

RETHINK WASTE



RETHINKING MUNICIPAL TARIFF SYSTEMS
TO IMPROVE URBAN WASTE GOVERNANCE

LAYMAN REPORT

Action D.1 – dissemination planning and execution

ENGLISH VERSION



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- 6 Introduction – The environmental issue**
- 7 Project goals**
- 8 Partners**
- 10 Main actions and results**
- 12 The pilot areas**
 - 16 New pilots
 - 17 Lessons learnt
- 18 Toolkit**
 - 18 DSS
 - 19 Tutor RETHINKWASTE
- 20 Coaching sessions**
 - 21 Results
- 24 Dissemination activities**
 - 24 Website
 - 24 Social media
 - 25 Newspaper articles
 - 26 Events
 - 28 Networking

The environmental issue

The appropriate treatment of waste is crucial to avoid harmful environmental damages. The Directive 2018/851 on waste and the Directive 2018/850 on landfill set new Eu target to achieve.

In compliance with the Waste Hierarchy each Member State must:

- recycle a minimum of 65% of all municipal waste by 2035 (55% in 2025 and 60% in 2030)
- recycle 70% of packaging waste by 2030
- drastically reduce the amount of municipal waste disposed of in landfills: maximum 10% of the total by 2030.

To achieve such ambitious targets, a great effort is required at all levels, and households are the first actor to approach.

Improving waste management at local level has a huge potential for saving resources and moving towards circular economy: in this regard, innovative governance instruments such as “Pay-as-you-throw” (PAYT) and “Know-as-you-throw” (KAYT) can lead to impressive results.



Pay-as-you-throw tariff schemes (PAYT) are based on the “**polluters-pay principle**”. They charge waste producers on the basis of the **actual amount of waste generated** and provide incentives for the collection of recyclable waste and the reduction of mixed waste. The effect of PAYT is **to make waste prevention, reuse and better separation at source for recycling more economically attractive, increasing the waste producer’s responsibility**. PAYT schemes are included in the Annex IVa of the new Waste Framework Directive (Directive (EU) 2018/851), among the examples of economic instruments and other measures to provide incentives for the application of the waste hierarchy [article 4 (3)]



Know-as-you-throw (KAYT) is an innovative concept developed by the Horizon 2020 Waste4think project to **reduce municipal waste through a knowledge & persuasion-driven approach**. KAYT can be seen as an additional instrument to PAYT, or as a simpler and easier alternative to it. The idea: the habits of waste producers towards separate collection can be improved **simply by informing them in a continuous and convenient way**, combining technology (messages via apps, gamification, etc.), one-to-one meetings with real informers and some economic and/or social benefits. KAYT is highlighted in the report of the European Commission “Best Environmental Management Practice for the Waste Management Sector” (June 2018).

The main objective of the LIFE-REthinkWASTE project is to provide local authorities with an innovative “plug and play” governance model based on the PAYT + KAYT approach, to reduce the unsorted waste, improve the recycling rate:

- Rethink municipal tariff systems to improve urban WASTE GOVERNANCE through an innovative model based on the PAYT-KAYT approach.
- Increase separate waste collection, reduce undifferentiated waste per capita, increase the recovery rate, and reduce tariffs for the most virtuous citizens.
- Test the KAYT (Know-as-you-throw) approach in some pilot areas, combining it with the PAYT (Pay-as-you-throw) scheme.
- Integrate the PAYT-KAYT paradigm in the planning and governance tools of municipal waste management: Local Area Plans, municipal regulations.
- Support European local authorities in the definition of new municipal waste management and pricing strategies, also by providing them with self-assessment and decision support tools.



The REthinkWASTE partnership involves 11 entities from 4 different EU countries, included municipalities, Regional Authorities, National and EU networks and technical experts.



Etra S.p.A.
ITALY

Etra is a public company (total public property) which deals mainly with integrated water supply, waste management and renewable energy services. It is one of main multi-utility company of Veneto region: its clients for waste management services are 64 Municipalities of Padova and Vicenza provinces (in all more than 500,000 inhabitants). Thanks to innovative solutions, the management of the whole chain and a strong commitment in communicating to all stakeholders Etra is able to achieve excellent results in terms of recovery and recycling. Etra introduced PAYT system since 2006 and currently there are 61 municipalities applying PAYT, with excellent results in terms of separate collection (over 76% on average in 2018).
www.etraspa.it



ARPAV - Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto
ITALY

ARPAV is an operational body of Veneto Region for its planning activity and for all environmental issues. The main goal of the Agency is to control and preserve the environment in order to help the identification and elimination of human and environmental risks. ARPAV Waste Regional Observatory is the regional reference body regarding waste prevention and management and related items, especially for data collection and planning strategies of the sector.
www.arpa.veneto.it



ARS ambiente s.r.l.
ITALY

ARS is a consultancy supporting public entities and private companies in implementing environmentally sound waste management schemes, especially focusing on separate collection and treatment of organic waste and Pay-As You-Throw schemes. It helps local governments such as Regions, Provinces and Municipalities to develop waste management master plans and implement new actions aimed at improving the quality and quantity of source separated streams of waste. To achieve this, ARS provides its expertise in waste data processing and visualization, combined with direct contacts with a wide dataset of best practices at European and international level.
www.arsambiente.it



ATA - Assemblea Territoriale d'Ambito ATO 2 Ancona
ITALY

ATA is a public body born from the association between the Municipalities of the Province of Ancona (in Marche Region) and the Province itself. Its main goal is the management of the integrated cycle of urban waste and of the related tariff.
www.atarifiuti.an.it



