

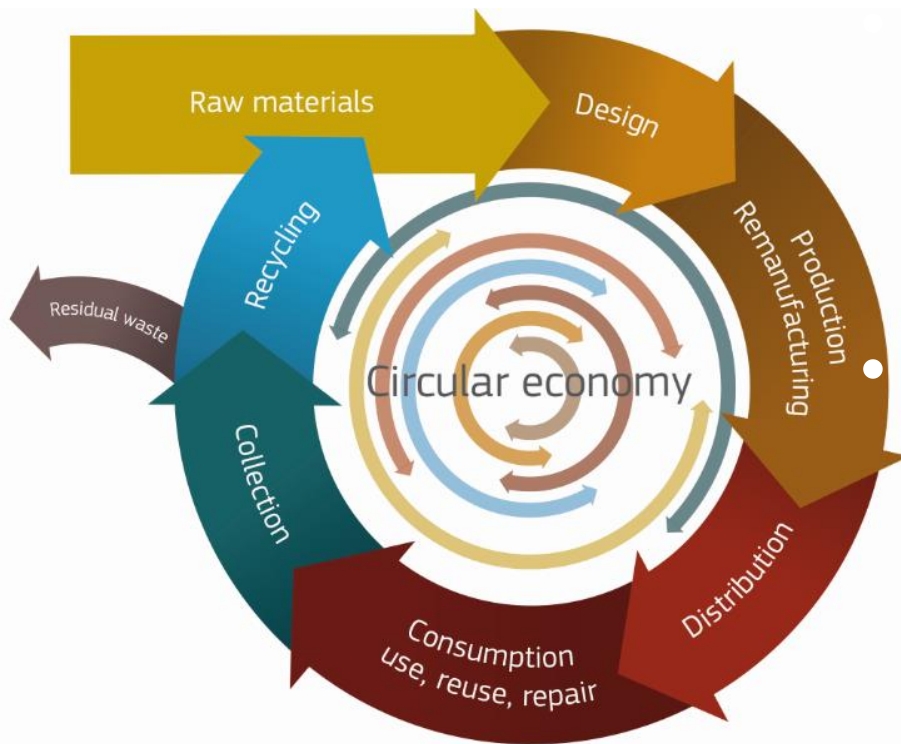


Circular Economy

an opportunity for growth and innovation

**Stakeholder workshop
Transition to a circular economy
EEA/Copenhagen
29&30 October 2015**

What is Circular Economy?



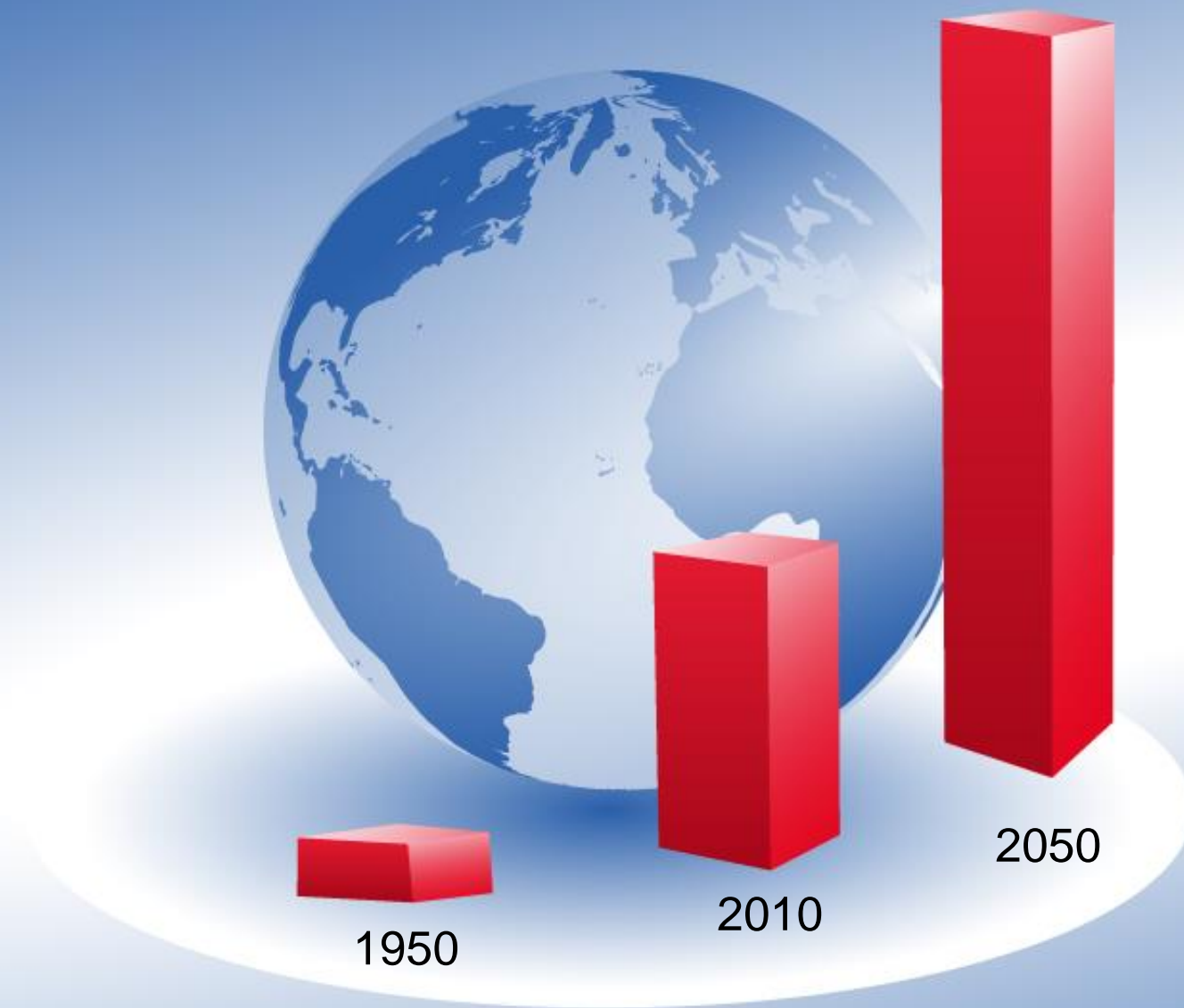
Circular economy systems **keep the added value in products** for as long as possible and **eliminate waste**.

They **keep resources within the economy** when a product has reached the end of its life, so that they can be productively **used again and again** and hence create further value.

Source: COM (2014) 398 "Towards a circular economy"

