

National Municipal Waste Management Plan of Cyprus 2015-2021



**DEPARTMENT OF
ENVIRONMENT**

**MINISTRY OF AGRICULTURE, RURAL
DEVELOPMENT AND ENVIRONMENT**

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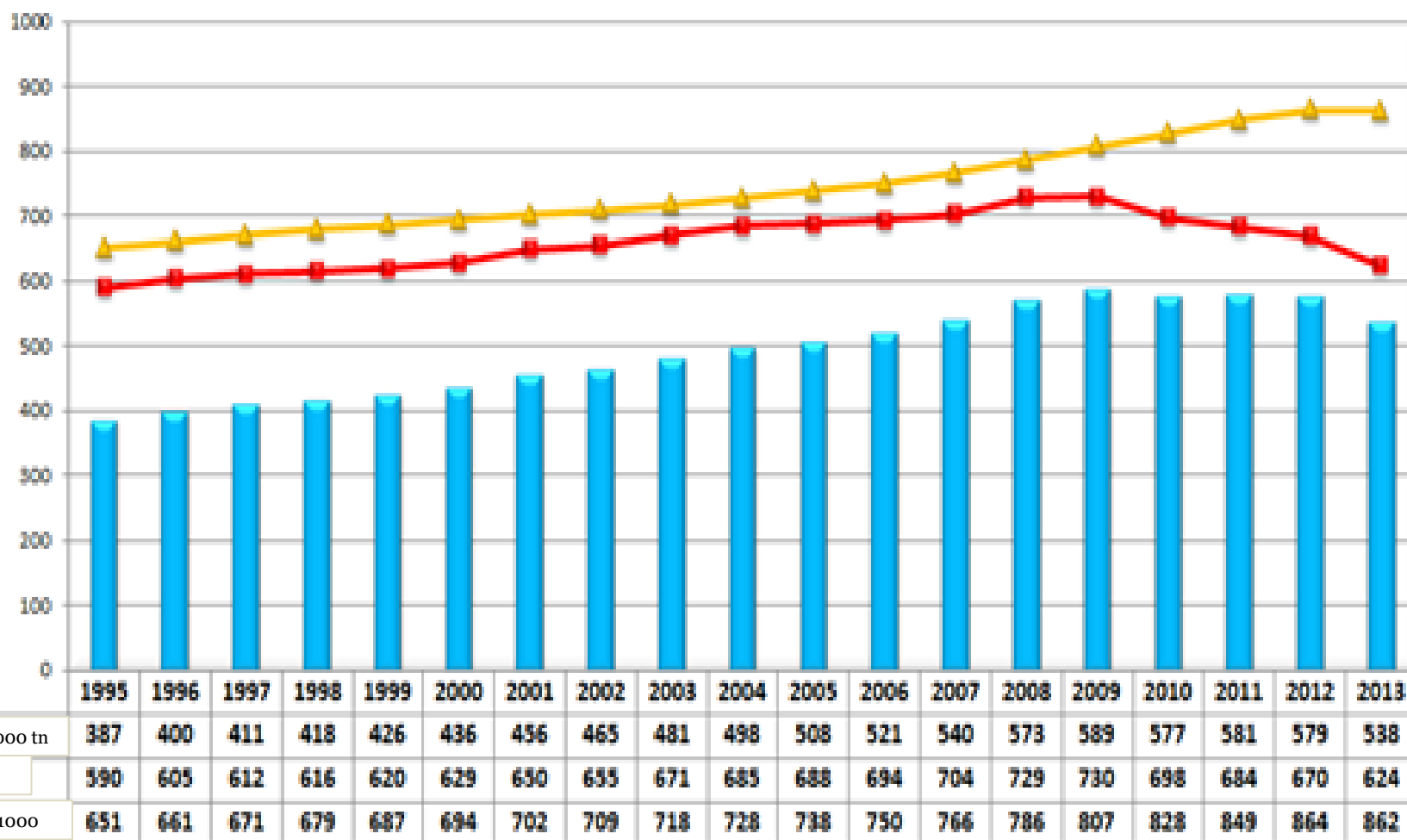
23rd of June, 2016