Municipality of Bitetto
ITALY

Bitetto is a medium-size city of Puglia region of about 12,000 inhabitants. At the end of 2016 Bitetto's service company implemented a system based on RFID technology for measuring the waste collection, that in 2019 led to achieve the stunning result of 78% of waste separate collection rate. In December 2019 the Municipality approved the new PAYT-KAYT regulation. The main objective of the Municipality now is to test the "Know-as-you-throw" (KAYT) approach and to integrate it with the PAYT system already in use, in order to improve the already remarkable performance in terms of separate collection % and to make citizens aware of the KAYT model.
www.comune.bitetto.ba.it



Municipality of Varese
ITALY

Varese is a city of Lombardia region of more than 80,000 inhabitants. In 2019 Varese achieved a result of 69% of separate collection of waste. The objective of the Municipality is to introduce PAYT within a couple of years; before that, the idea is to test the "Know-as-you-throw" (KAYT) approach within the REthinkWASTE project in order to verify the potential results attainable through an intensive communication campaign.
www.comune.varese.it



IFEL - Istituto per la finanza e l'economia locale
ITALY

IFEL is a Foundation established in 2006 by the National Association of Italian Municipalities (ANCI). Its main goal is to assist Municipalities in matter of finance and local economy. As a reference structure for the systematic collection, processing and dissemination of data related to local taxes, the Foundation operates as a research and training body through the production of studies, analyses and proposals for regulatory innovation to satisfy the requests of Municipalities and citizens. Since 2017 IFEL has promoted the knowledge of Municipalities about PAYT system through free webinars, seminars, workshops and publications.
www.fondazioneifel.it



ARC - Agència de Residus de Catalunya
SPAIN

ARC is the competent authority for waste management in the Autonomous Community of Catalonia. Its main objectives regarding municipal waste are the promotion of the prevention, the separate collection and recovery as well as the development of planning instruments and legal dispositions for the management of municipal waste. The ARC has applied financial instruments discouraging waste generation and disposal of municipal waste to landfill and incineration for years, starting with the implementation of a disposal tax in 2003 and incorporating the promotion of PAYT systems as a transversal action in the Municipal Waste Management Program 2007-2012.
<http://residus.gencat.cat/ca/inici/>



Ajuntament de Sant Just Desvern

Municipality of Sant Just Desvern
SPAIN

Sant Just Desvern is a town of Catalonia located near Barcelona with a population of 18.670 inhabitants (2020). The city is developing an innovative waste management model in which biowaste and residual waste containers will be locked, being necessary to get a user's identification card to open them. This action is aimed at increasing the municipal collection waste rates and stimulate people to a better behaviour related with waste management. All data collected will be used to assess the waste service and at the same time to raise citizen's awareness. This last goal will be achieved by the implementation of the "Know-as-you-throw" (KAYT) approach using a rewarding scheme with discounts at local businesses.
<https://santjust.net/>



ACR+ Association of Cities and Regions for Sustainable Resource Management
BELGIUM

ACR+ is an international network of cities and regions sharing the aim of promoting a sustainable resource management, through prevention at source, reuse and recycling, and accelerating the transition towards a circular economy on their territories and beyond. Through its activities, ACR+ strives to develop the expertise and skills of public authorities in effective waste-product-resource policies, as well as encourage practical action. The association provides support to regional and local authorities in their new challenges and promotes cooperation and partnership to develop eco-efficient solutions.
www.acrplus.org



2.0 LCA Consultants
DENMARK

2.0 LCA is an internationally oriented consultancy company dedicated to Life Cycle Assessment (LCA) and related tools such as Integrated Product Management. Past and current activities include EU projects on standards for LCA data and input to the EU resources strategy, national and international projects on database development, prioritisation within the Integrated Product Policy, analysis of product policy options, development of life cycle assessment methodology, as well as specific LCAs and reviews for European industry associations and international companies. The company currently has workers in Denmark, The Netherlands and Spain.
<https://lca-net.com/>

Main actions and results

The project implemented the innovative PAYT-KAYT approach in 4 different pilots (3 more municipalities joined the scheme after the project started).

Based on the results achieved, and on similar experiences gathered in EU, a wide coaching and training campaign has been promoted among municipalities, local entities and waste management companies to support the adoption of PAYT and KAYT approach. Practical tools for municipalities have been developed and made available helping to overcome barriers that hamper the diffusion of the PAYT-KAYT approach.

A compelling communication campaign has been implemented to involve local stakeholders like policy makers, citizens, waste management companies and local authorities promoting the awareness on the proper disposal of waste and the available levers to stimulate the change of behaviour.

PHASE

A

Collection of experiences on the application of PAYT and KAYT in different European countries

PHASE

B

Test of the PAYT-KAYT approach in 4+3 pilot areas (IT - ES) + performance comparison + adjustment of waste management systems
Large-scale promotion of PAYT-KAYT schemes with training and self-assessment tools

PHASE

C

Life cycle analysis - LCA
Cost analysis - LCC to estimate the environmental, economic and social impact of the PAYT-KAYT model

PHASE

D

Communication strategy and dissemination of results

Action A.1: Definition of KAYT concept and tools to integrate variable fares (PAYT) goal

- Baseline assessment of the 4 pilots
- Development of a messaging platform for the KAYT testing via WhatsApp, Telegram and SMS
- Collection of best practices on PAYT

Action B.1: CASE STUDIES based on modular & progressive application of PAYT-KAYT paradigm

