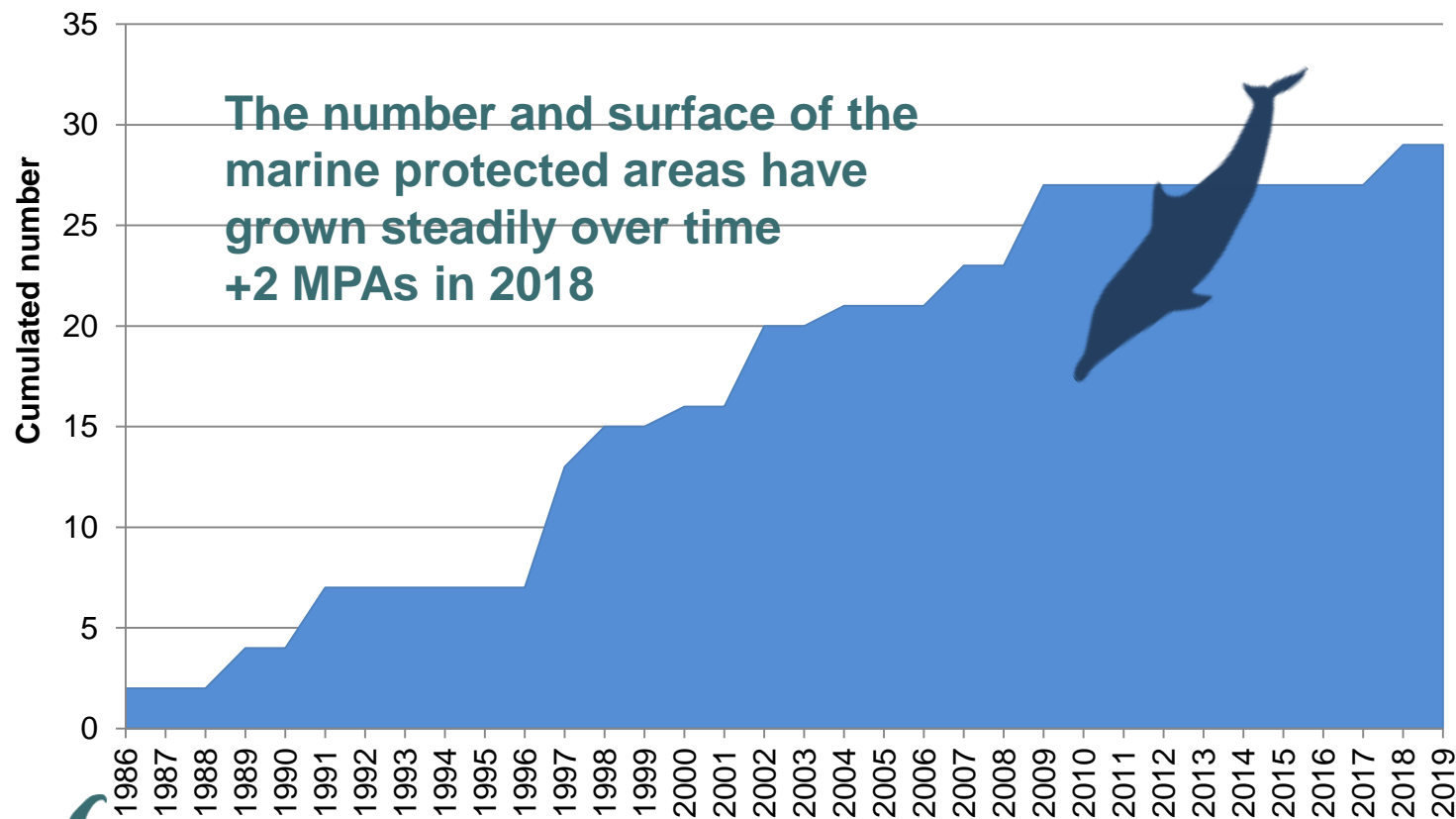
— National Park
— Regional Natural Park
— Other Regional Protected Natural Areas

— National Nature Reserve
— Regional Nature Reserve

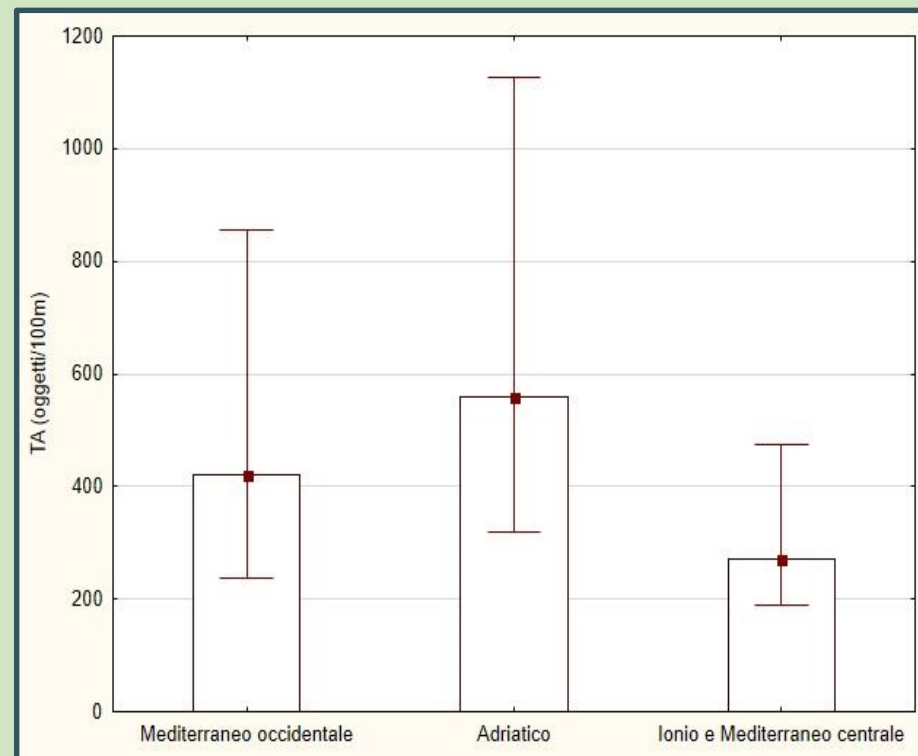


MARINE PROTECTED AREAS

The number and surface of the marine protected areas have grown steadily over time
+2 MPAs in 2018



MARINE STRATEGY, MARINE LITTER

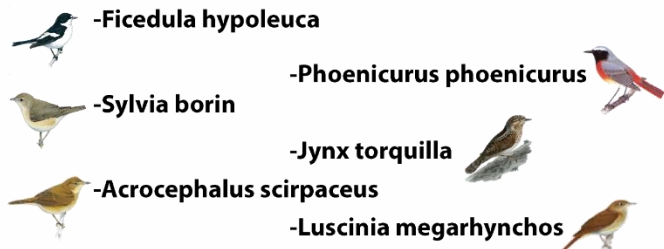


The amount of washed up waste is relevant: median values exceed 400 parts every 100 linear meters of shore

Ringing organisations

6

long-distance migrant species ringed



223,598 (1988-2016)
ringed individuals



"Piccole isole" Project

Index of change in spring migration date

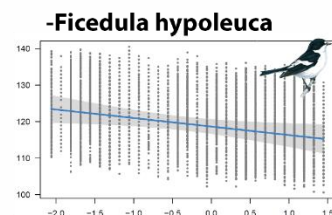
On the basis of this index:

33%

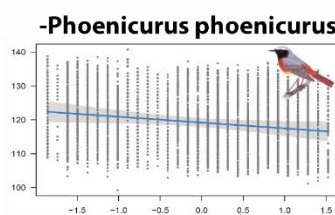
of the species quickly and significantly delay the spring migration date, which means good resilience to the climate change

66%

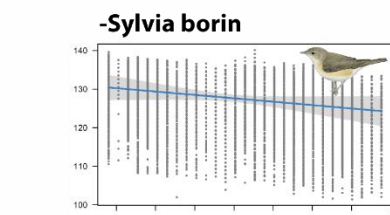
of the species slowly or not significantly delay the spring migration date, which means bad resilience to the climate change



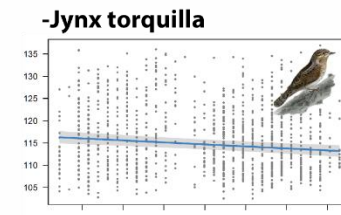
one day every 3,4 years



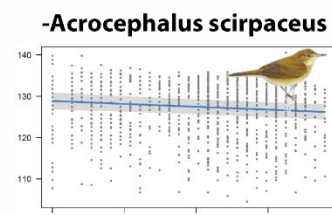
one day every 4,8 years



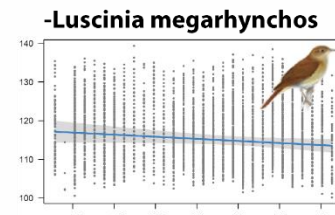
not to be significant



one day every 9 years



one day every 10,6 years



not to be significant

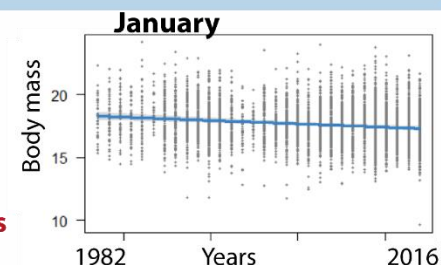
Outcomes

The index of the winter weight change, concerning *Erithacus rubecula* and *Sylvia atricapilla* shows

according to **Bergmann Law**, both species experienced a **significant body mass loss**, suggesting adaptation to the increasing temperature during the winter months



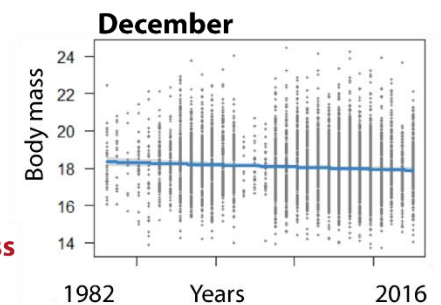
Body mass loss



January: 1-gram variation every 25 years
Other months: 1-gram/ 55-77 years



Body mass loss



December: 1-gram variation every 6.6 years, November: stable, January 1-gram / 29.4 years

