



# Separate collection of bio-waste in the Municipality of Vrilissia, Attica



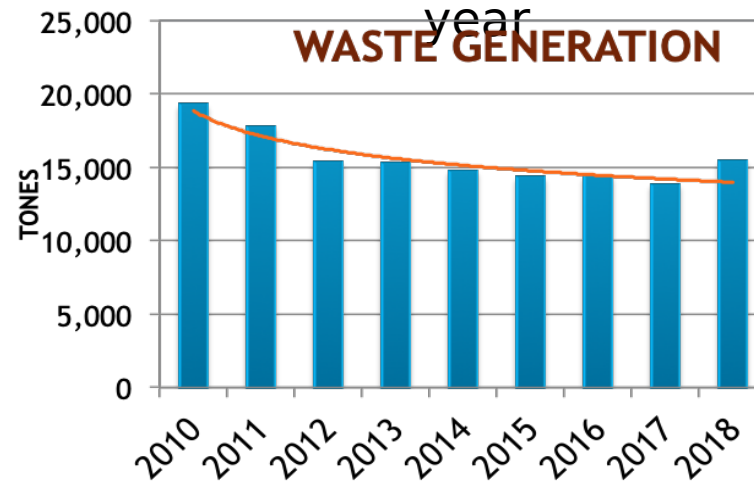
ALEXIS MAVRAGANIS  
Vice Mayor  
Directorate of Environment

7<sup>th</sup> International Conference on Waste Management  
Herakleion, 22-26 of June 2019

# MUNICIPALITY OF VRILISSIA



Area	3,8 Km <sup>2</sup>
Population	30.660 (2011)
Indicator of Green	14 m <sup>2</sup> /inhabitant
Waste generation	15.463 tones/year ~440 Kg/capita year