- One year test of PAYT-KAYT scheme in 4 pilot areas (Bitetto, Varese, Bassano in Italy, Sant Just Desvern in Catalunya), based on messages via WhatsApp, Telegram and SMS
- Engagement of users through prize competitions (Riciclo e Vinco! in Italy, #Coneixelquellences in Catalunya)
- Big-Data analysis for the optimization of waste service provided

Action B.2: Evaluation of case studies performance

- Assessment of results achieved through the PAYT-KAYT test implemented
- Comparison among pilots on strengths and weaknesses of the model, results obtained and barriers to overcome

Action B.3: Transition to new paradigms and regulations of urban waste tax in the 4 pilot areas

- Integration of the PAYT-KAYT approach in the waste management regulation of the pilots
- Esteem of cost and benefit analysis for the implementation of PAYT-KAYT in a larger scale

Action B.4: Toolkit to enable PAs and waste utilities in simulating and modelling variable w-tariff system

- Development of self-assessment toolkit for municipalities and local entities interested in adopt the PAYT-KAYT approach DSS (Decision Support System) able to esteem the investment needed and the potential results (available on the project website)
- Webtool (<https://www.tutor-rethinkwaste.eu/>) for the self-assessment and steps to implement to apply the PAYT-KAYT approach in a municipality considering several crucial aspects: technical and technological requirements, awareness, privacy management, GPP, normative criteria, business planning.

Action B.5: Strategy for the large-scale expansion of dynamic w-tariff paradigm across Public Administration and governance bodies

- Coaching and training to more than 350 municipalities in EU about the implementation of PAYT-KAYT scheme

Action C.1: Analysis of the LIFE programme performance indicators

- Monitoring of the project impact with Life programme KPIs

Action C.2: Environmental footprint analysis

- Life Cycle Assessment (LCA) of the project

Action C.3: Socio-economic analysis

- Assessment of the project impact among users (change of behaviour, increase of awareness)

Action D.1: DISSEMINATION PLANNING AND EXECUTION

- Diffusion of project actions and results through events, social media, website, articles on newspaper, videos
- Media engagement
- Networking with other Eu projects

Action E.1: PROJECT MANAGEMENT

- Coordination and management of project's action and partners

The pilot areas

The PAYT-KAYT approach have been tested for one year in four pilot areas: Bassano del Grappa (VI), Bitetto (BA) and Varese in Italy, and Sant Just Desvern in Catalonia (Spain). A short trial was also carried out in the Catalan municipalities of Cardedeu, El Brull and Santa Eulàlia de Ronçana.

Objective

To increase the rate of separate collection; to reduce the production of unsorted waste; and to increase user awareness, involvement and participation in the service.

What has been implemented

- Creation of a multi-channel messaging platform (WhatsApp, telegram, SMS).
- Delivery to users of three types of messages about separate collection: general information, quizzes (with the need for interaction) and personalised messages according to the individual's behaviour (e.g. number of deliveries made).
- Contests to involve users: "Riciclo e Vinco!" in Bassano del Grappa, Bitetto and Varese, "#Coneixelquellences" in Saint Just Desvern. Winners, drawn at random or selected by level of interaction, received vouchers to spend in contracted local shops.



The engagement campaign

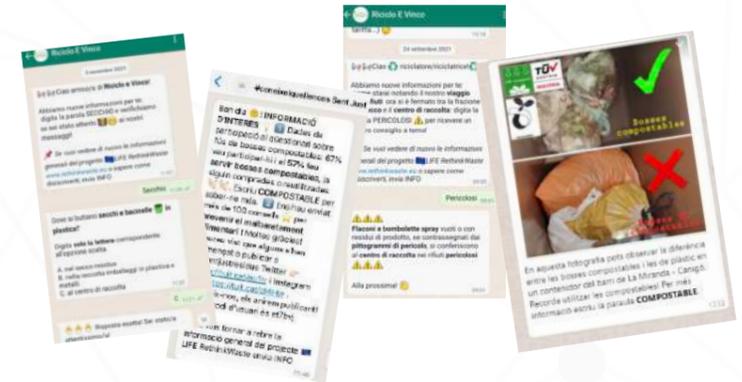
The testing of the KAYT approach was carried out on the basis of the voluntary participation of users prompted by a main engagement campaign and some additional support activities:

- "Riciclo e vinco!" prize competition
- Delivery of letter/email to users in the pilot areas
- Delivery of the letter together with RFID cards for opening the bins
- Notification combined with the waste tax/annual calendar
- Local TV spot
- Information desks



Registered users received 3 types of messages on their smartphones with a periodic frequency (at least one message per week).

- QUIZZES
- GENERAL MESSAGES on proper waste sorting
- PERSONALISED MESSAGES



Each interaction is anticipated by a TRIGGER message in which the user is invited to reply with a keyword to obtain the next message. The mood used is informal and fun, with useful tips and case references.

Messages refer to SPECIFIC CASES of waste that often cause doubts in the user when sorting. Personalised messages may concern:

- the NUMBER OF DELIVERIES made, and comparisons with deliveries from the previous year;
- COMPARISON with deliveries made by similar families in terms of number of members;
- Results of QUALITATIVE INSPECTIONS on the appropriate disposal of waste in the area or block of flats involved (with photos)

Pilots' context before the test:

	San Just Desvern	Varese	Bassano del Grappa	Bitetto
Main collection system:	Street containers (with e-card)	door-to-door	door-to-door with record of user deliveries	door-to-door with record of user deliveries
PAYT:	No (no waste tax) 2.129.797,41	No	Yes	Yes (launched together with KAYT)
Separate waste collection (2019 - before the pilot):	58,05%	70%	78,3%	78,44%
Area of testing:	First phase: La Miranda Canigò (2.360 inhabitants, 1.062 users) Second phase: whole municipality (18.670 inhabitants, 8.013 users) 353.447,51	Bustecche e San Carlo (5.000 inhabitants, 1.982 users)	D collection area (11.278 inhabitants, 5.584 users)	Whole municipality (11.923 inhabitants, 4.217 users)

