



# WASTE MANAGEMENT IN CROATIA



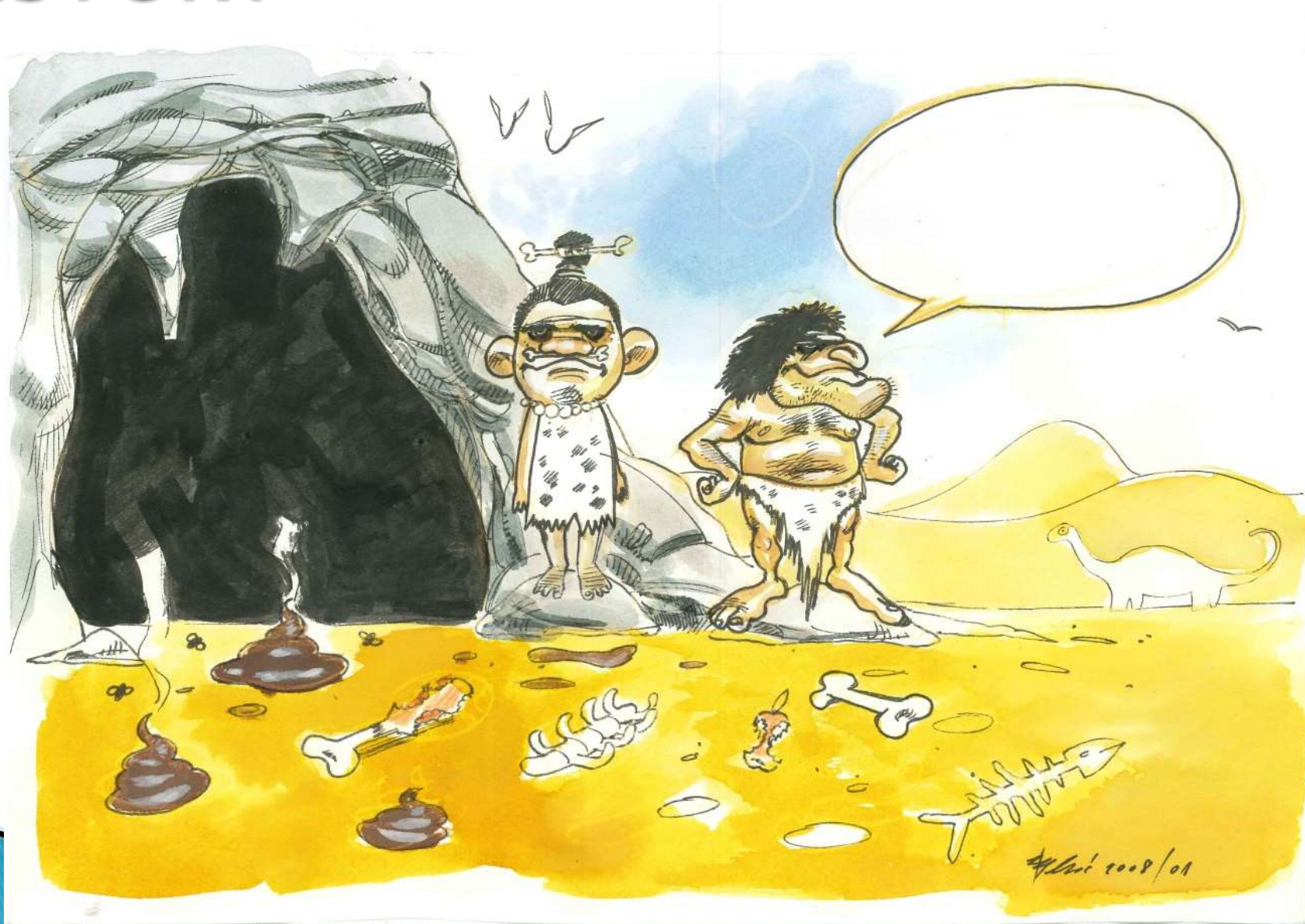
DANKO FUNDURULJA




Population: 4,284,899 (2011 census)

Total area: 56,594 m2

# HISTORY



- ▶ 1425.g. – first written document
  - ▶ 1611.g. – landfill in Zagreb
  - ▶ 1898.g. – collection in wooden bins
  - ▶ 1938.g. – legislation about waste
  - ▶ Nothing
  - ▶ 1995. – Law about waste
- 

