

# ON THE WAY TO A SUSTAINABLE PHARMACEUTICAL CHAIN

MEDICINE LIFE CYCLE

DEVELOPMENT

PRODUCTION

PRODUCTION

USE

WASTE PROCESSING

Current value chain

Circular opportunities

Developments



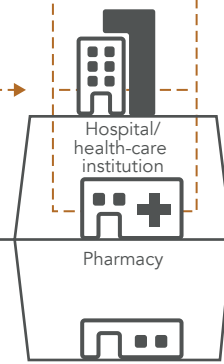
R&D



Manufacturer



Wholesaler



Hospital/  
health-care  
institution

Pharmacy

Pharmacist



Prescriber



Patient



Excretion



Flushing



Discarding



Returning



RWZI



Incinerating



Chemical waste



Attention for environmental risks (ERA)

Innovative therapies

Sustainable packaging



Make the production chain more sustainable



Reduce CO<sub>2</sub> emission



Digital leaflets



Restrict CO<sub>2</sub> emission through logistics



Prevent medicine waste



Promote proper usage

Lifestyle change



Collection of unused medicines

Package recycling



(Continue to) develop purification techniques

Optimise purification installations

Reduce waste by exchanging medicines

Research into re-issue of expensive medicines

