European Water Regulators

2nd Workshop on the Economic Regulation of Municipal Waste

# Costs and Tariffs of Municipal Waste Services in Italy

*11th December 2024 – 14:30-17:00*

# Institutional setup of MSW sector

Italian MWS has a **complex multi-tier governance structure decentralized at local level**

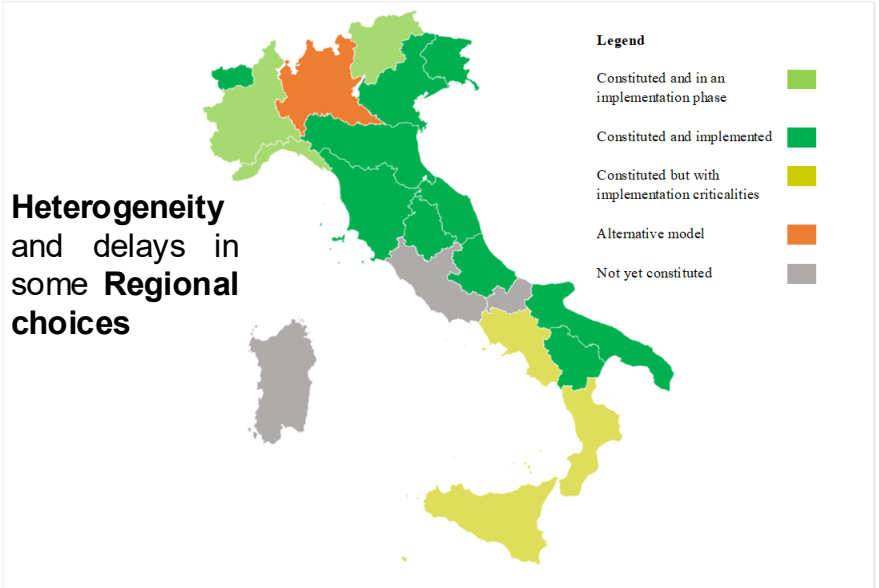
## NATIONAL LEVEL

- Macro-objectives are established, in line with Community legislation, by the **State** (through the **Minister of Environment**);
- A **national independent regulator (ARERA)** has the power, **since 2017**, to establish homogeneous rules valid for the whole national territory in terms of tariff criteria, quality of services and transparency, consumer protection

## LOCAL LEVEL

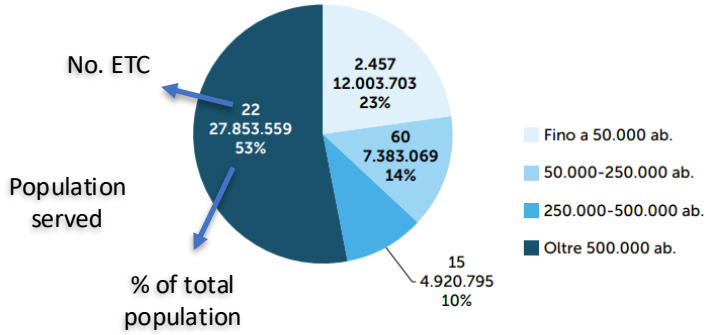
- **Regions** define the optimal territorial areas (also called ATO, usually at regional or subregional scale) in which waste services are organized and constitute a local Authority for each optimal area (called EGATO or ETC)
- **EGATO** (which usually has a regional or provincial size) is responsible for organizing waste services in its relative ATO, provides for the assignment of the service to the management companies (choosing the appropriated form), defines, on the basis of the criteria set by ARERA the financial economic plans to set the operator tariff revenues
- **Municipalities** must take part of EGATO; in some cases, contribute to organization activities (e.g tax collection)

FIG.1 CONSTITUTION PROCESS OF "EGATOs"




**Heterogeneity** and delays in some **Regional choices**

Great fragmentation at local regulatory level, with the **existence of local Municipalities, in the "non-compliant" Regions**, acting as EGATOs (so called ETCs)



