



AVFALL SVERIGE

Swedish Waste Management

Landfill diversion from a Swedish perspective

Anders Hedenstedt

FEAD workshop - Implementation of the landfill directive

May 15th 2009, Tallinn

AVFALL SVERIGE – SWEDISH WASTE MANAGEMENT

- Avfall Sverige - Swedish Waste Management is an organisation in the Waste Management and Recycling Sector
- We have 400 members, primarily within the public sector, but also private enterprises
- We are aiming towards an environmentally correct and sustainable waste management, for the benefit of society

AVFALL SVERIGE – SWEDISH WASTE MANAGEMENT

- We create networks, provide information and influence Decision Makers
- Our members are responsible for municipal waste management and provide services for other waste categories
- Our members represent an important part of the societal infrastructure

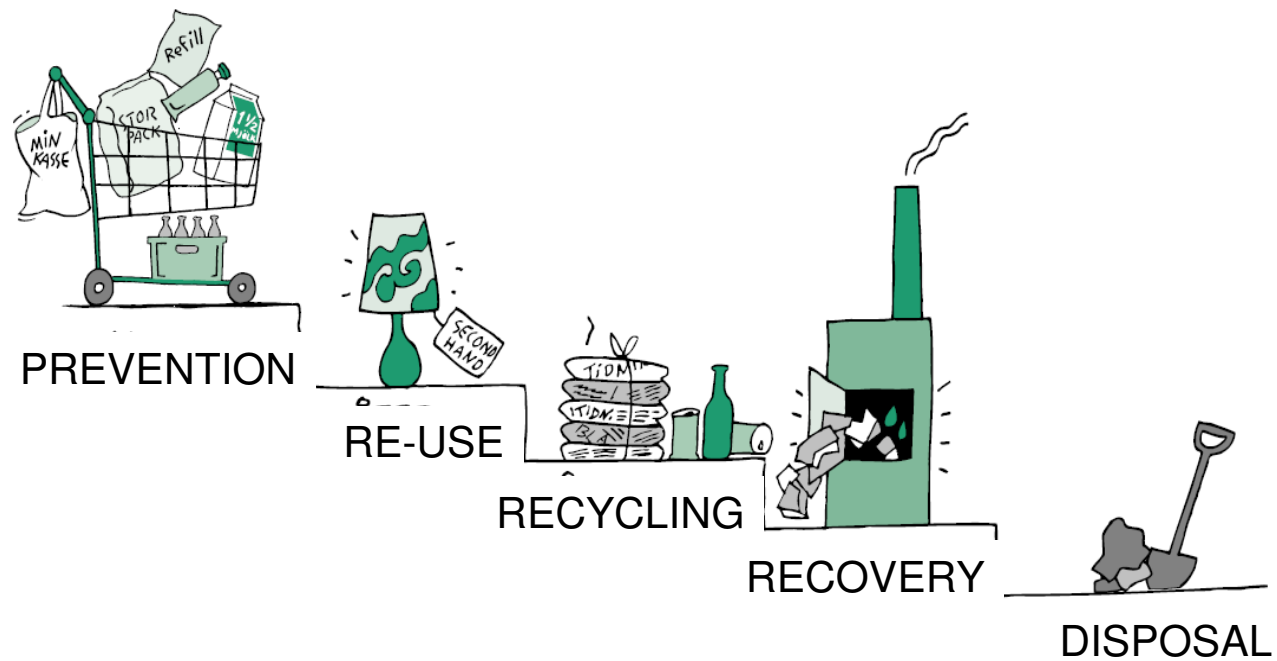
AVFALL SVERIGE – SWEDISH WASTE MANAGEMENT

- Our members employ 12 000 people and account for a total annual turnover of 1,32 billion €
- Together with households and companies, we carry out one of Swedens most important tasks through "Swedens largest environmental movement"



WASTE HIERARCHY

Waste Framework Directive states



DIVERSION TARGETS

According to the Landfill Directive:

Referring to year 1995 the amount of biodegradable municipal waste to landfills must be reduced to

75 % in year 2006

50 % in year 2009

35 % in year 2016

INCENTIVES AND BANS

Producer's responsibility on paper and packaging (1994)

Landfill tax (2000)

Ban on landfilling of source separated combustible waste (2002)

Ban on landfilling of organic waste (2005)