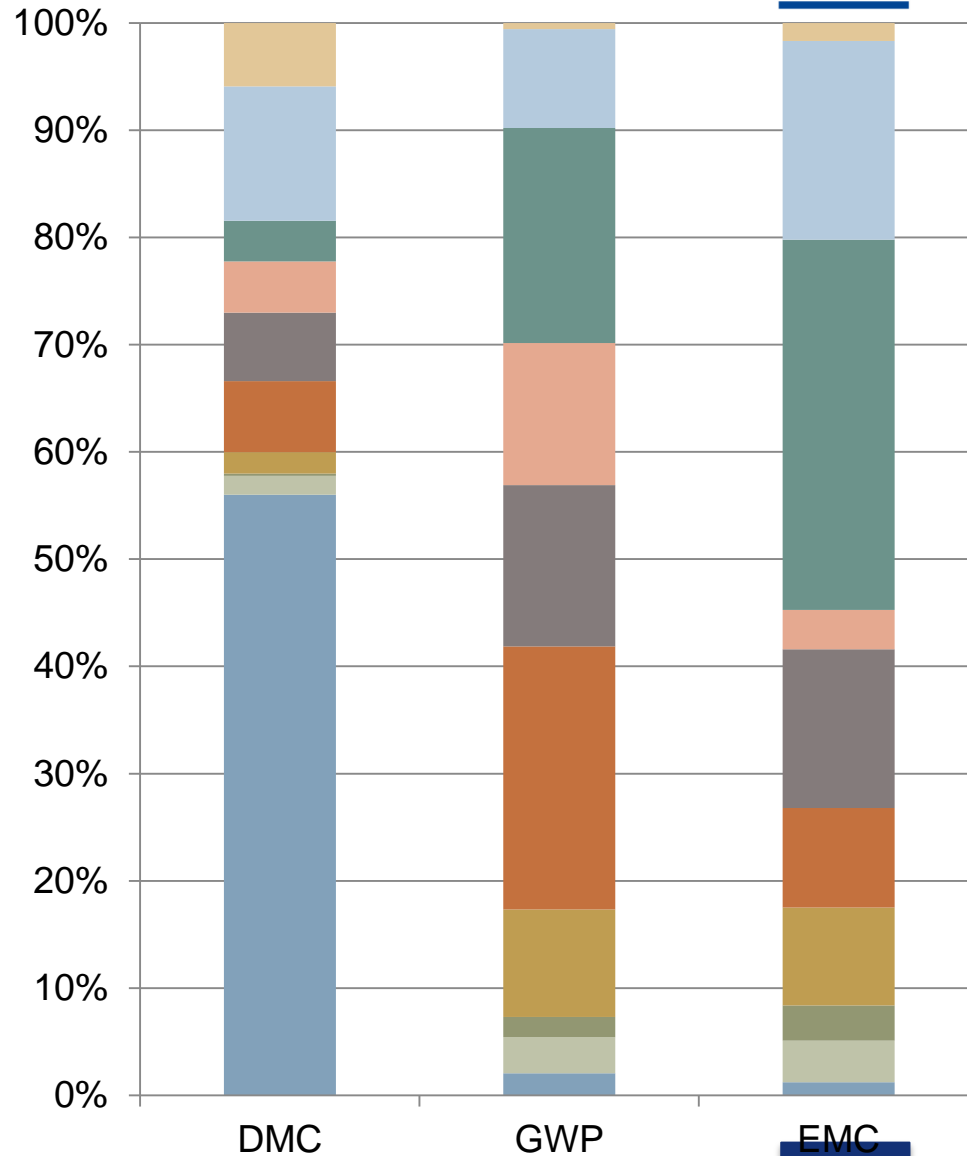
Why do we need Circular Economy?

- **Environment**
- **Societal pressures**
- **Economic opportunity**
- **Access to raw materials**



Growth of the World Economy

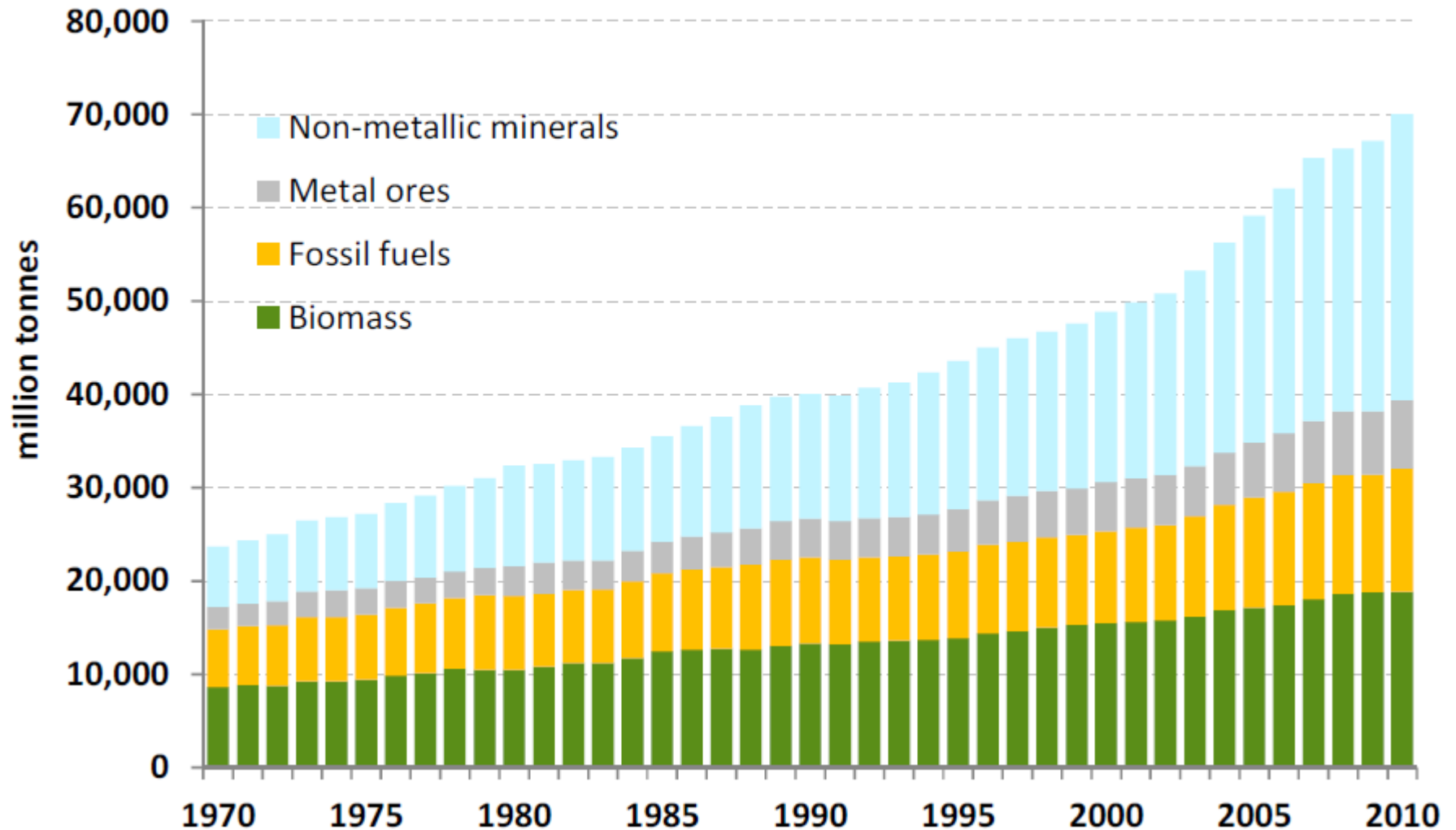
Relative contribution of finished materials groups to total mass flow, climate change, and environmental problems (EU27+Turkey, 2000)



- Forestry products
- Crops
- Animal Products
- Natural Gas
- Coal
- Oil
- Plastics
- Other Metals
- Iron and Steel
- Minerals

Source: International Resource Panel

Domestic extraction, Global



Circular Economy and Green Growth

- **Significant cost saving and job creation opportunities** for business and industry from circular economy approaches:
 - ✓ Potential net benefits for businesses from improved resource efficiency (waste prevention and re-use, focus on eco-design and similar measures)
 - ✓ Increasing resource productivity by 30% could boost GDP and create 2 million more jobs by 2030 than under a business as usual scenario

A New Commission: a new Agenda for Jobs, Growth, Fairness and Democratic Change

"Ensuring the sustainability of our environment, the preservation of our natural resources [...] are key policy objectives. [...] Protecting the environment and maintaining our competitiveness can go hand-in-hand, and environment policy also plays a key role in creating jobs and stimulating investment"



What is the EU up to?



- **Waste policy:** Driving real change on the ground
- **Looking at whole 'circle':** Exploiting synergies and overcoming barriers across the whole value chain
- **Focus on EU added value:** concrete priorities for actions at the EU level that bring added value in promoting a transition towards a more circular economy

Possible areas for intervention

Extraction and production processes



Mining and industrial waste represent more than 50% of waste generated in the EU

Product and material design



Product and material design predetermines the longevity of the useful phase, and future re-use, recycling and recovery opportunities.