# LEGISLATION FRAME

EU

Directive 2008/98/EC

GR

Law 4042/2012

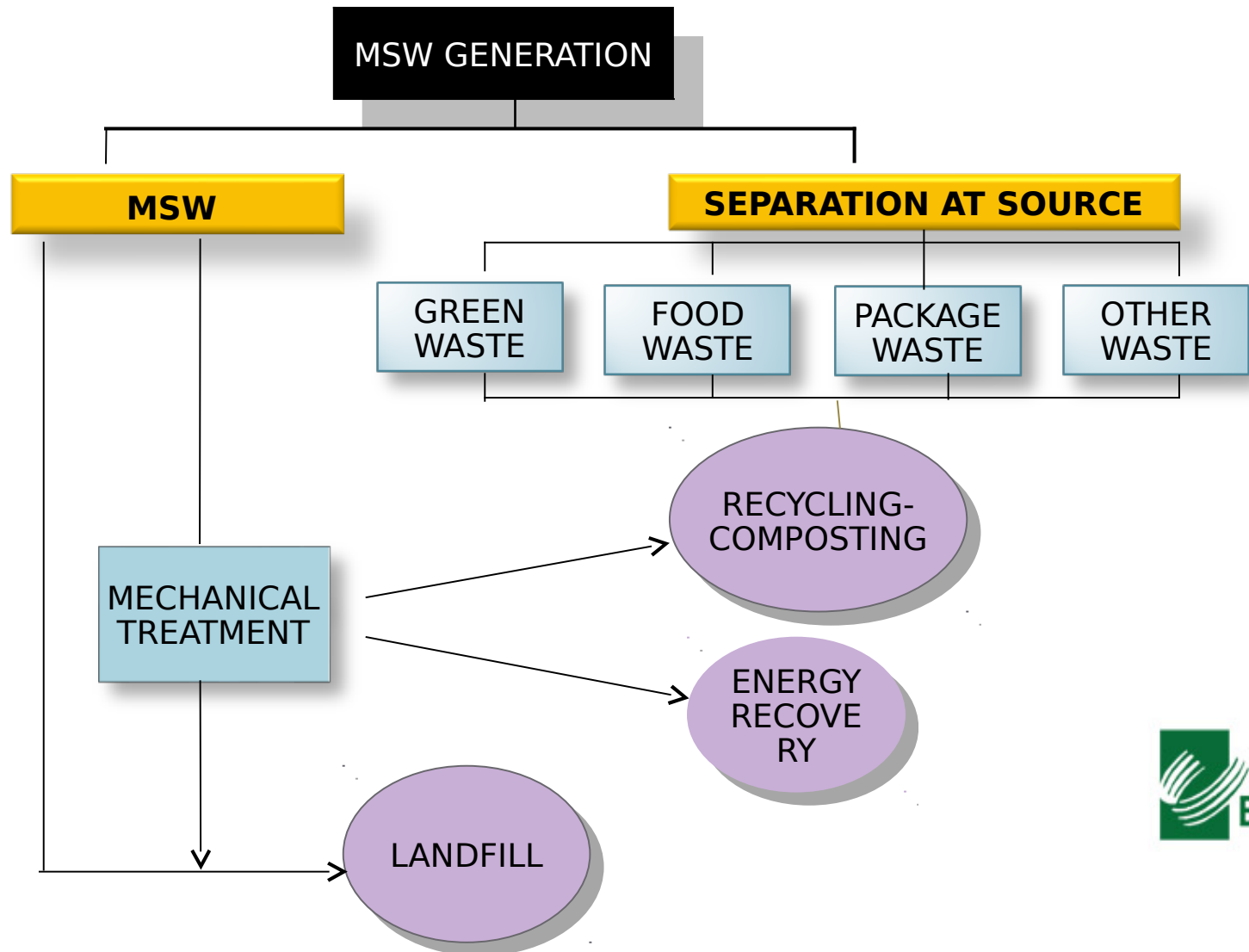
REG

Regional Waste Management Plan  
(Decision of Regional Council 1/2016)

LOC

Strategic Local Waste Management Plan  
(Decision of Municipal Council 102/2015)

# SOLID WASTE MANAGEMENT SCHEME



# I. SEPARATE COLLECTION OF GREEN WASTE



Separately collected: 1.150 t  
(49%)

Collection method: Door-to-Door

Frequency: 2-3  
days/week



## II. SEPARATE COLLECTION OF FOOD WASTE FROM PUBLIC MARKET



Separately

collected: 112 tones

Collection

method:

Hand gathering of:

- Food waste
- Package waste
- Timber waste
- Mix waste

Frequency Once a week

:



## III. SEPARATE COLLECTION OF DOMESTIC FOOD WASTE

- ❑ Door-to-Door information of inhabitants (starting from the west side of Vrilissia)
- ❑ Brown bins located **all over** the urban network (283 bins today)
- ❑ Distribution of domestic bio-waste collectors (10L, 30L) and bio-degradable bags
- ❑ Collection method: Bring points
- ❑ Waste separately collected: **647 tones**
- ❑ Frequency: 6 days per week



# GOOD AND INNOVATIVE PRACTICES





1

# 1. GREENESS CAMPAIGN "FYSIKO LIPASMA"



*ΝΑΙ στο χώμα  
ΟΧΙ στη χωματερά*

τα οργανικά απορρίμματα  
της κουζίνας και του κήπου μας  
μετατρέπονται  
σε καλής ποιότητας  
**φυσικό  
λίπασμα**

μάθε για την κομποστοποίηση  
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# 2

