



**Generalitat  
de Catalunya**



**Agència de  
Residus de  
Catalunya**

PLATAFORMA  
**RESIDUS**  
MUNICIPALS  
EINES PER A LA MILLORA DE LA GESTIÓ

## Eines del projecte per a formació i difusió

**Rubèn López**

Tècnic del Departament de Foment  
de la Recollida Selectiva  
Àrea d'Economia Circular

## Eines per a formació i difusió

- Eina per a autoavaluació i formació
- Cursos de formació i assessorament per a un sistema de taxa justa
- Nova pàgina web



## Eina per a autoavaluació i formació: el Toolkit de REthinkWASTE

**WELCOME**, to the **reTHINKwaste tutor**! I will help you conducting your initial self-assessment regarding urban waste governance.

Do you want to assess the potential of a territory for adopting **PAYT** and **KAYT** models? Do you want to understand if progressive waste pricing models are suitable for your territory, or if the best enabling preconditions are already in place? The tutor will help you understand the extent to which favourable conditions for activating **PAYT** models are already met in your area, and will help you identify strengths and weaknesses concerning:

- technological and technical requirements
- management and normative criteria
- awareness raising measures
- privacy management
- integration of green public procurement in contracting waste utilities
- optimal business plan

Within each module, you will be asked to answer a series of questions for assessing the key characteristics of your territory. At the end of the self-assessment you will receive a tailored summary of the characteristics of your area, along with some suggestions for next steps and dedicated supplementary materials. Once registered on the platform, you can go through each module separately, and return later to complete the full process of self-assessment.



Register

Login



## Sis temes fonamentals per un sistema de taxa justa:

1. Requeriments tècnics
2. Conscienciació ciutadana
3. Protecció de dades personals
4. Compra pública verda
5. Criteris legals i normativa
6. Sostenibilitat financera





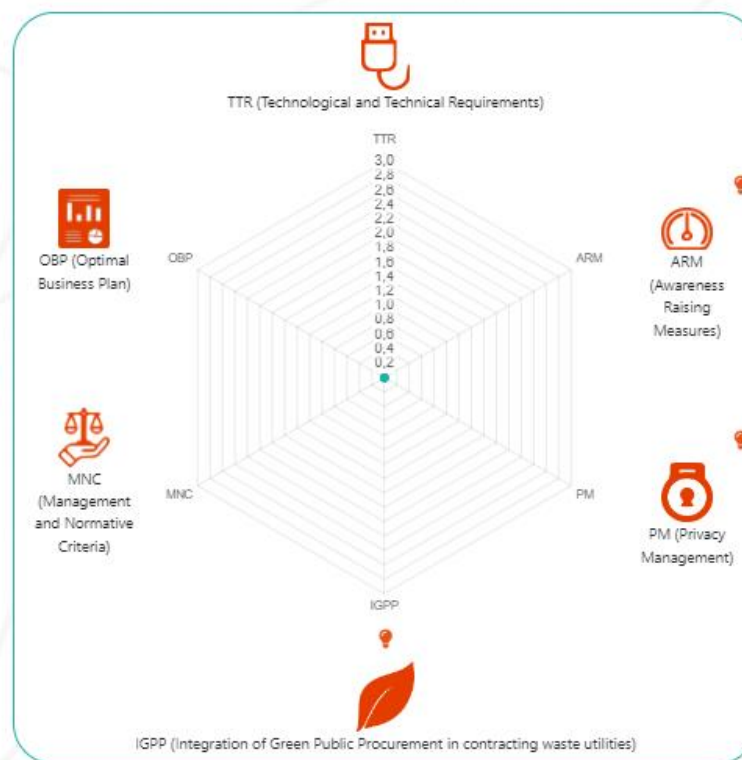
## Autoavaluació:

- Tests
- Informes personalitzats

Rubèn-prova López  
ARC  
Public authority

SELF ASSESSMENT PROGRESS

0.0%



DOWNLOAD AREA

Download your guidance reports

Technological and technical requirements

Awareness raising measures

Privacy management

Integration of green public procurement in contracting waste utilities

Management and normative criteria

Optimal business plan

Download full report (all 6 guidance reports)





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## TECHNOLOGICAL AND TECHNICAL REQUIREMENTS MODULE

### MODULE INFO

Direct, customised and constant communication with the users (KAYT) and dynamic and progressive tariffs based on the delivery of undifferentiated waste (PAYT) are effective tools for increasing separate collection. However, it is essential to be prepared and to use the technology properly! The following tool guides the decision-makers with questions in specific fields: data management, precise measurement of the amount of waste collected, access management to the recycling centre, communication tools and information on the tariff. At the end of the process, the user will receive feedback on suitability of the facilities at hand, as well as suggestions on how to achieve the target and implement the PAYT and KAYT approaches in own community.



### 1. DATA MANAGEMENT

### 2. INDIVIDUAL MEASUREMENT

### 3. RECYCLING COLLECTION CENTER

### 4. COMMUNICATION TOOLS AND TARIFF INFORMATION

Which of the following processes exist, have up-to-date data and are managed directly by the compiler? ?