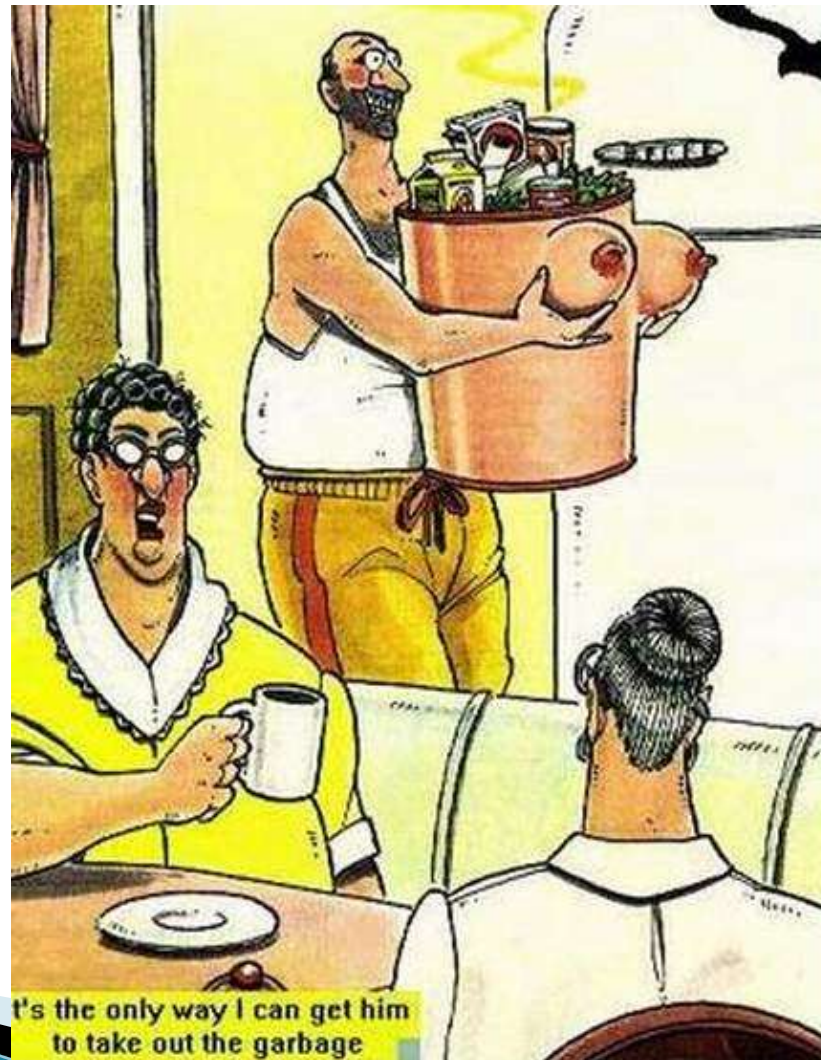




# CURRENT DATA (2013 /14 /15 ) [www.haop.hr](http://www.haop.hr)

- 1.720.7580 / 1.637.371 t / 1.653.918 t  
municipal waste
- 421.182/396.594/ 391.074 t t separately  
collected
- 258.056/272.421/ 298.026 t referred to  
recovery
- Recycling – 26,6%/22%/ 24% (glass, metal,  
plastic and paper)
- 1,1/1,04/1,06 kg/person/day (402/382/386  
kg/g)  
0,62 kg/person/day in 1995
- organized collection– 98%/99%/99% (57% in  
1995)

# How to have better collection?



## CURRENT DATA (2014/15)

- Bio waste – disposed 870.434 t/819.757 t/  
828.564 t, 5,8% less (goal 567.131 t)
  - 8/9 composting plant
  - 29.266/ 33.471 tons of composted MW
  - 313 landfills – active 147/143 /141
- Decrease in disposal on landfills by 18% or  
69.974 tons



Establishment of Waste management  
(1995/2004, negotiations with the EU):


Remediation of official unregulated and illegal landfills

Remediation of contaminated industrial or hazardous  
waste of contaminated areas

Construction of Waste Management Centres



# Legislative framework:

- The Law on Sustainable Waste Management (OG 94/13, 73/17)
  - Regulations and Ordinances
  - Waste Management Strategy of the Republic of Croatia (Official Gazette 130/05)
  - Waste Management Plan in the Republic of Croatia 2017 - 2022 (NN 3/17)
- 

# Entering in EU



**Ulazak u**

**EU**

# The objectives of the Croatia – EU agreement and Article 24 of the Law

ensure a gradual reduction of biodegradable municipal waste

- by 31/12/2013 share of biodegradable municipal waste deposited on landfills shall be reduced to 75% of the total amount (by weight) of biodegradable municipal waste produced in 1997 - 567.131 t
- by 31/12/2016 to 50 % - 378.088 t
- by 31/12/2020 to 35 % - 264.661 t





