

BRIT-EU

Case Study Profile

Province of Bolzano – South Tyrol, Italy

With funding from the:

Federal Ministry of Research, Technology and Space

DATIpilot

TUHH Technische Universität Hamburg

ECN Compost and Digestate for a Circular Bioeconomy

BRIT-EU

Introduction

Reference year:	2024
Population (-):	539,386
Population density (inhabitants per km^2):	73
Number of distinct collection areas (-):	116
Number of collection organisers (-):	14
Amount of separately collected organics streams[1] (t per year):	66,767
Thereof biowaste stream (t per year)[1]:	42,613
Thereof green waste stream (t per year)[1]:	24,154
Amount of collected residual waste (t per year)[1]:	79,234
Total organics stream separation rate (%)[1]:	45.7
Biowaste stream separation rate (%)[1]:	35
Approximated net biowaste separation rate (%)[1]:	82-90[2]
Biowaste recycling rate (%)[1]:	-
Total recycling rate (%)[1]:	51

Note: Key Performance Indicators and Influencing Factors are defined on the project website: Link

[1] Autonome Provinz Bozen – Südtirol, Amt für Abfallwirtschaft (2025)
[2] Depending on inclusion or exclusion of fine fraction from regional waste composition analysis.

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Waste collection organisation in the Province of Bolzano – South Tyrol

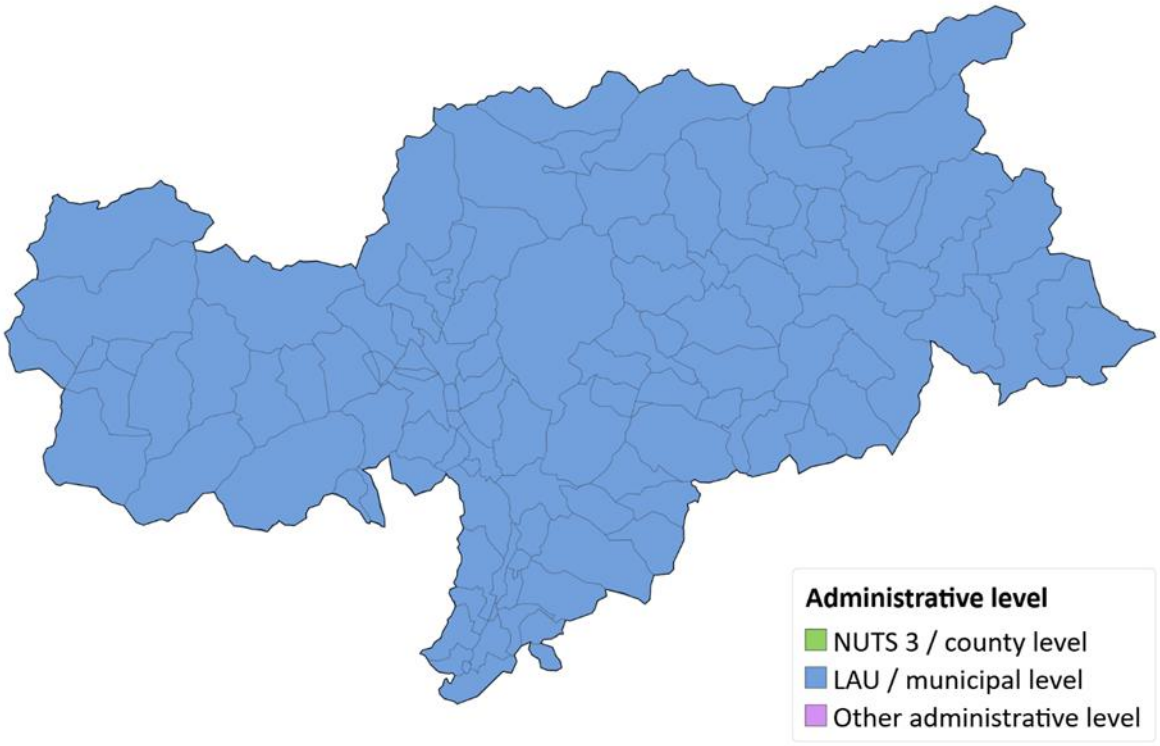


Figure 1: Administrative level of waste collection in the Bolzano Province – South Tyrol, Italy (2024)

