Waste Management in the European Union
European Union

- 28 Member States
- 500 million of residents
- Countries with different population and size
- EU enlargement process
European Institutions

Citizens, interest groups, experts: discuss, consult

Commission: makes formal proposal

Parliament and Council of Ministers: decide jointly

National or local authorities: implement

Commission and Court of Justice: monitor implementation
EU Waste Management Principles

Waste Hierarchy

1. Prevention
2. Preparing for re-use
3. Recycling
4. Other recovery
5. Disposal

Principles:
- Affordability
- Extended Producer Responsibility
- Proximity
- Self sufficiency
- Polluter pays
Waste generation in EU

- Agriculture & forestry, 0.8%
- Mining, 28.2%
- Manufacturing, ...
- Electricity & gas, 3.7%
- Water supply and sewerage, 1.1%
- Construction, 34.4%
- Services, 4.0%
- metall scrap, 1.0%
- Waste collection and treatment, 8.1%
- Households, 8.4%

2,495 million tonnes in 2014
(5 tonnes per capita)
Waste generation in EU

Municipal waste generation in the EU Member States, 2016
kg per person

EU = 480
Wide differences exist between Member States regarding the treatment of municipal waste. The share of recycling and composting among waste treatment methods ranges from 64 % in Germany to 12 % in Malta and Slovakia (the EU average is 44 %); seven Member States landfill less than 10 % of their municipal waste, eight Member States landfill over 70 % of their municipal waste (the EU average is 28 %).
From linear to circular economy
Moving towards Circular economy

- the value of products, materials and resources is maintained in the economy for as long as possible
- waste generation is minimized
- reduce, reuse, recycle as much as possible
Priority objectives and actions

- Incentives to boost CE product design
- Innovative and efficient production processes
- Durability, reparability and recyclability of products – Ecodesign Directive, EPR
- Industrial symbiosis, remanufacturing
- Coherent policy framework for products
- Tools for SMEs
- Increase the use of secondary raw materials, recycled nutrients and water
- Safely managed chemicals
- Improve knowledge of material flows
- Analysis of the interface between chemicals, product, and waste legislation
- EU-wide electronic system for cross-border transfers of waste
- Better labelling: EU Eco-label, Environmental Footprint
- New forms of consumption – collaborative economy, digital platforms
- Circular Economy criteria in Green Public Procurement
- EU waste hierarchy
- Revised EU targets for recycling of municipal waste and 75% for packaging waste by 2030
- New binding target to reduce landfill to a maximum of 10% of total waste by 2030
- Improve waste management, new investments in recycling capacity, avoid overcapacity in incineration and MBT
**Opportunities**

**Economic growth**
Increasing resource productivity by 30% by 2030 would increase GDP by 0.8% in the EU.
Growth of up to +7% of GDP

**New quality jobs**
create two million new jobs in the EU
estimated 170,000 direct jobs created in waste management sector by 2035.

**Environmental impacts**
Manufacturing that uses fewer resources would have positive impacts on the climate, marine littering, and biodiversity.
Reducing total annual Greenhouse Gas Emissions by 2 – 4%

**Enhanced security of supply**
risks associated with the supply of raw materials, such as price volatility, availability and import dependency, would be mitigated using secondary raw materials.

**Energy and cost savings**
up to 600 billion EUR in savings – 8% of annual turnover for business in EU

**Encouraging Innovation**
Priority sectors

- Plastics
- Construction & demolition
- Critical Raw Materials
- Biomass & bio-based products
- Food waste
- Food waste
EU Plastics Strategy

What are you doing about plastic waste?

- 65% separate waste for recycling
- 34% avoid single-use goods like cutlery & cups
- 24% avoid buying over-packaged products
- 75% use fewer single-use plastic bags

THE EU GENERATED 15.88 MILLION TONNES OF PLASTIC PACKAGING WASTE IN 2015

PUTTING AN END TO PLASTIC POLLUTION THANKS TO THE CIRCULAR ECONOMY

Provide consumers with durable and sustainable products

Reduce plastics’ toxicity

Encourage sorting, collection and recycling

Decrease plastic waste

Create jobs

Allow savings for businesses

Protect resources

Turn plastic waste into valuable resource
**EU funding**

**European Structural and Investment Funds:**
€35 billion allocated to 'Environment and resource-efficiency', including €5.5 billion for waste management: €2.1bn prevention and recycling; €2.8bn incineration and thermal treatment; €0.6bn hazardous waste management

**Horizon 2020** - €650 m for research

**European Investment Bank** -
€24 billion financial support for research and innovation

**Estimated funding needs**
€40 billion until 2020 to fully implement current EU legislation (EIB).

€108 billion to create a fully efficient reuse and recycling system in the EU (Ellen Mac Arthur Foundation).

3% of GDP per year from now until 2030 to finance a transition towards a circular economy (Club of Rome).
Challenges

Finance
mass market development of radical innovations entails considerable transition costs (e.g. research and development, and asset investments, subsidy payments to promote new business models)

Missing economic tools
these include pricing systems that incorporate the full environmental cost; incentives for producers and recyclers to work together to improve performance of specific value chains; and markets for secondary raw materials.

Limitations of recycling
some materials cannot be recycled indefinitely, due to the build-up of impurities in recycled materials, such as metals, and glass, or the degradation of fibres which occurs when paper is made using repeatedly recycled material

Missing skills
the workforce currently lacks technical skills. This is especially problematic for SMEs.

Prevention
Steps need to be taken to tackle the lack of effective waste prevention measures and lack of appropriate data on waste prevention. This includes looking at the design, production and consumption of goods.

Reuse vs recycling
The market share of reusable household packaging is decreasing. There are also potential conflicts between packaging reuse schemes and recycling schemes.
THANKS!

Any questions?

ndoychinov@epc-koc.com