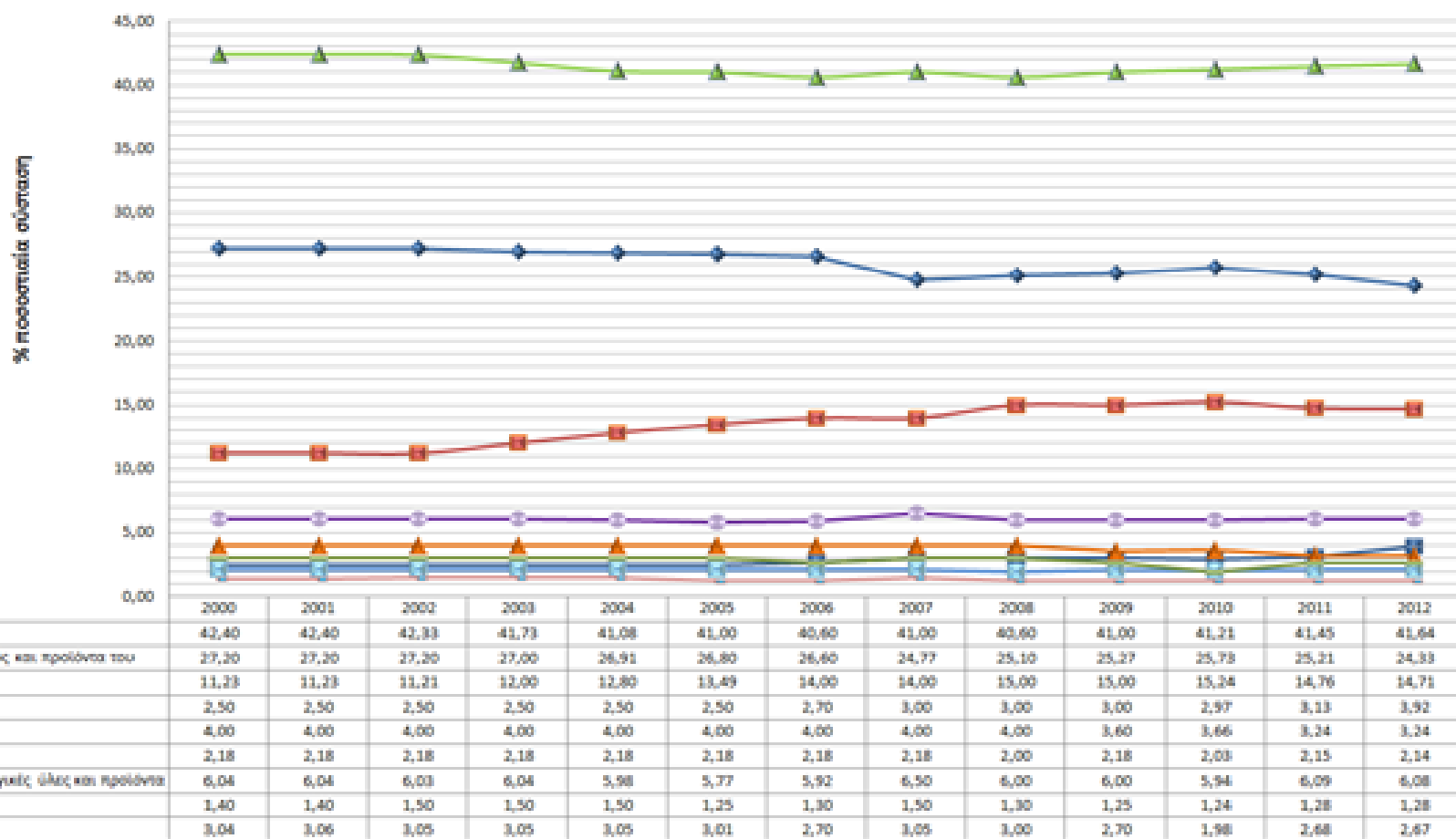
National Municipal Waste Management Plan of Cyprus 2015-2021