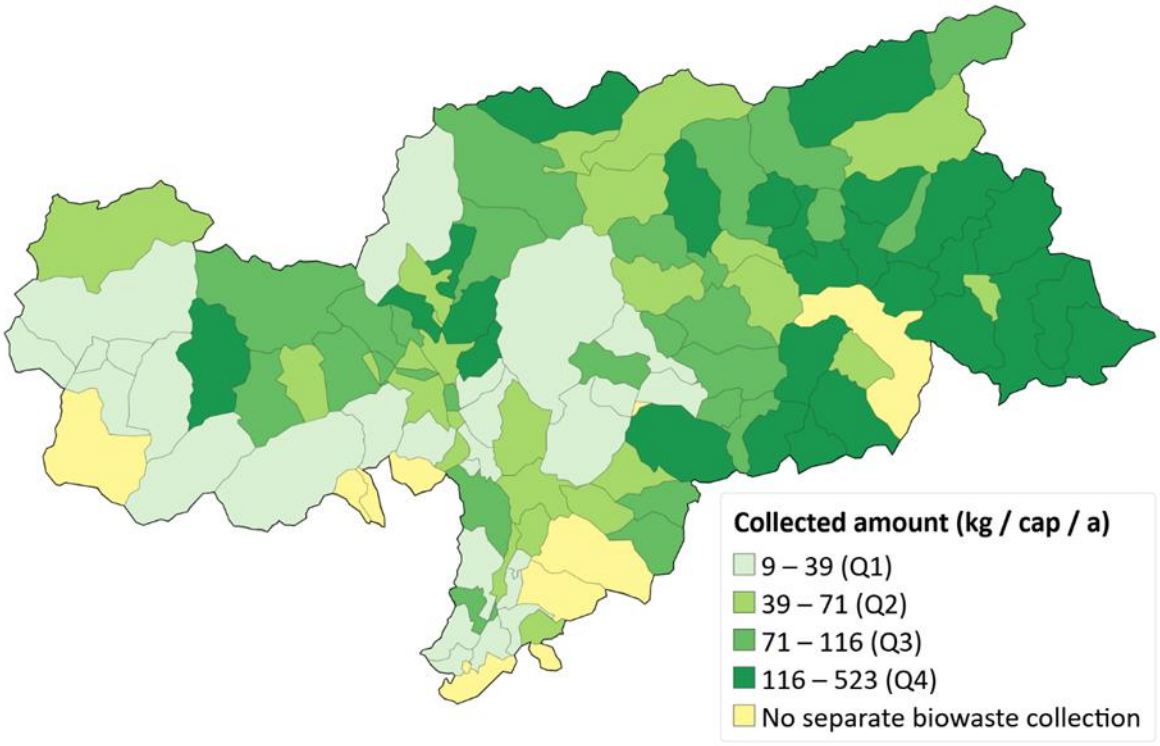
As shown in Figure 1, the Province of Bolzano – South Tyrol has distinct waste collection areas only at the municipal level with a total number of 116.

Infobox 1: Waste management organisation in the Bolzano Province

The Province of Bolzano – South Tyrol is responsible for the overall planning framework for waste management. Municipalities have statutory responsibility for the collection and transport of municipal waste, while the seven district associations (DE: *Bezirksgemeinschaft*, IT: *Comunità Comprensoriale*) organise supra-municipal services. Some municipalities, including Bolzano/Bozen, Merano/Meran and Bressanone/Brixen, organise their waste management services entirely independently.

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Biowaste stream quantities



Q1-Q4: Quartile-based value classes

Figure 2: Collected gross biowaste quantities in the Bolzano Province – South Tyrol, Italy (2024)

The mean quantity of separately collected biowaste was 87 ± 73 kg per inhabitant and year (median = 71), with a minimum of 9, and a maximum of 523, indicating a broad variation of separate collection performance (Figure 2).

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Infobox 2: Separate collection and treatment of biowaste in the Bolzano Province

Separate management of organic waste has been required under Italian law since the end of 2021[3]. Biowaste must either be separated and recycled at source, including through home composting, or collected separately.

Collection is mainly organised door-to-door, although households in several municipalities must take their assigned bins designated proximity collection points for emptying. For consistency, these systems are treated as door-to-door, as the bins remain assigned to individual households and therefore differ from conventional bring systems using shared, non-assigned containers. Additional collection for green waste is available in most collection areas.

Door-to-door separate collection of biowaste is offered to 75.2% of the population (72 collection areas), with some part, especially in the centres of the larger cities, being offered a bring system. 8.1% of the population (9 areas) have a bring point system while 13.6% have to bring their biowaste to a central municipal recycling centre (24 areas). 3.1% of the population are not offered any option for separate collection of biowaste. Residual waste is collected door-to-door from most households (99.1% of the population).