# Multilevel regulation: the process for approving tariff proposals

WAREG European Water Regulators

**PHASE 1** — **Authority** — set the tariff rules for efficient operating and investment costs reimbursement, by adopting an asymmetric approach considering operator starting conditions

**PHASE 2** — **EGATO/ETC** — validates the information's provided by operators and adopts tariff proposals

- **identifyies** the objectives to achieve /**investment** needs
- determines additional operational costs associated with specific goals
- **selects the tariff calculation rules** applying to the specific scheme
- **updates** planning acts, with particular focus to economic and financial plan (**PEF**)
- **adapts the management contract** to the relevant regulatory dispositions, including the tariff ones

**local decision-maker empowerment**

**PHASE 3** — **Authority** — collects tariff proposals and other relevant information

**PHASE 4** — **Authority** — analyses and verifies the individual tariff proposals received

if necessary, asking for clarification and further information

**PHASE 5** — **Authority** — approves tariff proposal

with or without modifications or prescriptions

**PHASE 6** — **Authority** — *enforcement* activity

# Annual growth limit and tariff revenues after MTR-2 update 2024-2025

## ANNUAL GROWTH LIMIT

$$\frac{\sum T_a}{\sum T_{a-1}} \leq (1 + \rho_a)$$

where:

$$\rho_a = rpi_a - X_a + QL_a + PG_a$$

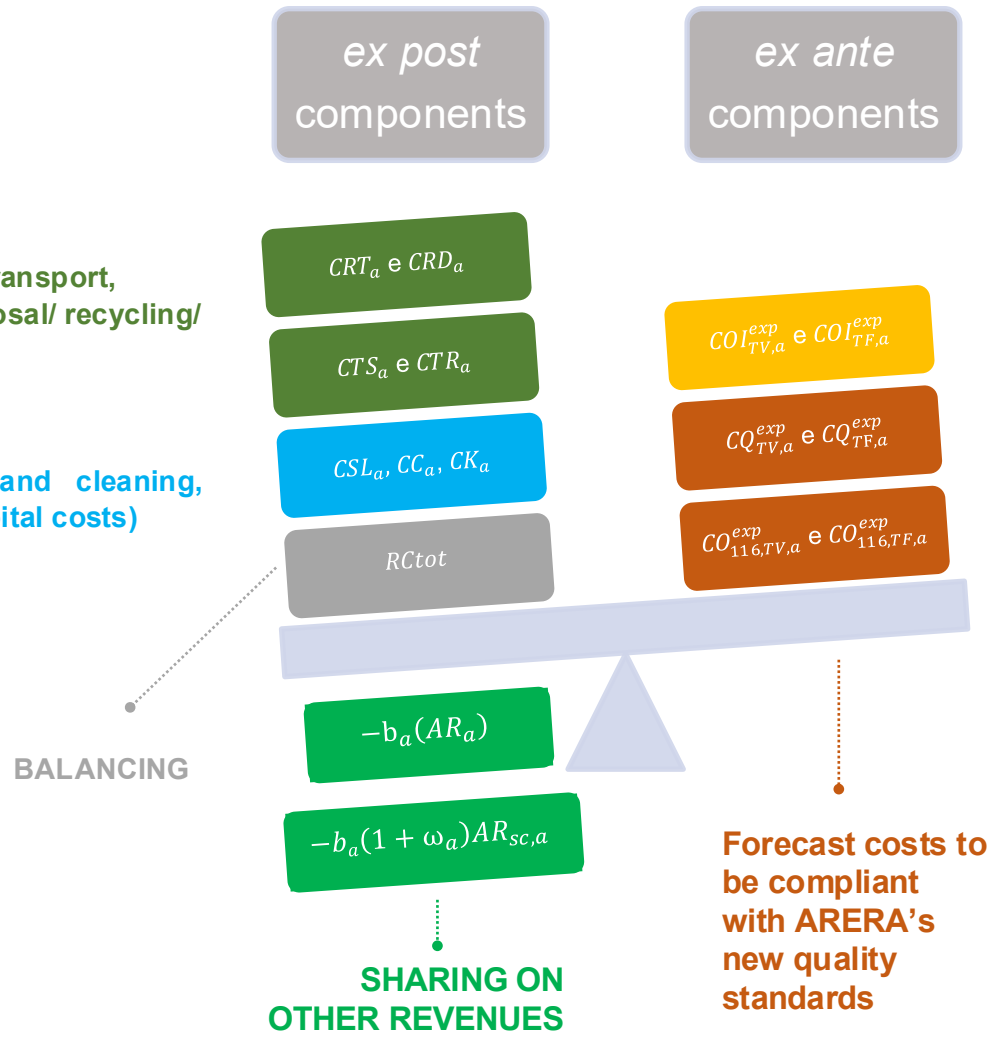
efficiency improvement (0,1%÷0,5%)

