



Ympäristöministeriö  
Miljöministeriet  
Ministry of the Environment

# Recovery of waste in earth construction

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Finland  
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# Overview of the presentation

- Government Decree (591/2006) concerning the recovery of certain wastes in earth construction
  - Introduction
  - Planned changes (preliminary)
- Recycling targets for C & D waste in the waste directive 2008/98/EC
  - Possibilities to reach that target in Finland

# Government Decree 591/2006

- Scope
  - institutional or commercial recovery of wastes
  - if earth construction is implemented in accordance with a street plan, plan for implementing a public area, a permit or notification as referred to in the Land Use and Building Act (132/1999), or in accordance with a road plan as referred to in the Highways Act (503/2005)
  - NOT in important or other groundwater areas suitable for water supply
- Structures
  - Public roads, parking areas, sports grounds, storage fields in industrial areas etc.
  - NOT noise barriers
- NO environmental permit needed, if waste quality control and recovery is arranged and notification is made to ELY-centre
  - ELY-centre makes an entry in an environmental protection database

# Wastes included in the Government Decree

- Concrete chippings
  - Waste codes 10 13 14, 17 01 01, 17 01 07 and 19 12 12
- Fly ashes and bottom ashes from combustion of coal, peat and wood-based material
  - Waste codes 10 01 02, 10 01 03 and 10 01 17 (fly ashes)
  - Waste codes 10 01 01 and 10 01 15 (bottom ashes)
- Sands from fluidised beds
  - Waste code 10 01 24

# Requirements for the recovery

- Limit values in Annex I for content and leaching of harmful substances are not exceeded (analysis according to Annex II)
- Mixing of wastes shall not increase harmful effects to the environment
- Only necessary quantity of waste shall be used, max. thickness 150 cm
- The structure containing waste shall be covered or paved, not in contact with groundwater, 30 m the minimum distance from a well or spring intended for use as drinking water
- temporary storage of waste and any other activities at the recovery site shall cause no harm to health and the environment
- storage of waste at the recovery site no earlier than 4 weeks, if the stored waste is protected, ten months before recovery

# Preliminary plan for changes

- Widening the scope of application
  - Use according to local master plans or local detailed plans referred to in the Land Use and Building Act
  - More structures included, also areas belonging to private owners (e.g. private roads if a plan exists)
    - noise barriers? Pros and cons
  - New waste materials e.g. crushed brick, bituminous mixtures not containing coal tar, crushed tyres, wastes from mineral excavation, binder-stabilised soil?
- Emphasis on quality assurance
  - a connection to the EU regulation N:o 305/2011 on harmonised conditions for the marketing of construction products
  - CE-labelling requirements, verification by a third party?

# Reasons for the renewal process

- The Government Decree in force since 2006
  - Some problems on application and enforcement have come out → need for updating and clarification
  - A need for reliable earth construction materials of waste origin → the ultimate goal is to make the use of these materials generally acceptable
- A need to increase the recovery of C & D waste due to the waste directive 2008/98/EC

