

PAY AS YOU THROW in CHANIA MUNICIPALITY

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DEDISA



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The need to change

New legal framework

The Municipality of Chania, according to Law 4819/2021, with a population of more than 100,000 inhabitants has the obligation from January 1, 2023 to change:

- The method of municipal waste pricing with the application of the “Pay as You Throw” (PAYT) system
- The waste collection method due to mandatory separate collection in multiple streams

- fair distribution of municipal fees

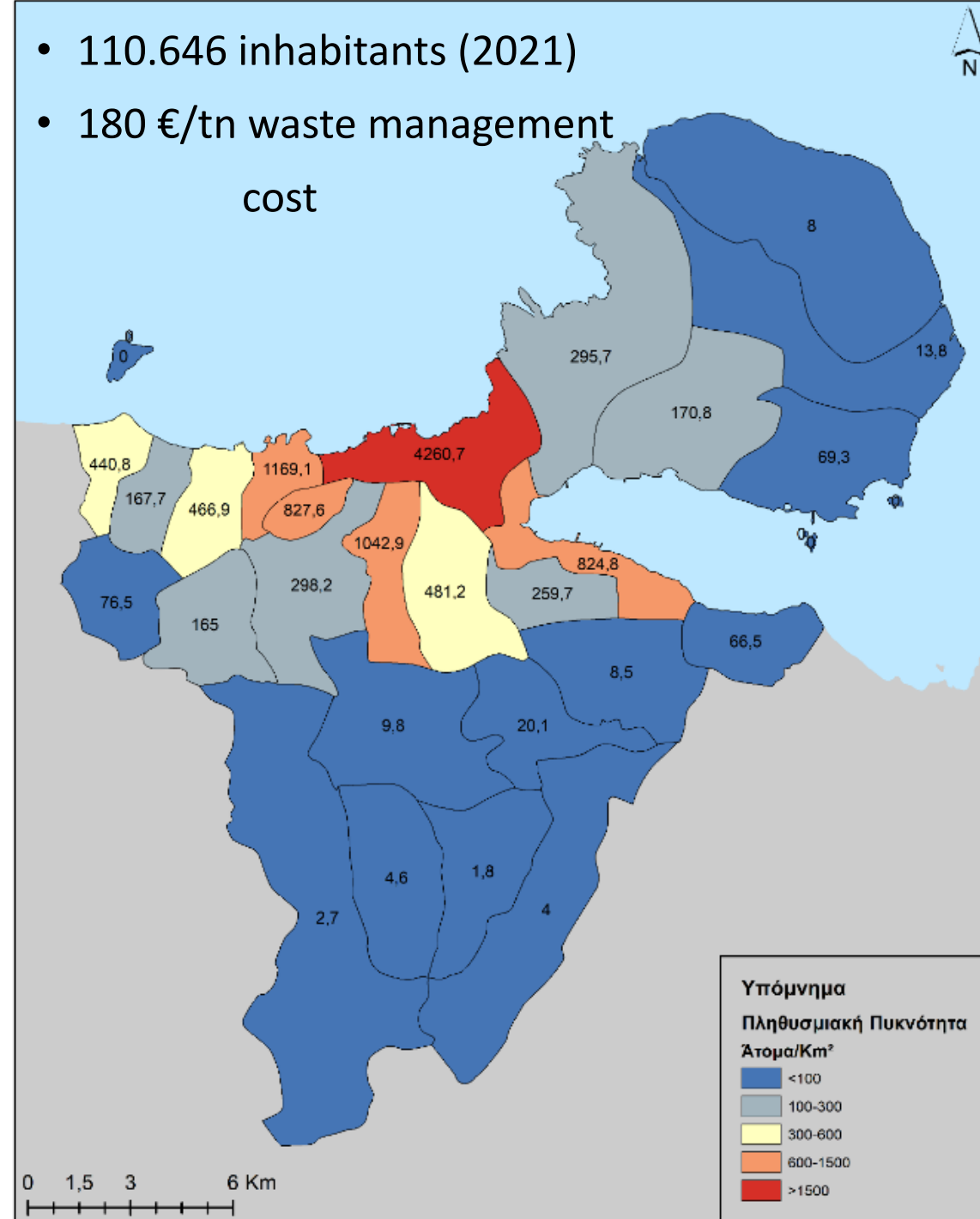
- Incentives to citizens to achieve circular economy targets