#### 1. Distribution of equipment

- Not present / there is no updated data
- Present, but data are managed by another entity
- present and data is managed by the person who is compiling

#### 2. Front-office management

- not present / there is no updated data
- Present, but data are managed by another entity
- present and data is managed by the person who is compiling

#### 3. Back-office management

- not present / there is no updated data
- Present, but data are managed by another entity
- present and data is managed by the person who is compiling

#### 4. Call-center management

- not present / there is no updated data
- Present, but data are managed by another entity
- present and data is managed by the person who is compiling





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Rubèn López

ARC  
Public authority

SELF ASSESSMENT PROGRESS

100.0%

TTR (Technological and Technical Requirements)



OBP (Optimal  
Business Plan)



MNC  
(Management and Normative  
Criteria)



TTR  
3,0  
2,8  
2,6  
2,4  
2,2  
2,0  
1,8  
1,6  
1,4  
1,2  
1,0  
0,8  
0,6  
0,4  
0,2



ARM  
(Awareness  
Raising  
Measures)



PM (Privacy  
Management)



IGPP (Integration of Green Public Procurement in contracting waste utilities)

DOWNLOAD AREA

Download your guidance reports

Technological and technical  
requirements

Awareness raising measures

Privacy management

Integration of green public  
procurement in contracting waste  
utilities

Management and normative  
criteria

Optimal business plan

Download full report (all 6  
guidance reports)





## Informe de resultats

- Informació de l'usuari
- Informació de progrés
- Per cada mòdul:
  - Descripció
  - Nivell assolit

Name and surname	Rubèn López
Organization	ARC
Self-assessment progress	Privacy Management Technological and Technical Requirements Management and Normative Criteria Awareness Raising Measure Integration of Green Public Procurement in contracting waste utilities Optimal Business Plan 100.0%
Module	Technological and Technical Requirements

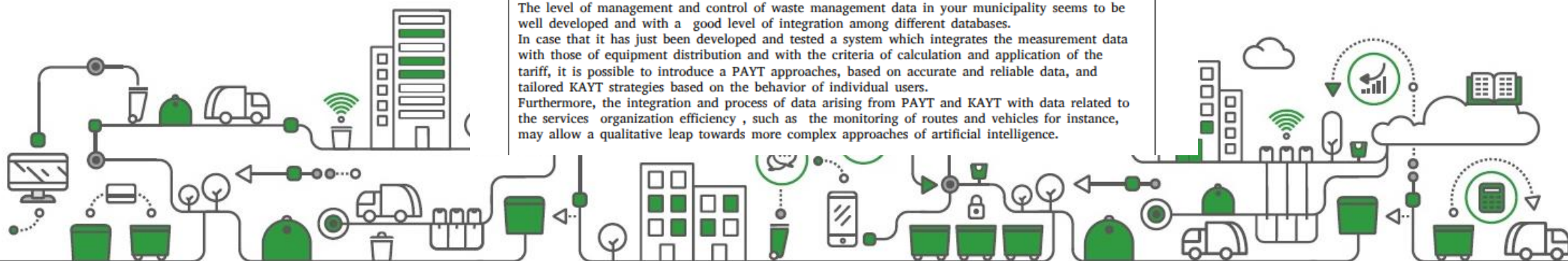
"Guidelines: Module Technological and Technical Requirements"

### DATA MANAGEMENT

**DESCRIPTION:** Data from the individual measurement of waste produced/services provided must be managed and integrated into the system for calculating the precise tariff chosen by each municipality. The need to manage data about waste provision and service implementation can represent, at least in the most evolved precise tariff systems, an opportunity to redesign the whole data management of the waste removal service. Indeed, the set of data collected through individual measurements, on one hand can pose problems that previous management systems were not able to solve and, on the other, once integrated with the service data allows to optimize and improve the service provided. Looking beyond the process of individual measurement, it can be stated that in a municipal waste management system there (can) be involved several processes at the same time, all characterized by the management of significant quantities of interconnected data.

**YOUR LEVEL:** Looking forward

The level of management and control of waste management data in your municipality seems to be well developed and with a good level of integration among different databases. In case that it has just been developed and tested a system which integrates the measurement data with those of equipment distribution and with the criteria of calculation and application of the tariff, it is possible to introduce a PAYT approaches, based on accurate and reliable data, and tailored KAYT strategies based on the behavior of individual users. Furthermore, the integration and process of data arising from PAYT and KAYT with data related to the services organization efficiency, such as the monitoring of routes and vehicles for instance, may allow a qualitative leap towards more complex approaches of artificial intelligence.