Distribution and consumption



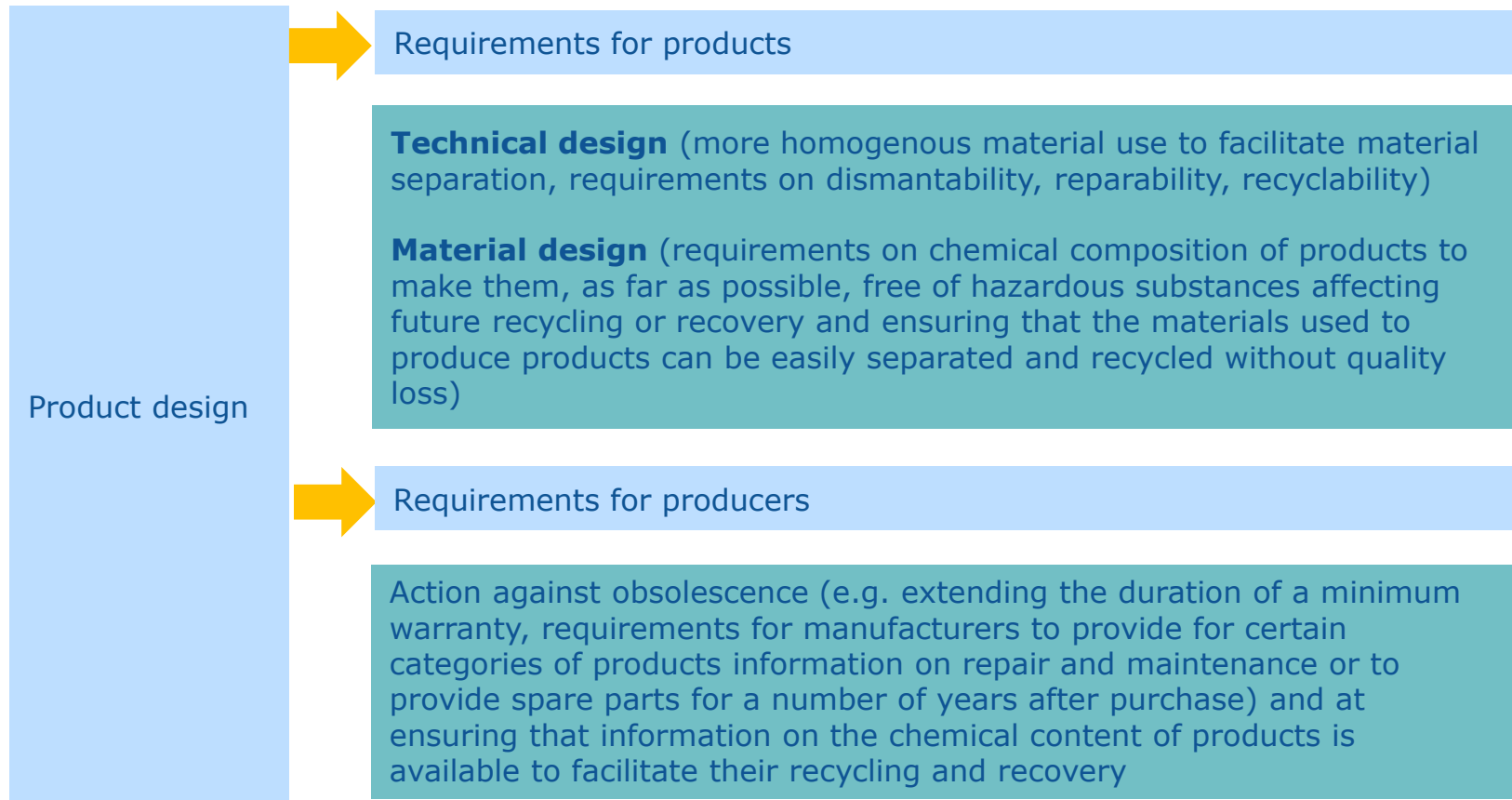
Consumers choices impact the design and marketing of products. However, consumers face confusing information about products and services.

Waste



All waste management measures must aim at bringing materials and energy used back to the economy.