| | | MANAGED ACTIVITY SCOPE ($PG_a$) | |
|---|---|---|---|
| | | **No variation** | **Increase** |
| PERFORMANCE QUALITY ($QL_a$) | Maintaining quality levels | BOX I<br>Coefficient values:<br>$PG_a = 0$<br>$QL_a = 0$ | BOX II<br>Coefficient values:<br>$PG_a \leq 3\%$<br>$QL_a = 0$ |
| | Improvement of quality levels | BOX III<br>Coefficient values:<br>$PG_a = 0$<br>$QL_a \leq 4\%$ | BOX IV<br>Coefficient values:<br>$PG_a \leq 3\%$<br>$QL_a \leq 4\%$ |

## ANNUAL TARIFF REVENUES

**VARIABLE COSTS**
**(waste collection, transport, treatment and disposal/ recycling/ recovery)**

**FIXED COSTS**
**(street sweeping and cleaning, common costs, capital costs)**



# Focus on sharing factors

- **Revenue *sharing* factor, $b_a$**: for each year a = {2022, 2023, 2024, 2025}, can be valued by ETC (due to the potential contribution to European targets achievement) within a range of values identified in continuity with that defined in the MTR.

| | Range |
|---|---|
| $b_a$ | [0.3,0.6] |

- **Parameter $\omega_a$**, to determine revenue **sharing factor deriving from fees paid to collective compliance systems**: fixed by ETC coherently with evaluations concerning:
  - sorted waste objectives achievement ($\gamma_{1,a}$)
  - level of effectiveness of preparations for re-use and recycling ($\gamma_{2,a}$)

| | Satisfactory evaluation: $-0.2 < \gamma_{1,a} \leq 0$ | Non satisfactory evaluation: $-0.4 \leq \gamma_{1,a} \leq -0.2$ |
|---|---|---|
| Satisfactory evaluation: $-0.15 < \gamma_{2,a} \leq 0$ | $\omega_a = 0.1$ | $\omega_a = 0.3$ |
| Non satisfactory evaluation: $-0.3 \leq \gamma_{2,a} \leq -0.15$ | $\omega_a = 0.2$ | $\omega_a = 0.4$ |

# Incentives to promote quality and efficiency of sorted waste (resolution 387/2023/R/idr and 389/2023/R/idr)

WAREG European Water Regulators

## Revenues sharing factor deriving from the fees paid to collective compliance systems – determined basing on level of effectiveness of preparation activities for reuse and recycling

Satisfying assessment based on the value of the macro-indicator R1

$$R1 = Efficacia_{Avv_RIC_{RD,sc}} \geq 0{,}85$$

| | $-0.2 < \gamma_{1,a} \leq 0$ | $-0.4 \leq \gamma_{1,a} \leq -0.2$ |
|---|---|---|
| $-0.15 < \gamma_{2,a} \leq 0$ | $\omega_a = 0.1$ | $\omega_a = 0.3$ |
| $-0.3 \leq \gamma_{2,a} \leq -0.15$ | $\omega_a = 0.2$ | $\omega_a = 0.4$ |