Landfill directive implemented (2009)

Environmental target - source separation of food waste (2010)

ALTERNATIVE WASTE TREATMENT

Material recycling - packaging waste

- bring system - awareness among citizen
- high collection rates (year 2008)

plastics	60 %
metal	67 %
paper	74 %
glass	94 %
newspaper	85 %



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ALTERNATIVE WASTE TREATMENT

Biological treatment

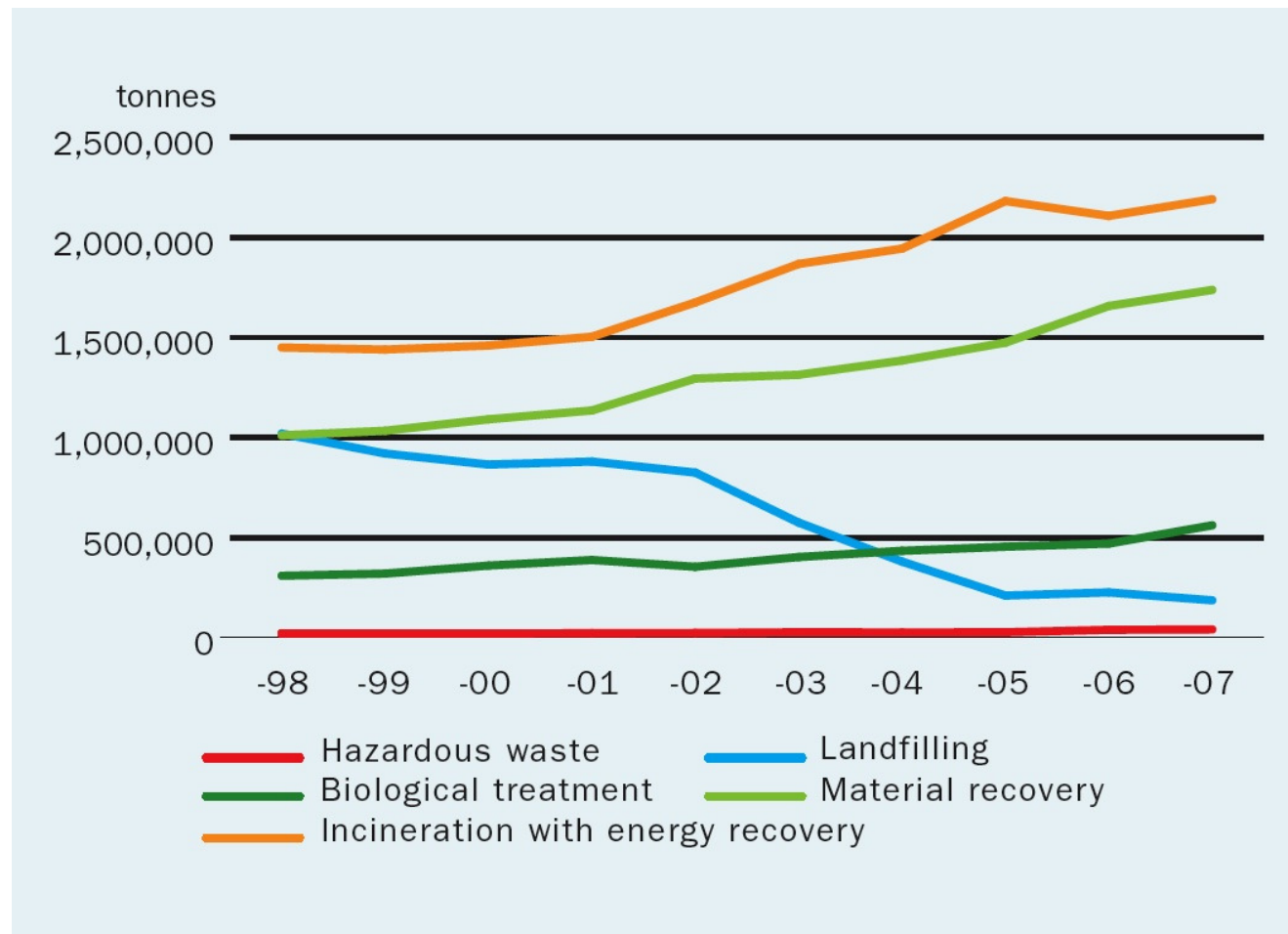
- biogas mainly for transport fuel but also heat and power
- contributes to target 10 % renewable energy for transports (2020)
- use of biofertiliser and compost