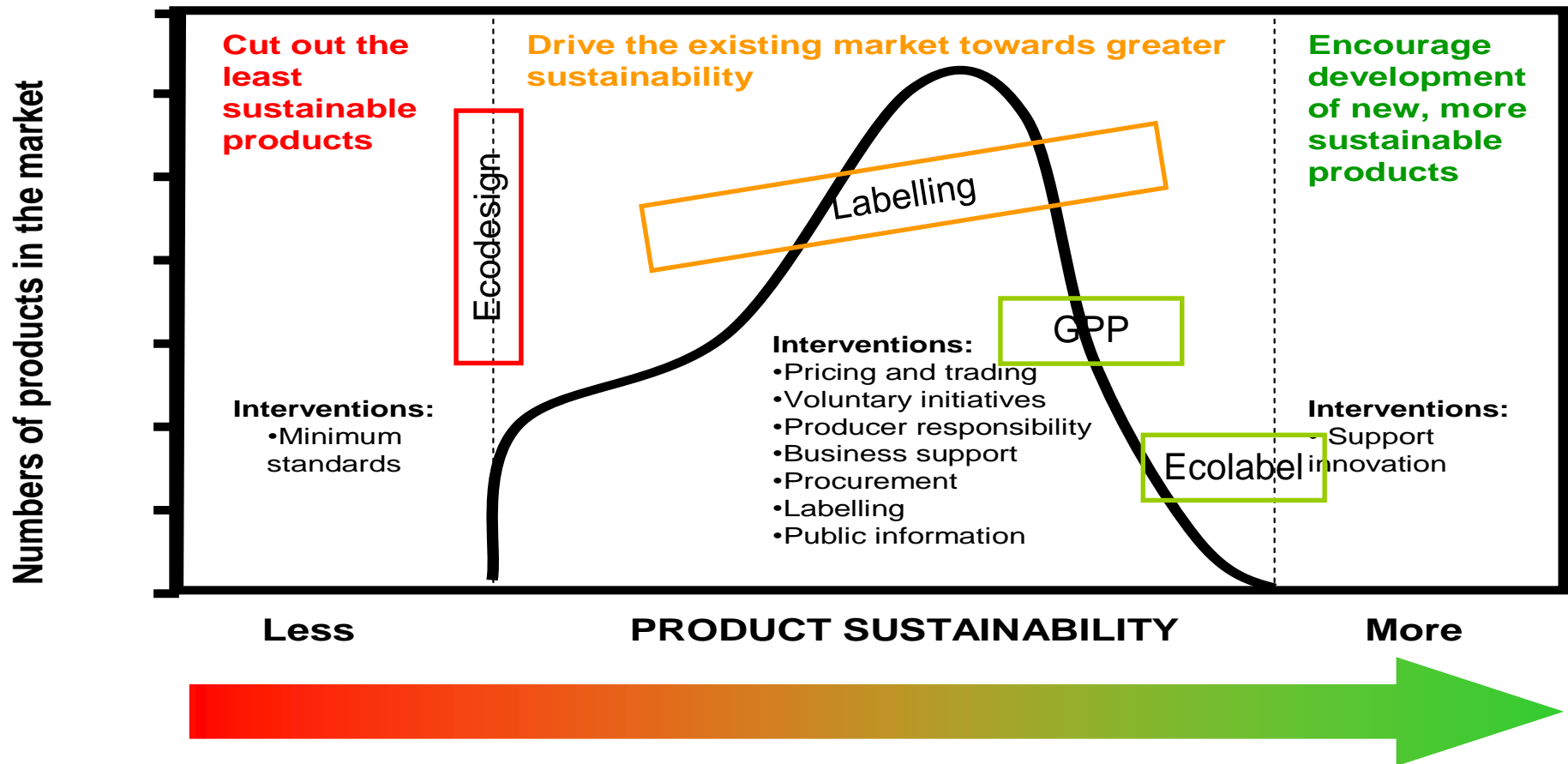
Focus on products



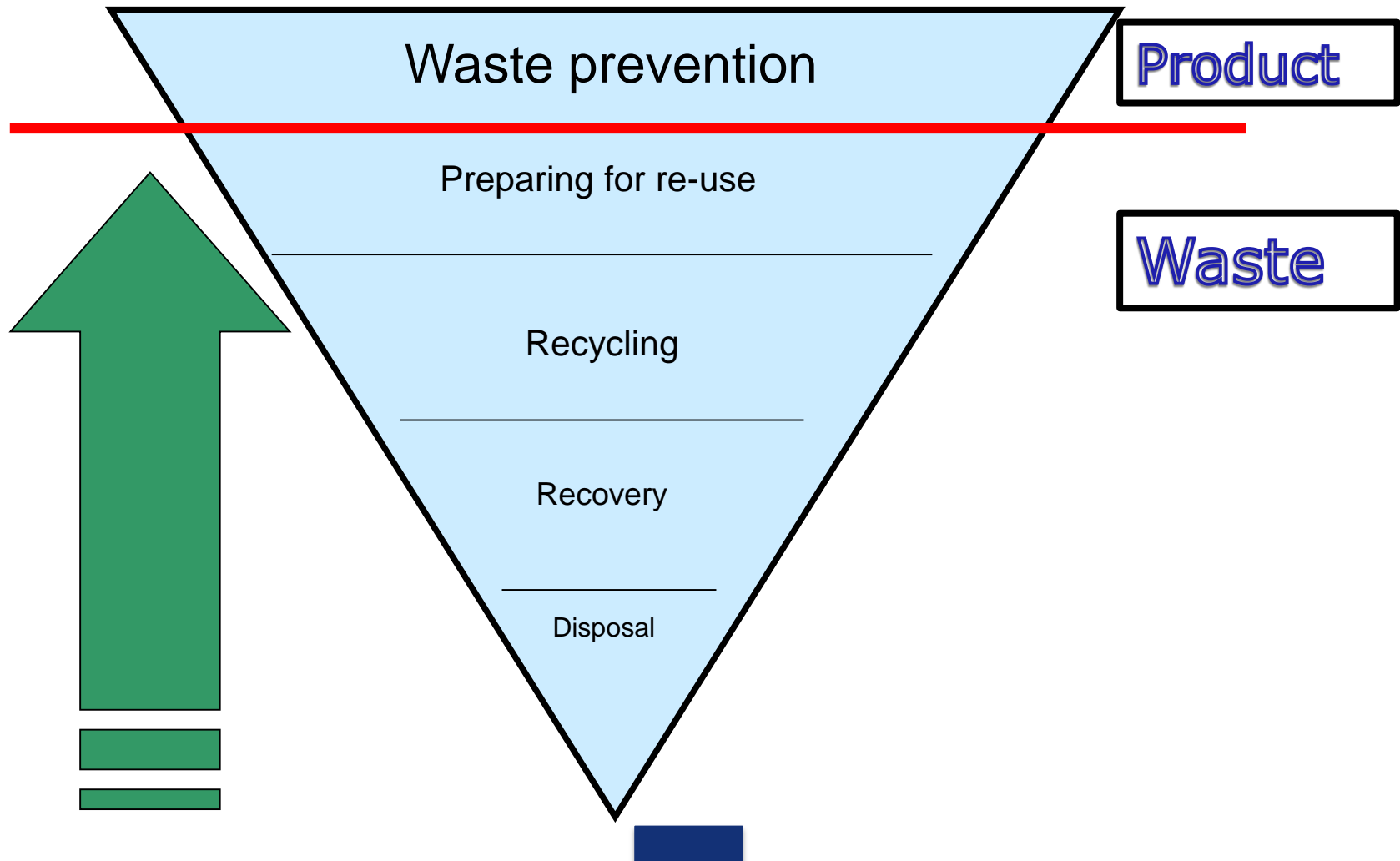
Product design

- Manual dismantling allows recovery of over 90% of the precious metals in waste flat screens.
- For manual dismantling to remain economically viable, one should be able to dismantle a small screen in less than 11 minutes.

Product policies

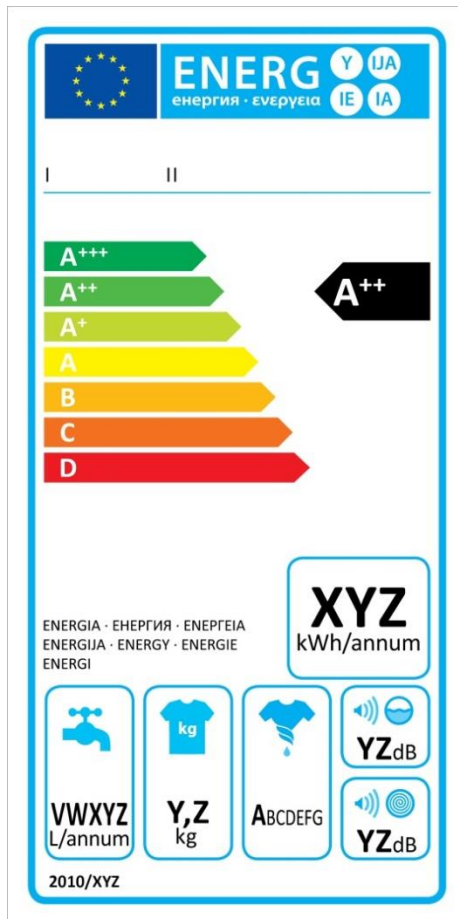


The EU's Waste Hierarchy

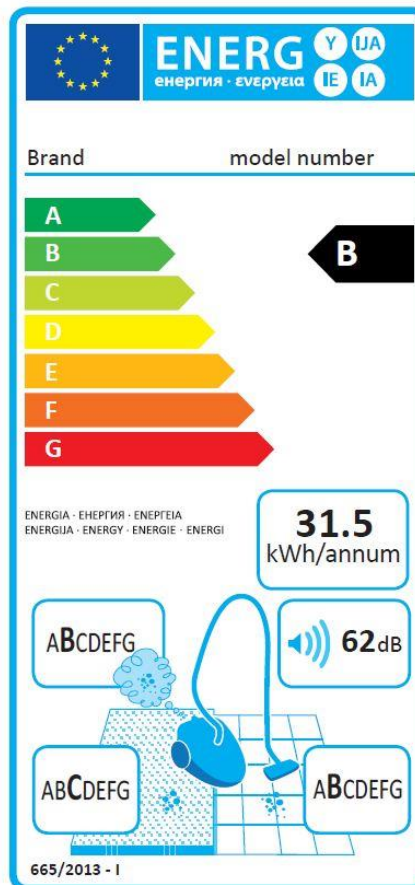


Energy Labelling – examples

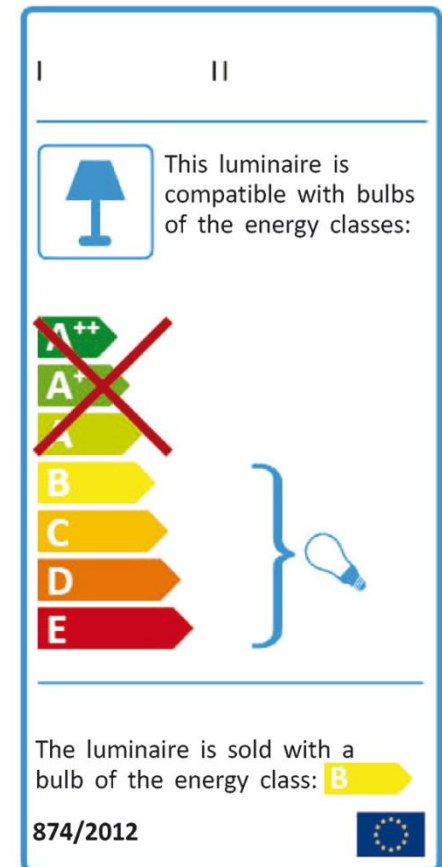
Washing machines



Vacuum cleaners



Luminaires



Ecodesign and Energy labelling - Results Achieved

- **175 Mtoe primary energy savings per year by 2020, more than the annual primary energy consumption of Italy**
- **340 Mt CO2 equivalent less greenhouse gas emissions, more than 7% of EU total emissions in 2010**
- **€ 102 billion net saving on consumer expenditure, equivalent to € 432 per household per year**
- **€ 55 billion extra revenue for industry, wholesale and retail sector**
- **800.000 extra direct jobs for industry, wholesale and retail sector**

