

# PIE – The Dutch Approach in Education



# Dutch green deal

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Poldermodel

All stakeholders represented

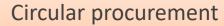
Mutual consensus

Chain approach

Chain approach to pharmacautical residues in water

Planetary health guidelines

<u>Planetary Health: ter bescherming van de</u> <u>menselijke gezondheid en de planeet</u>





49% carbon reduction by 2030

- Care/cure sector
- Authorities
- Knowledge institutes
- Companies

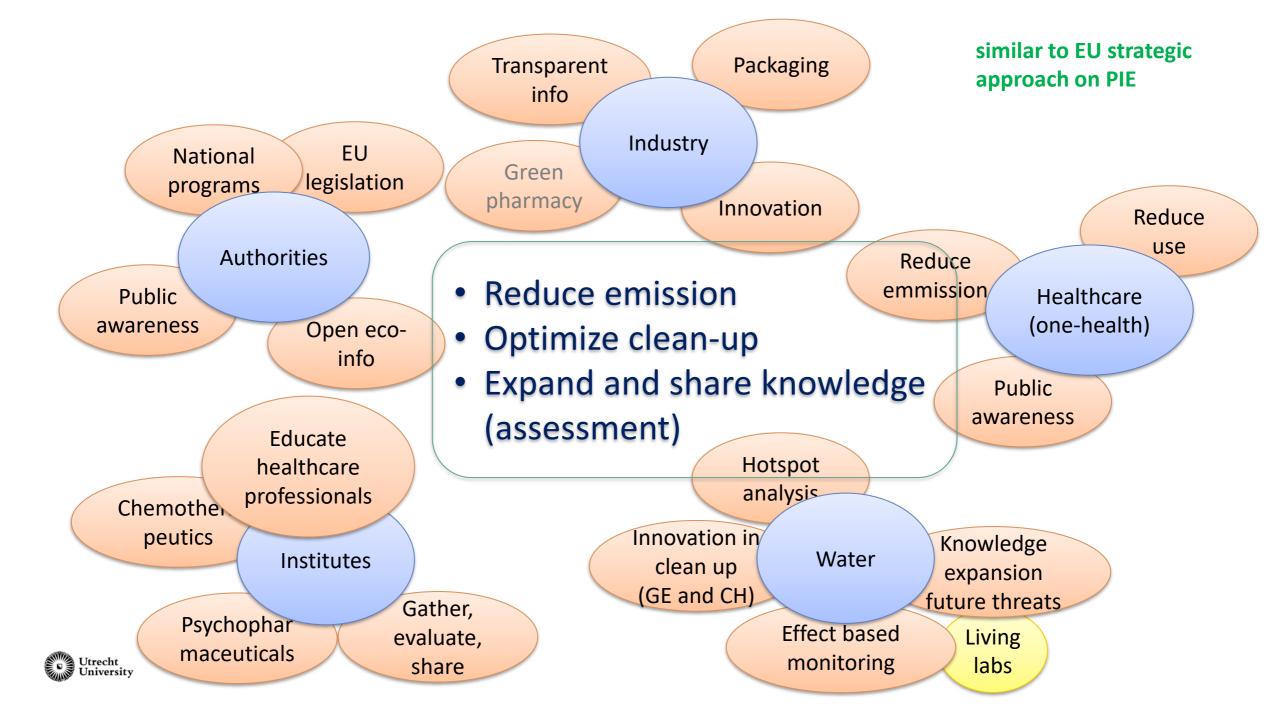
Poldermodelling

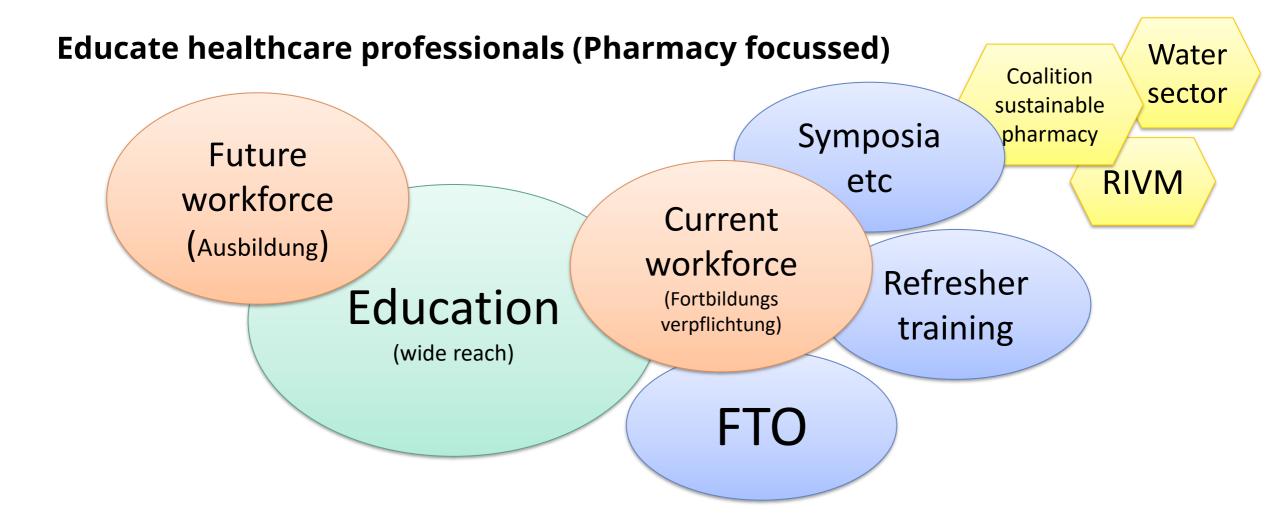