Bassano del Grappa

In Bassano the PAYT tariff is applied since 2017. The collection area D was involved in the test, citizens were invited to take part to the “Riciclo e Vinco!” contest through the forecast of spots on local TV, the distribution of leaflets into schools or with the delivery of the annual calendar. The enrolled citizens demonstrated to be very committed to the initiative. At the end of the testing phase 100 citizens have been sorted out among the most active in the platform. A cooperation was established with the **University of Verona**, to assess the effectiveness of text messages in reducing waste delivery, using personalised messages that prompted to improve the personal performance as respect the previous year or as respect the average of similar families of the area. Also a **Big-Data analysis** has been implemented to improve the service through data collected by PAYT. The Big data analysis aims was to redesign the collection route, improving the service effectiveness and saving resources. Among the participants in “Riciclo e Vinco!” initiative, **deliveries of all fractions decreased**; unsorted waste deliveries reduced by more than 13%. The initiative was highly appreciated (93% of participants very satisfied) and citizens perceive themselves as better informed. The local authority for the waste service, the Consiglio di Bacino Brenta, entrusted Etra to provide the service for the next 15 years, requiring the adoption of PAYT in all municipalities in the area and the promotion of KAYT as communication approach customised to users.



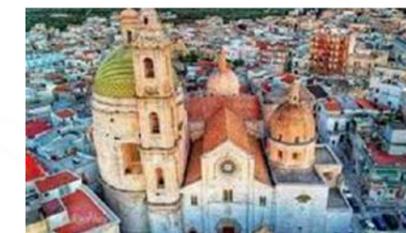
Varese

Varese tested the KAYT-PAYT approach in a district of **social housing** characterised by big blocks of flats. The involvement of **local NGO** (Legambiente) enabled the presence of eco-coaches in the neighbourhood and the delivery of personalised waste disposal **photo documentation** to users. Citizens have been awarded, with voucher to spend in local shops, according to the score accumulated through the answers provided to funny quizzes about proper behaviour in waste sorting. The prize award took place twice: after 6 months of testing and at the end. The environmental days organized for the occasions were very participated and proposed a joyful way to approach the waste management issues. Through the “citizen science method” (citizens texted a message every time they deliver their unsorted waste) was observed a reduction of 9.6% of deliveries in the intensive phase of the information campaign and 2.6% in the final phase. 75% of the participants perceived that their awareness of separate waste collection had increased. Thanks to the results gathered during the test phase, **Varese adopted the PAYT** for the whole municipality from 2022 and a municipal Decree has been approved including the possibility to include the KAYT approach. The KAYT approach is not yet well defined in the modality, but a Telegram service is likely.



Bitetto

Bitetto tested the KAYT-PAYT approach in the whole municipality. The messages sent were **instrumental** in understanding the **newly introduced PAYT tariff**, which envisages a bonus-malus structure depending on the number of deliveries made per each fraction. A **gamification approach** was implemented to earn points for the prize awarding, which consisted of vouchers to spend in local shops. Public events were organized to involve citizens and asking feedback from users to improve the service, as well as rewarding citizens who actively interacted with the message platform. **Significant reduction in deliveries** of almost all fractions, in particular unsorted waste (-12.3%). All participants in “Riciclo e Vinco!” consider that the initiative contributed to a better differentiation of waste. The municipality of Bitetto will exploit the data collected during the test phase for the fine tuning of the new PAYT tariff system. The introduction of the KAYT approach is planned with the adoption of nudging techniques for the **bill design**.



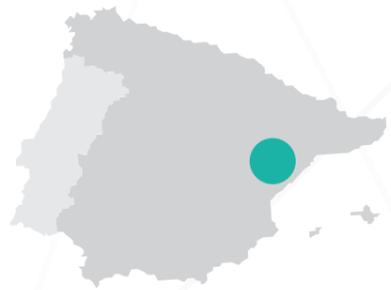
Sant Just Desvern

Sant Just, tested the KAYT-PAYT approach in two phases: first in a restricted area (La Miranda-Canigó neighbourhoods) for the period April-October 2021 and then the rest of the municipality for the period March-June 2022. The KAYT approach coincided with the **introduction of a new collection model** based on smart street containers for the organic and unsorted fractions, that can be opened only with the use of the **personal e-card**. The distribution of e-cards and the engagement of citizens happened in the same period, resulting in a high percentage of adherence to the test. Citizens were involved also through info points, distribution of flyers and social media. Messages sent helped households to deal with the new collection system. The prizes awarded consisted of vouchers to be spent in local shops, depending on the points gained through the interaction with the KAYT platform and a final draw of e-bikes among all participants. In total, **separate waste collection increased** by 4.5 percentage points compared to 2019, reaching 62.5%, while the production of unsorted waste was reduced by 22%. Participants in the initiative recorded better performance than the average. The municipality of San Just Desvern defined a proposal of a package of acts including a Local waste management plan with the possibility to include KAYT-PAYT, a comprehensive study with the goal to **design the waste tax**. The new collection model implemented (bins closed and personal e-cards to open) has been approved. Furthermore, the KAYT will be adopted with a dedicated app (bitPAYT). Moreover, San Just is cooperating with the Metropolitan Area of Barcelona to design the waste tax.