Financing Circular Economy – barriers to investments

- Regulatory and policy uncertainty
- Market failures related to the functioning of the financial sector and resource use
- Financial institutions to favour traditional business models
- **Possible EU response:** determine appropriate investment vehicles and identify a list of viable projects.



Financing eco-innovation & research

- **Eco-innovation:**

- A fundamental component of a Circular Economy
- It concerns products, services and processes



- **Horizon 2020: EU's R&I funding programme**

- Eco-innovative systemic approach
- Increased focus on: large-scale demonstrators and market replication

- **COSME**

- SMEs



Deliverables?

- 1) Communication / Action Plan on "the other part of the circle" focussing on actions that can be implemented/adopted during the mandate of this Commission**
- 2) Revised legislative proposal on the WFD**

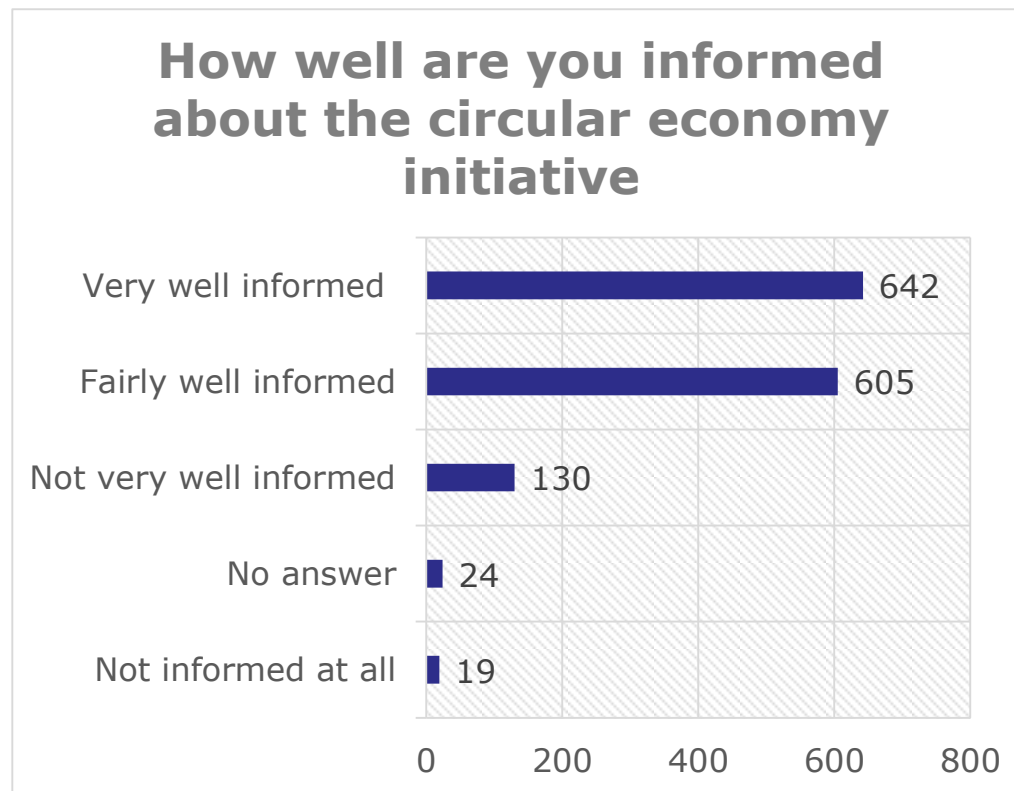
Stakeholder consultation – preliminary results

- **28/05 – 20/08**
- **1500 replies (45% private sector, 25% individuals, 10% civil society, 6% public authorities)**
- **88% very well or fairly well informed about Circular Economy**
- **Priority sectors: electronics, food, packaging, construction and demolition**
- **Key secondary raw materials / waste streams: bio-nutrients, plastics, critical raw materials, construction aggregates**

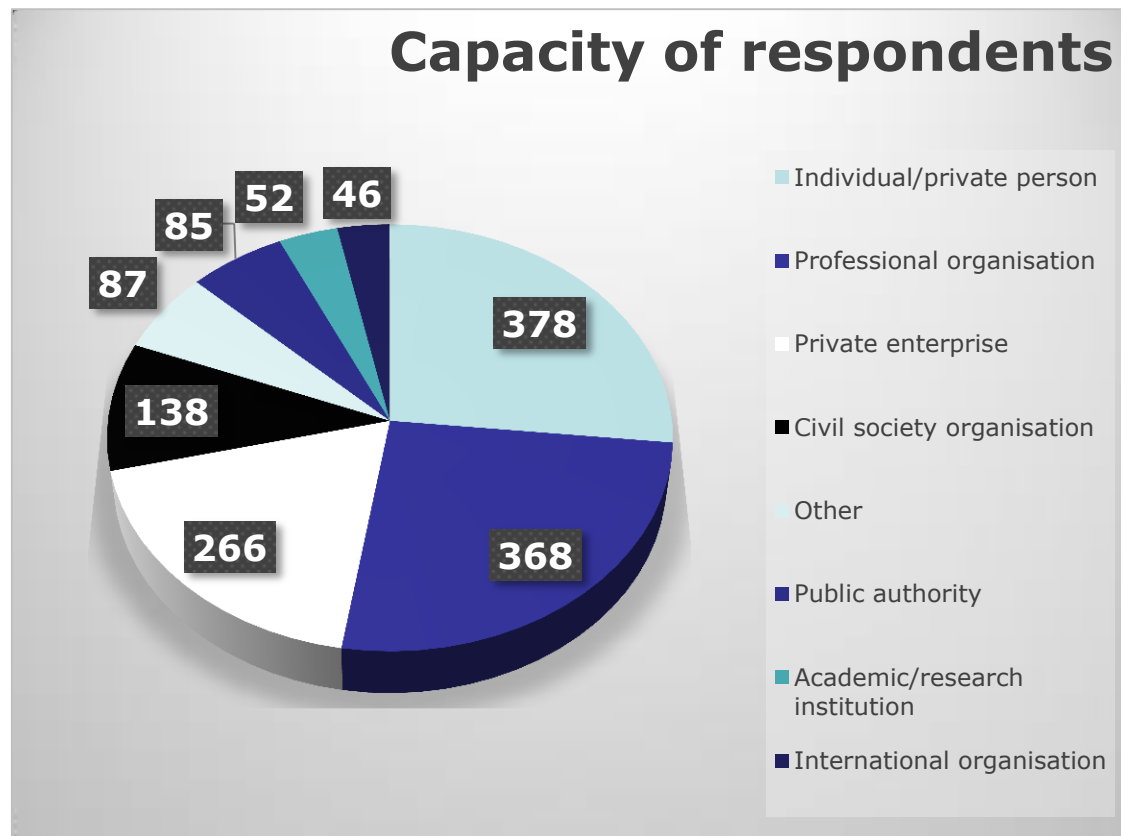
Stakeholder consultation – preliminary results