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- 110.646 inhabitants (2021)
- 180 €/tn waste management

cost



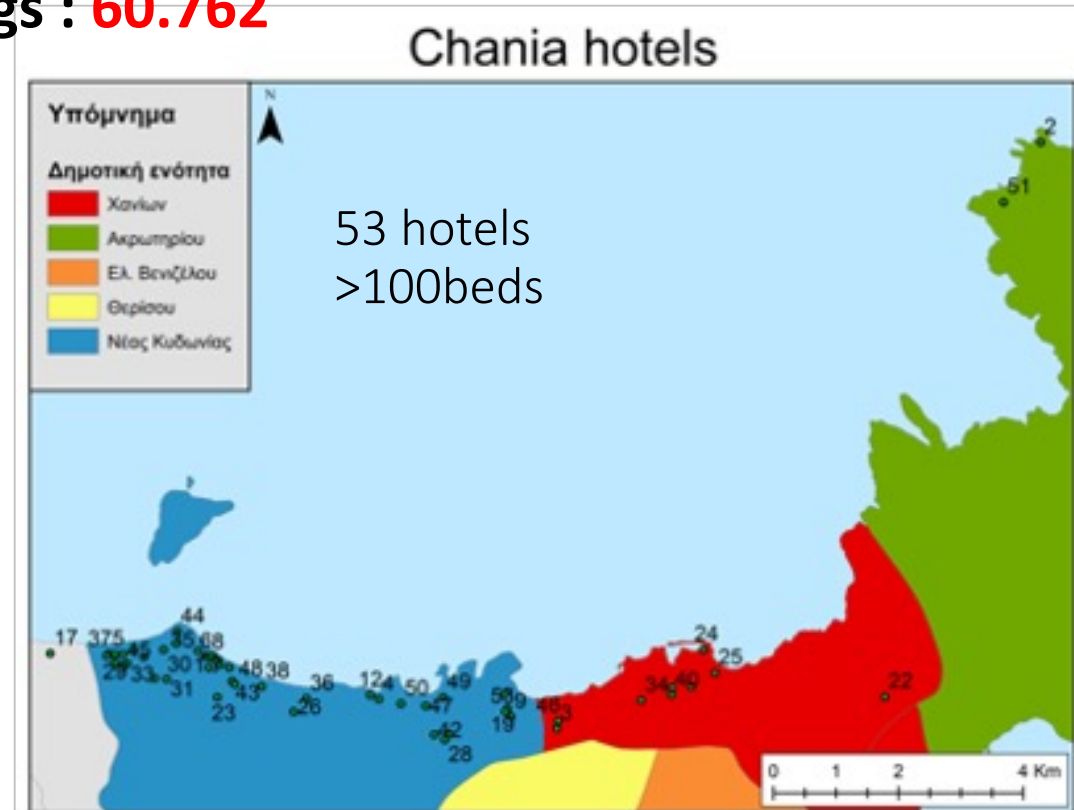
Municipality of Chania

A. Hotels (>100beds): 53

B. Industrial facilities: 674

C. mass catering businesses, regardless of capacity: 1300

D. Households, Schools and other commercial Buildings : 60.762





(Πηγή εικόνας: https://tulsaworld.com/lifestyles/what-is-pay-as-you-throw-a-waste-expert-explains/article_ebf6a4b7-dac9-5d92-815a-f714025c30a2.html)



(Πηγή εικόνας: <http://www.jejuweekly.com/news/articleView.html?idxno=>

4 basic systems PAYT

- Charge with Prepaid bag
- Bin charge based on volume / frequency of bin collection
- Bin charge based on weight / frequency of bin collection
- Billing based on card and "smart bin"