New Pilots

Three Catalan municipalities joined the KAYT test phase during the spring 2022. The purpose had been to raise awareness on waste sorting and inform citizens on new collection systems introduced.



Lessons Learnt

- KAYT can be COMPLEMENTARY to PAYT. It can also be used to support its introduction, or as a simplified alternative to stimulate and guide citizens.
- Participants in the pilot projects evaluated the KAYT approach positively: it is useful to receive INFORMATION about DIFFERENTIATED COLLECTION through friendly messages and quizzes. Direct communication looks more immediate and encourages users to improve their behaviour!
- The data collected by measuring waste deliveries can also be useful to send users PERSONALISED AND UPDATED MESSAGES about their results, addressing them with friendly nudges.
- KAYT can MOTIVATE citizens towards the waste service, conveying the message that separate waste collection is both an individual act and a collective responsibility for the environment.



Cardedeu

Population (2020): 18,424 inhabitants
Total area (km²): 12.10
Altitude (average): 193 m

The KAYT system has been tested shortly before the implementation of the new waste collection model, based on door-to-door collection with user identification. The goal, therefore, is to ensure that KAYT supports and accompanies this change in the collection model.



El Brull

Population (2020): 258 inhabitants
Total area (km²): 41.08
Altitude (average): 1,047 m

The KAYT approach tested had the objective to: Establish a channel of contact and direct communication with citizens. Encourage users to participate better in separate waste, in particular the organic fraction and residual waste. Promote home self-composting as the main system for the management of the organic fraction

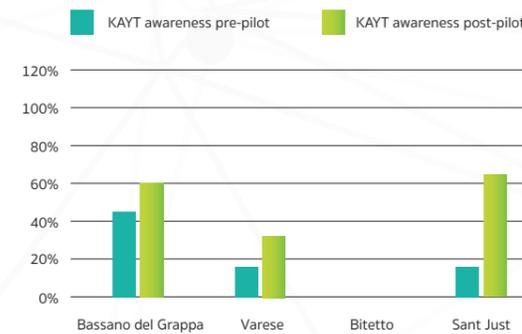


Santa Eulàlia de Ronçana

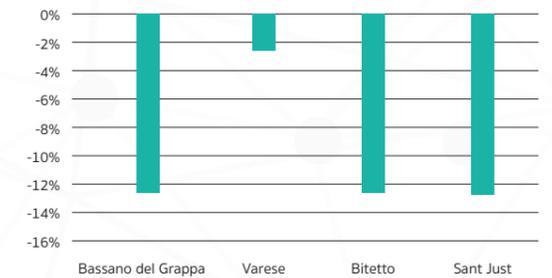
Population (2019): 7.426 inhabitants
Total area (km²): 14,23
Altitude (average): 242 m

The KAYT approach was aimed at sensitize on good habits concerning waste sorting, included the waste tourism and littering. PAYT has been introduced in 2022.

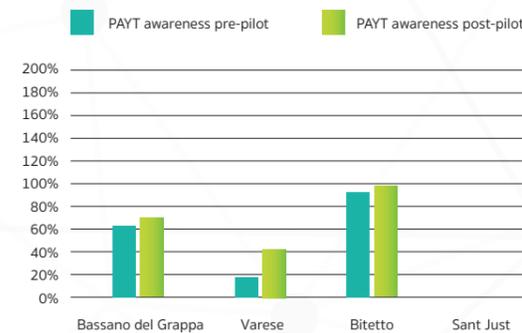
KAYT awareness



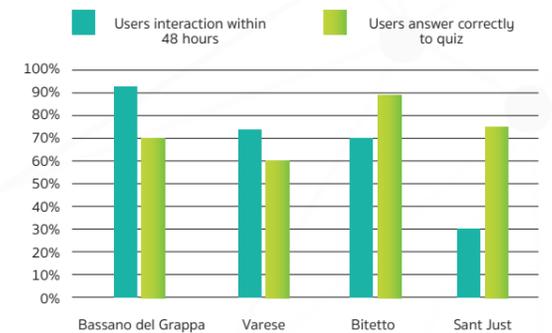
Delivery of unsorted waste



PAYT awareness



Active participation in KAYT



Practical tools for municipalities have been developed and made available to help overcome doubts that hinder the dissemination of the PAYT-KAYT approach.



The DSS (Decision Support System) through the filling in of data on the present state of waste management (just present in the Database data of Italian municipalities), and the possibility to choose among different option of PAYT-KAYT to implement, provides a prevision of investments needed and expected results in term of waste sorting and cost saving. The DSS is available under request on the project website www.rethinkwaste.eu

DSS 4 PAYT/KAYT previsto nell'azione B4 del progetto LIFE RETHINKWASTE

RETHINK WASTE
RETHINKING MUNICIPAL TARIFF SYSTEMS TO IMPROVE URBAN WASTE GOVERNANCE

Introduzione

Il modello Decision Support System (DSS) sviluppato in collaborazione con ETRA, partner di rethinkwaste, risponde all'esigenza di riproporre un'alternativa a tariffe domestiche di imposte RETHINKWASTE. Beneficiari in primo luogo ambientali ma anche importanti risultati economici (risparmio in tariffe, risparmio per i costi dell'appalto, etc.) e sociali (maggiore partecipazione, creazione di un contratto diretto con l'utente che nasce e si deduce al meglio ad una corretta gestione dei propri rifiuti).

Il DSS prevede infatti di definire le tariffe, sui quantitativi di rifiuti interattivi, sulle zone delle riciclabili differenziate, sulle produzioni totali dei rifiuti, sulle proporzioni e sull'aspetto di compostaggio e sulle previsioni di altri rifiuti imballaggi.