# INTER-MUNICIPAL RECYCLING PLATFORM “FOLLOW GREEN”



## Reward Recycling Program and public awareness

**WHO** is rewarded → citizens & schools

**WHEN** are they rewarded → when they recycle or trained

**HOW** they rewarded → with points redeemed in promotions or donated to schools

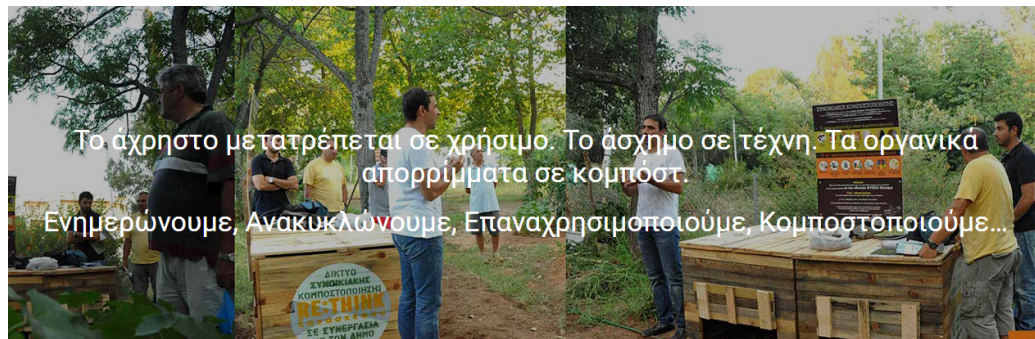
 <b>Ανακύκλωση:</b> Δήλωσε τώρα την ανακύκλωσή σου και κέρδισε πόντους! 150	 <b>Εξοικονόμηση:</b> Δήλωσε τώρα την εξοικονόμησή σου και κέρδισε πόντους! 150	 <b>4+1 Ιδέες για τις αποκριές</b> Αποκριάτικα διακοσμητικά και αξεσουάρ από ανακυκλώσιμα υλικά 15	 <b>Πώς να κάνεις ανακύκλωση χαρτί στο γραφείο</b> Μάθε να δουλεύεις «πράσινα» 5
 <b>Είναι το φυσικό αέριο αποδοτικότερο από το πετρέλαιο;</b> 4 ερωτήσεις για το φυσικό αέριο 20	 <b>Ζήσε στον ρυθμό του Καρναβαλιού με 'πράσινη' διάθεση</b> Ιδέες για αποκριάτες δημιουργίες από χαρτί και ύφασμα 15	 <b>Καμία μερίδα φαγητού χαμένη</b> Η WWF Ελλάς μας ενημερώνει σχετικά με τη σπατάλη τροφίμων 15	 <b>Η ιστορία μιας παλιής φωτογραφικής μηχανής</b> Δώσε στη φωτογραφική σου μηχανή μια δεύτερη ευκαιρία! 15



# 3

## COMPOSTING IN THE NEIGHBORHOOD

- ❑ Pilot network of composting bins in neighborhoods (placement and “adoption” of 5 composting bins in neighborhoods)
- ❑ Conducting experiential workshops (demonstration of composting process, advice-guidance)
- ❑ Follow-up of composting procedure (6 months) by composting consultant
- ❑ Production and use of the compost by the participants



# 4

## DOMESTIC COMPOSTING

Distribution of home composting bins (450 L) to households which meet the requirements of space and composting experience for the **self-management** of household organic waste