$$Efficacia_{Avv_RIC_{RD,sc,a}} = Eff_{RD_sc,a} \times QLT_{RD_sc,a}$$

- $Eff_{RD_sc,a}$: Sorted waste collection quality for fractions subjected to ERP
- $QLT_{RD_sc,a}$: Sorted waste collection efficiency for fractions subjected to ERP

consistency between the **sorted waste collection environmental quality** and the management results of the management in terms of **valorization of the extracted raw materials**

| ID | Index | ID Class | Class | Objectives |
|---|---|---|---|---|
| $H_a$ | Coverage degree of efficient costs of sorted waste collection [%] | A | $H_a \geq 80\%$ | Conservation |
| | | B | $70\% \leq H_a < 80\%$ | $H_{a+1} = H_a + 0{,}010$ |
| | | C | $60\% \leq H_a < 70\%$ | $H_{a+1} = H_a + 0{,}015$ |
| | | D | $50\% \leq H_a < 60\%$ | $H_{a+1} = H_a + 0{,}020$ |
| | | E | $40\% \leq H_a < 50\%$ | $H_{a+1} = H_a + 0{,}025$ |
| | | F | $30\% \leq H_a < 40\%$ | $H_{a+1} = H_a + 0{,}030$ |
| | | G | $20\% \leq H_a < 30\%$ | $H_{a+1} = H_a + 0{,}035$ |
| | | H | $10\% \leq H_a < 20\%$ | $H_{a+1} = H_a + 0{,}040$ |
| | | I | $0\% \leq H_a < 10\%$ | $H_{a+1} = H_a + 0{,}050$ |

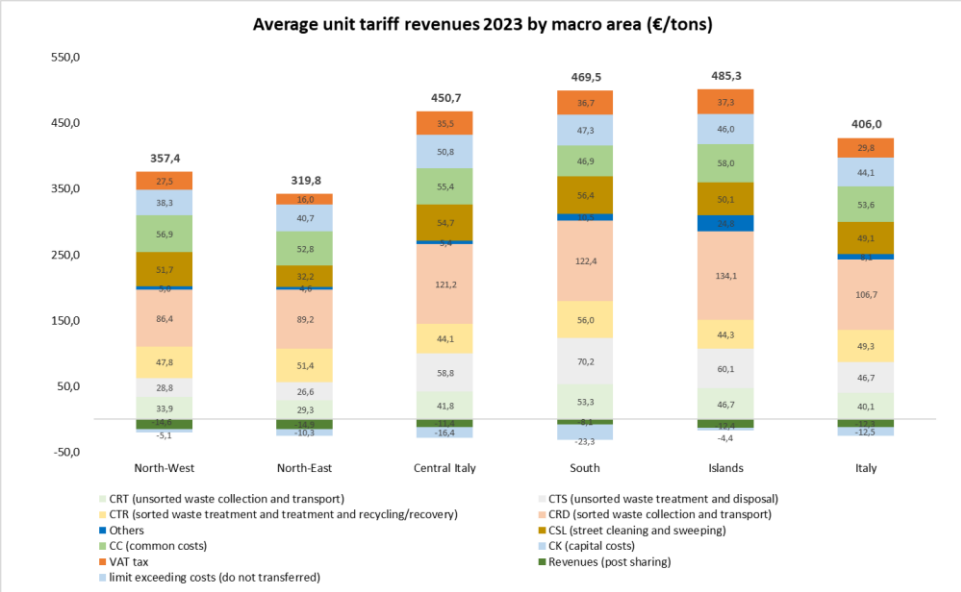
Monitoring the gradual improvement of «***coverage degree of efficient costs of sorted waste collection***» index, $H_a$