Figure 3 shows the overall concept of biowaste management. The future aim is to direct all separately collected food waste to anaerobic digestion and green waste to composting, which requires targeted collection of both waste streams (see fact sheet). The province also aims to treat digestate locally, as it has previously been transported outside of South Tyrol. A pilot action within the scope of the Interreg CORE project is testing this approach[4].

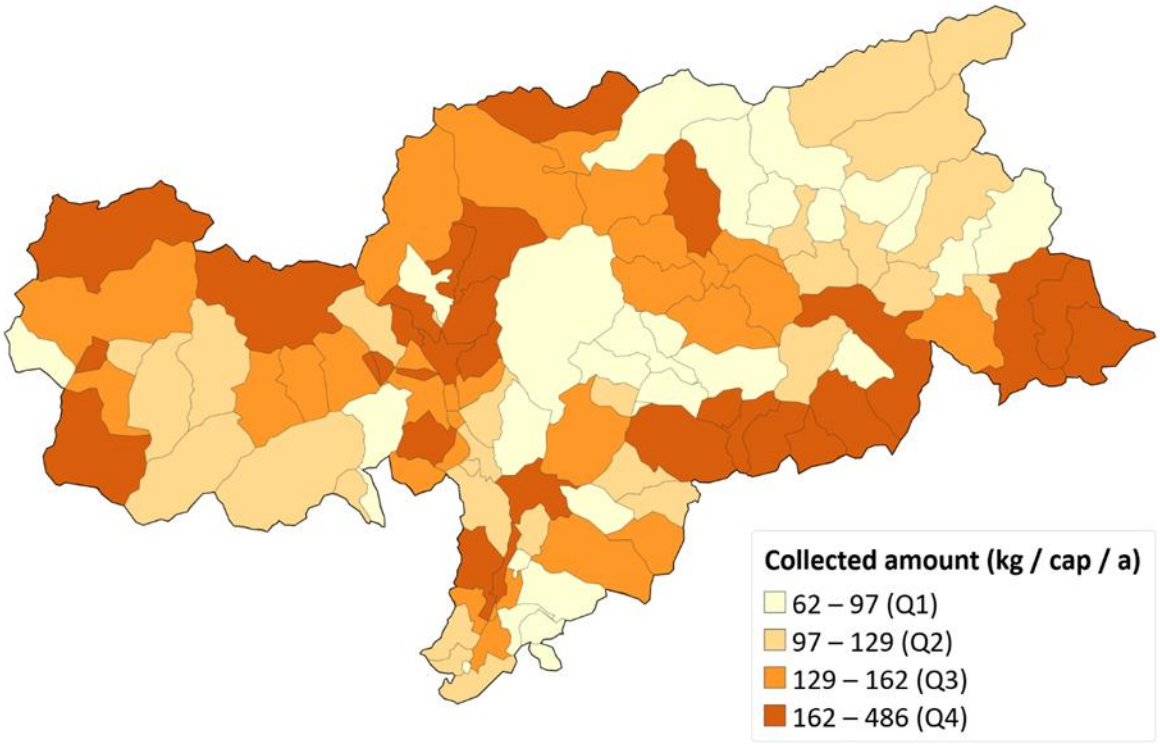


Figure 3: Biowaste collection concepts in the Province of Bolzano – South Tyrol[5]

[3] Italian Republic (2006, as amended in 2020)
[4] Autonome Provinz Bozen – Südtirol (2025a)
[5] Autonome Provinz Bozen – Südtirol (2025b)

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Residual waste stream quantities



