

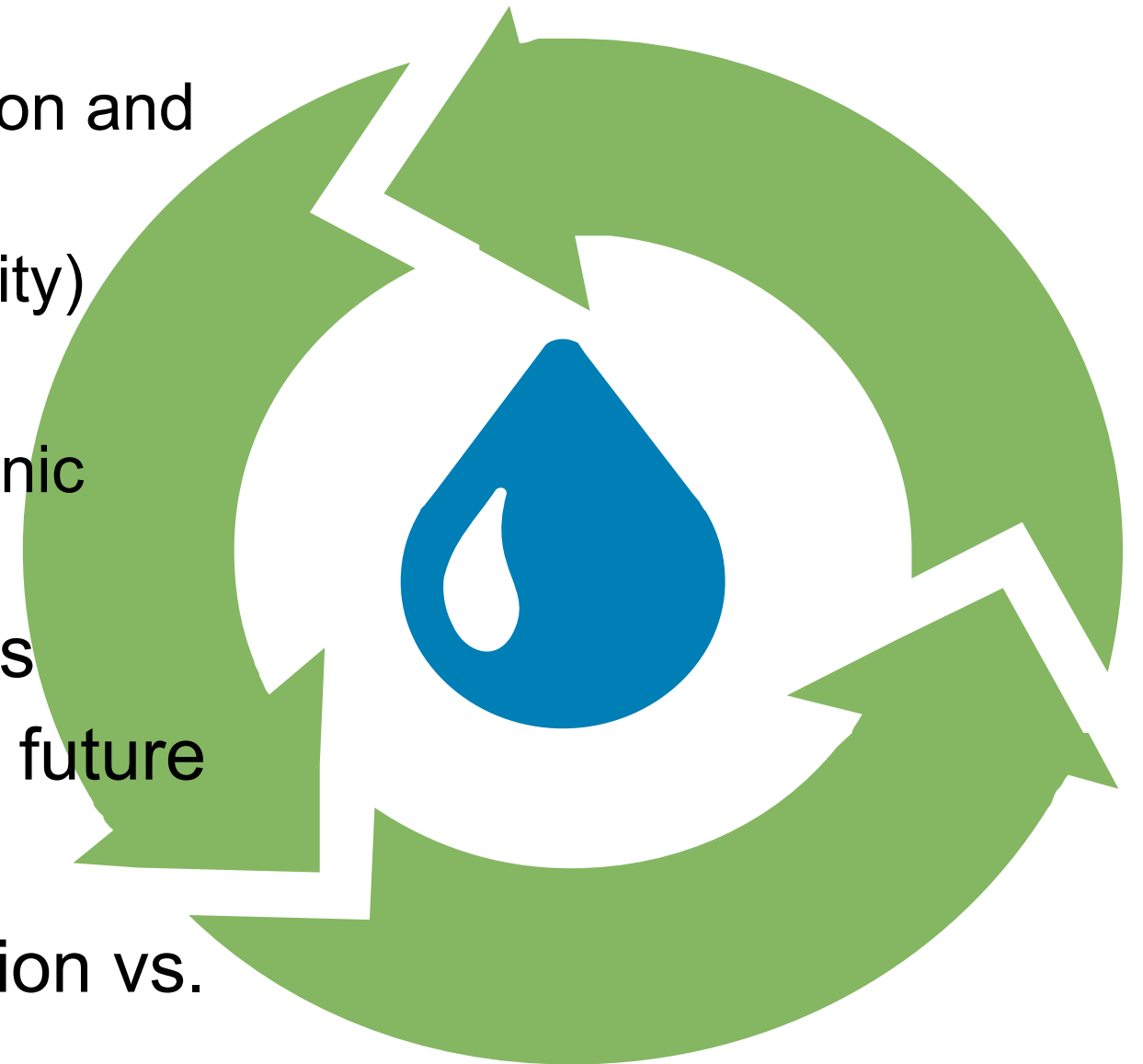


# Technological needs in the future

National and global viewpoints

## Trends – Developed countries

- Opportunities:
  - From advanced wastewater treatment plant to **recovery** plant
    - Water **recycling** and **reuse** (irrigation and raw water source)
    - Energy **recovery** (heat and electricity)
    - Nutrient **recovery**
    - Material **recovery** (chemicals, organic material, etc...)
  - **Reduce** consumption of commodities
  - **Smart water** systems – Cities of the future
- Challenges:
  - New treatment requirements/legislation vs. recovery initiatives
    - Micropollutants
    - Microparticles
  - Can these challenges become opportunities?