The Dutch Green deal Ensure healthcare for people and planet without causing more pollution and health problems

Poldermodelling

Reduce pharmaceuticals in water

Healthy environment for healthcareworkers and patients







### **FTO**

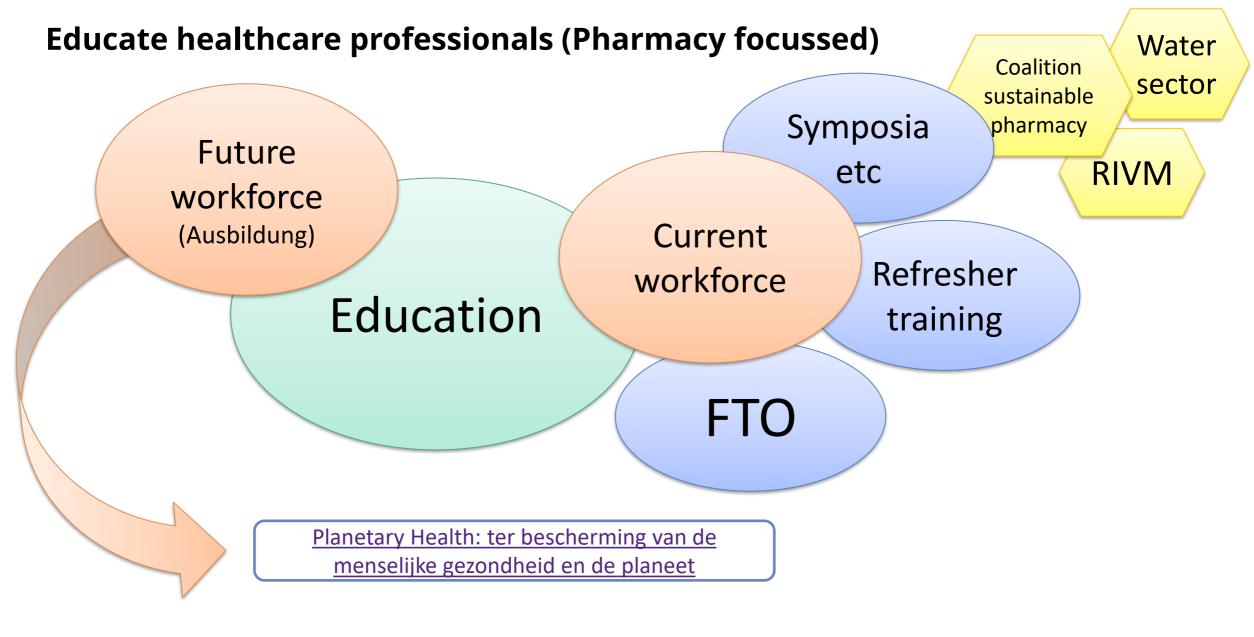
- Pharmaco Therapeutic Consultation (PTC)
- Regional consultation GP, pharmacist and other professionals, 6 times/year
- Goal: Exchange knowledge, discuss issues, set clear agreements
- Content: pharmacotherapeutic and communication
- IVM in 2020: FTO module 'Responsible use of Medicine'.
  - Lively discussions
  - Increase awareness
  - Evaluation of own practice
  - Practical targets/projects