CURRENT SITUATION - QUANTITIES

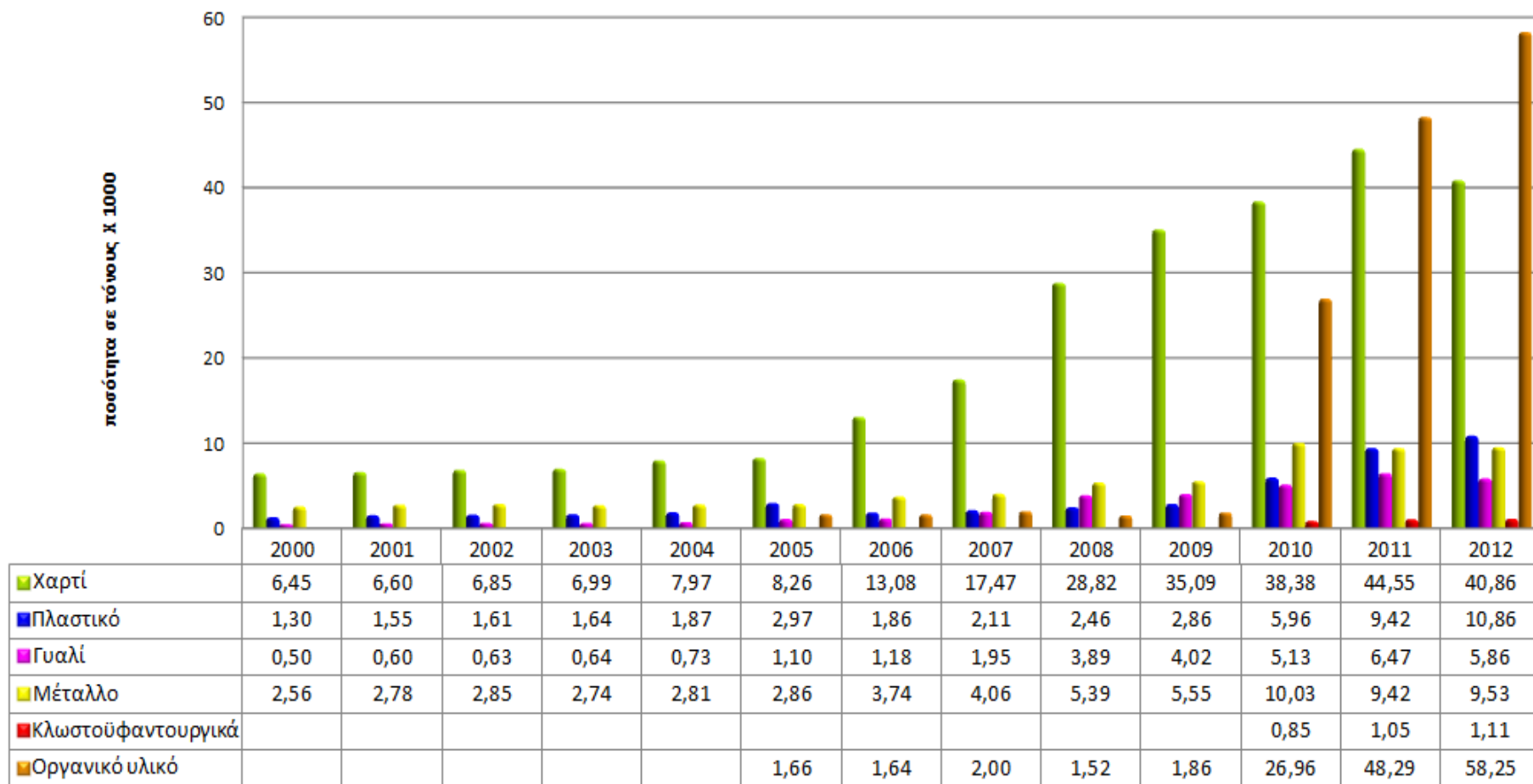
Production of Municipal Solid Waste (1995-2013)