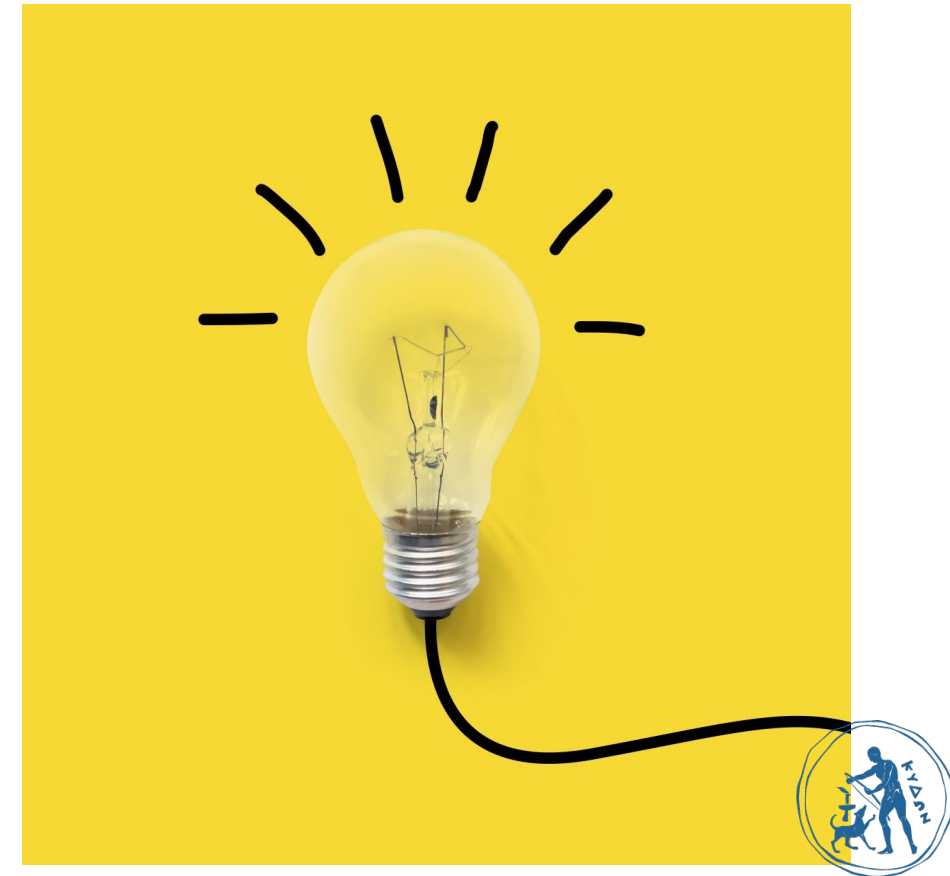


<http://www.aucklandcouncil.govt.nz/environment/127792019/bin-tags-collection-unfair-lowwaste-residents-say>

(Πηγή εικόνας: R. del-Amo, R. Carrasco-Gallego, Ensuring Sustainability, Springer (2002), pp. 3-12)

Design of PAYT in Municipality of Chania

- Study of the characteristics of the Municipality
- Examination of the available technological solutions
- Experience from other Municipalities – Best practices
- Social and environmental criteria
- Maximum acceptance by citizens and businesses
- Existing municipal collection equipment
- Incorporation of existing and planning separation at source programs
- Efficiency of the solutions chosen
- To give incentives to citizen but in parallel to guaranty the appropriate income for the municipality