## Autoformació:

- Repositori d'informació
- Guia a lectures recomanades

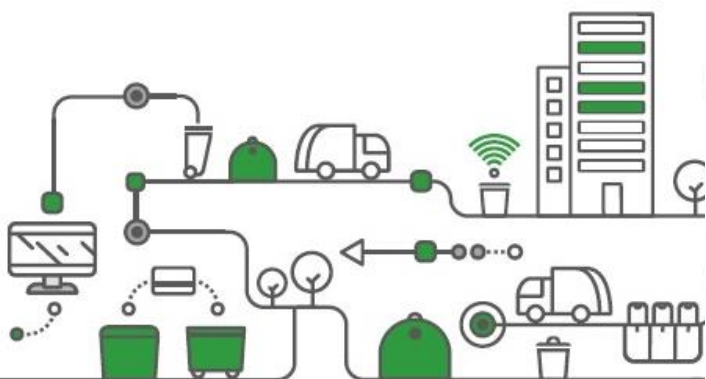
**SUGGESTED LEARNING MATERIALS**

*Materials are suggested on the basis of modules where you reached a lower score*

Show  entries Search:

Title	Modules	Type	Language
<a href="#">M1 Technological and Technical Requirements - CA</a>	TTR	Rethinkwaste learning material	
<a href="#">M2 Awareness Raising Measures - CA</a>	ARM	Rethinkwaste learning material	
<a href="#">M3 Privacy Management - CA</a>	PM	Rethinkwaste learning material	
<a href="#">M4 - Integration of Green Public Procurement in contracting waste utilities - CA</a>	IGPP	Rethinkwaste learning material	
<a href="#">M5 Management and Normative Criteria - CA</a>	MNC	Rethinkwaste learning material	
<a href="#">M6 Optimal Business Plan - CA</a>	OBP	Rethinkwaste learning material	
<a href="#">Awareness Raising Measure - S01 - Introduction</a>	ARM	Rethinkwaste learning material	
<a href="#">Awareness Raising Measure - S02 - Planification</a>	ARM	Rethinkwaste learning material	
<a href="#">Integration of Green Public Procurement in contracting waste utilities - Sec01 - Introduction and Definition</a>	IGPP	Rethinkwaste learning material	
<a href="#">Integration of Green Public Procurement in contracting waste utilities - Sec02 - GPP Guidelines</a>	IGPP	Rethinkwaste learning material	

Showing 1 to 10 of 122 entries Previous  2 3 4 5 ... 13 Next



## Documentació per autoaprenentatge:

- Per cada mòdul
- Per cada tema dins del mòdul
- Basada en el Curs avançat de Taxa Justa



Requisits tècnics i tecnològics per la implementació d'esquemes PxG i GxC



## 1. GESTIÓ DE DADES PROPORCIONADES PELS SISTEMES DE RECOLLIDA DE RESIDUS

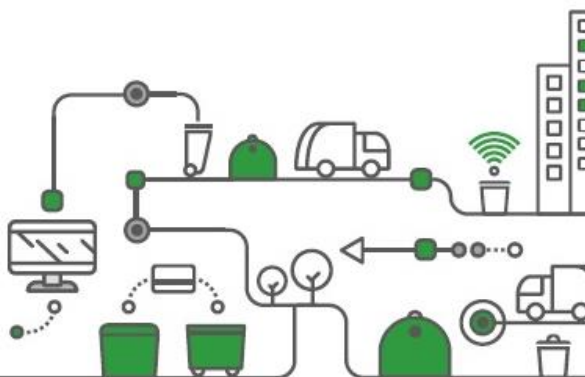
La implementació de tecnologia per transmetre esquemes de pagament per generació (esquemes PxG) o taxa justa per rebuig genera molta informació que s'ha d'administrar adequadament. És important seguir una sèrie de pautes que permetin treure el màxim partit a les dades i aplicar la taxa justa de forma fiable i inequívoca. En aquest capítol s'introduiran els aspectes essencials a considerar en monitorar el comportament dels contribuents i personalitzar el cobrament de la taxa d'acord amb les dades recollides.

### 1.1. MODELS DE RECOLLIDA DE RESIDUS VINCULATS A MODELS DE PXG (DISTRIBUCIÓ D'EQUIPS NECESSARIS)

La identificació de l'usuari del servei de recollida de residus és el primer pas per desenvolupar un esquema PxG, ja que és el subjecte a qui se li assignarà la taxa de residus. El material necessari per identificar i mesurar la participació dels usuaris s'ha de distribuir abans de l'aprovació i posada en marxa de la taxa de residus. A més, aquest material s'ha de gestionar i vincular a la base de dades que s'utilitza per calcular l'import per residus de forma individual per a cada usuari.

Segons el model de recollida de residus, es recomanen diferents sistemes d'identificació i, en conseqüència, s'han de distribuir diferents materials:

- Sistemes amb identificació de contenidors (sistemes de recollida porta a porta).



Disponibilitat:

Actualment està disponible a

<https://www.tutor-rethinkwaste.eu/>

- Interfície en anglès i italià
- Documentació en diversos idiomes

Es preveu fer una instal·lació  
traduïda i adaptada a les pàgines de  
l'ARC



**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.

Learning  
materials

Self-assessment  
toolkit

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.