Avvertenze

Il DSS è distribuito in modalità protetta da licenza creativa comune di tipo CC BY-NC-ND (Attribuzione - Non commerciale - Non opere derivate), la quale prevede che l'utente possa essere usato menzionando l'autore e la licenza, ma solo a scopi non commerciali e solo se originari. Tutto il materiale relativo alla simulazione (performance delle modifiche di sistemi, simulazioni economiche etc.) sono stati indicativamente elaborati da casi studio di riferimento, ma non sono da affidare come valori assoluti nell'ambito di una pianificazione comunale o di vasta scala, per le quali si richiedono necessariamente approfondimenti di dettaglio.

Requisiti minimi e dati base necessari

Per poter utilizzare il DSS 4 PAYT/KAYT è necessario l'utilizzo di un pc con software Windows in versione 6 o più e l'utilizzo di Microsoft Excel. È necessaria l'installazione delle Macro in Excel, inoltre occorrono i dati di produzione rifiuti almeno dell'ultimo anno, adatti quali:

Name of the Municipality: **Matera**

Write the name of the Municipality

NAME OF THE MUNICIPALITY FOUND IN ITALIAN ISPRA DATABASE

Current collection model: **Road containers**

Enter the current prevalent type of collection. In the dropdown you can choose between Door to Door systems, (i.e. kerbside) and road containers, (also known as bring banks, i.e. those in which large volume containers are located throughout the territory).

Choose: Waste data flow: **NO**

Automatic fill (choose NO), manual fill (choose YES)

Waste management costs: **YES**

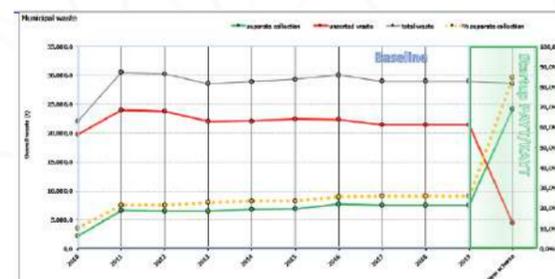
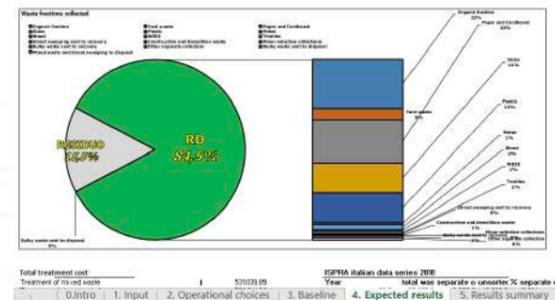
You can use ISPRA data

Waste management overall costs: **100%**

% of costs covered by waste tax

Income from waste tax: **€**

Overall costs - ISPRA: **€ 12.313.355,40**



A practical webtool www.tutor-rethinkwaste.eu was also developed for the self-assessment of local entities, providing advices and suggestions on the main topics concerned by the implementation of PAYT-KAYT:

- technical and technological requirements,
- awareness,
- privacy management,
- GPP (green public procurement),
- normative criteria,
- business planning.

Pay As You Throw (PAYT) and Know As You Throw (KAYT) models are important pieces of the puzzle called waste management. They are finding their way to becoming a part of local policies for the last several years with many more local and regional authorities considering their implementation. In case your local or regional authority is one of them, you are at the right place. This rethinkwaste Tutor will guide you through a self-assessment process for identifying strengths and weaknesses, and suggest you the first steps to be taken.

Sustainable waste management can be severely hindered if different stakeholders don't act responsibly and don't cooperate appropriately. Local authorities can stimulate changes in citizens' behaviours by introducing dynamic waste tariff systems based on the PAYT principle and by applying the so-called "nudge" theory where citizens adopt a more responsible behaviour in response to positive support and indirect help or suggestions. Something that the innovative KAYT approach is based on.

MANAGEMENT AND NORMATIVE CRITERIA MODULE

MODULE INFO

MANAGEMENT AND NORMATIVE CRITERIA

WASTE MANAGEMENT AND NORMATIVE CRITERIA

WASTE MANAGEMENT AND NORMATIVE CRITERIA

The user is led through the six modules with guided questions; an introductory video summarises the main aspects to be considered in each section. A user profile is provided with hints and tips for implementing the PAYT-KAYT approach. A list of learning materials is also provided to further deepen knowledge on specific topics.

Ernest Kovacs ACR (NGO/Civil Society Organisation)

SELF-ASSESSMENT PROGRESS: 100.0%

TECHNOLOGICAL AND TECHNICAL REQUIREMENTS

AWARENCE RAISING METHODS

PRIVACY MANAGEMENT

IMPLEMENTATION OF GREEN PUBLIC PROCUREMENT BY CONTRACTING WASTE SERVICES

MANAGEMENT AND NORMATIVE CRITERIA

OPTIMAL BUSINESS PLAN

DOWNLOAD AREA

Download your guidance reports:

- Technical and technical requirements
- Business plan overview
- Privacy management
- Integration of green public procurement in contracting waste services
- Management and normative criteria
- Optimal business plan
- Download full report (PDF) (password: rethink)

SUGGESTED LEARNING MATERIALS

Discover more suggestions on the basis of modules where you received a lower score

Show 1 articles

10 lessons: L'azione 4 del progetto RETHINKWASTE

AVI

Good practice

Coaching sessions

Based on the results achieved, and on similar experiences gathered in the EU, a wide coaching and training campaign has been promoted to raise awareness and knowledge among stakeholders about the PAYT-KAYT approach.