Municipal Waste - Composition



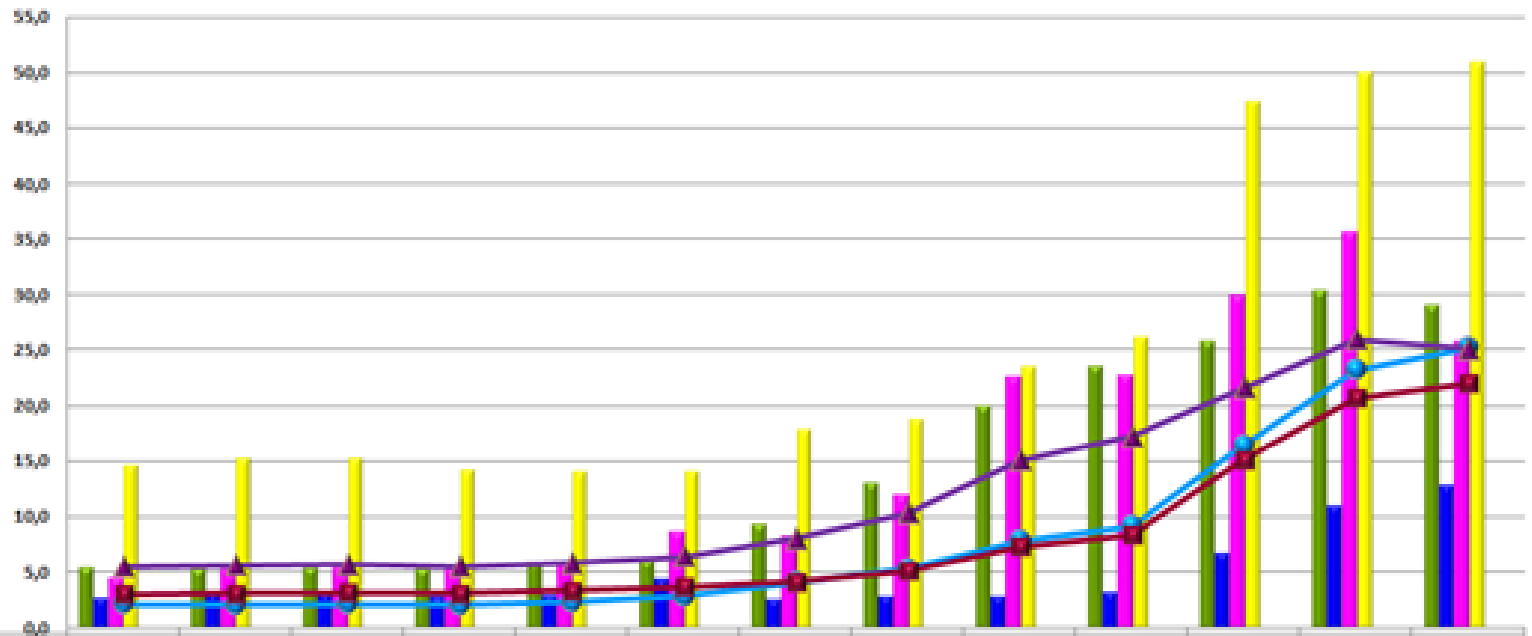
Municipal Waste Management - Recycling



Municipal Waste Management - Recycling percentage per type of material

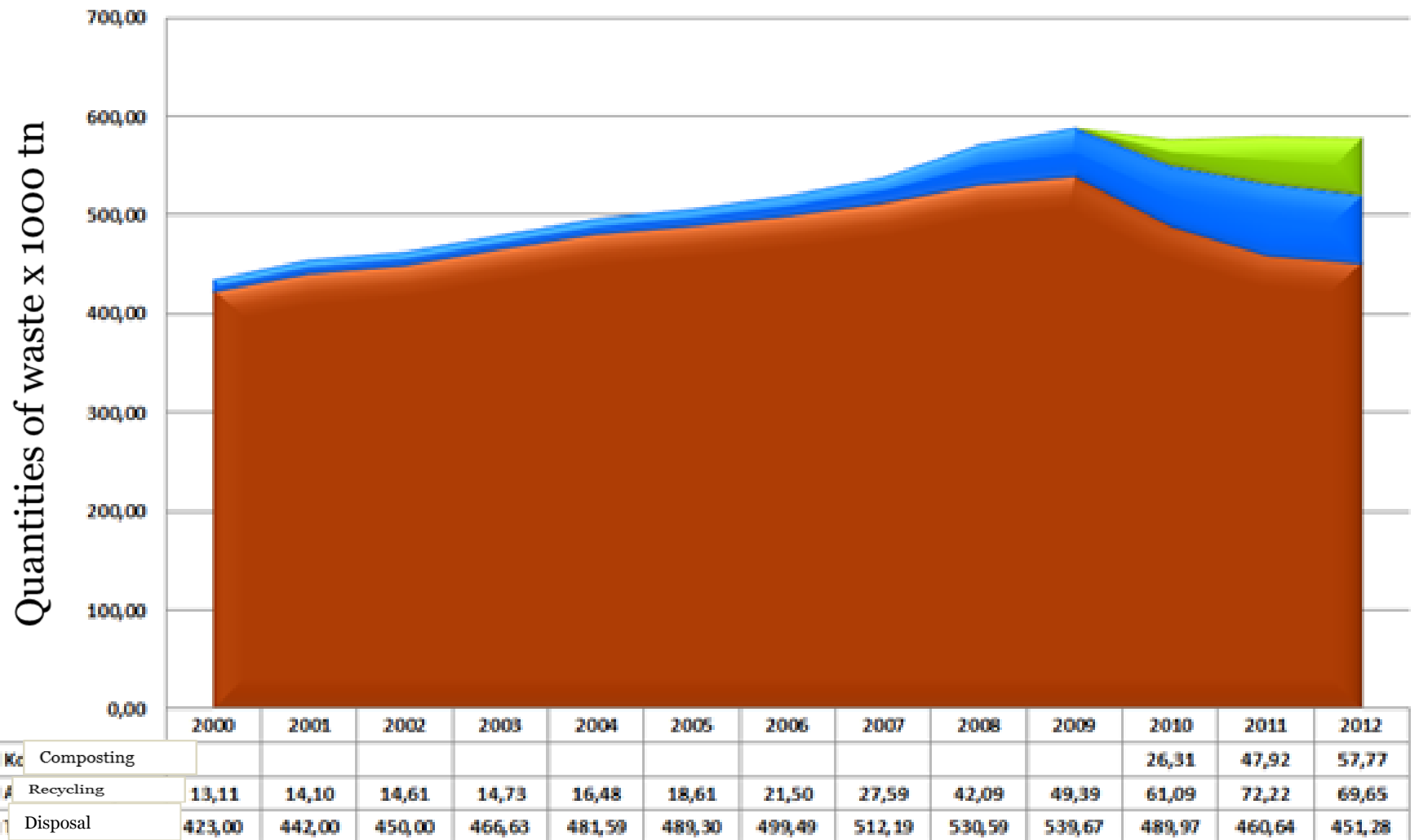


Ποσοστό αποβλήτων ανά υλικό που οδηγεί σε επεξεργασία



Χαρτί	5,4	5,3	5,4	5,4	5,9	6,1	9,4	13,1	20,1	23,6	25,8	30,4	29,0
Πλαστικό	2,7	3,0	3,1	2,8	2,9	4,3	2,6	2,8	2,9	3,2	6,8	11,0	12,8
Γυαλί	4,6	5,3	5,4	5,3	5,9	8,7	8,4	12,0	22,6	22,8	29,9	35,6	25,8
Μέταλλο	14,7	15,2	15,3	14,2	14,1	14,1	17,9	18,8	23,5	26,2	47,4	50,0	50,9
Κλωστοϋφαντουργικά													
Οργανικό υλικό													
Βιοαποδομήσιμο	2,1	2,0	2,1	2,0	2,3	2,8	4,1	5,3	7,8	9,2	16,4	23,2	25,1
Ποσοστό ανακύκλωσης*	5,5	5,6	5,7	5,5	5,8	6,4	8,1	10,4	15,0	17,2	21,6	25,9	25,1
Ποσοστό επεξεργασμένων	3,01	3,09	3,14	3,06	3,31	3,66	4,13	5,11	7,35	8,38	15,14	20,67	22,02

Treatment of MSW





CURRENT MSW MANAGEMENT SITUATION

INFRASTRUCTURE

COLLECTION SCHEMES/TRANSPORT STATIONS



-Collection schemes **by the local authorities for mixed MSW**. Waste collection:

- ❑ By the local authority's waste collection service
- ❑ By the service created by a cluster of local authorities using their equipment and personnel
- ❑ Through the services of a private collector commissioned by the local authorities but using the equipment of the local authority
- ❑ Through the services of a private collector commissioned by the local authority using its own equipment and personnel.

-Collection of **Green and bulky waste**, (Door-to-door collection, Pick-up service, central collection point

-Collective System for **packaging waste**- Green Dot (Cyprus)