ALTERNATIVE WASTE TREATMENT

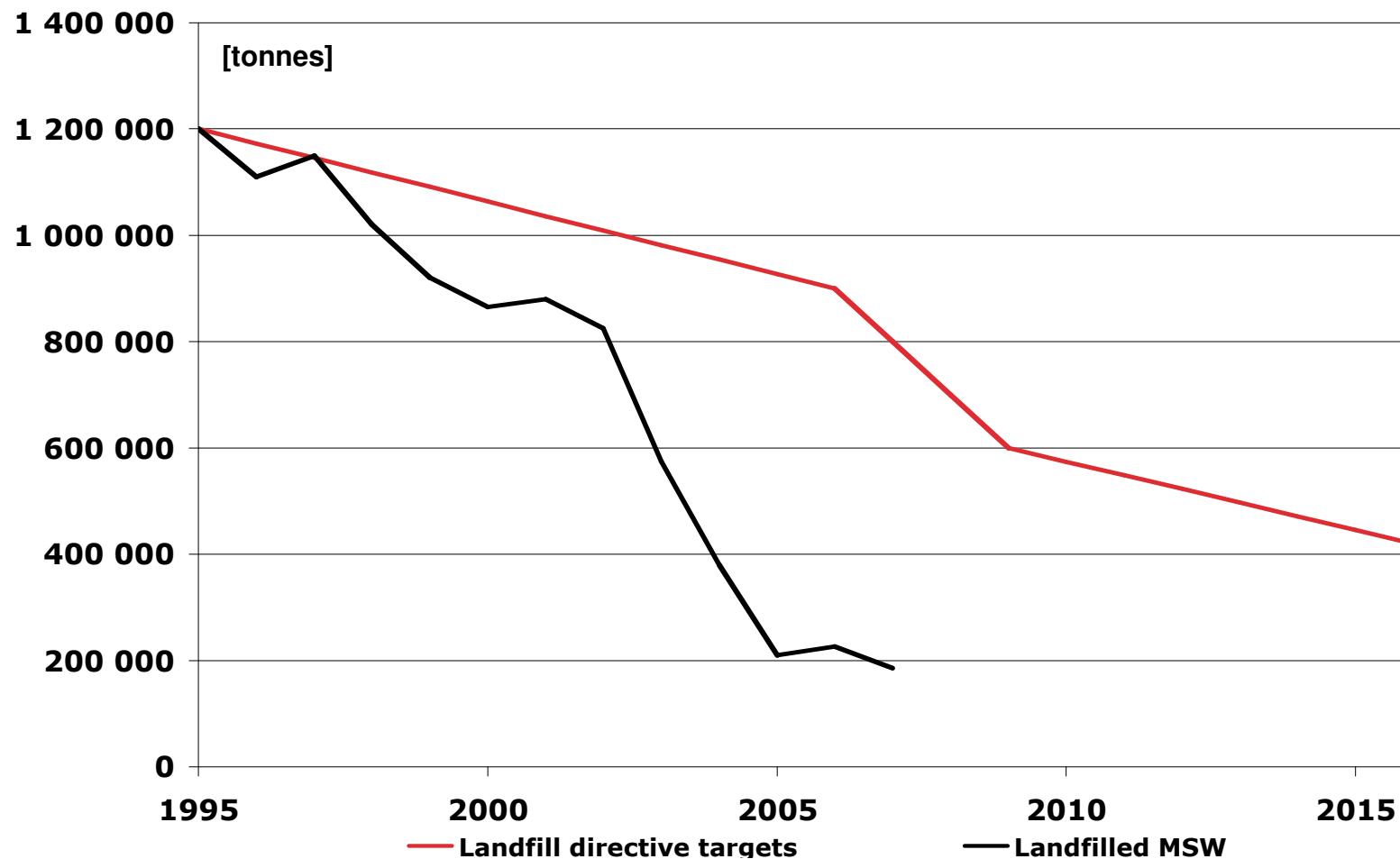
Waste to energy

- high energy efficiency
- heat for district heating (20% of need in Sweden)
- new plants combine heat and power
- considered as recovery in the Waste Framework Directive (0,60/0,65)