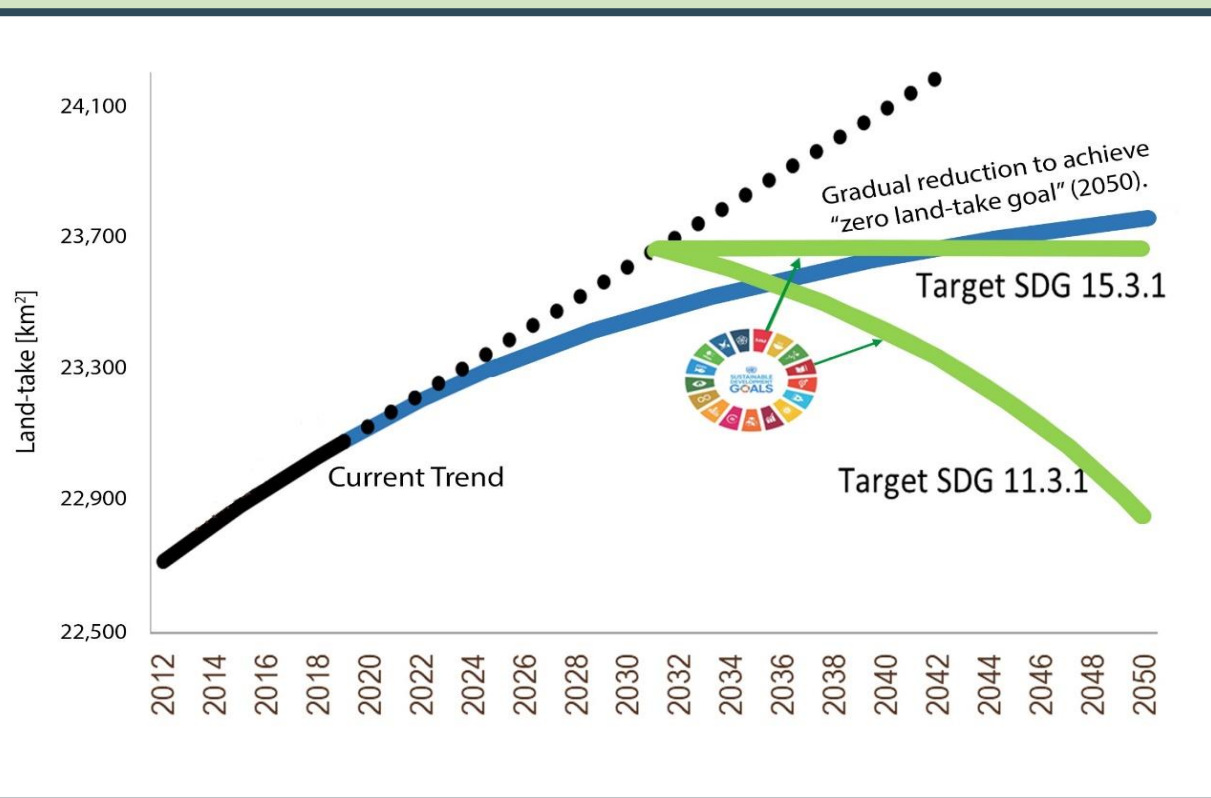
LAND-TAKE & LANDSLIDES



Preserving Europe's
natural capital

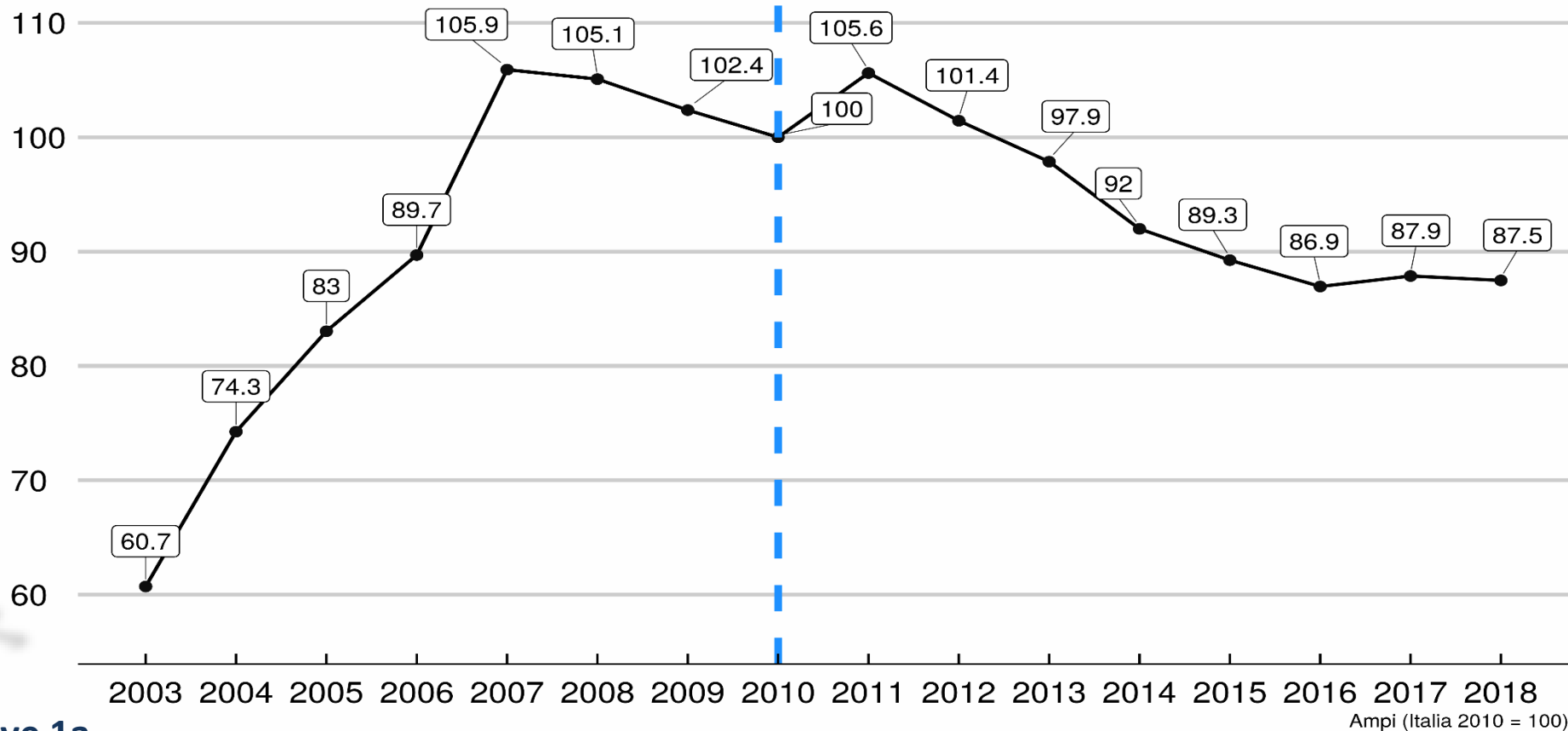


Law No 267/1998 identifies the hydrogeological hazard/risk areas, with regard to landslides and floods, and set out the hydrogeological basin plans aimed to the hydrogeological planning



BIODIVERSITY INDEX

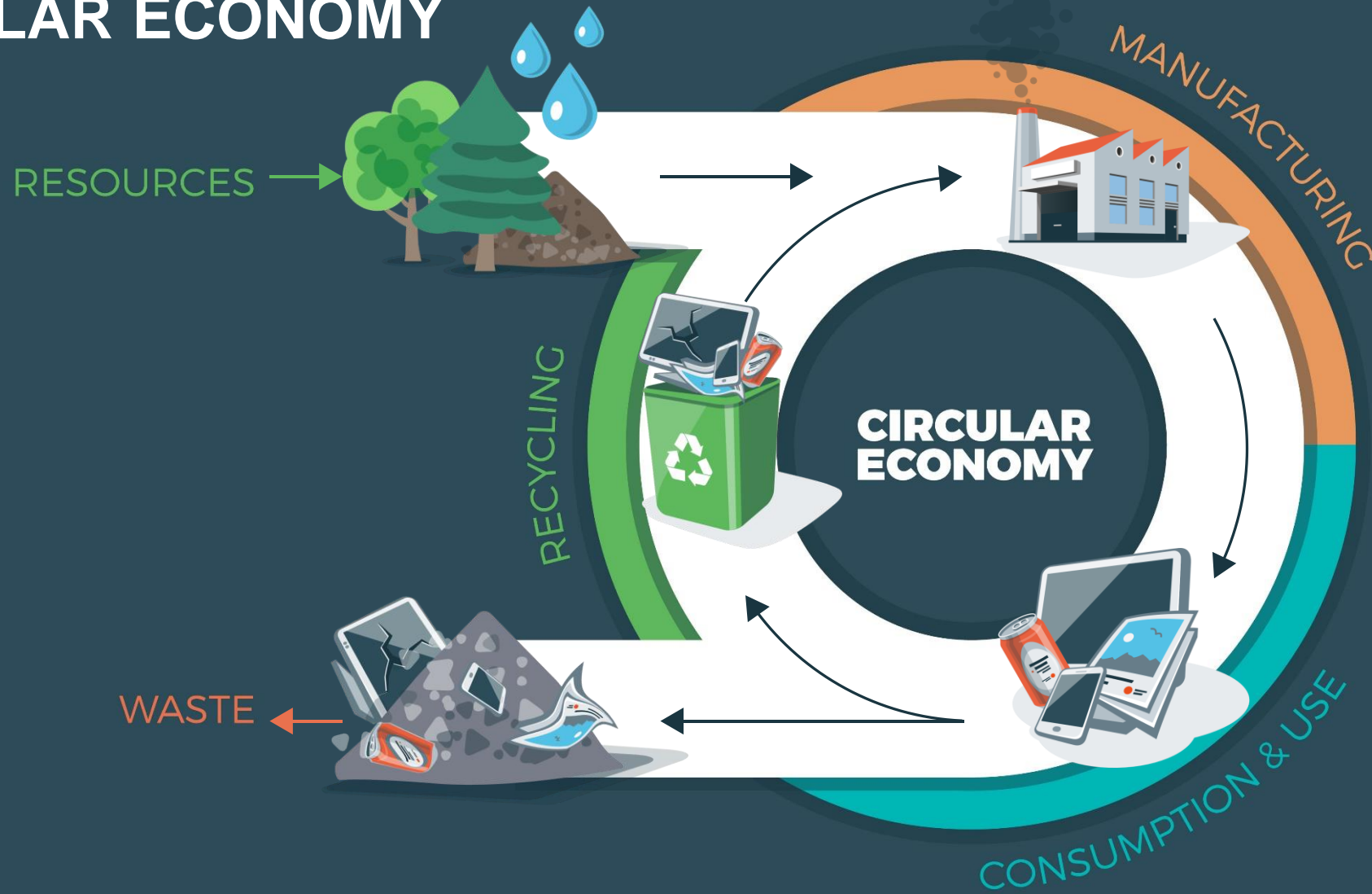
Objective 1a



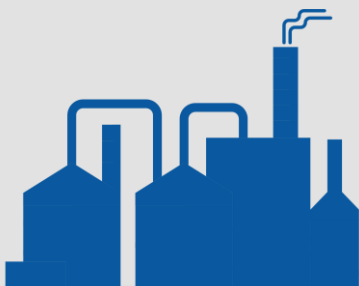
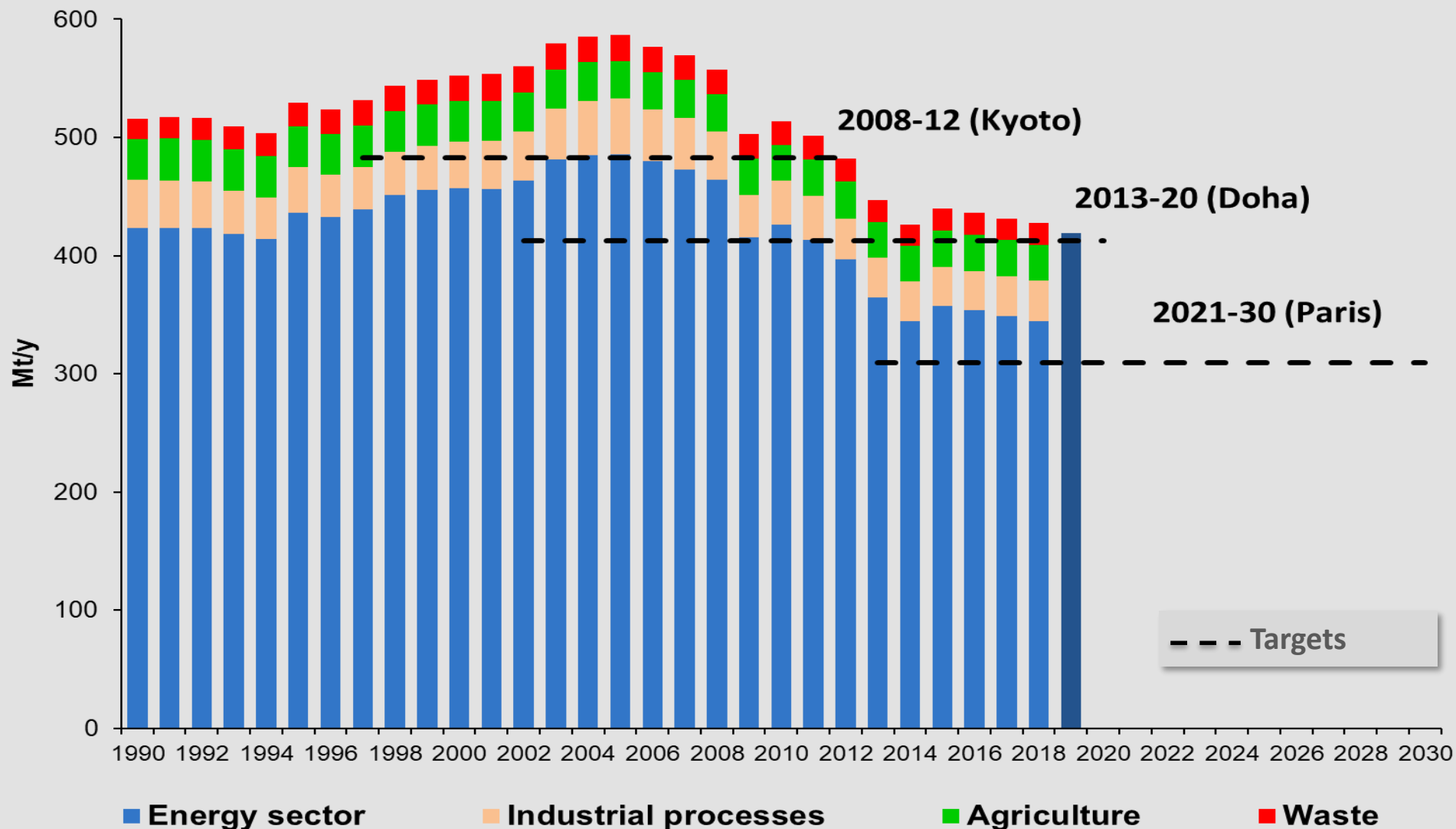
7th EAP, Objective 1a