The target audience addressed consisted in:

- **Policy makers** of local entities (major, representatives of local communities and regional authorities)
- **Waste management companies**
- Technicians of private and public entities

More than 320 EU municipalities, local entities and waste management companies have been trained for the adoption of PAYT- KAYT approach in their communities, constituting a powerful replication opportunity.

Each project partner considered the most effective way to reach as many municipalities as possible in the area involved. The workshops organized had the objective to inform about the main issues connected with the **adoption of PAYT-KAYT**, highlighting the necessary steps to adopt and the pitfalls to avoid, assuring an effective implementation of the innovative scheme.

The presence in person, when possible, of a pilot reporting its own test experience was considered an added value able to convince the participants, offering the opportunity to solve doubts and answers posed.

The cooperation with technical **experts of co-design**, facilitated the interaction among participants, resulting in fruitful workshops where many aspects have been considered, such as to put in the shoes of users for example.

Coaching session have been the occasion also to present the self-assessment toolkit developed (DSS and webtool), paving the way for the autonomous approach for the implementation of the KAYT-PAYT scheme.

The coaching session devoted the first part of the meeting to **deepen the knowledge** on the KAYT-PAYT scheme, with particular emphasis to the approach proposed in the REthinkWASTE project. Following a **workshop** to promote the practice of PAYT-KAYT approach, and often a **study tour**, have been proposed.

Results



17
on site coaching sessions



11
on line coaching sessions



1775
participants



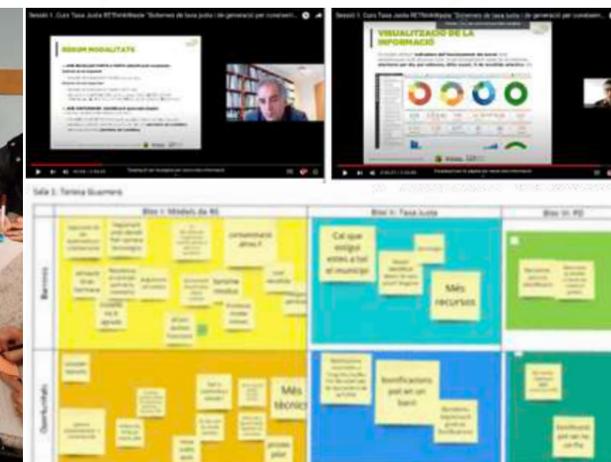
320
municipalities



10
EU regions



88
NGOs and waste management companies



Coaching sessions

Bari (IT)
25/10/2022
61 participants

Lecce (IT)
26/10/2022
46 participants

Palermo (IT)
13/12/2022
23 participants

Udine (IT)
01/12/2022
22 participants

Pordenone (IT)
02-16/12/2022
40 participants

Foligno (IT)
04-05/10/2022, 16/11/2022
82 participants

Sedico (IT)
20-21/04/2022, 03/05/2022
30 participants

Padova (IT)
04-25/05/2022, 14/09/2022
49 participants

Venezia (IT)
24/05/22, 14/07/22, 15/09/22,
15/11/22, 16/12/2022
123 participants

Treviso (IT)
17/11/2022
29 participants

Rovigo (IT)
18/11/2022
45 participants

Verona (IT)
24/11/2022
25 participants

Ancona (IT)
14/06/2022
49 participants

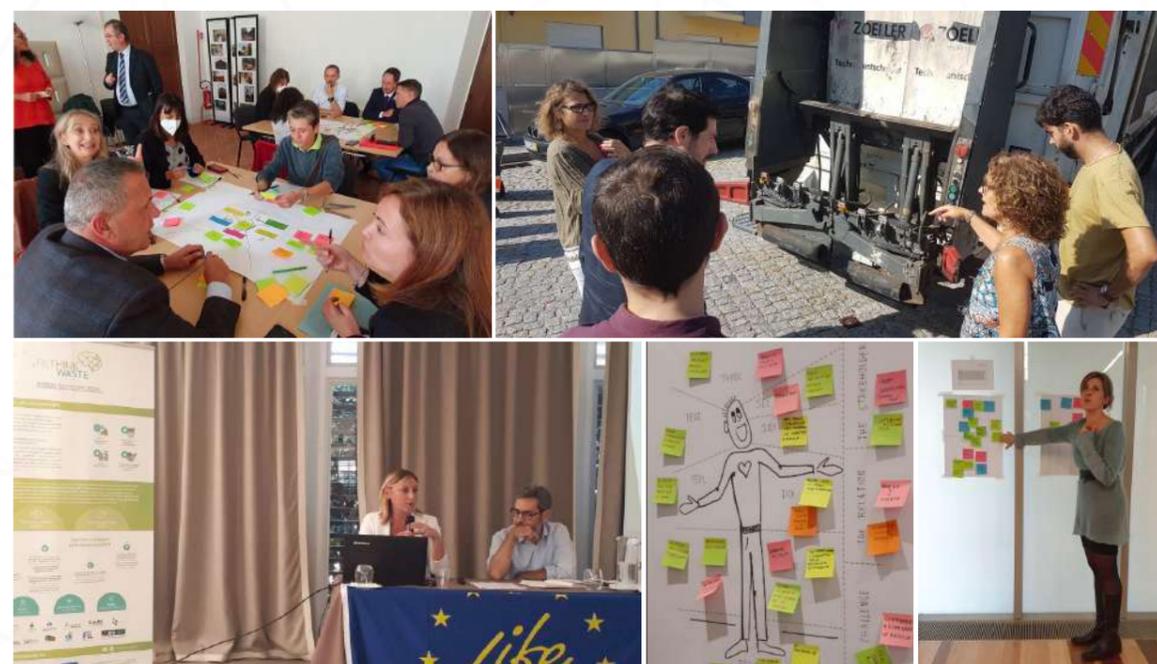
**Catalonia Region – online 10
webinar + intensive course for
selected municipalities (ES)**
From March 2021 to October 2022
914 participants