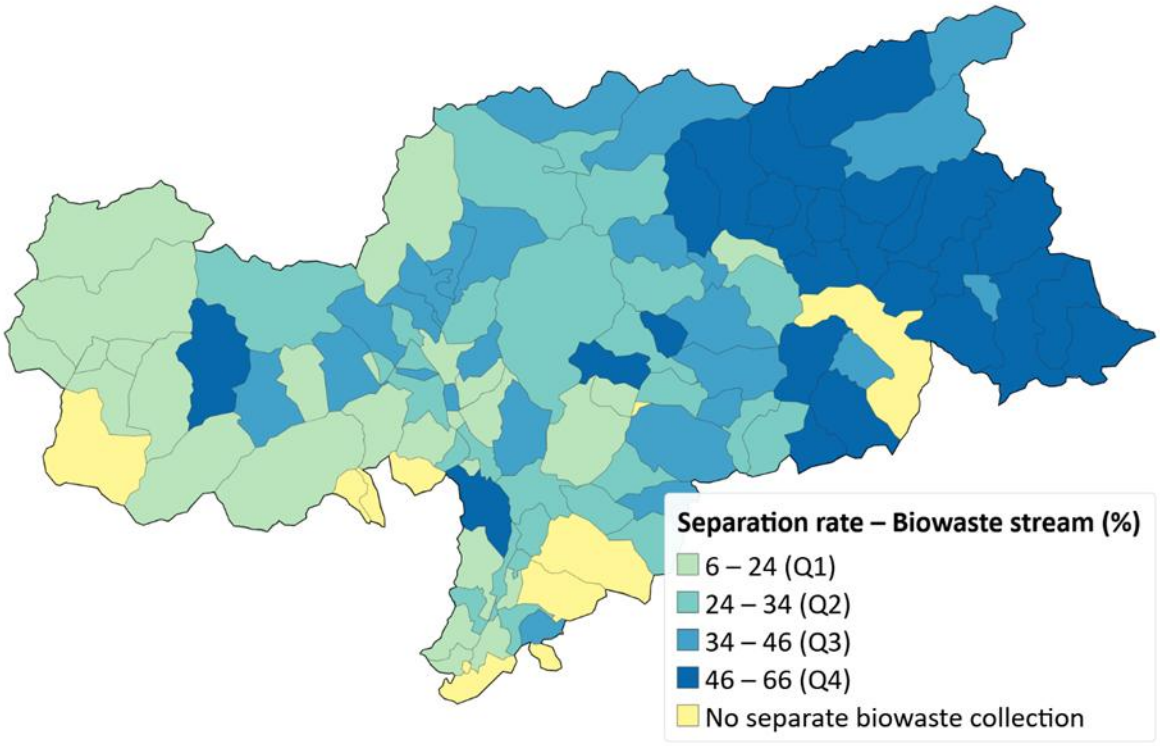
Q1-Q4: Quartile-based value classes

Figure 4: Collected residual waste quantities in the Bolzano Province - South Tyrol, Italy (2024)

The mean quantity of collected residual waste was 145 ± 78 kg per inhabitant and year (median = 129), with a minimum of 62, and a maximum of 486 (Figure 4).

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Biowaste stream separation rate



Q1-Q4: Quartile-based value classes

Figure 5: Biowaste stream separation rate in the Bolzano Province - South Tyrol, Italy (2024)

The biowaste stream separation rate ($SR_{BW,gross}$) indicates for most collection areas a residual-bin-dominant collection (Figure 5). Mainly located in the eastern part of the province, there are 21 municipalities (14% of population) collecting a larger share of waste via the biowaste bin compared to the residual waste stream (SR ≥ 50%).

The mean $SR_{BW,gross}$ was 35 ± 15 % (median = 34), with a minimum of 6, and a maximum of 66.

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Biowaste in residual waste stream[6]

Residual waste analyses were only available as aggregated data for the eight district associations, rather than for individual collection areas. However, the underlying composition analysis was based on a large number of samples.

The mean quantity of biowaste in the residual waste stream was 10.5 ± 3.2 kg per inhabitant and year (median = 9.1), with a minimum of 7.3 and a maximum of 15.4.

Approximated net biowaste separation rate

The approximated net biowaste separation rate ($SR_{BW,approx\text{-}net}$) was estimated from the residual waste composition analyses date. Results confirm a biobin-dominant collection of approximated biowaste. The mean $SR_{BW,approx\text{-}net}$ was 85% (median = 85%), with a minimum of 75% and a maximum of 93%.

Infobox 3: Estimating material-based biowaste separation rates from waste-stream KPIs

A strong correlation was observed between the gross biowaste stream separation rate and the approximated net biowaste separation rate. The relationship and its potential use for estimating material-based performance are examined in a separate cross-case technical note.

Learn More

Explore our website to access further project information, additional factsheets, and in-depth case study profiles: https://www.compostnetwork.info/brit-eu/

Citation

Walk, S. Lüssenhop, P., Martin, I., Siebert, S., Körner, I. (2026). BRIT-EU Project - Integrated information and management tool for the potential analysis of biowaste in the EU. European Compost Network ECN e.V. & Hamburg University of Technology. https://www.compostnetwork.info/brit-eu/

[6] Autonome Provinz Bozen – Südtirol, Amt für Abfallwirtschaft (2025)

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