“In order to protect, conserve and enhance the Union’s natural capital, the 7th EAP shall ensure that by 2020 the loss of biodiversity and the degradation of ecosystem services, including pollination, are halted, ecosystems and their services are maintained and at least 15 % of degraded ecosystems have been restored”

CLIMATE CHANGE CIRCULAR ECONOMY



GHG emissions



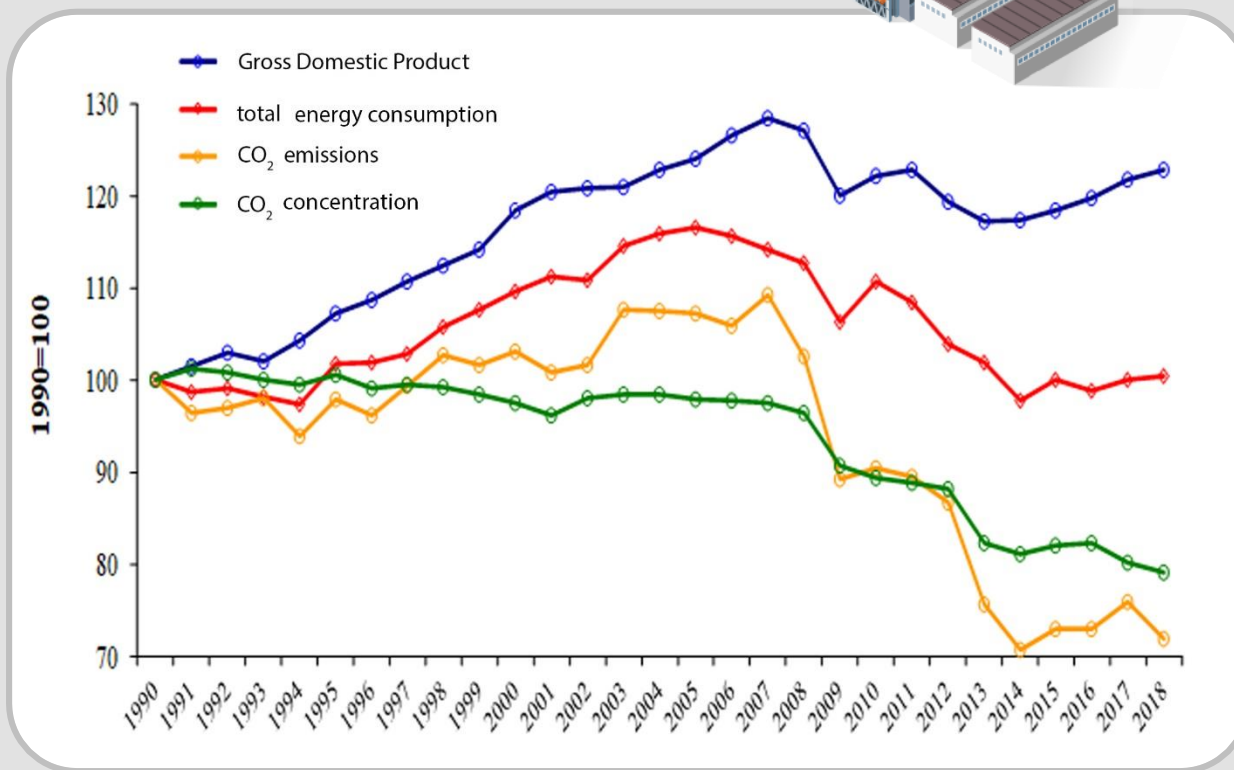
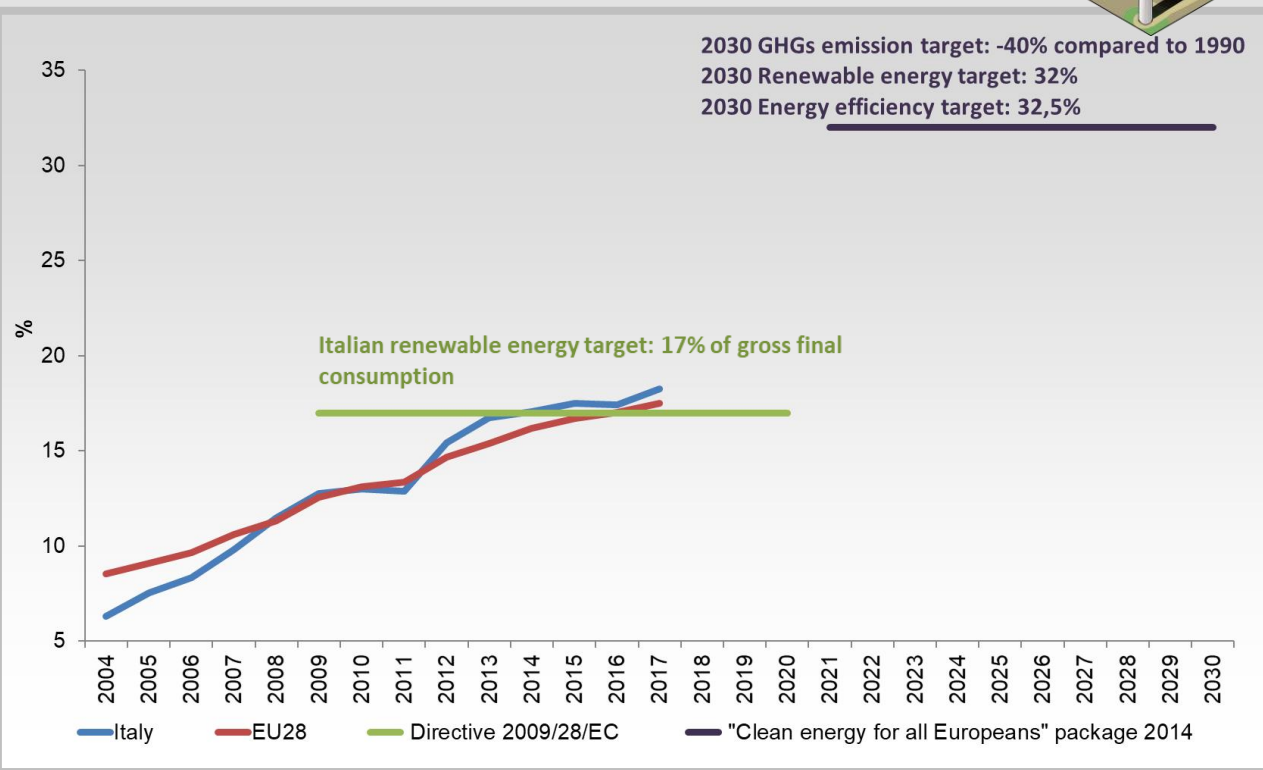
ENERGY INDICATORS



Achieving Climate
Neutrality



Target



COVID-19 OUTBREAK

GHG emissions – 2020 provisional estimates

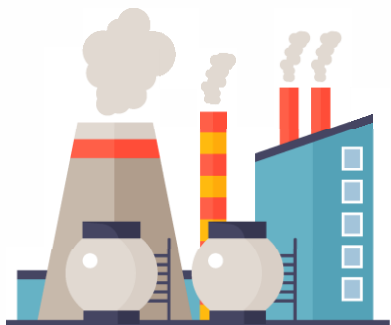
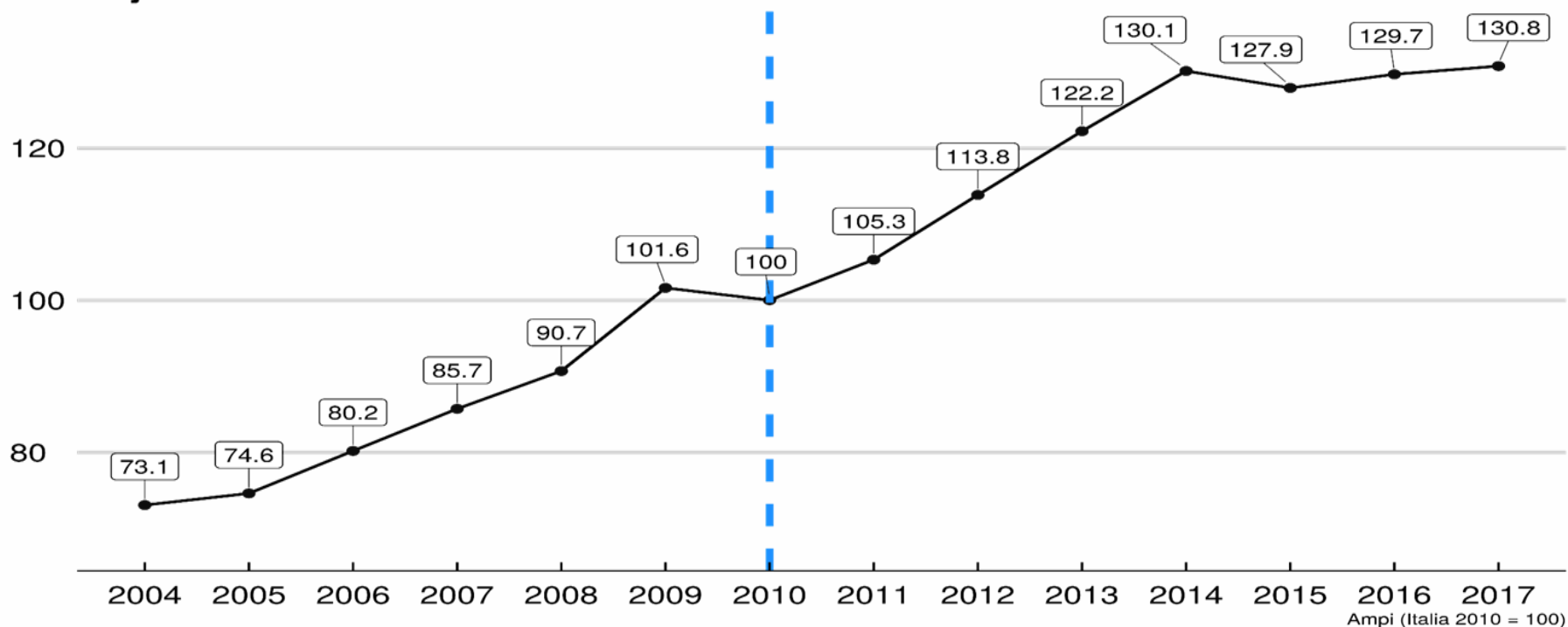
Sector	2019 GHG emissions ^(a) (Mt)	2020 GHG emissions ^(b) (Mt)	2019-2020 change (%)
Energy supply	98,539	91,367	-7.3
Combustion in manufacturing industries	51,958	49,350	-5.0
Transport	103,940	94,548	-9.0
Residential, commercial and institutional plants	81,665	78,209	-4.2
Other (production processes, F-gas, solvent, agriculture, waste)	83,090	82,851	-0.3
Total	419,191	396,326	-5.5

(a) provisional estimates

(b) preliminary results

GHGs INDEX

Objective 2a



7th EAP, Objective 2a

"In order to turn the Union into a resource-efficient, green and competitive low-carbon economy, the 7th EAP shall ensure that by 2020: the Union has met its 2020 climate and energy targets and is working towards reducing by 2050 GHG emissions by 80–95 % compared to 1990 levels, as part of a global effort to limit the average temperature increase below 2 °C compared to pre-industrial levels, with the agreement of a climate and energy framework for 2030 as a key step in this process"