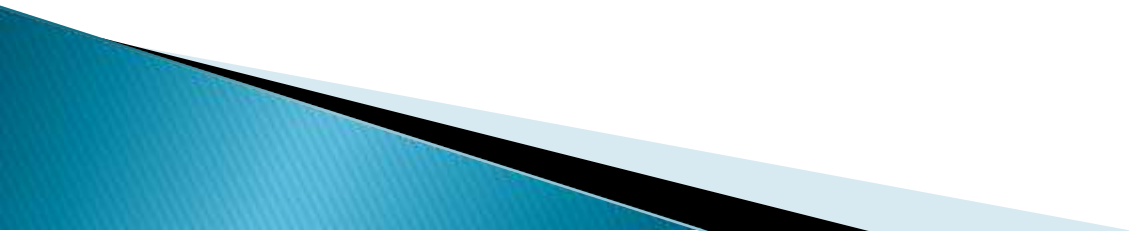
# The objectives of the Croatia – EU agreement and Article 25 of the Law

gradual reduction of waste landfilled in existing non-compliant landfills

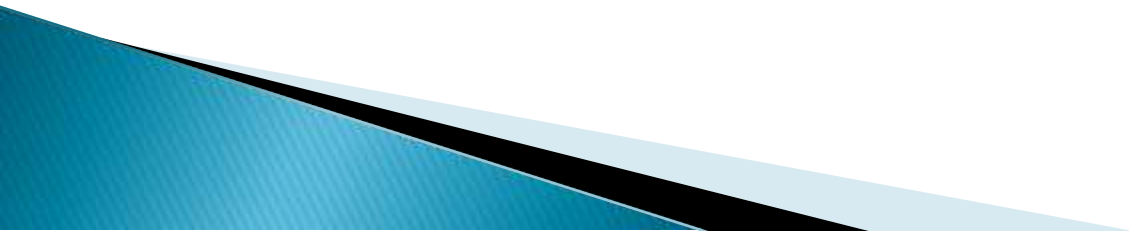
by 31/12/2015: 1.210.000 t

by 31/12/2016: 1.010.000 t

by 31/12/2017: 800.000 t



- Article 53 – Special categories of waste
- Article 54 - a separate category of waste must be separated at source, collected separately and stored in accordance with the way prescribed by regulation of 1/1/2015, to introduce separate collection





**Djubretari**  
Specijalne jedinice











# Sorting of Waste







ORGANSKI OTPAD

PAPIR I KARTON

PLASIKA / PET

STAKLO

METAL  
OPŠMI OTPAD

OSTALO







# What we found during sorting







# IMA I TOGA!






# WASTE MANAGEMENT CENTER

Waste management is a set of more functionally and / or technology-related structures and equipment for the treatment of municipal waste

Activities and tasks related to waste management center performs company owned by regional government and / or local government.



# KAŠTIUN – August 2015



# 9.2016. ULAZ





# OBJEKT ZA ZAPOSLENE







# mbt

















# MARIŠČINA







# TRANSFER STATION

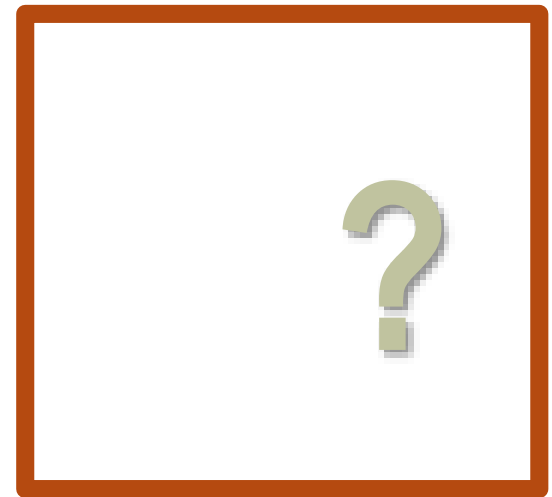


# Closing the circle – EU Action Plan for the circular economy

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## ACTION PLAN

- ▶ Bruxelles, 2/12/2015
- ▶ COM (2015) 614 final
- ▶ European Commission





# What does the implementation of the circular economy bears

„In the legislative proposal on waste, which will be issued together with this action plan, long-term goals for the reduction of waste disposal to landfill and increasing preparation for re-use and recycling of key waste streams, such as municipal waste and packaging waste, are included.

...This action plan will be critical to achieving sustainable development goals by 2030 (2035 for CRO).