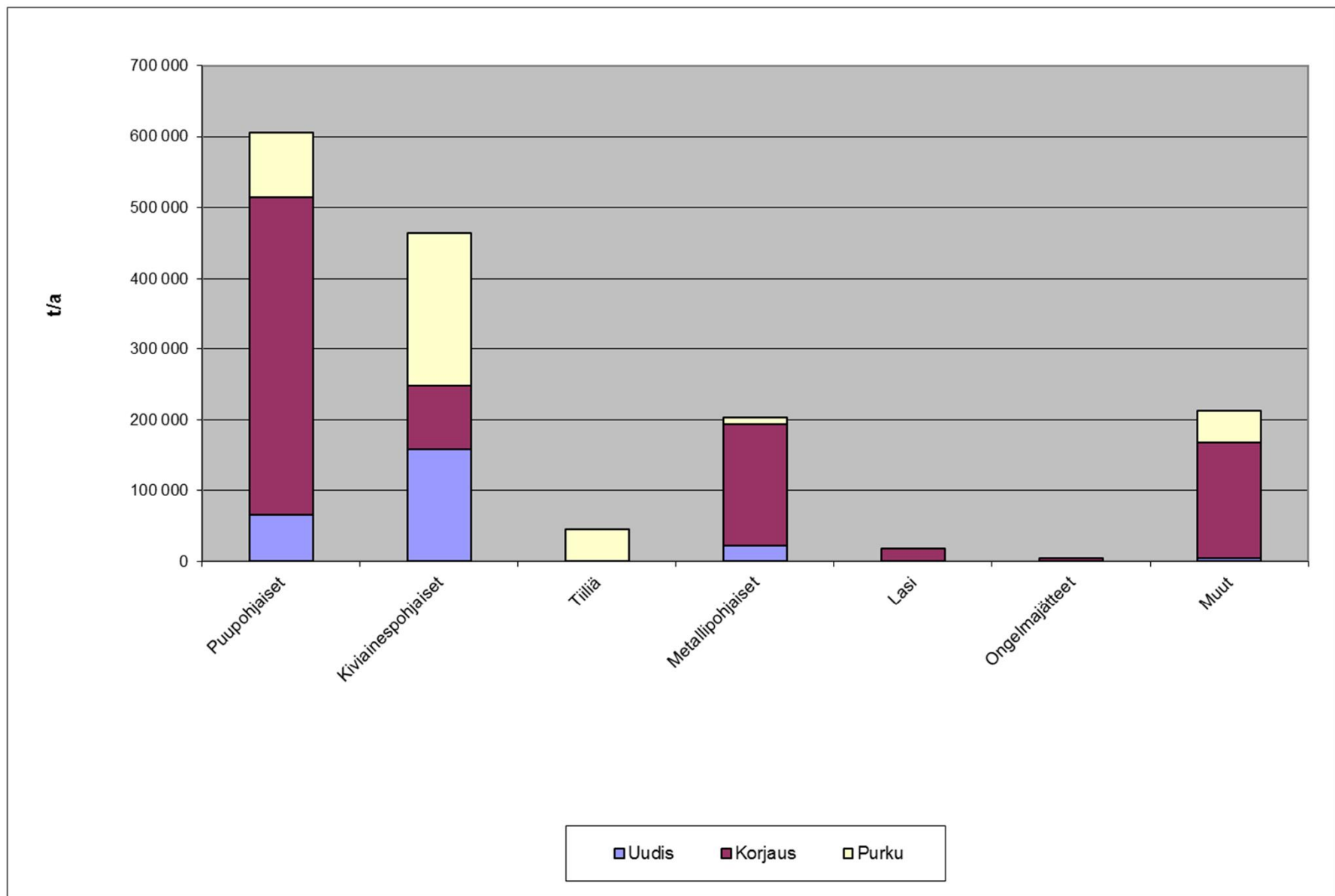
# Timetable (preliminary)

- Background information already exists, some studies still ongoing (e.g. a green economy project on ashes and some other materials)
- A group of interested parties will take part in the preparatory work
  - E.g. UUMA2-members, authorities, research institutes
- A workshop on the renewal of the Government Decree in October – November 2014
- A proposal ready for consultation by the end of this year
- Amended Government Decree in force in autumn 2015?



# The 70 % target for C & D waste by 2020

- *The preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the list of waste shall be increased to a minimum of 70 % by weight.*
- At present the recovery rate is appr. 40 – 50 % depending on the source of information
  - Including use in energy production
  - Particular problems with recycling of wood waste



Waste streams from building projects in 2006 and 2007 (new / renovation / demolition)

# Measures taken and future work

- A background study on how to increase the material efficiency in the building sector in 2011
- An action programme to increase the material efficiency in the building sector in 2013
  - E.g. measures related to better sorting of different waste materials, increasing the recycling of C&D waste, information on existing network of C & D waste collectors, informing different actors in the building sector about requirements set in the waste legislation (i.a waste hierarchy)
  - Implementation of the programme started 2014
- Changes to the Government Decree to increase recovery of C & D waste:
  - Particularly concrete, bricks
  - A part of the UUMA2-project