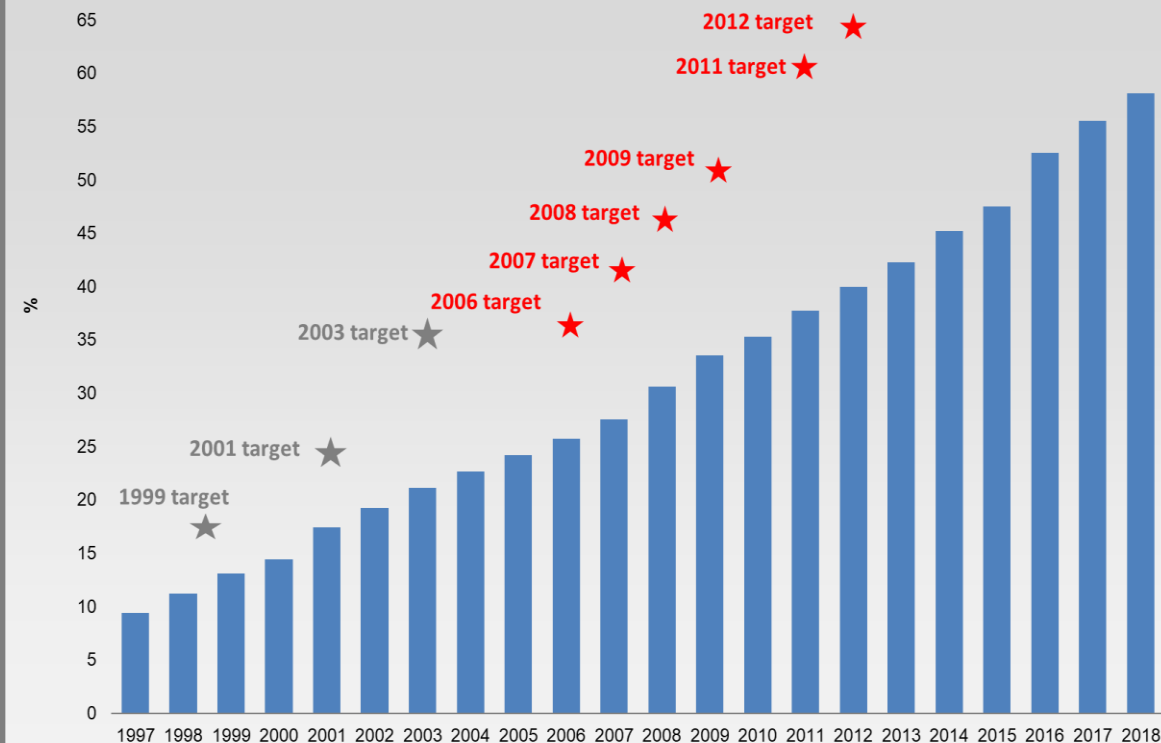
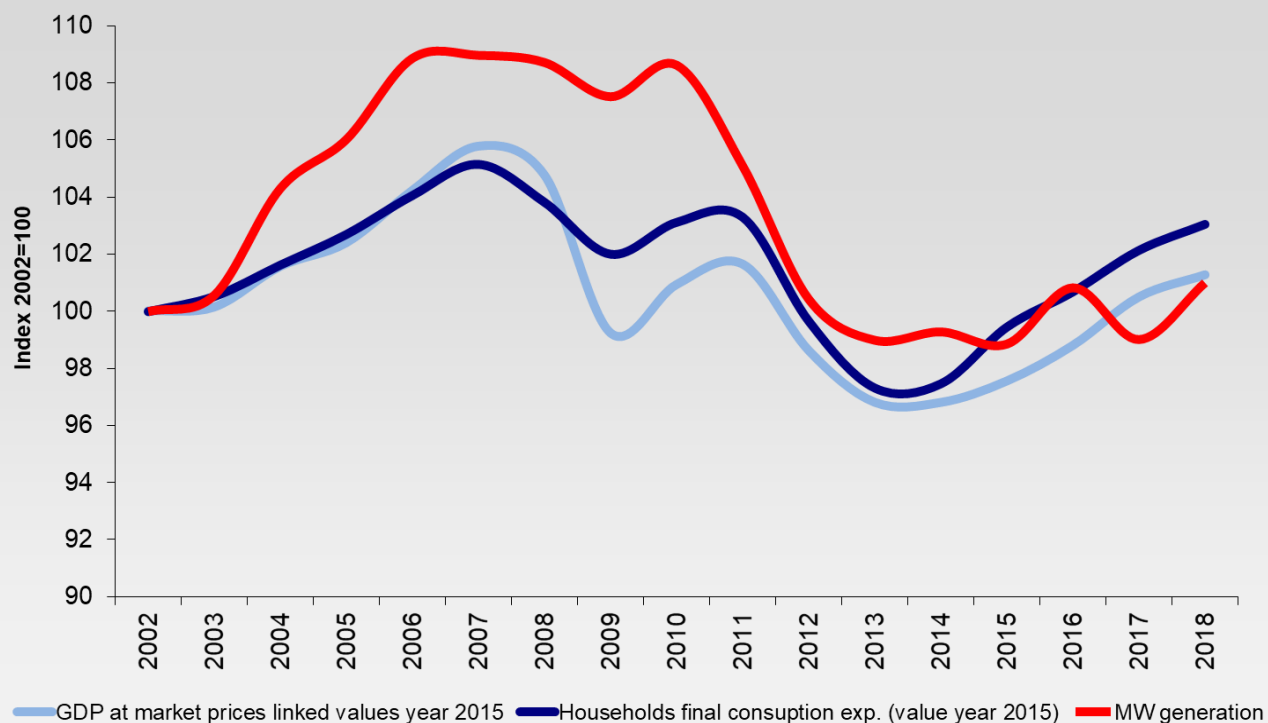
MUNICIPAL WASTE: GENERATION AND SEPARATE COLLECTION



Transition to a
Circular Economy

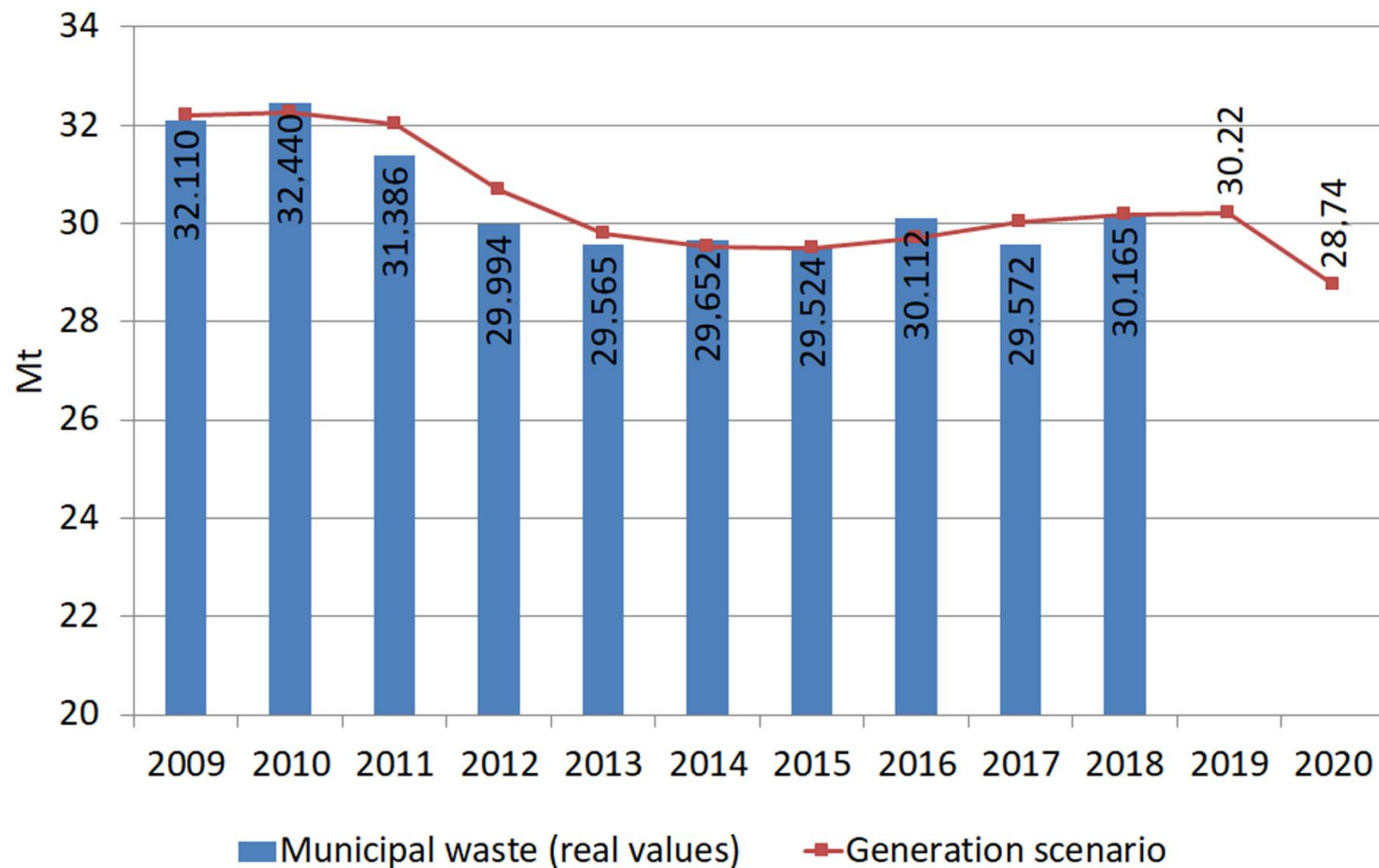
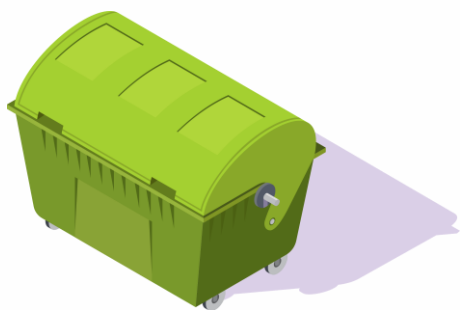


Target

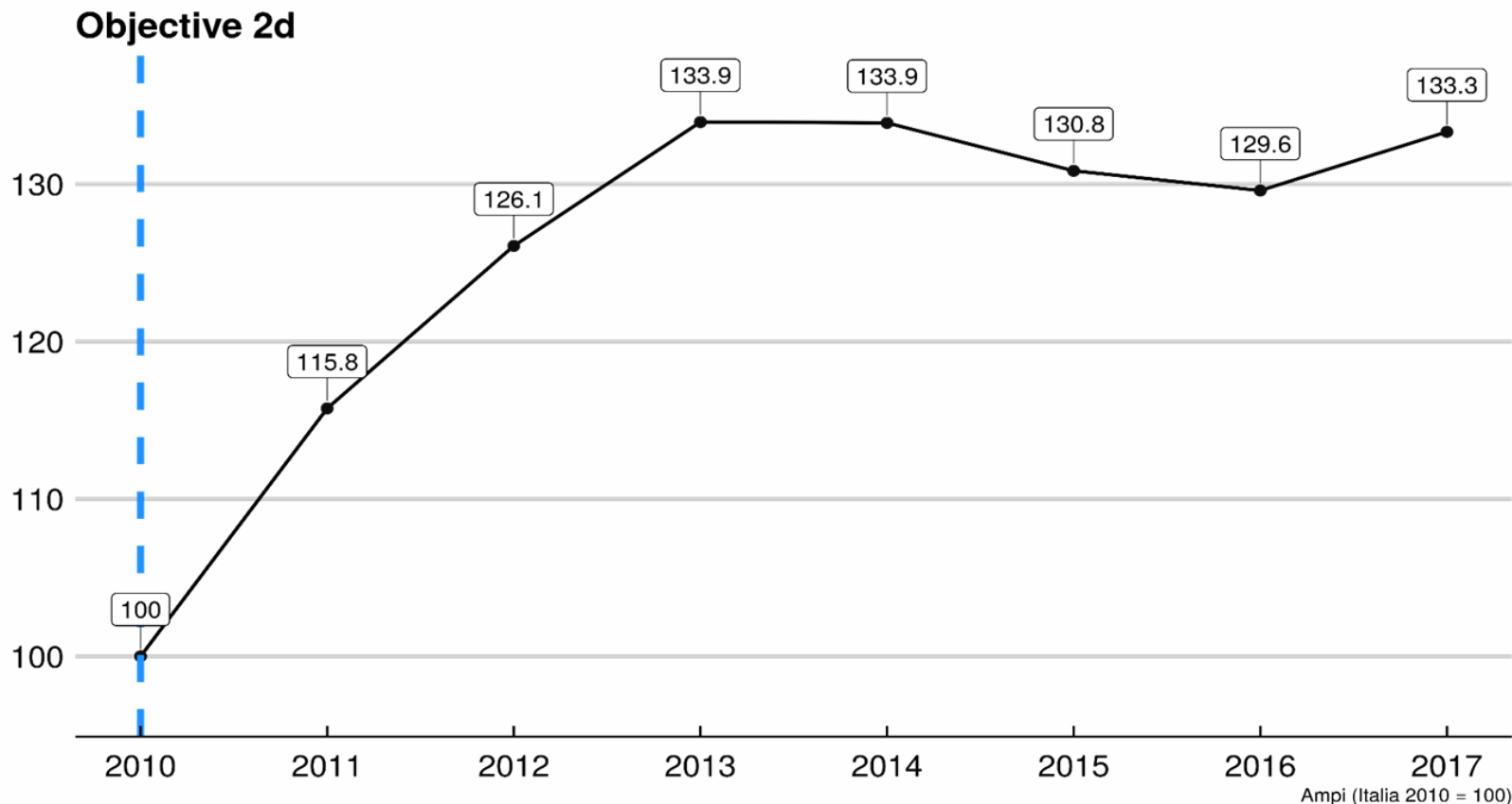


MUNICIPAL WASTE GENERATION (2019-2020 SCENARIO)