## ZERO WASTE in CROATIA:

The theory is, when everything is known and nothing works. Practice is when everything works, and nobody knows why.

# Recycling yard





# Recycling yard for construction waste



# COMPOSTING



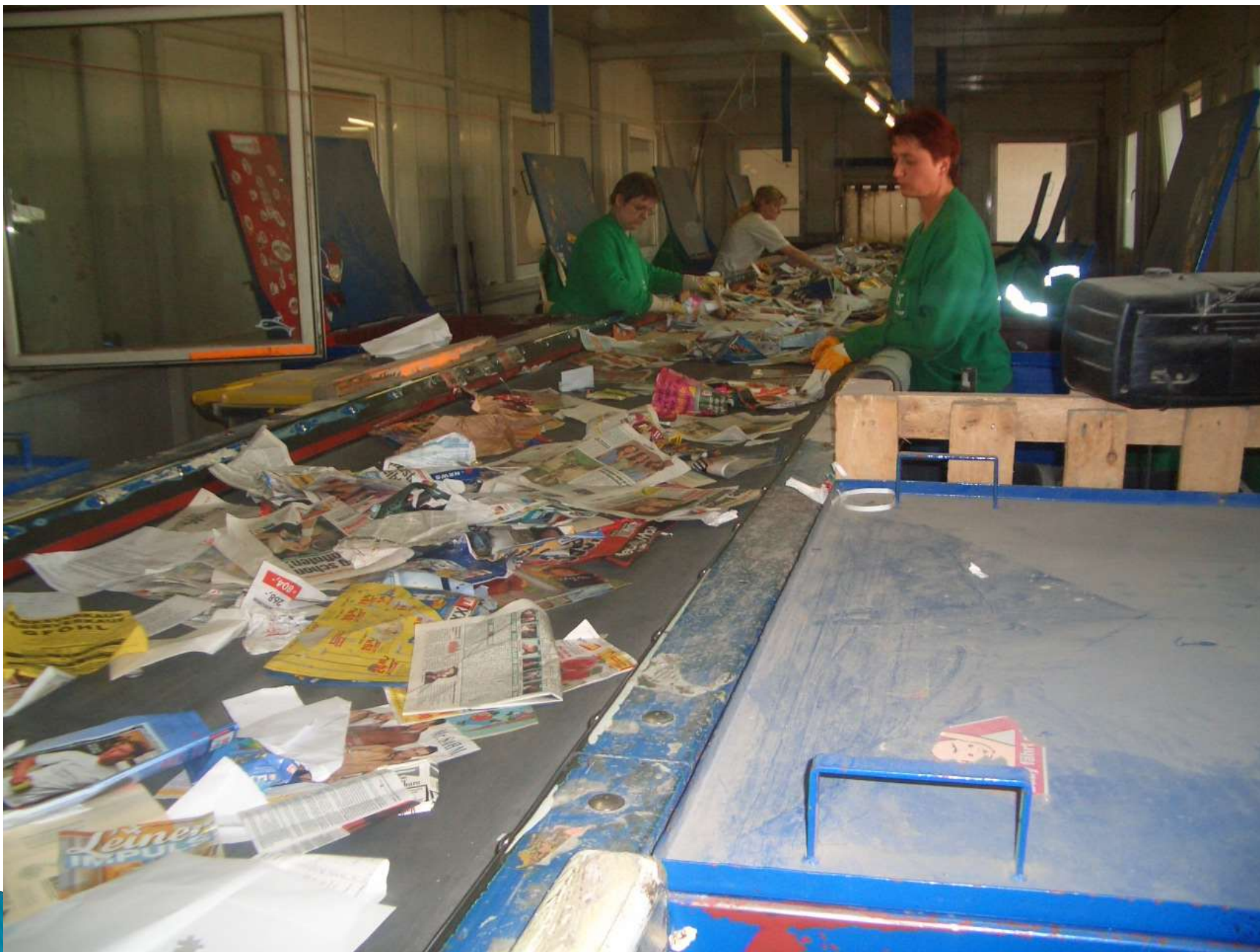






# sorting plant











# DUBROVNIK '70 y



# LANDFILL's-Mraclinska dubrava 1999.





# Odlagalište Mracinska dubrava 1999.





# Remediation 1999.



**Pigs**

# Fire - 2000. godine





# MRACLIN







# DUPLJA – Novi Vinodolski – 2003. god

























EARTH DAY, 2035



# KRIŽEVCI – 2002







# KRIŽEVCI









SHE TRAVELED FEW KILOMETERS  
JUST TO HURT ME.







**THANK YOU  
FOR YOUR  
ATTENTION**

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