-Collective system of **WEEE** -WEEE electrocyclosis

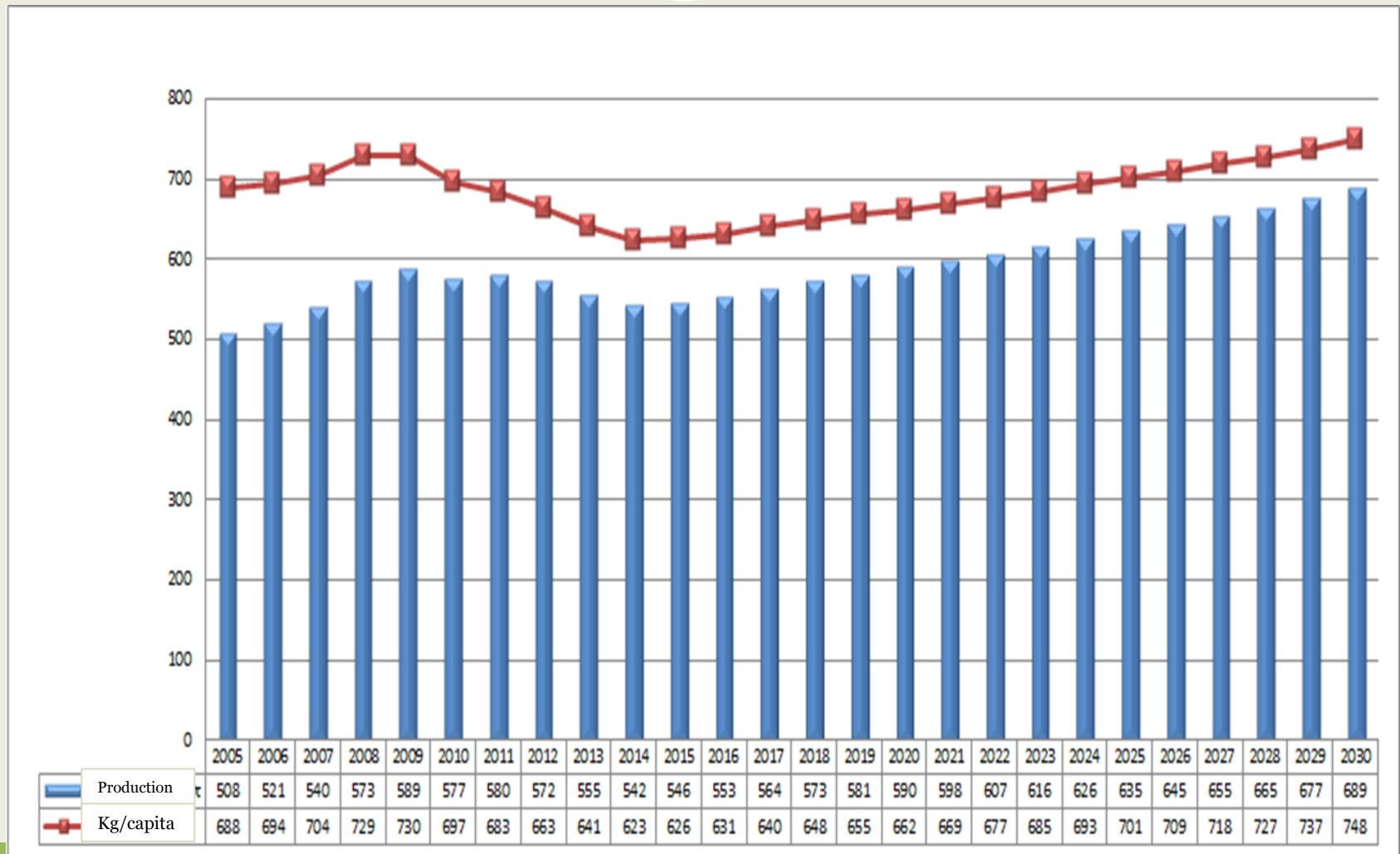
-Collective system for **batteries**- AFIS CYPRUS

TREATMENT OF WASTE (PREPARING FOR RE-USE/RECYCLING, RECYCLING, ENERGY RECOVERY)



- **MBT Unit** (1 at Koshi serving, since 2010, the districts of Larnaca and Ammochostos – 1 at Pentakomo, under construction)
- **Transfer stations** (1 at Polis Chrysohous and 1 at Skarinou)
- **Sorting facilities/treatment** (8 for plastic, 5 for paper, 12 for metal/Weee, 2 for glass, 2 for clothing, 2 for hazardous waste)
- **Composting facilities** (2 for Green waste, wood with no chemicals, some types of organic (fruits, vegetables))
- **Biogas plans** (total of 11 – with appropriate additions can treat biowaste)
- **Energy recovery facility** (1 for All types of waste with high calorific value and 1 Wood (packaging, furniture))
- **Landifills** (1 at Paphos, 1 at Vati, 1 at Kotsiatis and 1 at Koshi)