ISPRA estimates a 2020 municipal waste generation equal to **28.7 million tonnes** based on GDP's first quarter official preliminary results



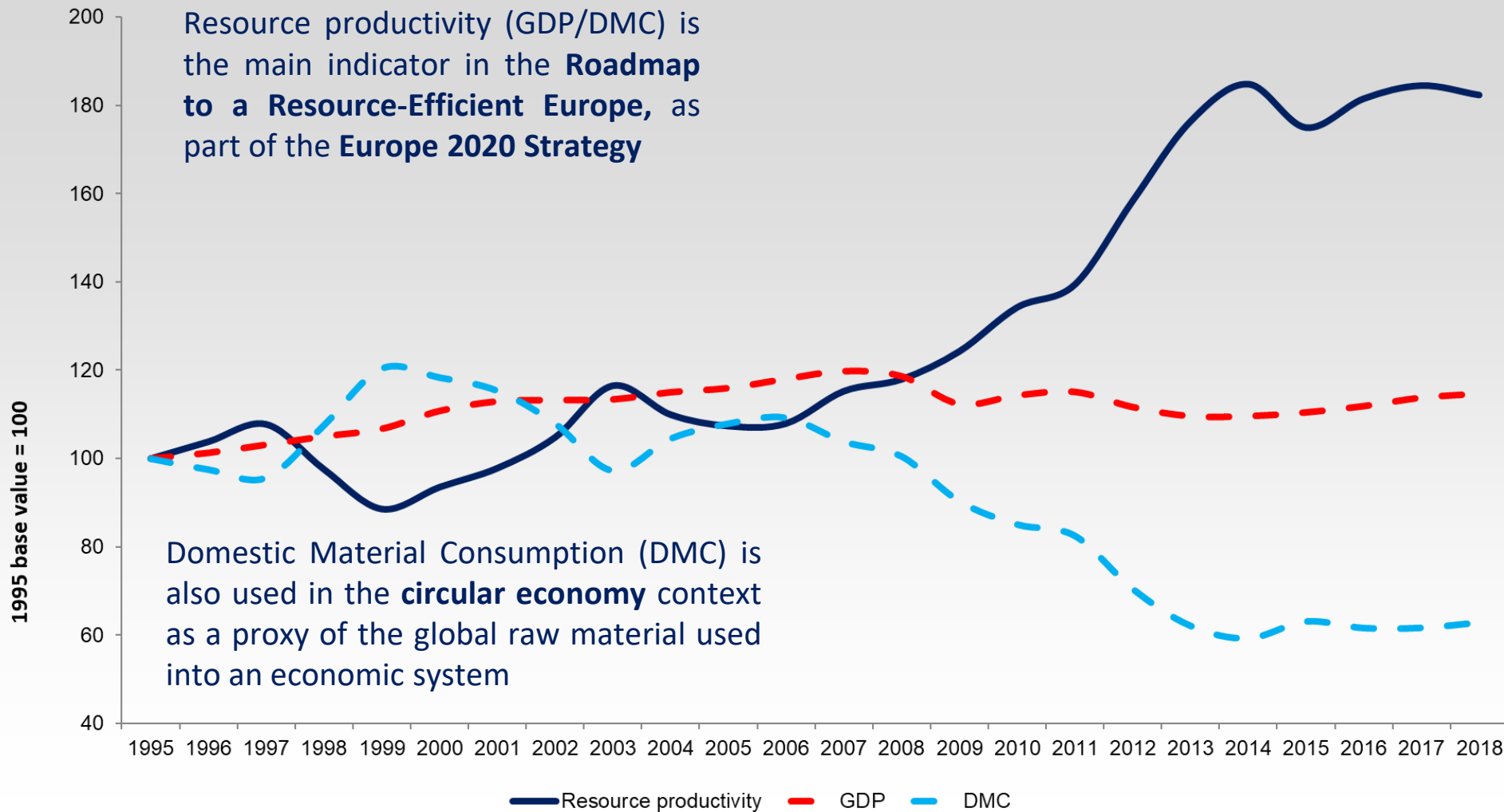
WASTE INDEX



7th EAP, Objective 2d

“In order to turn the Union into a resource-efficient, green and competitive low-carbon economy, the 7th EAP shall ensure that by 2020: waste is safely managed as a resource and to prevent harm to health and the environment, absolute waste generation and waste generated per capita are in decline, landfilling is limited to residual waste, and energy recovery is limited to non-recyclable materials”

RESOURCE PRODUCTIVITY





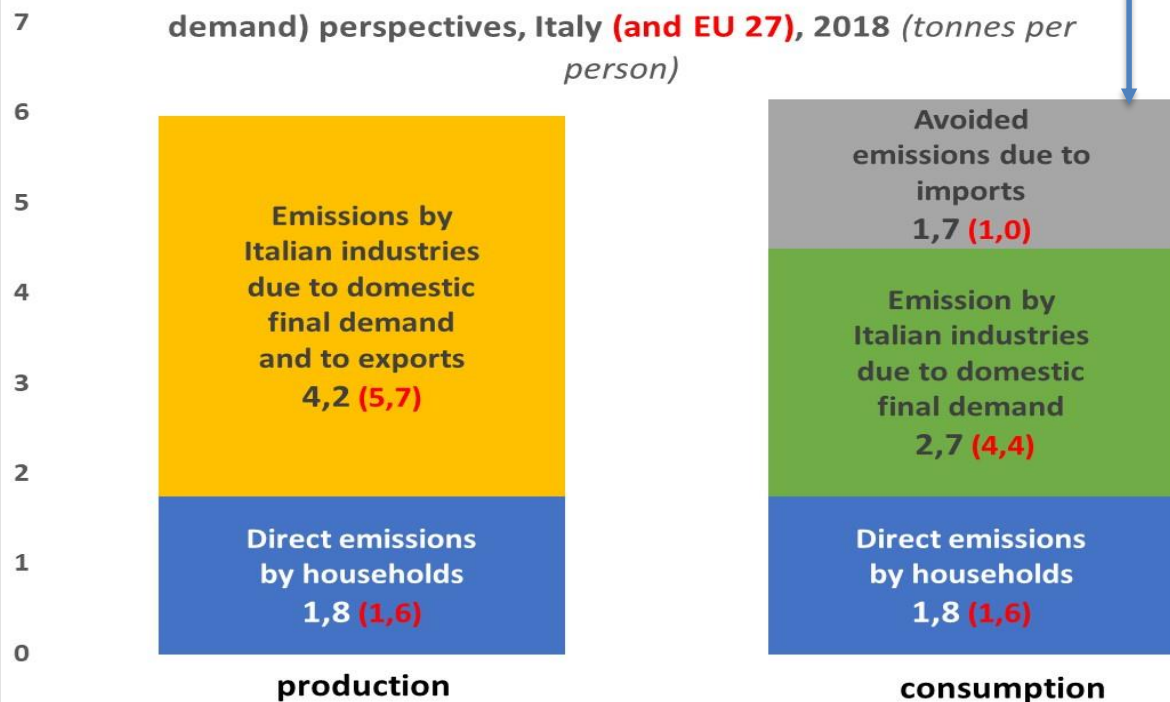
Transition to a
Circular Economy

CIRCULAR ECONOMY

Italian carbon footprint, 2018:
6,3 tonnes per person
(EU-27: 7,0 t per person)

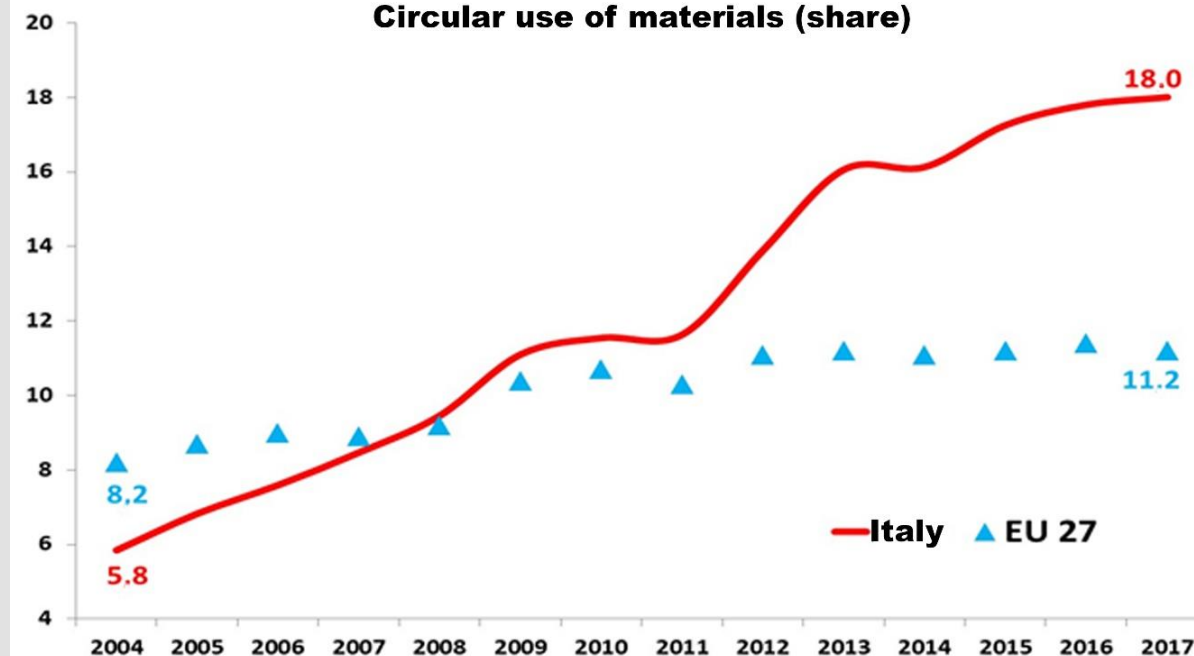


CO₂ emissions — production (CO₂ by residents of the Italian economy) and consumption (CO₂ due to Italian domestic final demand) perspectives, Italy (and EU 27), 2018 (tonnes per person)



Source: ISPRA own calc. based on Eurostat and Istat data

Circular use of materials (share)



Source: ISPRA own calc. based on Istat and ISPRA data



A major **EEA-ISPRA-EC** international event is going to take place in October 2020 in Bellagio, Como Lake, Italy



MONITORING PROGRESS IN EUROPE'S CIRCULAR ECONOMY

Building upon the Bellagio Principles

October, BELLAGIO (CO) - Italy

WHERE ARE WE?

The EPA network, the European Environment Agency, Eurostat and DG Environment will set the scene and define the objectives of the Conference

PRIVATE SECTOR WORKSHOP

Circularity is a business opportunity rather than a challenge and will only materialise if our economies reap the opportunities

CIRCULARITY IN MOTION

What do we want to measure?
Where are the gaps?
Do we understand the inner circles of the circular economy?
How can we use non-state data?
Where do we want to invest to know more?

TRACKING PROGRESS


Innovation in measuring circularity and the setting of targets. Best practice and challenges at international, national, local and company level will be shared.