PAYT in Municipality of Chania

Combination of **Bin charge based on weight and frequency of bin collection**

Separate at Source
Actions and
Equipment
Paper/ PMD/Glass
Organic
Green Points

Education and raise
awareness Action

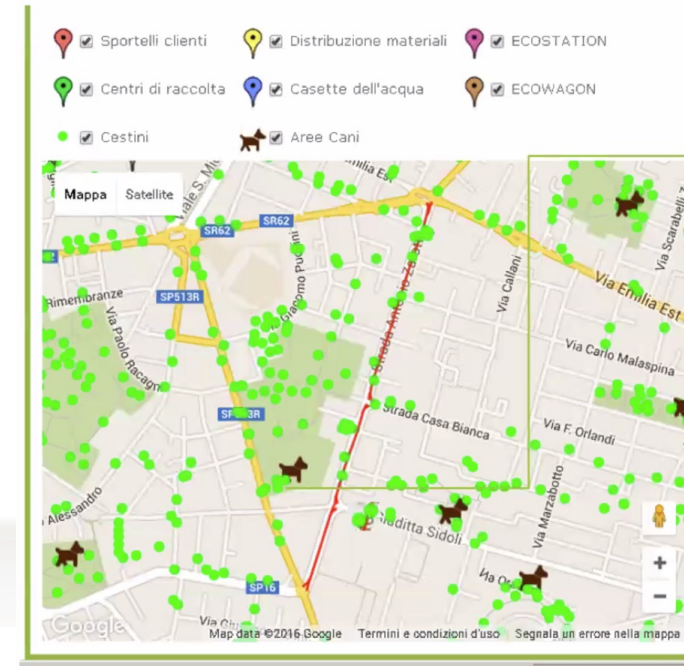
New Equipment for PAYT in Chania



RFID Tag for bins



Weighing System



Management Platform



Pulizia strade e altri servi

SPAZZAMENTO MANUALE

GIOVEDI	(POMERIGGIO)
LUNEDI	(MATTINO)
MERCOLEDI	(MATTINO)
SABATO	(MATTINO)
VENERDI	(MATTINO)

COMBINATO (SPAZZATRICE+OPERAI)

OGNI 9 GG C.A. (MATTINO)



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New Pricing with PAYT

Municipal fee = fixed fee + variable fee

- **Fixed fee** : **Phase A**= according to old way of pricing (m2) * 60%
Phase B: a fixed amount per producer category
- **Variable Fee** : cost according to frequency of collection of bins/per producer category and according to weight of waste
 - a) mixed weight
 - b) organic



Economical approach

- Expenditures of the Municipality (today level)- estimated at 23 million euros
- Need for new equipment with depreciation: 477.000 €/year
- Educational Activities (1 €/inh) : 100.000 €/year