Σπηλιά Νταβέλη

ΒΡΙΑΛΗΣΣΟΣ  
ΦΥΣΙΟΛΑΤΡΙΚΗ ΚΙΝΗΣΗ  
www.vrilisos.gr

Δήμος Βριλησίων

Κυριακή 19/5

η Φυσιολατρική Κίνηση ΒΡΙΑΛΗΣΣΟΣ  
και ο Δήμος Βριλησίων  
διοργανώνουν την

4<sup>η</sup> διάσχιση Ρεματιάς  
Χαλανδρίου-Πεντέλης

Νέα Πεντέλη

Μελισσία

Live music  
από τις 13:00  
στην παραρεμάτιο  
Βριλησίων

με τη στήριξη

ΣΠΛΑΠ  
ΣΥΝΔΕΣΜΟΣ ΔΗΜΩΝ  
ΓΙΑ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΚΑΙ ΑΝΑΔΙΑΚΟΣΜΗΣΗ ΤΟΥ ΠΕΝΤΕΛΑΪΟΥ

& τη συμμετοχή

Σύλλογος Προστασίας  
Περβάθλιος & Ρεματιάς  
Πεντέλης - Χαλανδρίου

ΠΡΟΑΡΧΗ ΣΤΗ ΦΥΣΗ

Βριλησσία

διάσχιση ρεματιάς 2019

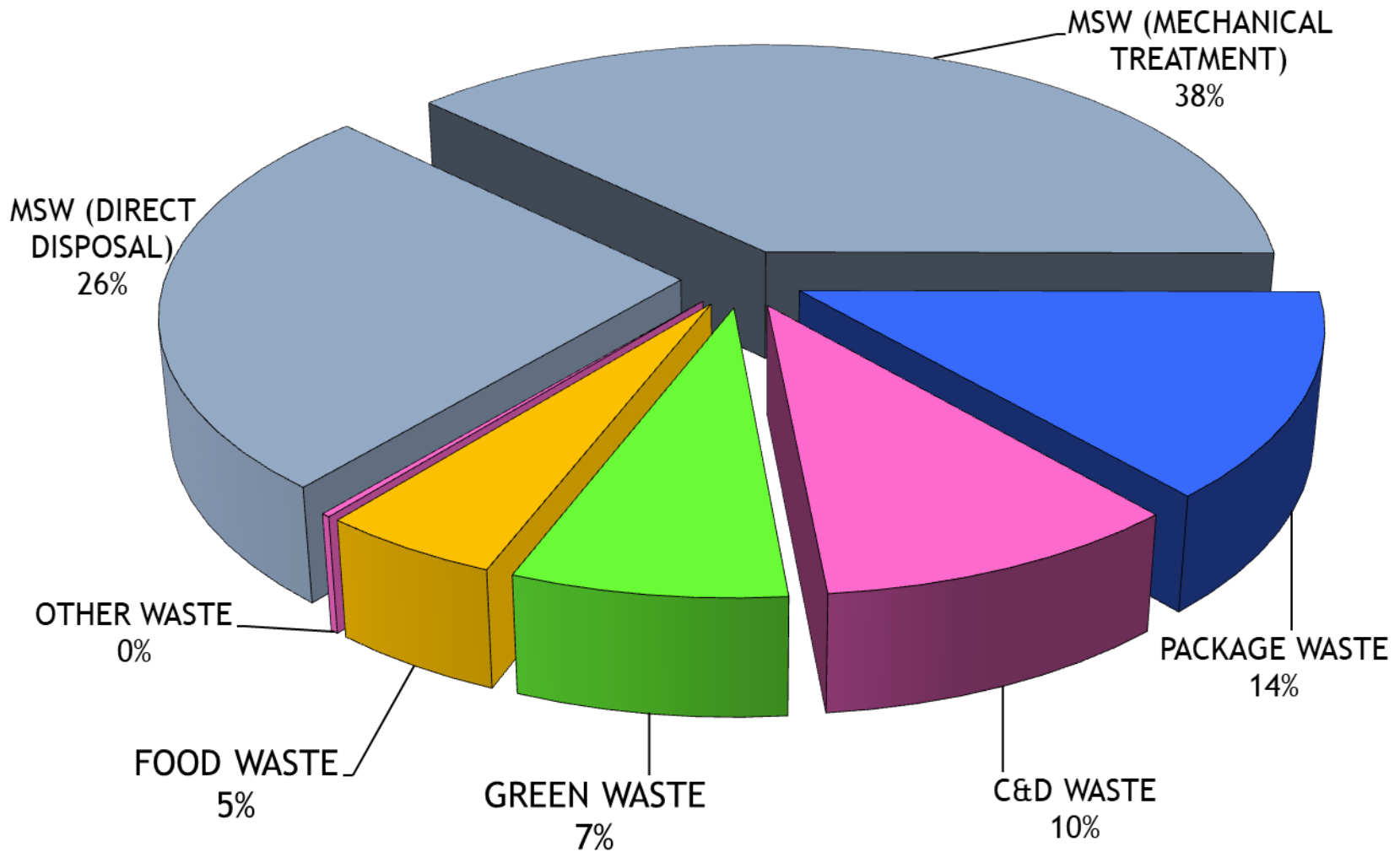
- ❑ Workshops for consultation and dialogue ("The Good Waste")
- ❑ Cleaning of the urban forest "Theoclitites"
- ❑ **Feast for the Environment**
- ✓ Distribution of natural fertilizer bags (compost) from the NATURAL FERTILIZER program
- ✓ distribution of biodegradable bags for the domestic collection of organic waste
- ✓ Distribution of questionnaires on the European program LIFE Pay As You Throw