HIGH-LEVEL SEGMENT

Setting a policy ambition and a pathway to understand circularity



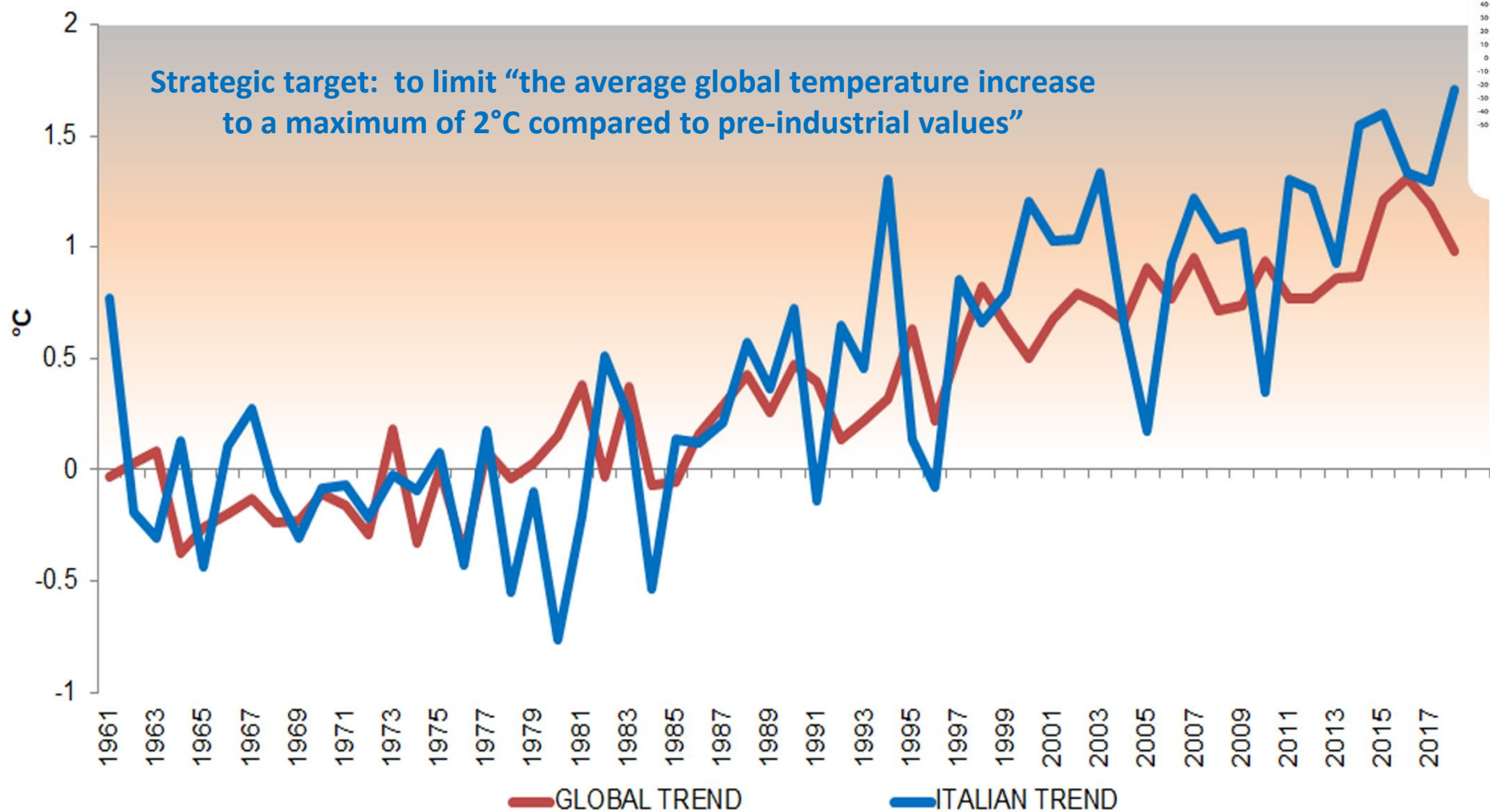
ENVIRONMENT HEALTH & WELL-BEING



“To safeguard the Union's citizens from environment-related pressures and risks to health and well-being”

“EU environment legislation has delivered significant benefits for the health and well-being of the public. However, water, air pollution and chemicals remain among the general public's top environmental concerns”

AVERAGE TEMPERATURE



13 CLIMATE ACTION

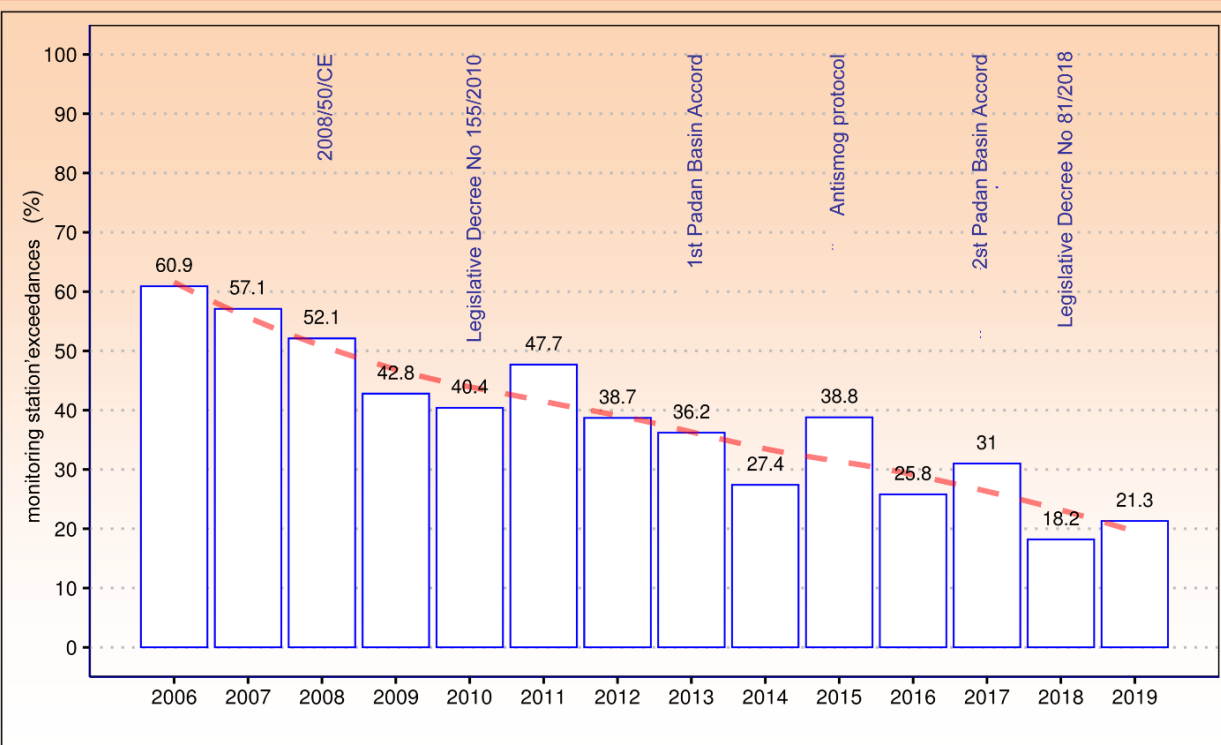


Achieving Climate
Neutrality

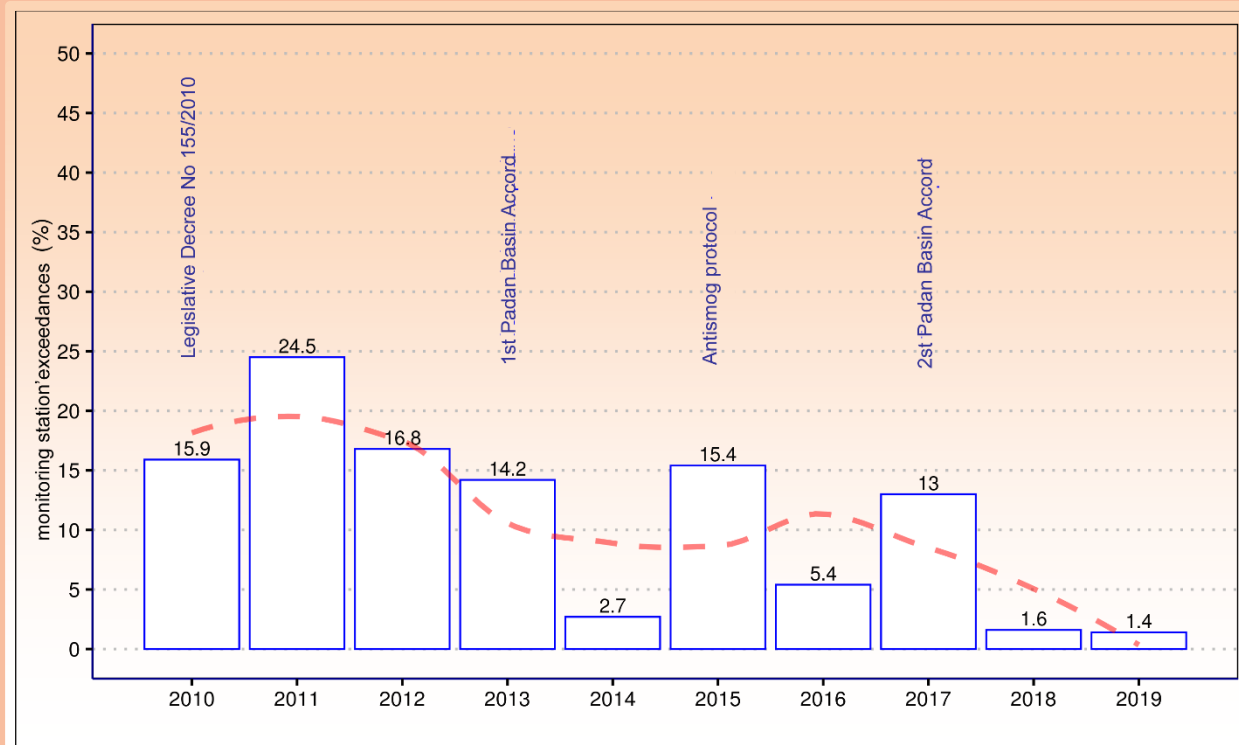


Target

AIR QUALITY: PARTICULATE MATTER (PM10, PM2.5)



PM10 - daily limit value exceeded by the 21% of the monitoring stations



PM2.5 – the majority of the monitoring stations complied with the annual limit value