## Trends – Transit economies

- Opportunities:
  - Basic infrastructure investments
  - From basic wastewater treatment plant to recovery plant – Lite version
    - Water recycling (irrigation and raw water source)
    - Energy recovery (heat and electricity)
    - Material recovery (organic material)
  - Smart water – digital leap – Lite version
- Challenges:
  - Legislation harmony, society's resilience and upstream control
  - Finance investments sustainable way
  - Operative cost
  - Lack of basic infrastructure and resources (energy, chemicals, clean water)
  - Maintenance management and operating management skills



# Global SDGs for 2030



# Topics

- Technology needs in the future (2020-2030)
  - In Finland
  - Globally
- Which market areas would be the most attractive ones for Finnish companies?
  - Why?
- How could we boost water related innovations in Finland?
  - How to get them in use /piloted in Finland?
  - Should we have our own TAG forum for companies?



## Next step

- 3 topics
- Each group has one of the topics
- Me-We-Us method used for the discussion
- In the end we should have 3 main points for each topic
- Selected main points will be reported to the "screenio"



# Discussion and evaluation process based on Me-We-Us

- **Step 1 - 5 minutes**

- Think and process your own ideas
- Write down 3 major points of your own, use given post-its



- **Step 2 - 5 minutes**



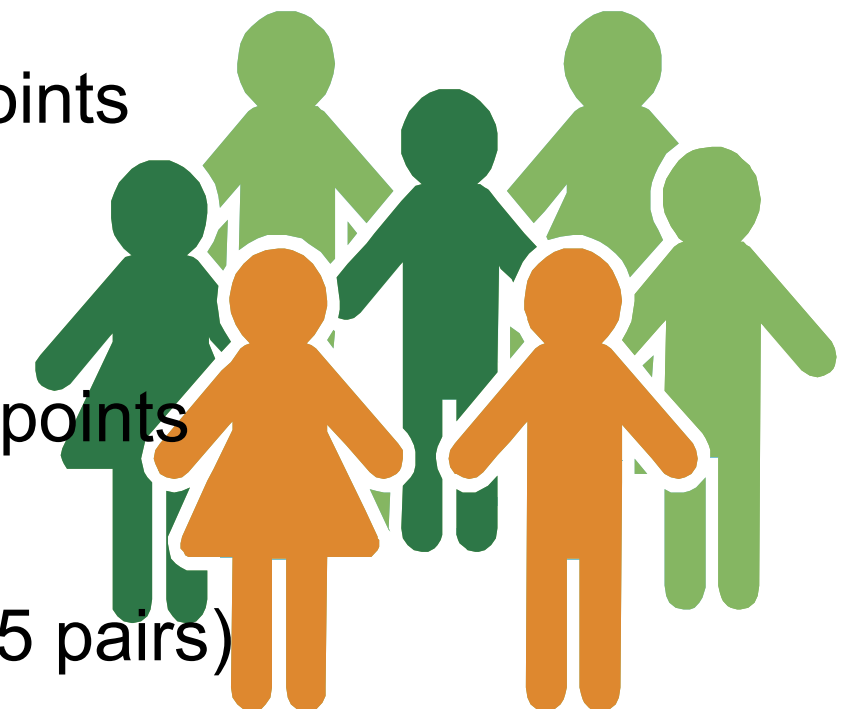
- Find a pair – try to find someone who you do not know yet!
- Discuss about the questions
- Write down 3 major points of your group, use given post-its or select the written ones

- **Step 3 - 5 minutes**

- Form a group of 8 persons (4 pairs)
- Repeat the discussion in this group and select the points

- **Step 4 - 5 minutes**

- Form a group of 16 persons (8 pairs)
- Repeat the discussion in this group and select the 3 points



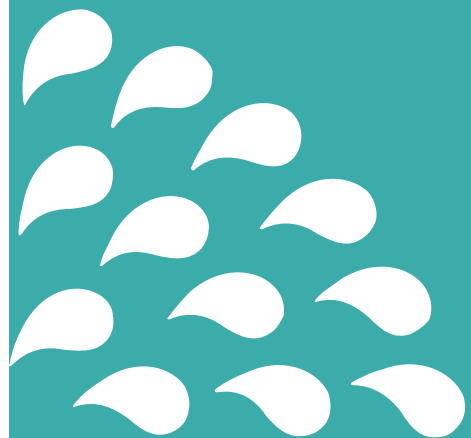
- **Step 5 - 5 minutes**

- Form a group of all of you related to this topic (ca. 15 pairs)
- Repeat the discussion in this big group and select the final 3 points



Puhtaasti parempaa arkea | En rent bättre vardag | Purely better, every day

# KIIITOS!



**Helsingin seudun ympäristöpalvelut -kuntayhtymä**  
Samkommunen Helsingforsregionens miljötjänster  
Helsinki Region Environmental Services Authority