$$H_a = \frac{AR^{AGG}_{SC_si,a}}{CRD^{AGG}_{SC_si,a}}$$

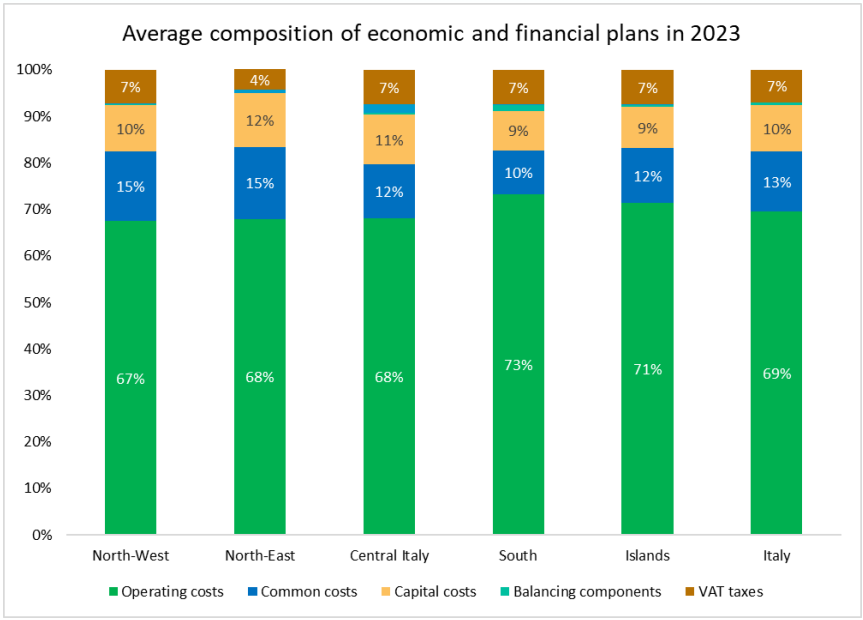
- $AR^{AGG}_{SC_si,a}$: Fees paid by producers' organizations (i.e. Consortia) for collective compliance with EPR obligations
- $CRD^{AGG}_{SC_si,a}$: Costs of sorted waste collection and transport, which include indivisible operating costs quota and capital costs quota

**Monitoring: 2026**, if improvement objectives of previous years aren't reached, an **incentivizing operating cost component will be quantified in order to promote the valorization of extracted raw material**, and it will be determined proportionally to the distance to the ojective

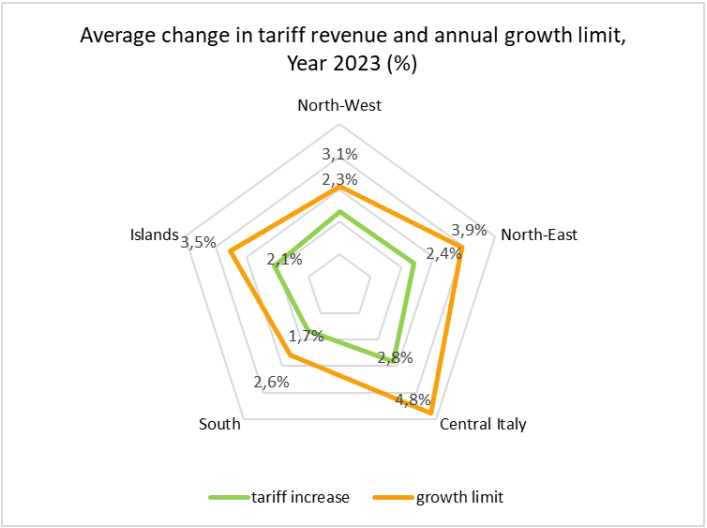
# Some figures on italian case




Considering the strong inflationary pressure that occurred during last years, increases in 2023 tariff revenues at national level are still contained and below the limit identified by the tariff method




In 2022, national production of urban waste amounted to approximately **29.1 million tons**, down 1.8% compared to 2021. At national level, overall, considering a sample of 53,2 million inhabitants, the regulated tariff revenues validated by the individual ETCs in 2023 amounted to **10.8 billion euros**, recording an **average unit value in terms of tonnes of approximately €406/tonnes,** with differences at geographic area levels




The analysis of the economic-financial plans highlights a predominant weight of the operating management costs and common costs which represent approximately 80% of the overall costs, while the **capital costs are worth almost 10%**.

WAREG

European Water Regulators