Predictions – Production of MSW 2013-2030



EU Targets – CY current situation



European Targets	Current Situation	Measures- Actions
<p>1. LANDFILLS Closure of landfills until 2009 (convictional decision of EE 18.7.2013 C412/12), new deadline – closure 7/2015</p>	<p>-Closure of 113 landfills -Kotsiatis/Vatis still in operation -Restoration of landfills Paphos, Larnaca, Ammoxostos</p>	<p>-closure and rehabilitation of Vati/Kotsiatis -Restoration of the rest dumpsites -Construction of MBT Limassol</p>
<p>2. Establishment of Separate collection at least for paper, plastic, metal, glass until 2015</p>	<p>-Separate collection only for packaging waste and non packaging paper</p>	<p>- Legislative measures for obligatory separate collection for local authorities</p>

EUROPEAN TARGETS	CURRENT SITUATION	ACTIONS-MEASURES
<p><u>3. RECYCLING</u> PACKAGING WASTE (a) 31.12.2012- 60% recovery and 55% <i>recycling</i> (b) recycling for each material 60% glass, 60% paper , 50% metals 22,5% plastic 15% wood</p>	<p>2013- Total recovery and recycling 56,6% Recycling per material 32,1%- glass 97,3%, paper 70,7% metal 45,3% plastic 12% wood</p>	
<p>BATTERIES AND ACCUMULATORS (a) 25%, min. percentages of collection - 26.9.2012 (b) 45%, min. percentages of collection -26.9.2016</p>	<p>2013- 19% separate collection for dry batteries put on the market</p>	
<p>WEEE- Separate collection at least 4Kg/person/year, from 2005-2015 - Collection of 45% of total average weight put on the market the last 3 years from 2016 and collection of 65% from 2019</p>	<p>2010-2012 - 3,1 kg/person.</p>	
<p>MUNICIPAL WASTE 2020 - 50%, reuse and recycling at least for paper, metal, plastic, glass from household and other similar sources</p>	<p>2012- 22% recycling for paper, plastic, metal, glass</p>	
<p><u>4. BIOWASTE</u> Reduction to 35% for landfilling of the total weight of biowaste that was produced in 1995 until 2016 (95.000)</p>	<p>2012, 451.280 tn of municipal waste, or landfilling (295.000 biowaste)</p>	

SETTING
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PROMOTIO
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MMWMP - Qualitative objectives



- Provide environment protection
- Supply the economy with secondary raw materials and energy sources (circular economy)
- Increase the contribution of waste management to sustainable material flow and resource management (resource efficiency)
- Investigate the increase of the degree of utilization of recyclables, as raw materials, locally in Cyprus (reduction of CO₂ emissions)
- Improve the knowledge and expertise on waste management for all parties involved (capacity building)
- Further develop collection systems and recovery and disposal technologies and their capacities (green growth economy)
- Encourage desirable treatment channels through economic incentives
- Promote the designing and use of products and processes that minimize pollutants and save resources (green growth economy)
- Achieve a high degree of environmental awareness and involvement of the public in waste management issues (recycling societies)
- Develop an accurate data collection basis on MSW

NMWMP - Quantitative Targets



- Achieve a 40% separate collection on total MSW by 2021 and 50% by 2027.
- Achieve a 50% preparation for reuse/ recycling of the recyclables in MSW by 2020
- Achieve a 15% separate collection of the organic waste in MSW by 2021
- Achieve targets of Packaging , WEEE and Batteries directives

A/A	2016
LEGISLATIVE MEASURES	Establishment of local waste management plan/prevention programme
	Establishment of Separate collection measures for paper, plastic, glass, metal ,organic waste for local authorities
	Review of current legislation for EPR (packaging, WEEE, Batteries & accumulators)
	Adaptation of producer responsibility for non -packaging paper
	Entry fee to landfills
	Ban of specific waste streams to landfills
	Obligatory separation at source for the citizen (after a study for PAYT)
	Reinforcement of inspections/ controls
	Amendment of the law for the councils for the management of landfills/MBT units (85(I)/2005)
NATIONAL ACTIONS/ PROJECTS	Construction and operation MBT Limassol
	Re-evaluation of the capacity of MBT unit Larnaka- Famagusta
	Investigation of promotion/sale of SRF και RDF from the units
	Waste Management general fund
PUBLIC AWARENESS, INFORMATION, ADVICE, AND EDUCATIONAL TRAINING	Electronic waste data management system/database
	Improvement of Website of Department of Environment
	Educational/vocational program of LA and others
	Publication of guidelines on MSW prevention at source, conservation of resources, separation at source, more efficient planning etc
	Awareness /education of public