- **Main barriers: lack of quality standards, lack of cooperation down the value chain, lack of data no material flows**
- **Support for:**
 - Ecodesign, greater reparability, more reuse, scope expansion
 - EU standards for secondary raw materials
 - GPP
 - Labelling, info for consumers/purchasers
 - Waste prevention (esp. food waste)
 - VAT rebates on recycled materials, green products
 - Financing innovation, skills and knowledge
 - Action on chemicals (concerns on presence of toxins, clarification of the interface between waste, product and chemical legislation, transparency of material composition along the value chain)

Public stakeholder consultation



Public stakeholder consultation



Key messages



Product design

Most important:

- **Incentives for eco innovation and sustainable product design**
- **Encouraging the consumption of “green products”**
- **Support to industry led initiatives**

Additional aspects highlighted as important:

- Information exchange, education, training and research for all actors along the value chain
- Phase-out of hazardous substances
- Criteria on reparability, durability and recyclability, often indicated in relation to a kind of product passport to inform the consumer
- Private individuals: intended or planned obsolescence needs to be regulated
- Professional respondents: need to consider packaging in relation to product design and to allow for sector-specific approaches

Key messages



Product features

Most important:

- **Minimising lifecycle environmental impacts**
- **Recyclability**
- **Resource use in the use phase**
- **Durability**

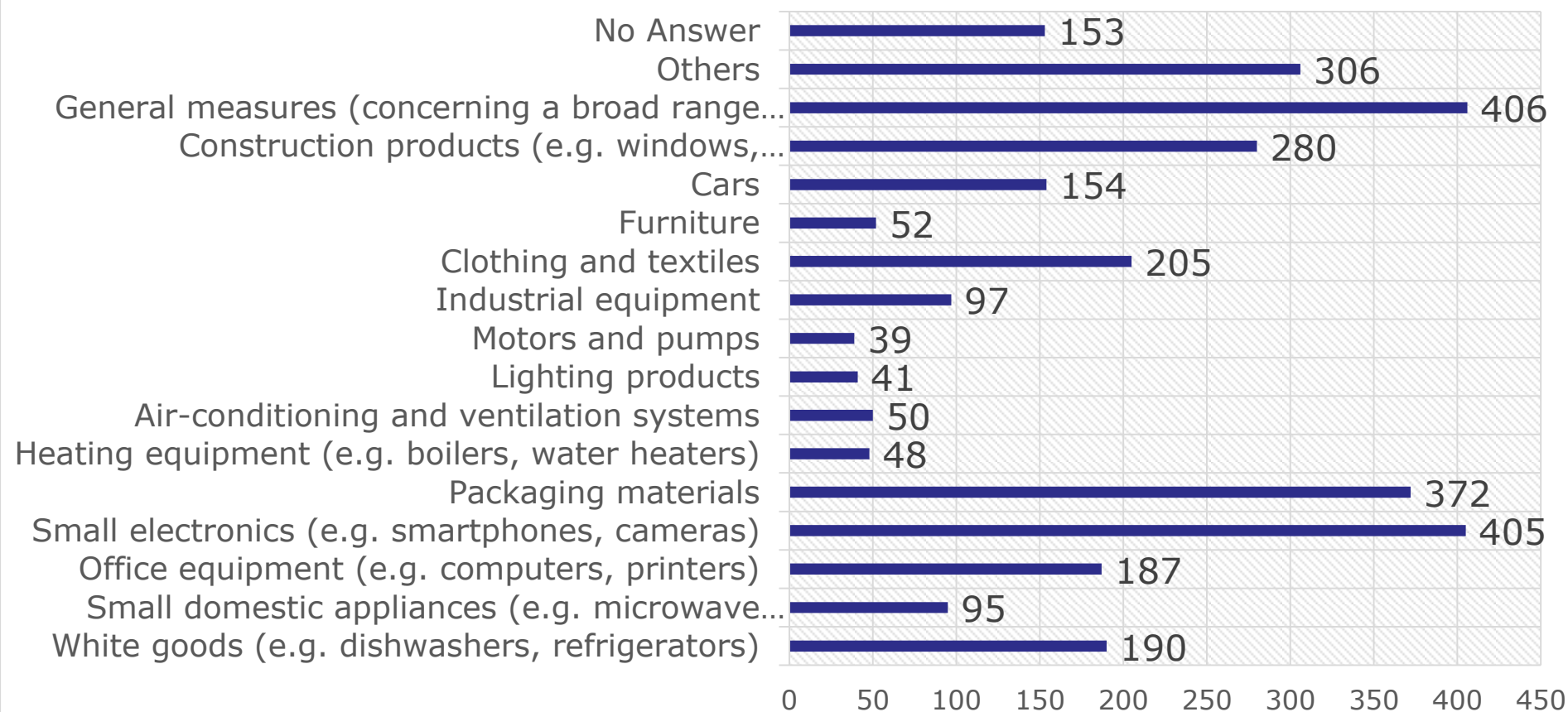
Important:

- Phase out of hazardous substances need to be considered when promoting CE principles
- Professional respondents: use life cycle assessments to identify the most important product feature.
- Private enterprises and professional enterprises: safety aspects, functionality and affordability and access possibilities to repair manuals, software tools and firmware updates.

Key messages



Product categories with priority in the next few years



Key messages



Consumption

Priority measures:

- **Waste prevention (e.g. minimising food waste)**
- **Better and more consumer information related to the CE (e.g. via labels, advertising, marketing etc.)**
- **Action against false and misleading information**

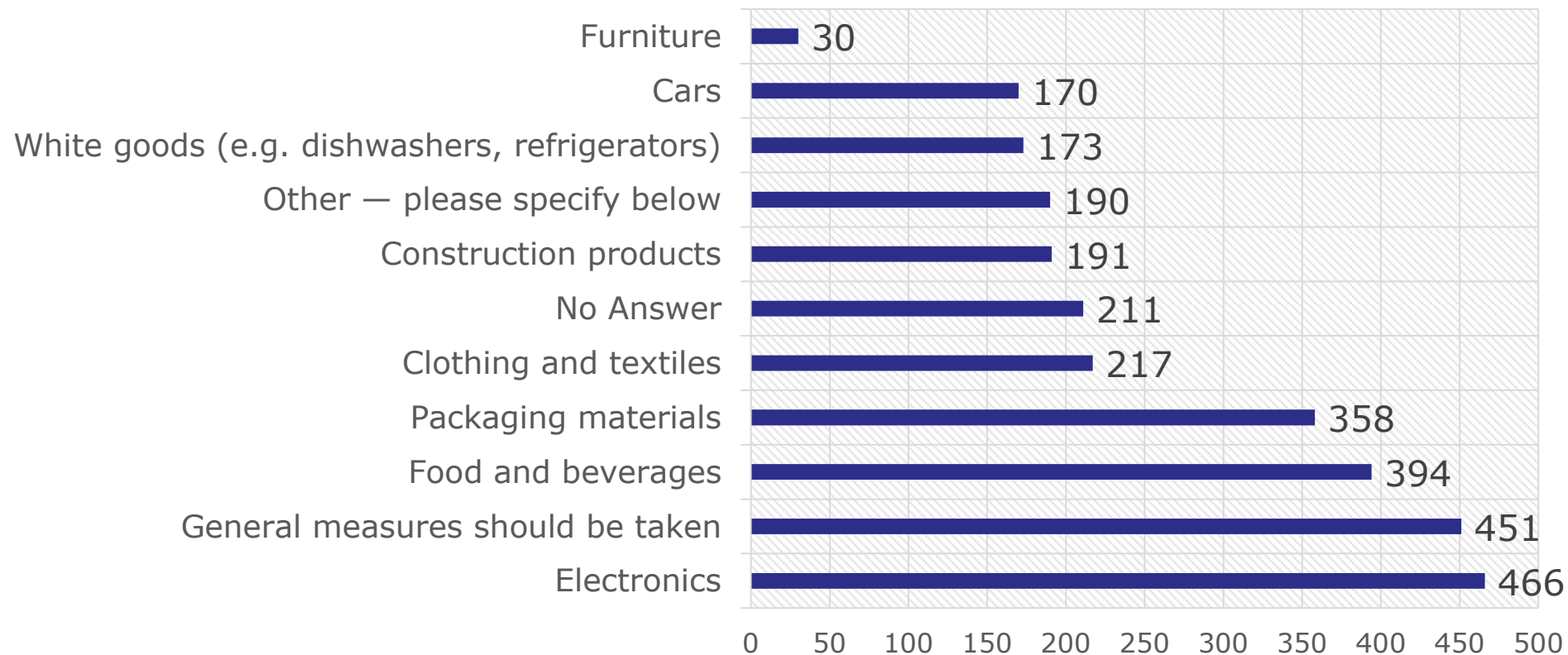
Other important measures:

- Foster publically free information for consumer regarding the recycling and reuse possibilities of products
- Exempt VAT on the repair and reuse of products
- Promote sustainable innovations
- Harmonise and improve waste collection schemes
- Existing eco-labels should be harmonised and leveraged instead of developing new ones

Key messages



Priority for EU action to promote more sustainable consumption patterns



Markets for secondary raw materials

Materials considered:

- Plastics
- Bio-nutrients
- Construction aggregates
- Critical raw materials
- Wood/biomass
- Metals
- Paper
- Glass

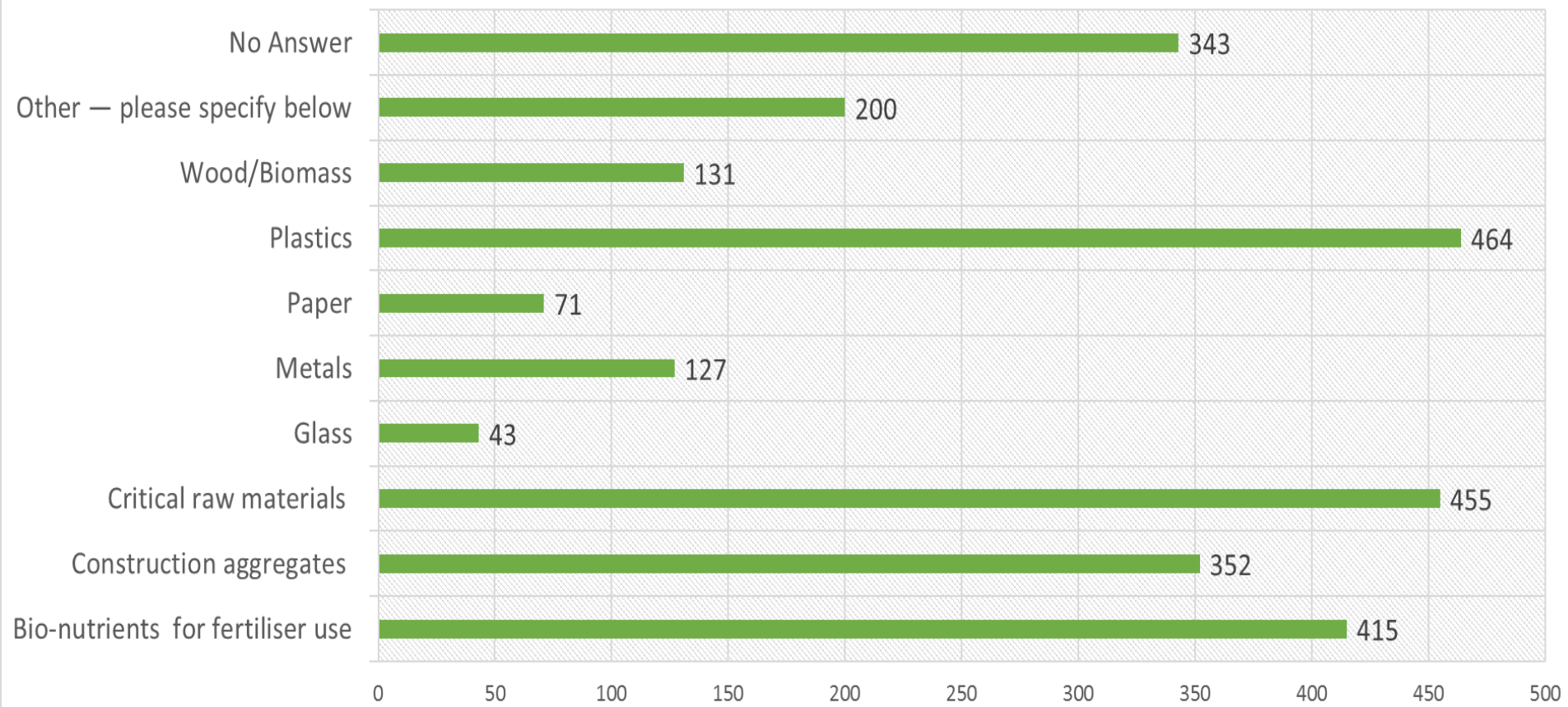
Markets for secondary raw materials – key obstacles

- Lack of EU-wide quality standards for recycled materials
- Poor quality of recycled materials
- Lack of information or misinformation about the quality of recycled materials
- Lack of reliable data on secondary raw material flows
- Poor availability of waste/material to be recycled
- Poor reliability of supply for recycled materials
- Low demand for recycled materials
- Cost differential between primary and secondary raw materials
- Organisational cost of switching from primary to secondary raw materials in industrial processes
- Regulatory gaps and obstacles at EU/national/regional/local level
- Insufficient cooperation/exchange of information along the value chain