Porto (PT)
20/09/2022
33 participants

Pamplona (ES)
19/10/2022
43 participants

Bruxelles (BE)
05/05/2022
89 participants

Athens (EL)
29/11/2022
72 participants



Dissemination activities

A compelling communication campaign has been implemented to involve local stakeholders including policy makers, citizens, waste management companies and local authorities promoting the awareness on the proper disposal of waste and the available levers to stimulate the change of behaviour.

Website

The project website has been developed in 4 different languages (English, Italian, Spanish and Catalan). In addition to the description of the main characteristics of the project and partnership, a specific section has been reserved for each pilot, news section concerning the project and video gallery



Social media

The social media strategy developed included the presence on LinkedIn and YouTube to widespread the project's actions and results.

A specific profile for the project has been created in the main social media used by professionals (LinkedIn and Twitter) and updated with the main news concerning the project activities.

A total of 51 videos were posted on the project's YouTube channel



Newspaper articles

N.4 journalist days and an international media forum were organized for the engagement of media. All partners promoted the project through articles and press releases published on paper and online newspaper and magazines at any level: local, regional and national (79 articles published online and 15 articles published on national and local newspaper).



Events

Several events have been organised to widespread the KAYT-PAYT schemes and to present the pilot cases, involving the large public and specialized stakeholders.

- N.8 Environmental Days have been organized to raise awareness among general public and local stakeholders and a final event at the fair Ecomondo in Rimini presented the results achieved by the project to a more specialised target audience.
- N. 2 Local Events organized by Etra and Bitetto to engage local stakeholders
- N. 1 Final Event organized by ACR+ in Rimini during the Ecomondo fair, to present the final results of the project to specialized stakeholders

PLACE	DATE	PARTICIPANTS	ONLINE PARTICIPANTS
Varese	21/07/2021	50	20
Bitetto	27/09/2021	40	
Sant Just	24/10/2021	NA	
Padova	03/12/2021	28	8
Varese	21/01/2022	40	35
Bassano del Grappa	29/01/2022	88	16
Sant Just	18/06/2022	90	
Bitetto	15/10/2022	120	
Fundesplai (El Prat de Llobregat)	20/10/2022	40	
Jesi	20/10/2022	80	2
Rimini	11/11/2022	22	1
Cittadella	24/01/2023	68	

TOTAL 748



Networking

The networking activities implemented lead to meet representatives of projects of connected themes, thanks to the participation in conferences and study tours.



LIFE FOSTER

www.lifefoster.eu

The LIFE FOSTER project aims to reduce food waste in the restaurant and catering industry, a sector responsible for 12% of all food wasted. LIFE FOSTER promotes direct and indirect actions to raise awareness of the problem of food waste and proper food storage. The project focuses on these main areas training and education, prevention and communication. The project

has been promoted in France, Italy, Malta, Spain. The main objectives of the project are:

- 1) Raise awareness on food waste in catering and spread the application of more sustainable practices to prevent and reduce it
- 2) To provide training for students and teachers, as well as catering professionals (kitchen and dining room staff) about the adoption of more sustainable practices
- 3) Raise awareness among political institutions about the need to adopt appropriate action and tools to prevent and reduce food waste



LIFE FOODPRINT

www.foodprintcy.eu

The FOOD PRINT project partners from Cyprus have the aim to raise awareness on the scale of the food waste problem in the hospitality and food industries as well as among consumers. The project's actions are targeted to inform on sustainable solutions and practices to possibly prevent and reduce food waste through their application. Also, through the training of professionals

and students of the food and hospitality industry, promoting sustainable practices for food waste reduction and prevention.

Furthermore, the project supported the collaboration between actors of the food supply chain and social care to donate supplementary food. In addition, the involvement of policy makers stimulated the promotion of food waste prevention and reduction policies.



LIFE CIRCWASTE

www.circwaste.fi/en-US

CIRCWASTE is a seven-year LIFE IP project that promotes efficient use of material flows, waste prevention and new waste and resource management concepts. The project is implemented during the years 2016–2023.

All actions contribute to implementing the national waste management plan and directing Finland towards a circular economy. CIRCWASTE is a creation of 20 partners and 10 funding organisations. The project is coordinated by the Finnish Environment Institute.

CIRCWASTE is funded in large part by the EU LIFE programme. Nearly 20 pilot projects to improve resource efficiency: actions that bring concrete results such as decreasing the amount of waste or used material flows, setting up new equipment or intelligent management systems and creating new practices and strategies. Catalysing regional action, relevant regional stakeholders involved in cooperation groups to implement the national waste management plan at a regional level. Expert counselling on circular economy, a network with the Finnish Environment Institute to provide expert services and spread information on successful solutions, included a database of good practice of circular economy.



The Circle Project staff visited Etra's facilities to deepen the knowledge of PAYT-KAYT implementation and organic waste treatment. (Bassano del Grappa, 8-9/11/2022)

Want to know more?

Check out the videos telling citizens' views on PAYT and KAYT or the experience of the pilots:



BASSANO

SANT JUST



VARESE

BITETTO



Here the video animation
on PAYT-KAYT approach

And much more on the
REthinkWASTE
YouTube channel