AIR QUALITY: OZONE AND NITROGEN DIOXIDE



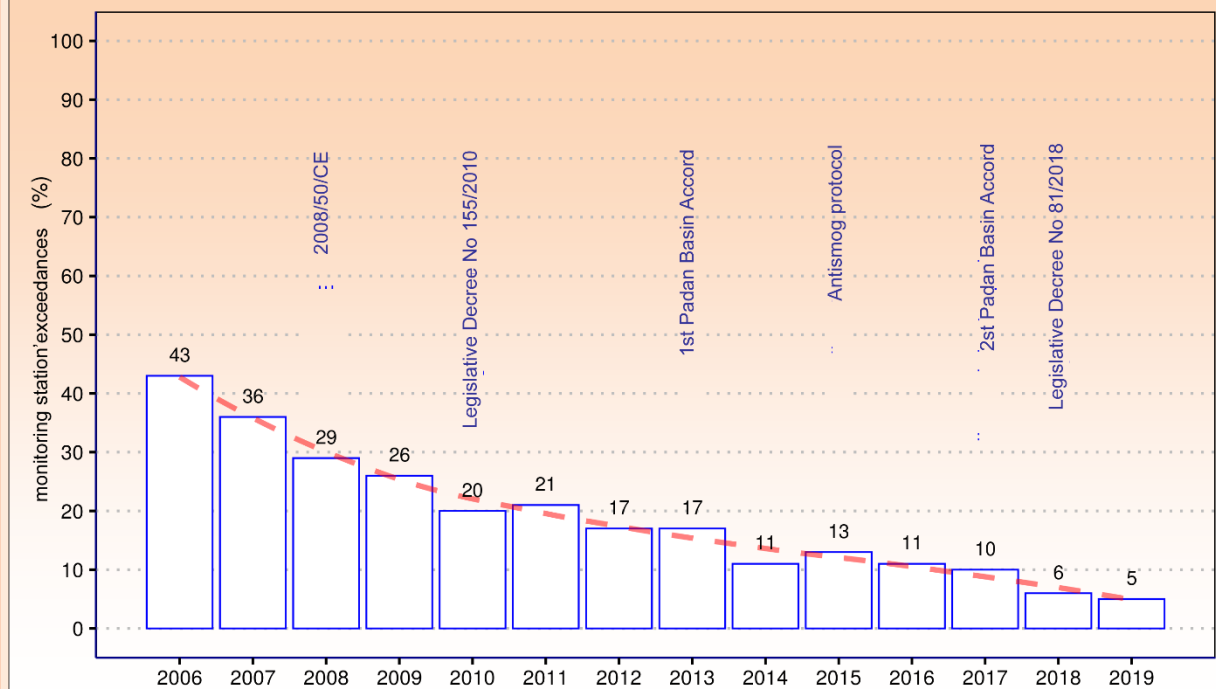
A zero pollution Europe



Target



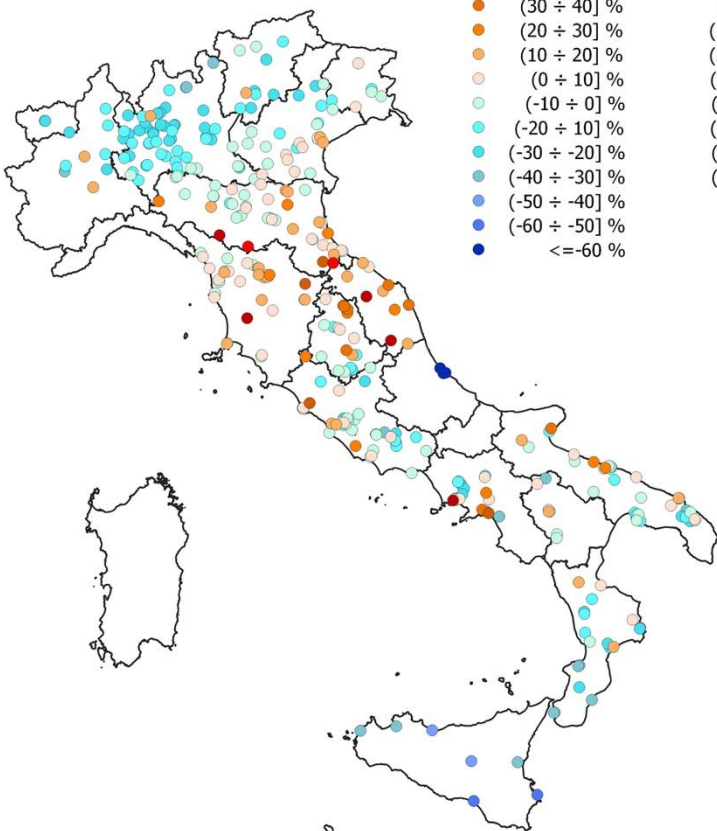
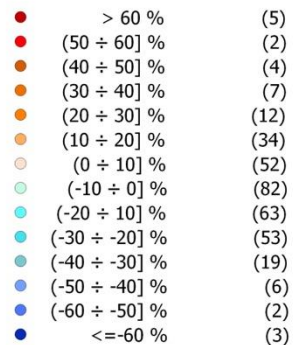
2019 data show a stable trend for the ozone concentrations in Italy (Long-term Objective)



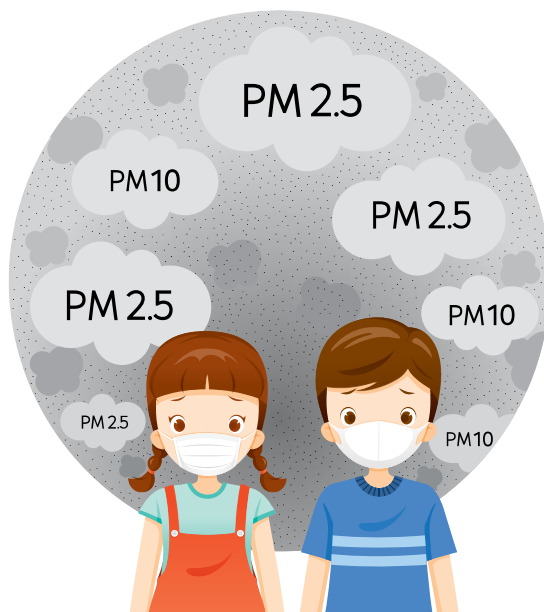
NO₂ - the majority of the monitoring stations complied with the annual limit value

Italy: Reduced levels of PM10 effect lockdown

n. stations

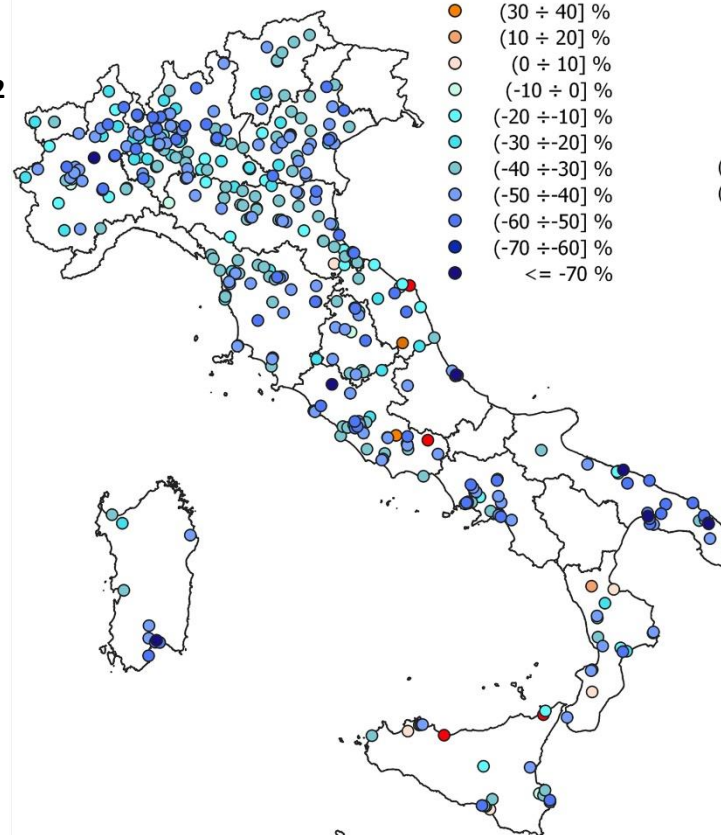
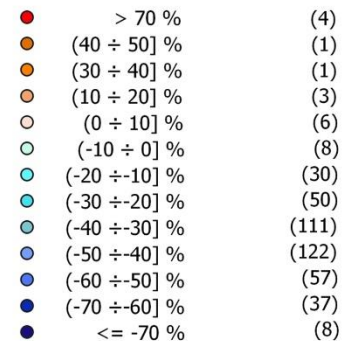


Percentage difference' distribution of NO₂ and PM10 levels (March 2020 and March mean 2013-2018)

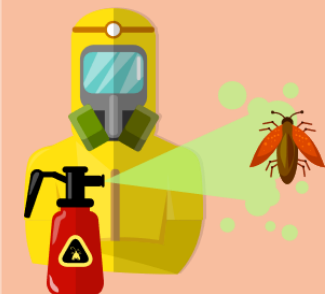


Italy: Reduced levels of nitrogen dioxide effect lockdown

n. stations



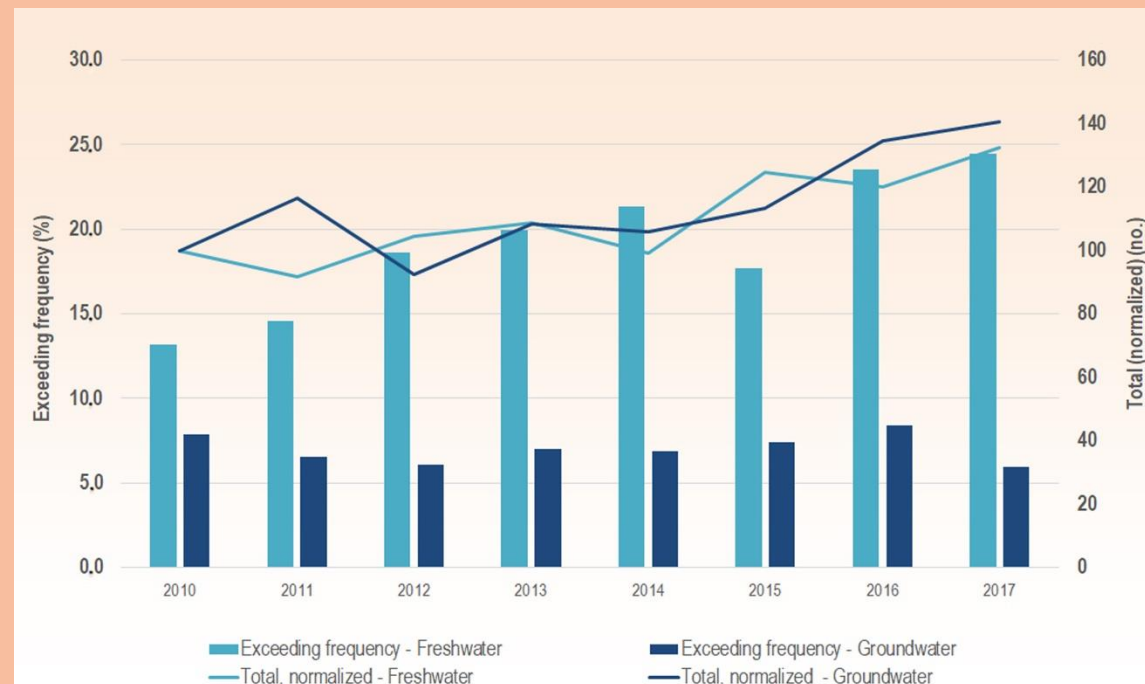
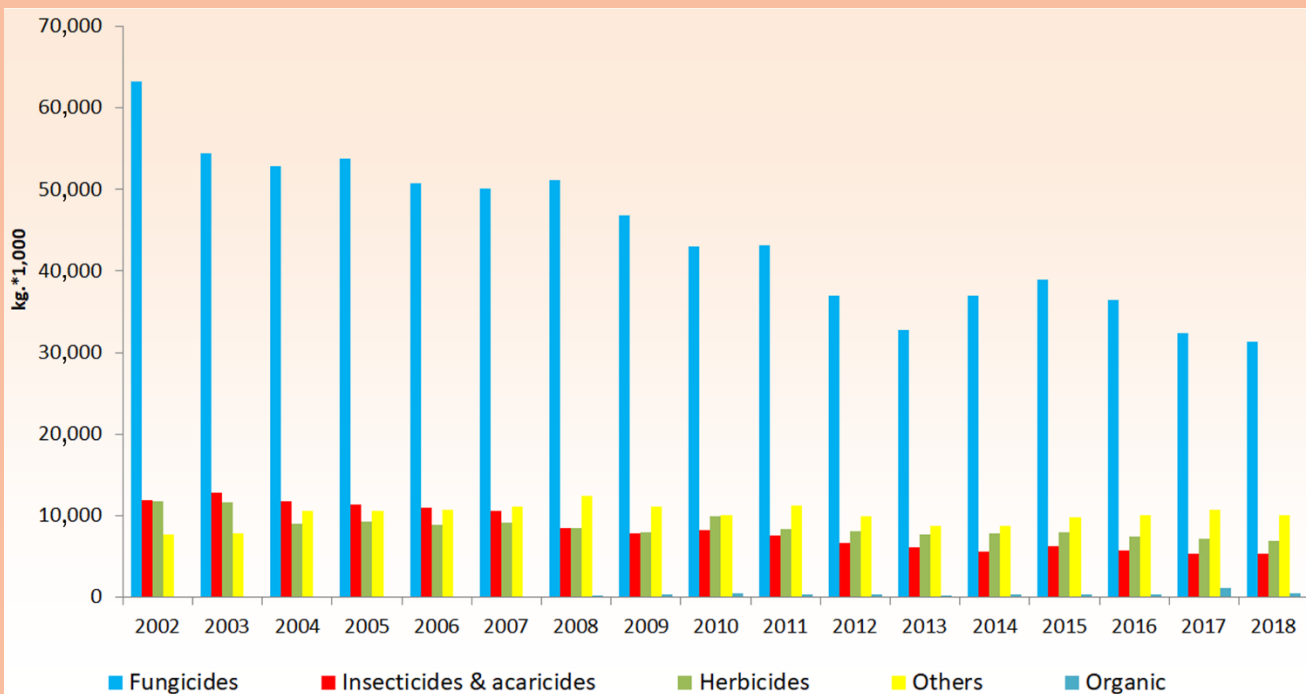
PLANT PROTECTION PRODUCTS PROVIDED FOR AGRICULTURAL USE AND EXCEEDANCE OF THE ENVIRONMENTAL QUALITY STANDARDS IN THE MONITORING POINTS