LEGISLATIVE MEASURES	2017
	Adaptation of producer responsibility for plastic & glass
	Promotion of waste prevention and recovery in enterprises
NATIONAL ACTIONS/PROJE CTS	Construction and operation Landfill Nicosia
	Restoration of the rest of dumpsites
	Construction and operation of landfill and MBT Paphos
	Evaluation of the necessity for construction of transfer station
	Waste Management general fund
PUBLIC AWARENESS, PROVISION OF INFORMATION, ADVICE AND EDUCATIONAL TRAINING	Electronic waste data management system/database
	Improvement of Website of Department of Environment
	Electronic platform
	Educational/vocational program of LA and others
	Awareness /education of public
	Teleph. Line/ Guidance
	Publication of guidelines on MSW prevention at source, conservation of resources, separation at source, more efficient planning etc

NATIONAL ACTIONS/PROJECTS	2018
	Construction and operation of a network of green points
	Construction and operation of landfill and MBT Paphos
	Evaluation of the necessity for construction of transfer stations
	Construction and operation Landfill Nicosia
PUBLIC AWARENESS, PROVISION OF INFORMATION, ADVICE AND EDUCATIONAL TRAINING	Educational/vocational program of LA and others
	Awareness /education of public
	Publication of guidelines on MSW prevention at source, conservation of resources, separation at source, more efficient planning etc
	2019/2020/2021
PUBLIC AWARENESS, PROVISION OF INFORMATION, ADVICE AND EDUCATIONAL TRAINING	Educational/vocational program of LA and others
	Awareness /education of public

MARKET ECONOMIC INSTRUMENTS AND FINANCIAL INCENTIVES



Private sector

- Financial support for enterprises of specific size and number of employees for implementing and promoting a reduced waste generation and separate collection waste program in their operational cycle.
- Financial support to waste management facilities to increase their capacity or improve the technology used.
- Financial support to industries that are including recyclable materials in their production processes.

MARKET ECONOMIC INSTRUMENTS AND FINANCIAL INCENTIVES



Public sector

- Co-funding the application of prevention of waste programs and separation at source.

General funding

- Funding events, competitions and giving grants and awards for best performances on selective collection and/or waste prevention, on local authority, community, school, NGOs, companies, industry and/or individual citizens' level.

COHESION FUND



- PROGRAM “An integrated prevention, separate collection and recovery of municipal waste program – €20m.
 - Purpose:
 - ✦ Implement a sustainable municipal waste management through actions of prevention, reduction and separation at source
 - ✦ Enhance building capacities of stakeholders and the environmental awareness of the public
 - ✦ Develop of the necessary infrastructure in order to assist local authorities
- PROGRAM “Subsidy schemes for the recovery, utilization and prevention of waste” - €7m
 - Purpose:
 - ✦ Financial support for the development of the necessary infrastructure
 - ✦ Financial support for the introduction of recyclables in the production processes
 - ✦ Financial support for the implementation of prevention and separation at source in operation cycle of big producers of waste

Programs on going

Promotion of Separate collection



- Reduction of solid municipal waste in coastal areas for hotels and other similar units through separate collection of waste produced.

- ❑ A' Phase: covers Coastal areas of Larnaca, Agia Napa and Paralimni municipalities

- ❑ B' Phase: covers Coastal areas of Limassol- Paphos districts

through

- Provision of the necessary infrastructure to local authorities at coastal areas in order to separate at source the paper, plastic, metal, glass and organic waste
- Training and education of staff of local authorities
- Environmental campaigns and publicity
- Provision of software for the submission of data and electronic platform

Infrastructure



**Underground bins for
separate collection of
waste**

Baler- compactor of paper



Infrastructure



**Semi-Underground bins
for separate collection of
waste**

Infrastructure



Deposit- fund machine for separate collection of plastic, glass and metal packaging

Infrastructure

Compactor of organic waste



Skip Containers

Infrastructure

Hook Lifter



Skip Loader

Programs on going Promotion of Separate collection



- Implementation of PAYT systems by local authorities
- Actions for integrated MSW management in remote (rural and mountainous) areas (zero waste approach) (including composting facilities, transfer stations, small collective and sorting points for recyclables, small biodiesel production units, small landfill for residuals etc)
- Promotion of financial schemes to waste management facilities, industry and big waste producers

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