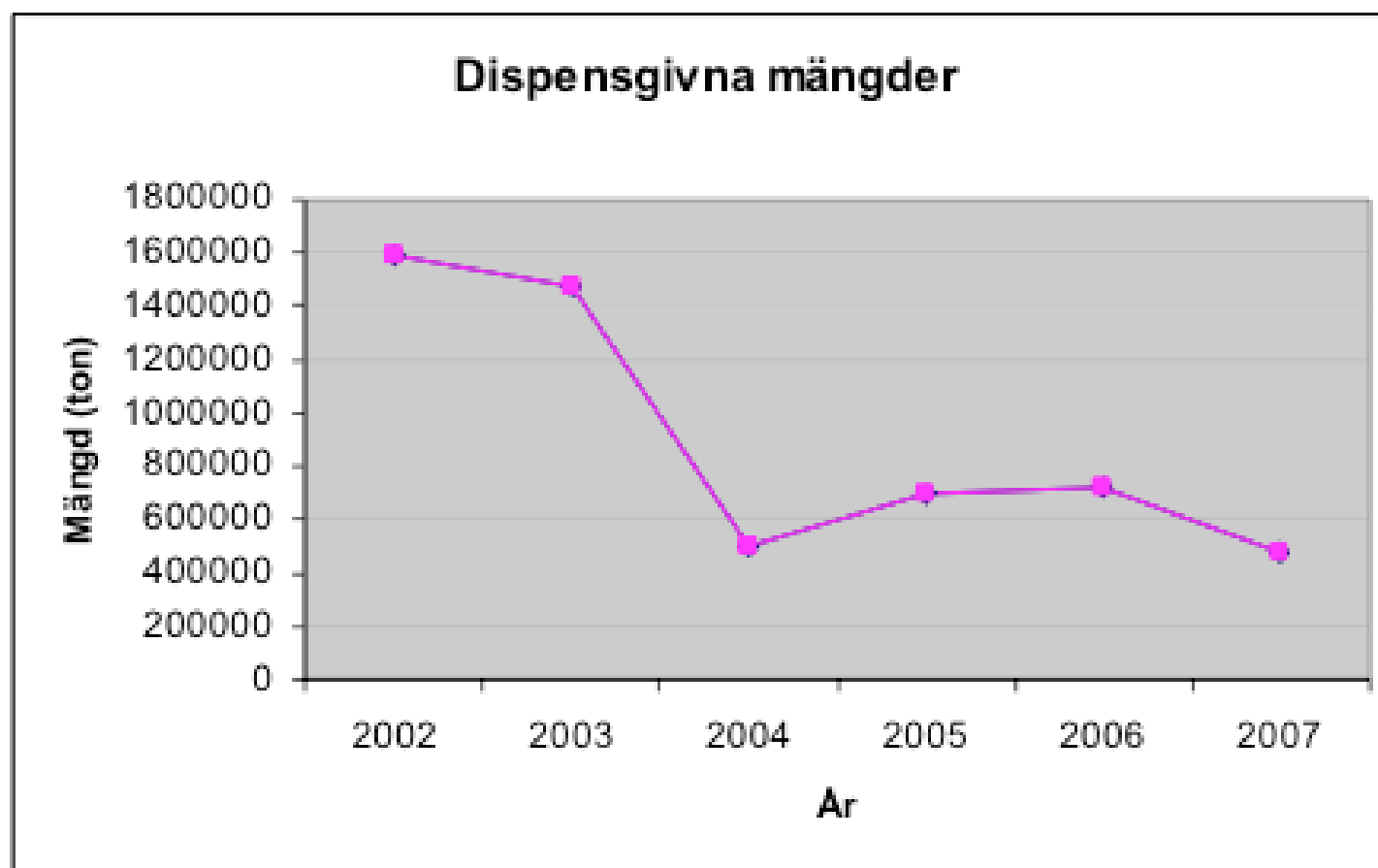
DEVELOPMENT FOR MSW



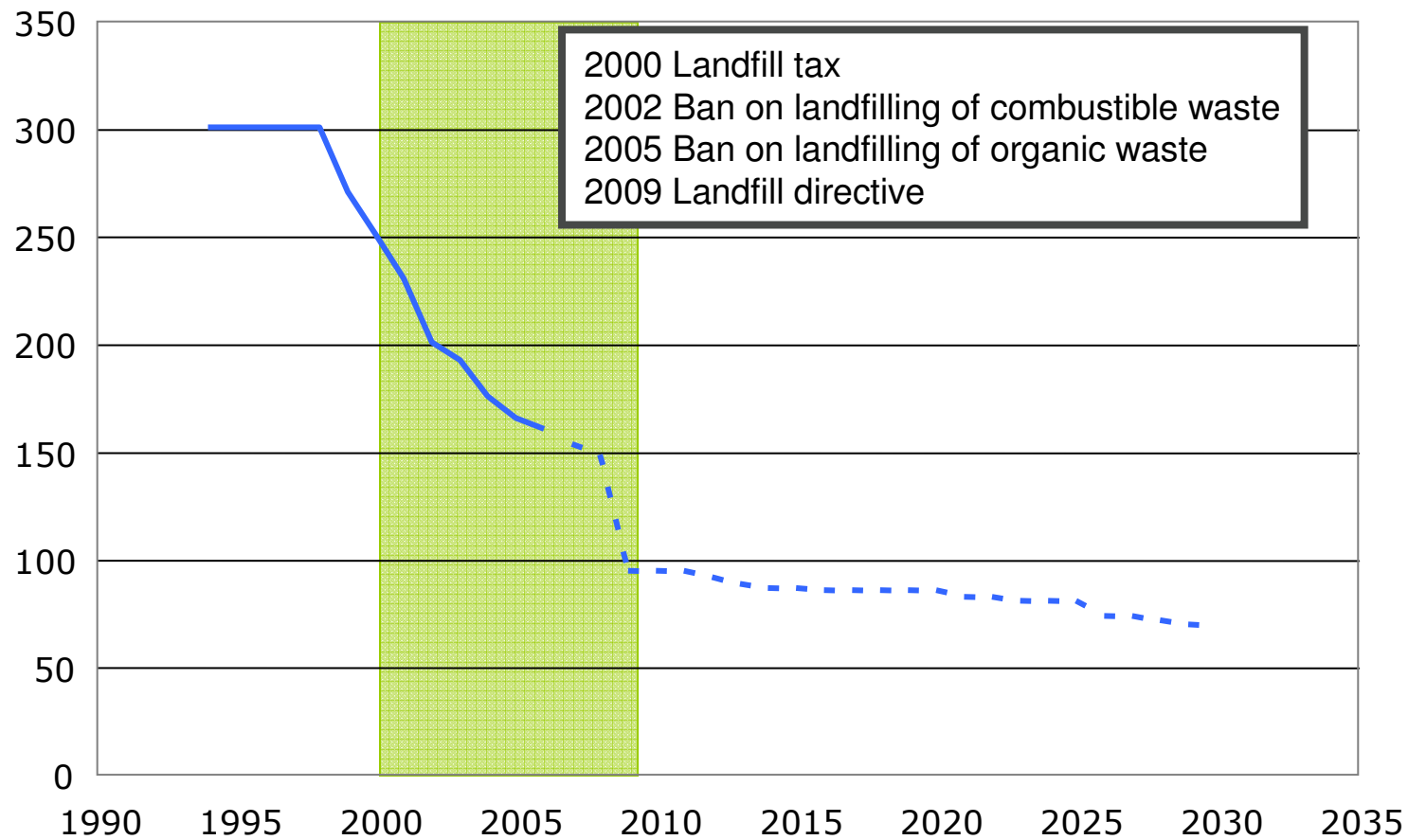
ACHIEVING LANDFILLING TARGETS



EXEMPTIONS



NUMBER OF LANDFILLS DECREASE



CONSEQUENCES OF LESS ORGANIC WASTE

The decrease of greenhouse gases from the waste sector is 34 % since year 1990 (forecast 1990-2020: 76 %)

Recent studies

- nutrients in leachate will decrease while some metals increase (e g Cu, Cr, Zn)
- leachate treatment has to be adapted - less focus on ammonium

LANDFILL SITES HAVE CHANGED

Landfill sites have become sites for

- sorting
- recycling
- storing
- treatment



FUTURE LANDFILLING

- For some waste types landfilling is the best alternative
- A need for landfilling capacity also in the future
- Fewer but larger sites

CONTACT INFORMATION

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