A zero pollution Europe

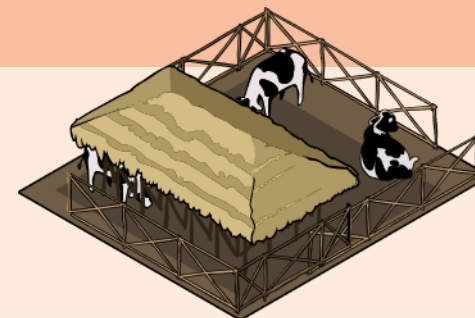
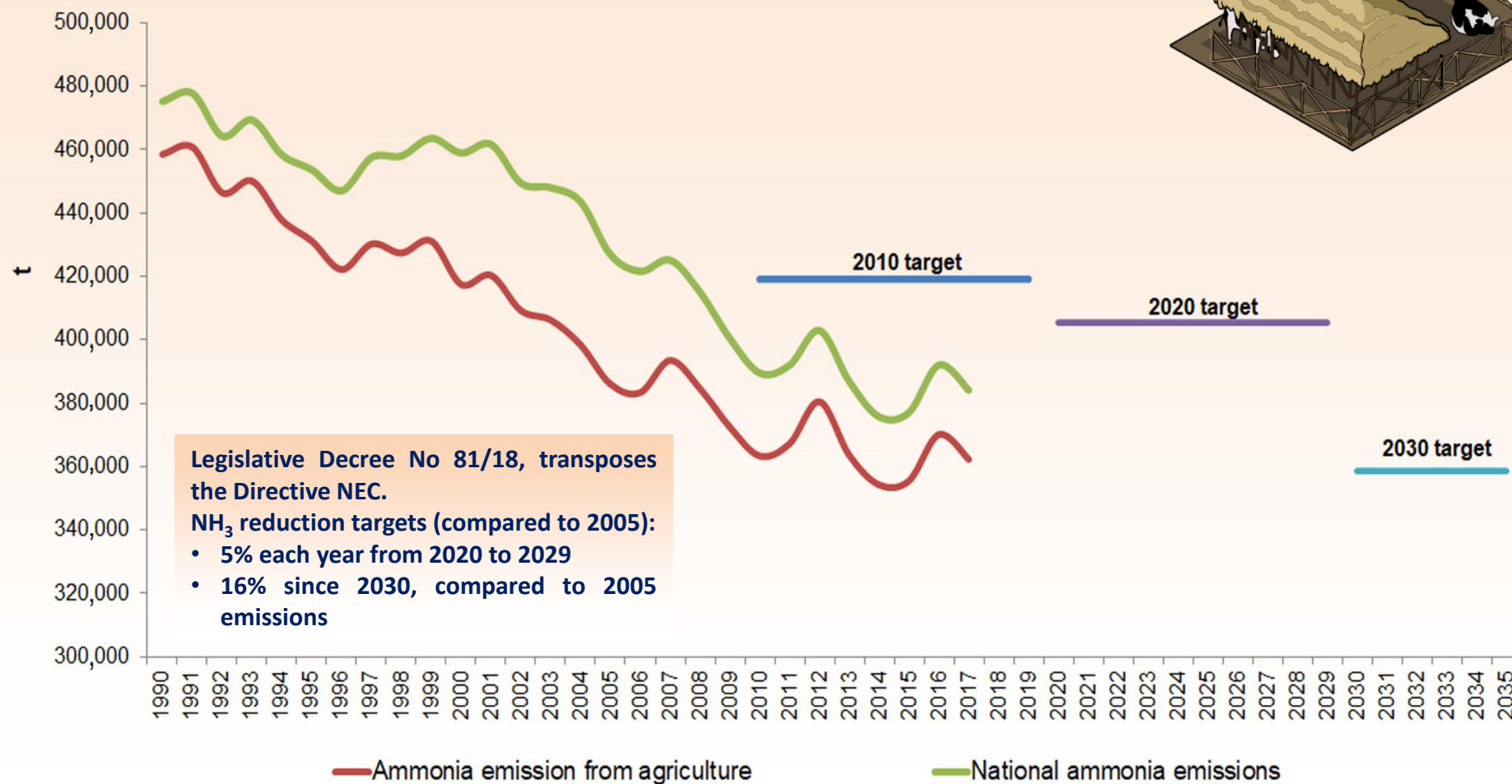


Farm to fork



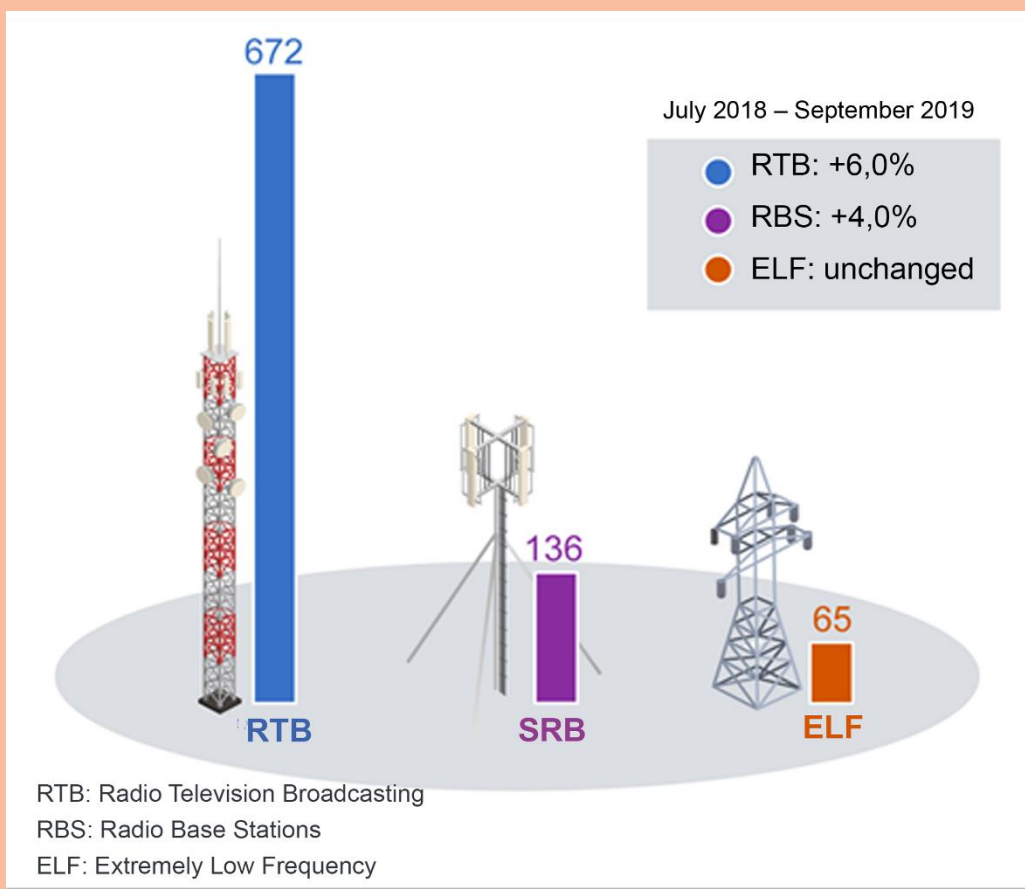
Surface water: 24.4% of the monitored points exceed the EQS.
6% with regard to groundwater

AGRICULTURE NH₃ EMISSIONS



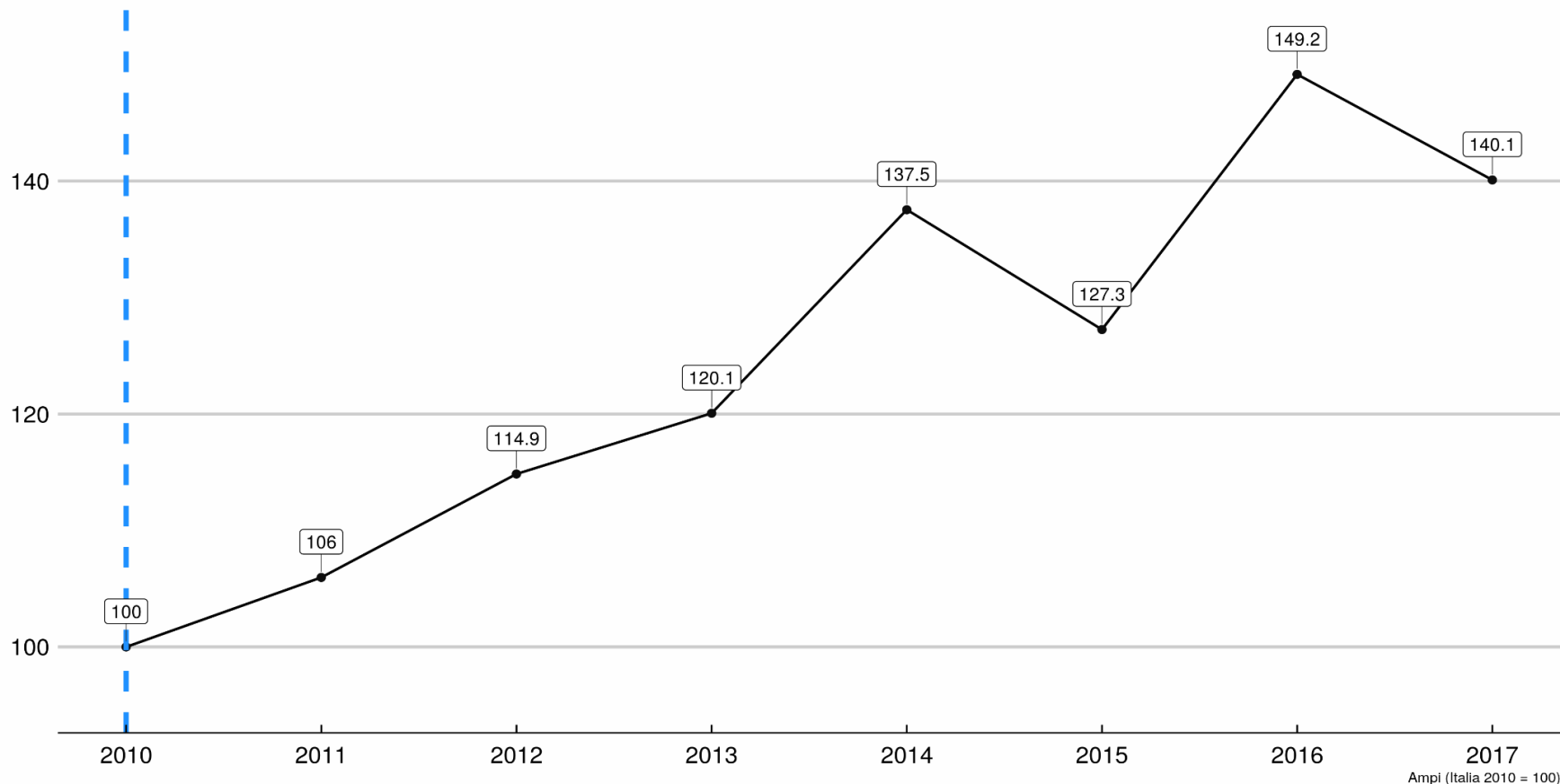
EMF: REGULATORY LIMITS EXCEEDANCES

July 2018 - September 2019, the regulatory limits' exceedances increased for what concerns RTB plants (+6%) and RBS plants (+4%). Unchanged for what concerns ELF sources



AIR QUALITY INDEX

Objective 3a



7th EAP, Objective 3a

“Outdoor air quality in Italy has significantly improved, moving closer to WHO recommended levels, while indoor air quality has improved, informed by the relevant WHO guidelines”



PULVIRUS Project : will assess the lockdown consequences of air pollution and GHGs as well as the interaction between particulate matter and the virus.



Nation-wide **epidemiological survey** to assess if and to what extent air pollution levels are related with the health effects of the epidemic.



»Colao's Commission«



Biodiversity Strategy



Cabina di regia «Benessere Italia»



AGENDA 2030



Marine Strategy



INECP - Integrated National
Energy and Climate Plan





“Necessary and possible changes will surely require heavy sacrifices, but slighter than those humanity will be forced to face, if it should continue on the path on which it is already engaged”

**Aurelio Peccei,
Cento pagine per
l'avvenire, 1981**



“By using the European Green Deal as our compass, we can turn the crisis of this pandemic into an opportunity to rebuild our economies differently and make them more resilient,”

**Ursula Von Der Leyen.
28 Aprile 2020**