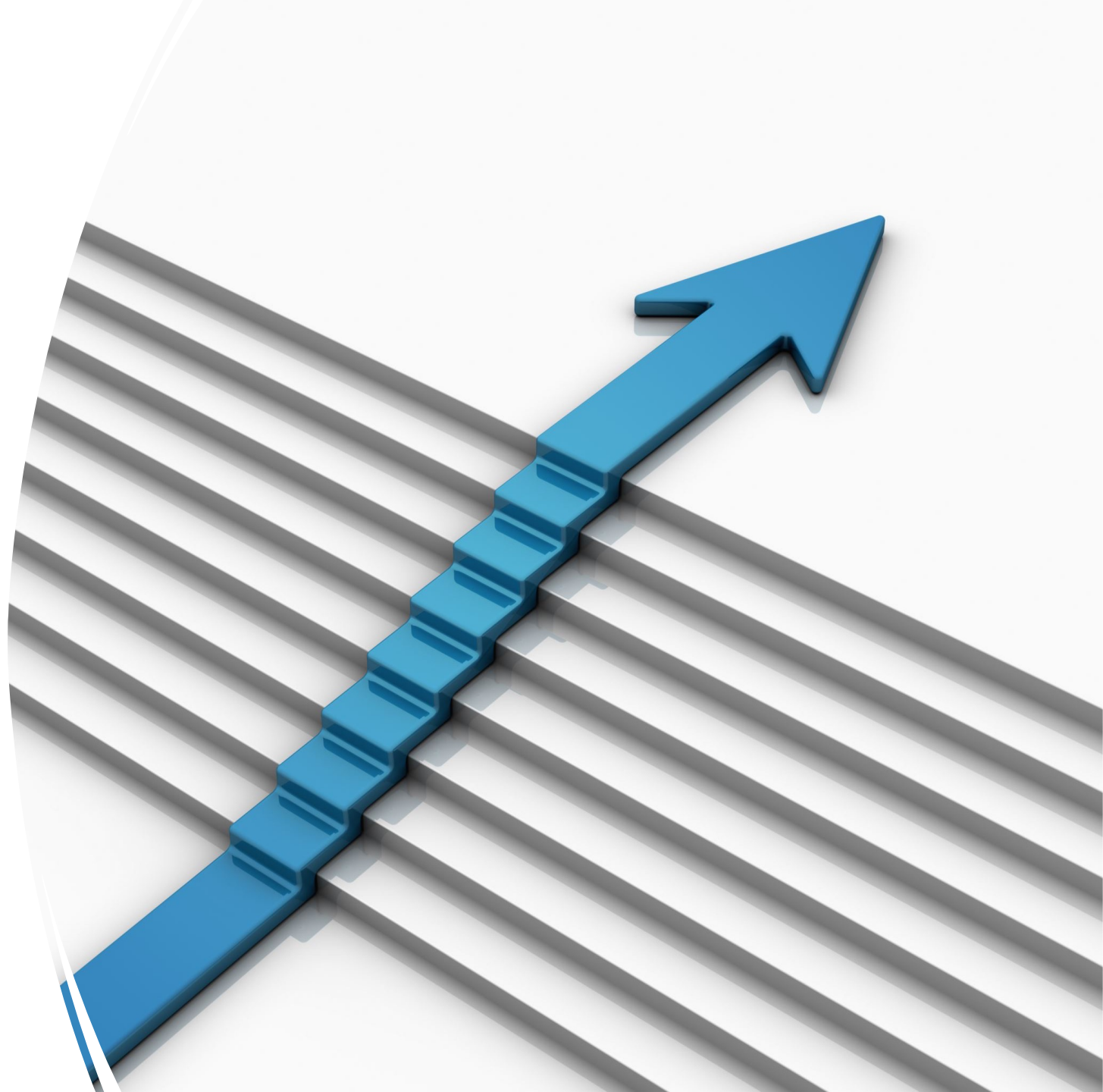
Income per year (€)	Fixed	Variable	Total
	6.618.000	17.157.850	23.775.850
Cost per year (€)			
cost without payt(2023 forecat)	22.997.715		
new equipment - depreciation	476.611		
education activities	100.000		
total	23.574.326		
Difference	201.524		



Next Steps



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Implementation of a pilot



SELECTION OF A
PILOT AREA
(CHANIA OR
DARATSOY - 9
HOTEL > 100
BEDS)



SUPPLY AND
INSTALLATION OF
EQUIPMENT TO ALL
PRODUCER
CATEGORIES



EDUCATION AND
COMMUNICATION
ACTION TO ALL
PRODUCERS AND
CITIZENS (DOOR-
TO –DOOR)