Key messages



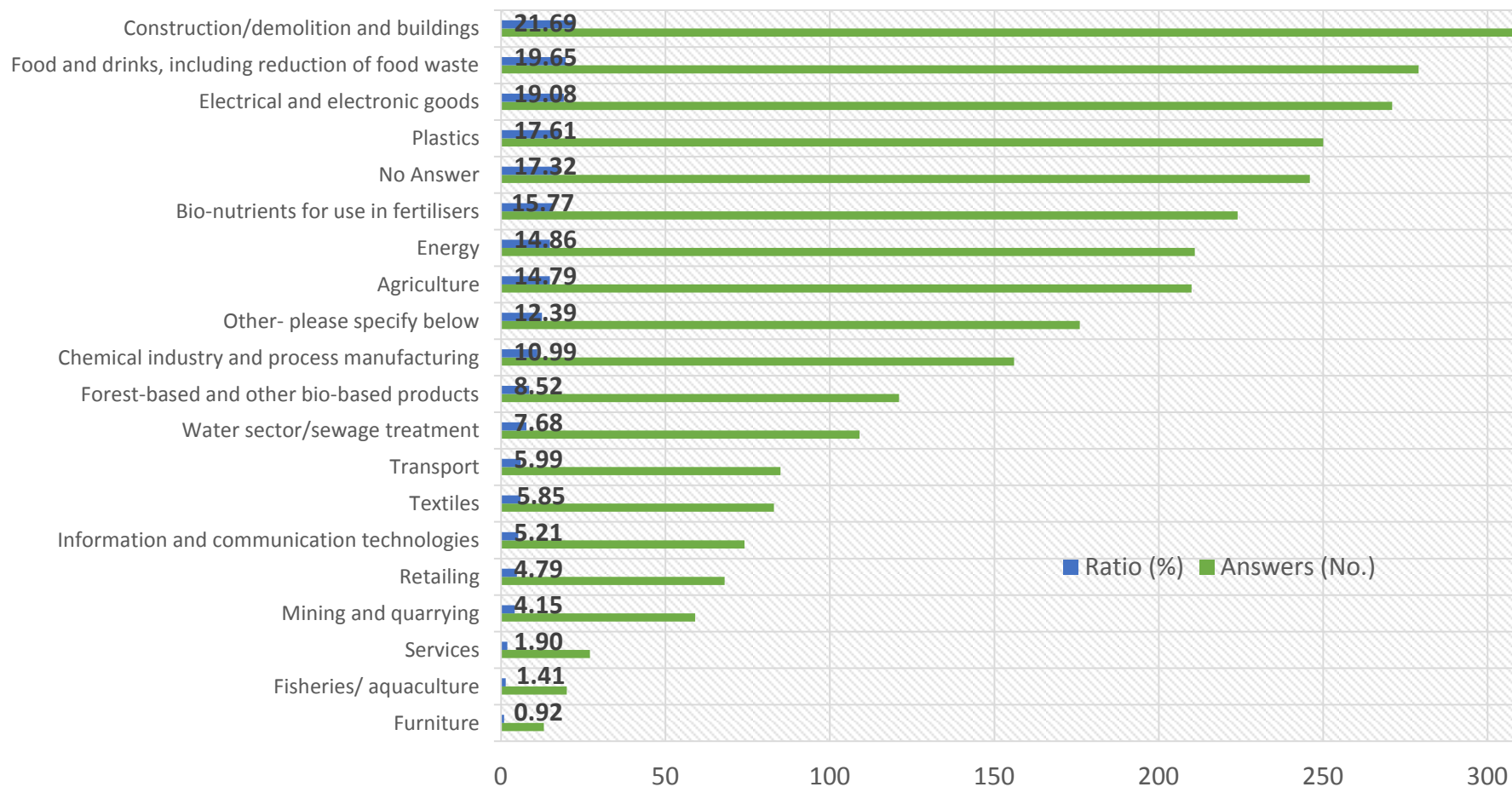
Which SRM markets should the EU target first for improvement of the way they work



Key messages



Priority sectors



Key messages



Priority measures for key sectors

Construction/demolition and buildings

Food and drinks

Targets (e.g. specific targets instead of general targets for materials or waste fractions)

Strategic approaches (e.g. promote a sustainable consumption)

Strategic approaches (e.g. focus on the energy use as well as on the life cycle cost)

Targets (e.g. targets for waste generation reduction)

Product requirements (e.g. establishment of building passports)

Product requirements (e.g. harmonised definitions and measurements)

Waste management measures (e.g. definition of the EOW criteria)

Waste prevention and waste management measures (e.g. requirements and incentives for food waste collection)

Align legislation (e.g. improvement of the consistency between REACH and products law and waste law)

Miscellaneous, general tools (e.g. awareness-raising).

Key messages



Priority measures for key sectors

Electrical and electronic goods

Strategic approaches (e.g. priority to electronic equipment/home appliances and office equipment)

Targets (extent producer responsibility with reuse targets)

Waste management measures (e.g. promotion of recycling and re-use)

Product requirements (e.g. strength eco-design legislation)

Bio-nutrients sector

Integration of legislation (e.g. align legislation on the re-use of organic substances for food, feed, bio-based products, fertiliser and energy),

Targets (e.g. introduce recycling targets for bio-waste)

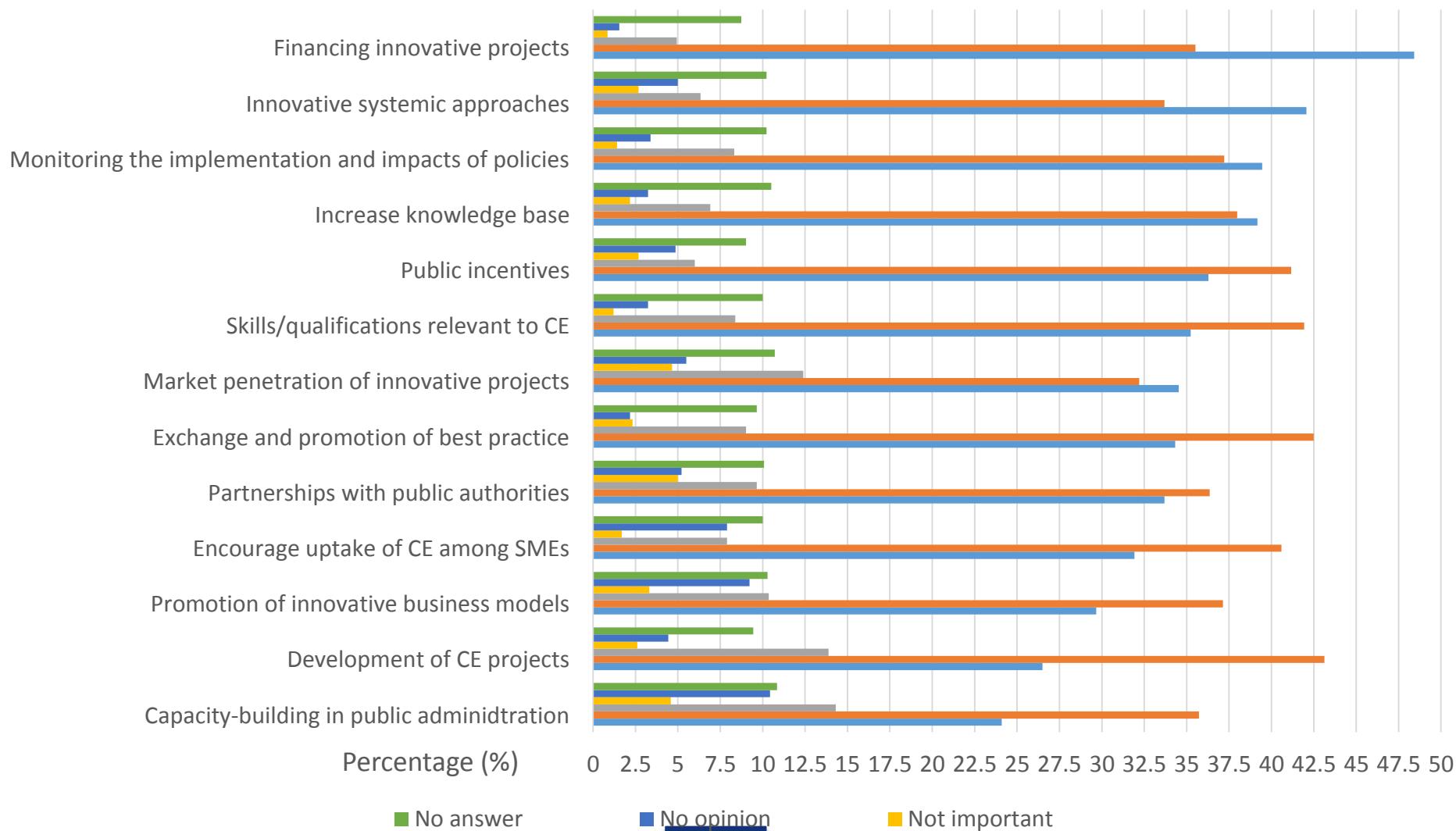
Product requirements (e.g. definition of EOW criteria)

Waste management measures (e.g. encourage the use of bio-nutrients as fertilisers in both the extracted nutrient form and as treated sewage sludge-bio solids)

Key messages



Enabling factors



Database of all responses online:
(<https://ec.europa.eu/eusurvey/publication/circular-economy>)

Next steps

- **New, more ambitious proposal by end 2015**
 - Reflection on the proposal by the College
 - Finalisation of the draft by Secretariat General and services
 - Interservice Consultation + translations
 - Proposal Q4 2015



Thank you for your attention

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