# RESULTS

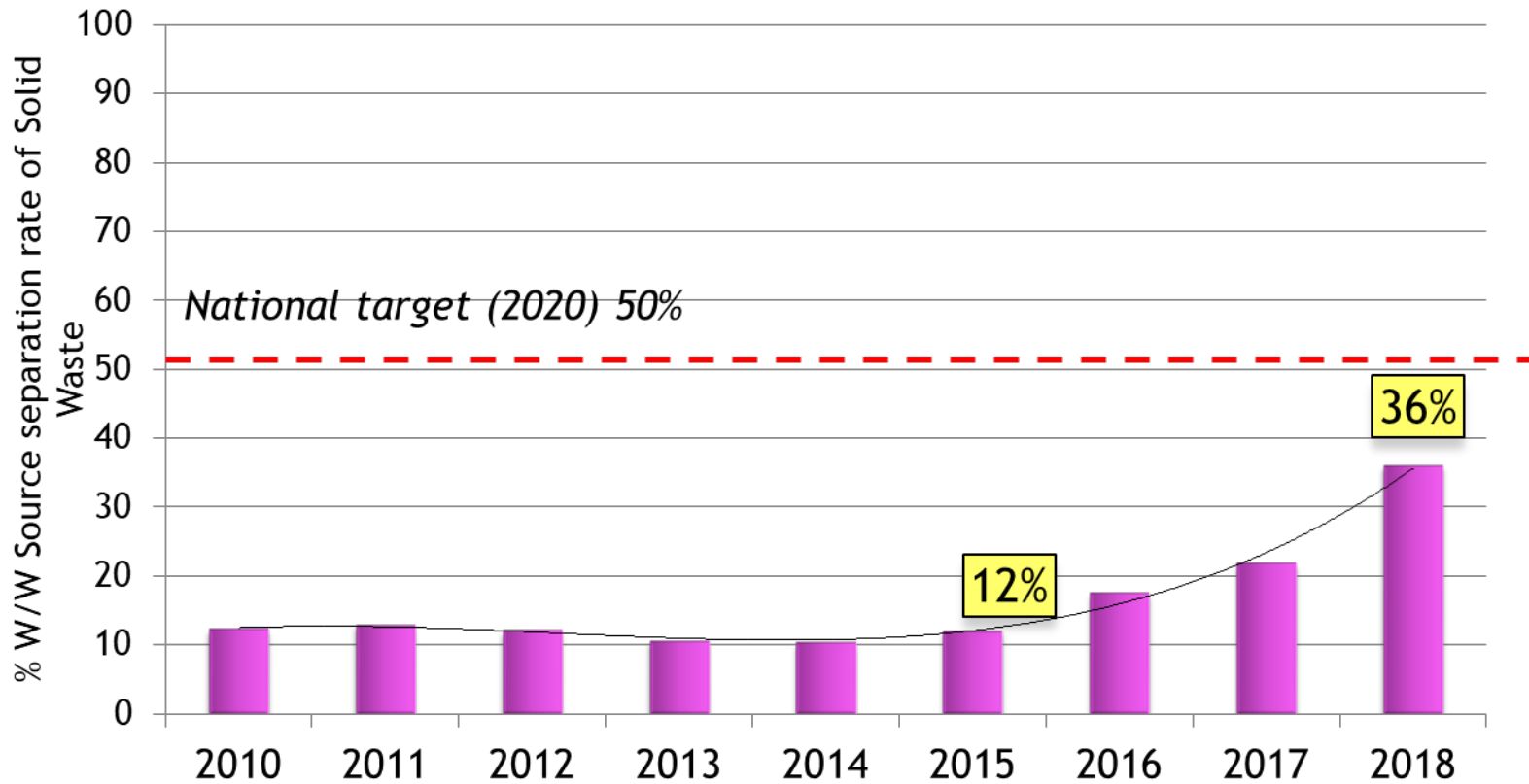




# SOLID WASTE MANAGEMENT MUNICIPALITY OF VRILISSIA (2018)

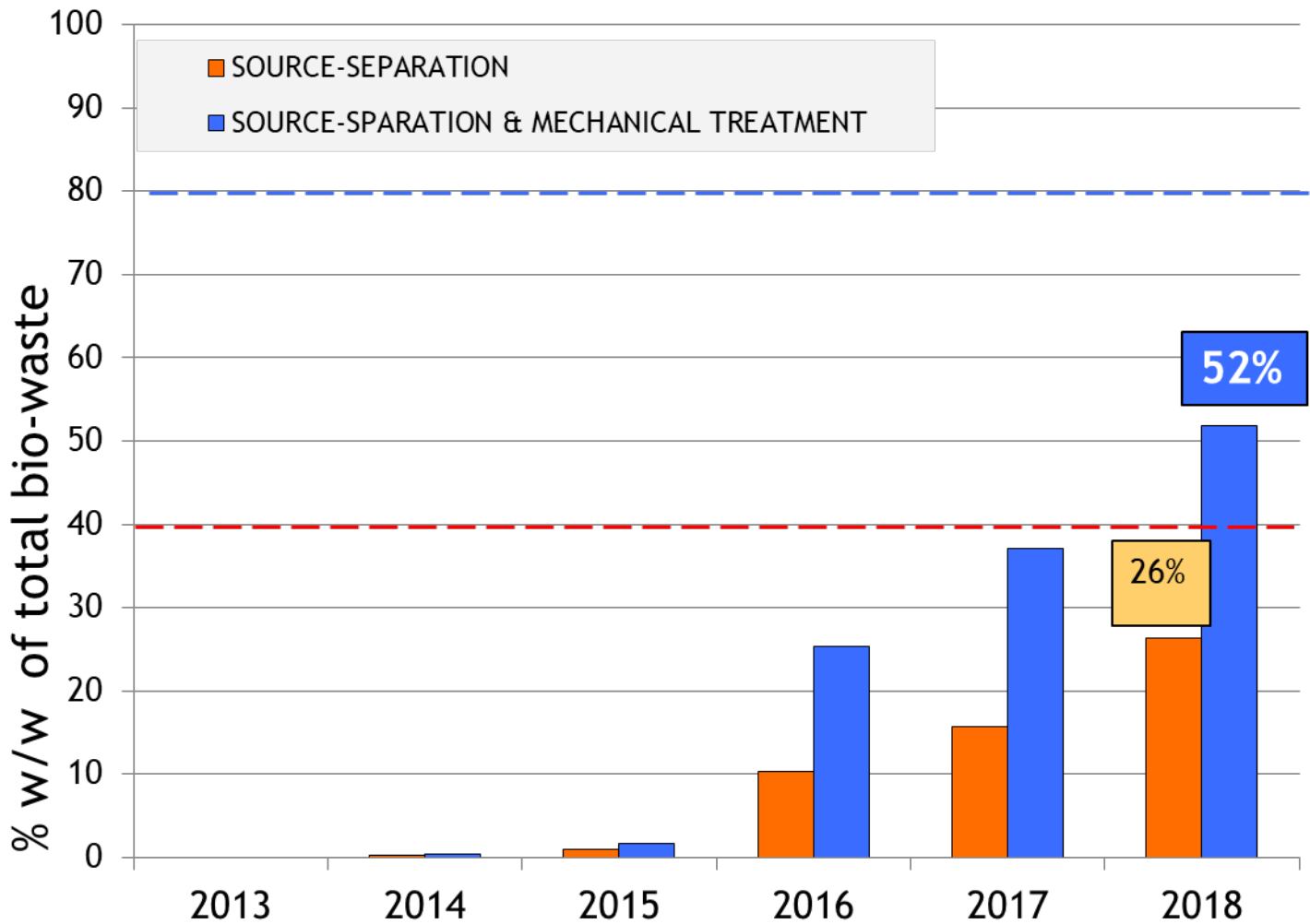


# SEPARATE COLLECTION OF SOLID WASTE

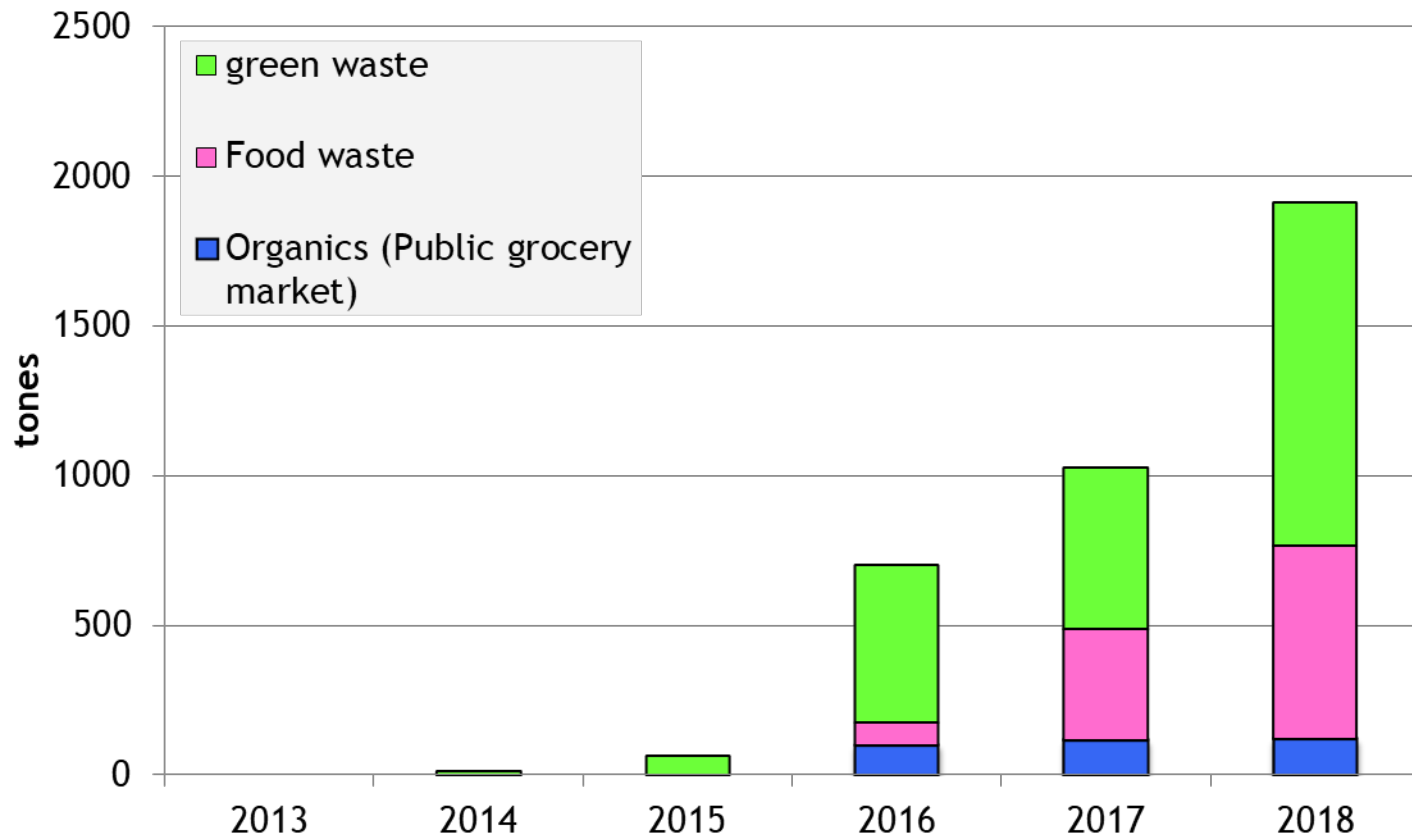




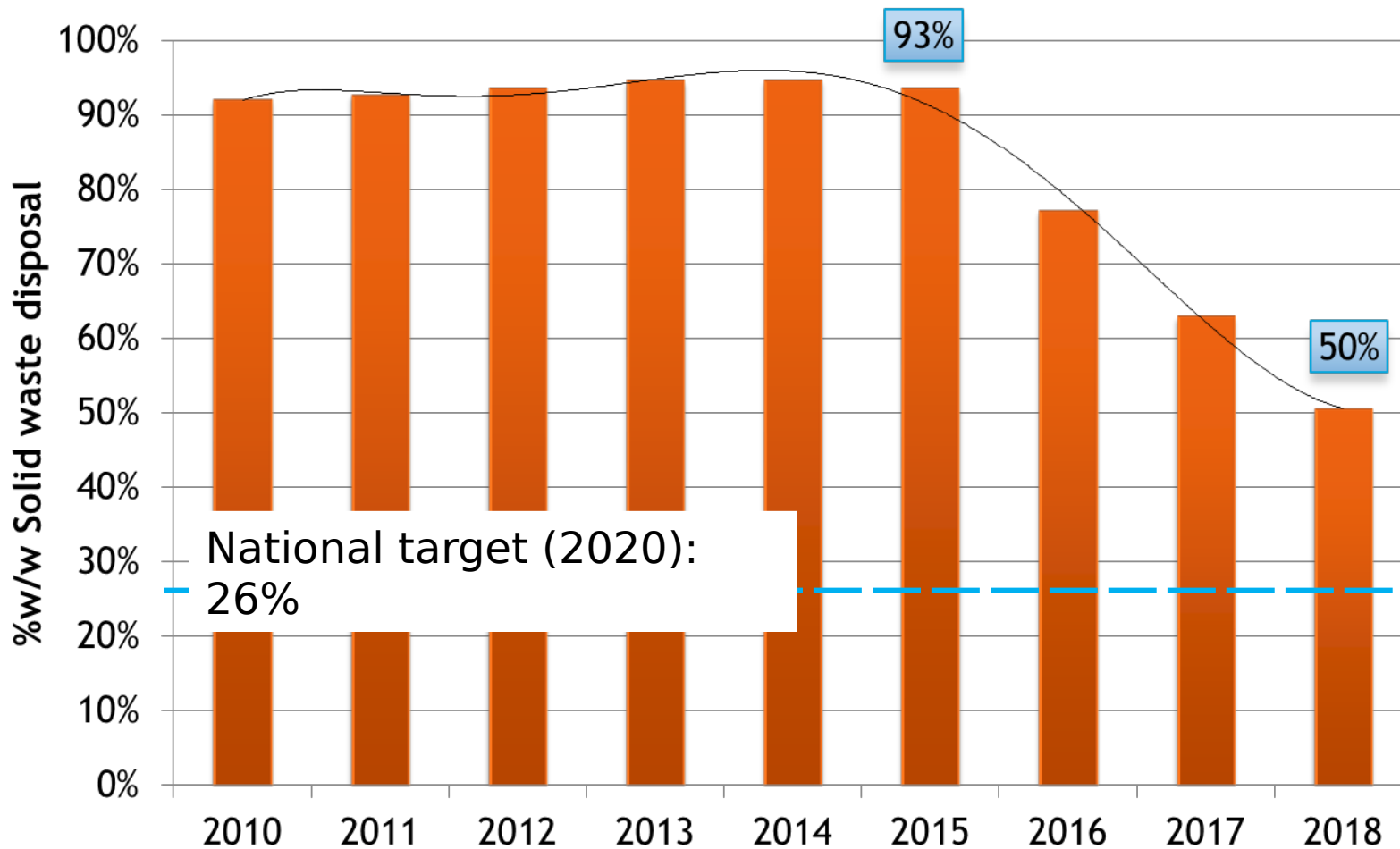
# SEPARATE COLLECTION OF BIO-WASTE



# SEPARATE COLLECTION OF BIO-WASTE PER SOURCE



# ISPOSAL OF RESIDUAL SOLID WASTE



# CONCLUSIONS



# What we have achieved

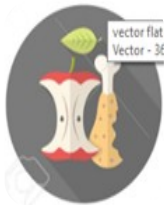


Implementation of 5 innovative actions to arise public awareness on Separated Collection of bio-waste



✓ Separate collection rate of **36%** MSW with increasing trend.

Ability to reach the 50% of national target.