OPTIMIZATION
OF PARAMETERS
OF ECONOMIC
MODEL



VIRTUAL PRICING
PREPARATION OF
ECONOMICAL DIVISION
FOR NEW PRICING



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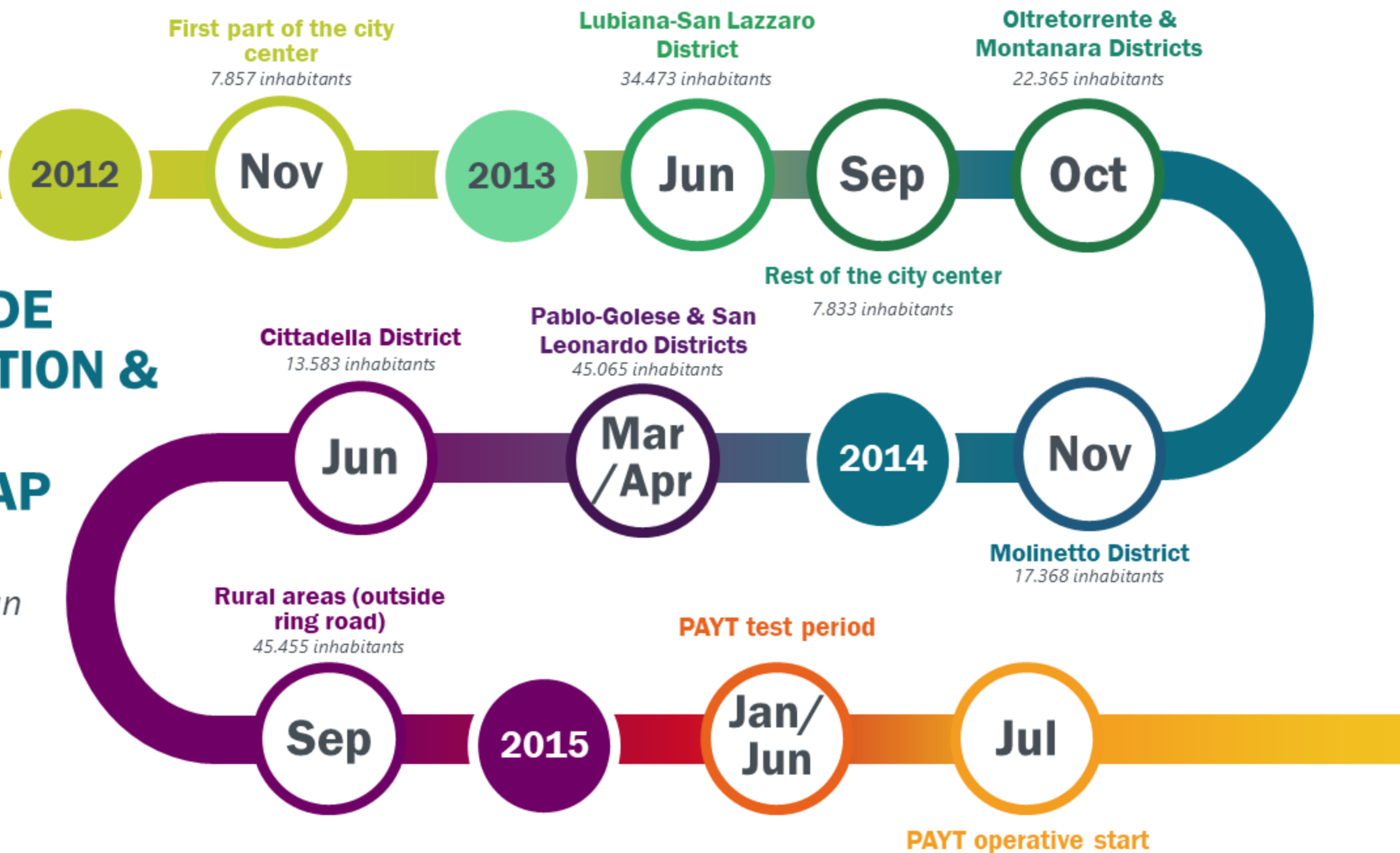
ROADMAP



PARMA KERBSIDE COLLECTION & PAYT ROADMAP

2012-2015

2 ½ Years Plan



2017 KPI: 81% separate collection rate - 106 kg/ inh/year of residual waste - 103 kg/ inh/year of bio-waste



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Roadmap in Chania – 3 year Plan

Sept-2022

PAYT study
assignment to
NoWaste21

Oct-2022

Proposal for a pilot
financing through
European Structural and
Investment Funds
(Kounoupidia and Saint
Mathaios area)

May-2023

Selection of
PAYT system and
way of pricing

Oct-2023

Implementation
of a pilot
(Chania or
Daratsou area)

2023 - 2024

Gradual
Extension to
Areas / starting
with Big
Producers

2024 - 2025

Gradual
Extension
Households and
other buildings

Sept - 2025

Total
Implementation
of PAYT

Thank you for your
attention



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