# FTO - special edition

- Pharmaceutical residues from water
- Chain partners: VEWIN (Dutch association of drinkingwater companies) and VanWaarde.
- 50 water experts trained
- Goal
  - Increase awareness issue under professionals AND patients
  - Understand issues in complete chain
  - Evaluation of own professional behaviour
  - Set mutual targets/develop projects
  - Target: 10% total FTO's by 2020
  - Extended due to popularity (and COVID-19)









### Poldermodelling

- Care/cure sector
- Authorities
- Knowledge institutes
- Medical universities

Mint zorgadvies
IFMSA-NL
GREENER

Planetary Health: ter bescherming van de menselijke gezondheid en de planeet

### Evaluation current state:

High willingness and support

Sense of urgency: students >> educators

But: not visible/focus in most programs → why?

### Barriers:

Lack of knowledge

No time in curricula

Resistance of co-workers

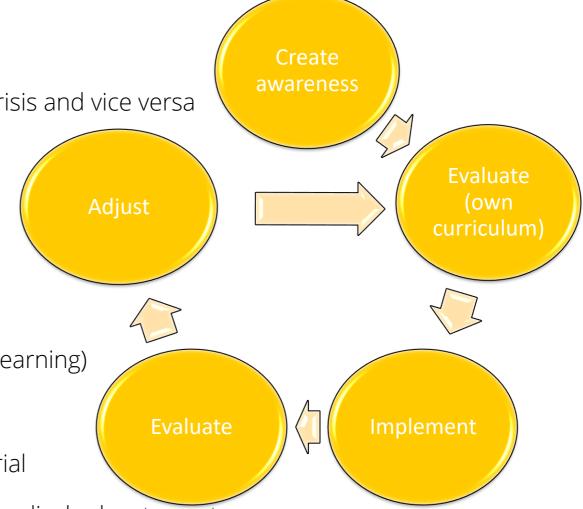
# Consensual strategic approach: Targets/recommendations

Create awareness and acknowledgement:

Acknowledge health crisis is caused by climate crisis and vice versa

Prioritize planetary health in education

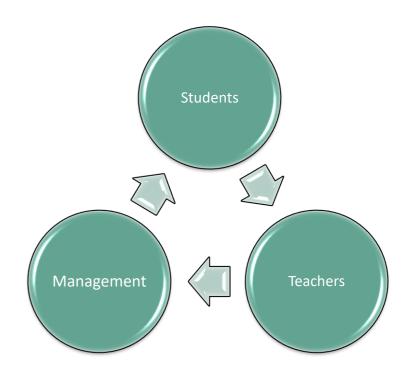
- Increase knowledge:
  - Educate all alumni 23-24 in planetary health
  - Invest in experts (students and staff)
  - Teach the teachers in planetary health (life long learning)
- Facilitate multidisciplinarity
  - Use co-creation for development teaching material
  - Collaborate with institutes, chain parties, other medical educators, etc





# 1) Create awareness and sense of urgency

- Bottom up AND top down simultaneously
- Positive approach: inspiration sessions, progress sharing
- Examples: Green Team Pharmaceutical Sciences (GTPS) Sustainability & Resilience UU
  - GTPS (after 9 months): 3 educators, 3-5 students, Green Office, staffmembers, 1 boardmember, other parties → multilevel
  - Collaboration: parties Chain Approach, Green Deal, Universities, departments, etc.
  - Share knowledge:



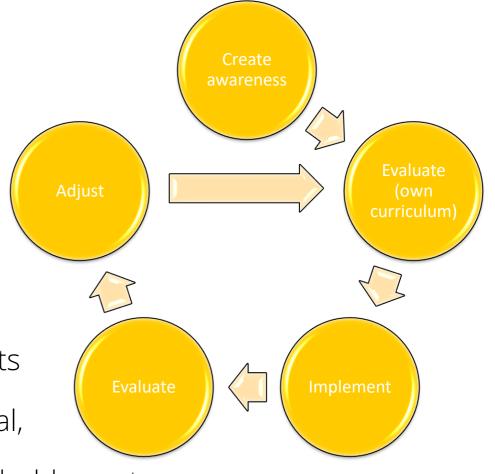


#### 2) Implementationcycle Leadership of Change Skills Define vision and endterms (7C's), CANMEDS, ecoethical leadership Top Constructive down **Extract learning goals** Couple to curriculum and allignment GTPS: Ongoing survey Preliminary results: same as results consensus evaluate willingness/support Labs: alternative strategy protocols: ↑safety; include wastemanagement; solvent selection, etc. Assignments: include sustainability if possible with small apporach Adjust **GTPS:** Quick wins investment Lectures: highlight sustainability subjects, use sustainability dn examples: increase awareness Motivate students to focus on sustainability issues Bottom GTPS: Elective courses, Student guided elective courses; teacher is proces-Implement (Co-create) individual projects manager 'Pharmacist in pharmaceutical chain' (chain approach): interdisciplanary problem solving Several projects: literature survey, labwork, internships, life-cycle assessments, Living labs, etc. Review & evaluate GTPS: ongoing in collab with chain-parties and subjects of chain approach

# Timeplan (parallel)

- Short term → Quick wins:
  - Fast and easy to implement, not structural
  - Raising awareness
  - Use results to gather support
- Medium term → more time-consuming adjustments
  - Elective courses, educational supporting material, educate workforce, share knowledge, inform stakeholders, etc
  - Implementation cycle: money and time
- Long term→ institutionalization





### **Suggestions for content**

### General end-term examples

- Understand relation health and nature (planetary health)
- Provide a useful set of knowledge/skills in planetary health.
- Share knowledge/experience for societal and planetary benefits
- Act as a sustainable healthcareprovider
  - **Ethics:** role and responsibilities as healthcareprovider in society and nature; planetary boundaries; Equity in access to healthcare; understanding (geo)political, geographic and cultural issues
  - Existing subjects: extrapolate existing skills and knowledge (one-health); relations between health and nature; reaching planetary boundaries, etc
  - **Multidisciplinary:** issues and interests in chain approach; multidisciplinary collabs; leadership skills; the SDGs in general; systematic thinking in general



# Threads and opportunities

Thread	Solution
Lack of knowledge	Co-creation, collaboration, sharing
No time/room	Integrate, small actions
Behavioural resistance	Positivity, awareness, studentpopulation, inspiring pioneers, leadership
Getting started	Combined didactical approach, positivity, transdiscipinarity, just start somewhere
Examination	Constructive alignment: procesthinking, understanding and reflection
Political interest	? (formal endorsement, multilevel support)

Opportunity	Example
New research opportunities	New fields of expertise, collabs, extrapolation
Knowledge use	Wider network fills in knowledge gaps, open science $\rightarrow$ efficient use of knowledge
Teaching	Co-creation is different way of thinking → higher motivation students? Opportunities for teachers? Faster implementation in curricula.
Co-benefits	Shift towards prevention instead of curing in healthcare
Social equity awareness	Access to medicine, geopolitics, cultural and political differences

### **Conclusions**

- PIE as a part of planetary health is a wicked problem and needs a wicked solution → multistakeholder
- In NL the poldermodel has worked for the development of the Green deal, the Chain Approach and the consensus for planetary health in education.
- Consensus for education:
  - Create awareness and aknowledgement 

     responsible professionals
  - Increase and extrapolate knowledge and skills
  - Transdisciplinary approach → more conscious professionals with network
  - Didactical approach: co-creation; procesthinking; extrapolation; hands-on
  - Facilitated by all layers: dual approach possible
- Not only create sustainable healthcare providers but also responsible leaders of change

### **Differences between NL and GER**

- More similarities than differences
- Size: poldermodel in GE?
- Different educational approach and structure
- Integration of all parties
- Local nationwide → regional differences
- Different focal points (NL watersector) and interests



# **Acknowledgements**

- All chain partners and consensus partners
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Thank you for your attention!