Bio-waste separate collection rate of **26%** of total bio-waste generated, with increasing trend. Ability to reach the 40% of national target.



✓ Landfill disposal rate of **50%** MSW with decreasing trend. Ability to reach the 26% of national target



✓ Reduction of waste management cost due to landfill diversion – Resource saving

# Rewards



- 2019: Greek Green Awards Bio-waste Management
- 2018: Greek Green Awards Brown Bin Composting Programme
- 2017: Waste & Recycling Awards Local Authorities on Composting – natural fertiliser
- 2017: Best City Awards Composting
- 2017: Best City Awards Innovative policies on waste management for saving resources

# The achievement is due to..

- Political will for the implementation of an integrated waste management scheme
- Long-term implementation of Source separation starting from packaging and green waste
- Good planning and flexibility of the Source-separation program (source targeting, short collection time)
- Active participation and good cooperation climate of the staff in the Environmental Directorate
- Continuous and innovative public awareness-raising actions
- Financial incentives

# Obstacles and constraints

- Lack of waste management facilities
- Technical limitations (vehicle damage, vandalism)
- Lack of staff
- Administrative constraints (continuous amendments to the legislative framework for public supply / service contracts)
- Lack of financial resources (fleet renewal, recycling promotion campaigns, etc.)



## The next day...



- Renewal of fleet of vehicles and equipment
- Continue awareness-raising campaigns (door-to-door, schools, etc.)
- Extension of FollowGreen Programme (access via mobile phone, reward for using public transport)
- Pilot program "smart bin" in the framework of FollowGreen
- Door-to-Door Separate Collection of other waste streams
- Implementation of the Pay As You Throw system (system for locking / weighing of bins)

# Our vision



...living well  
within the limited resources of the planet,  
respecting the organic cycle.