



Dansk Selskab for Toksikologi & Farmakologi

Toxicology in Denmark

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UNIVERSITY OF  
EASTERN FINLAND

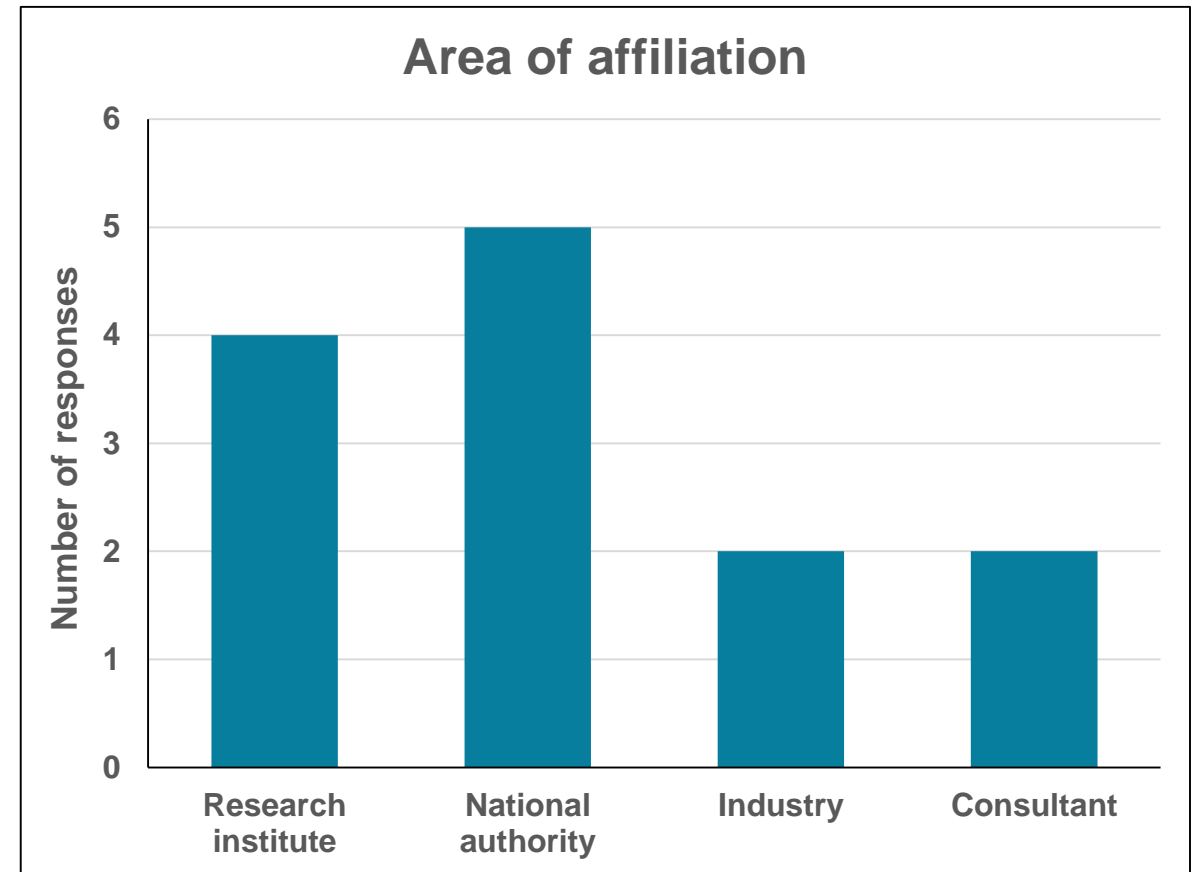
# Mapping the competence situation and needs for chemical risk analysis and safety in the Nordic countries: Preliminary results from Finland

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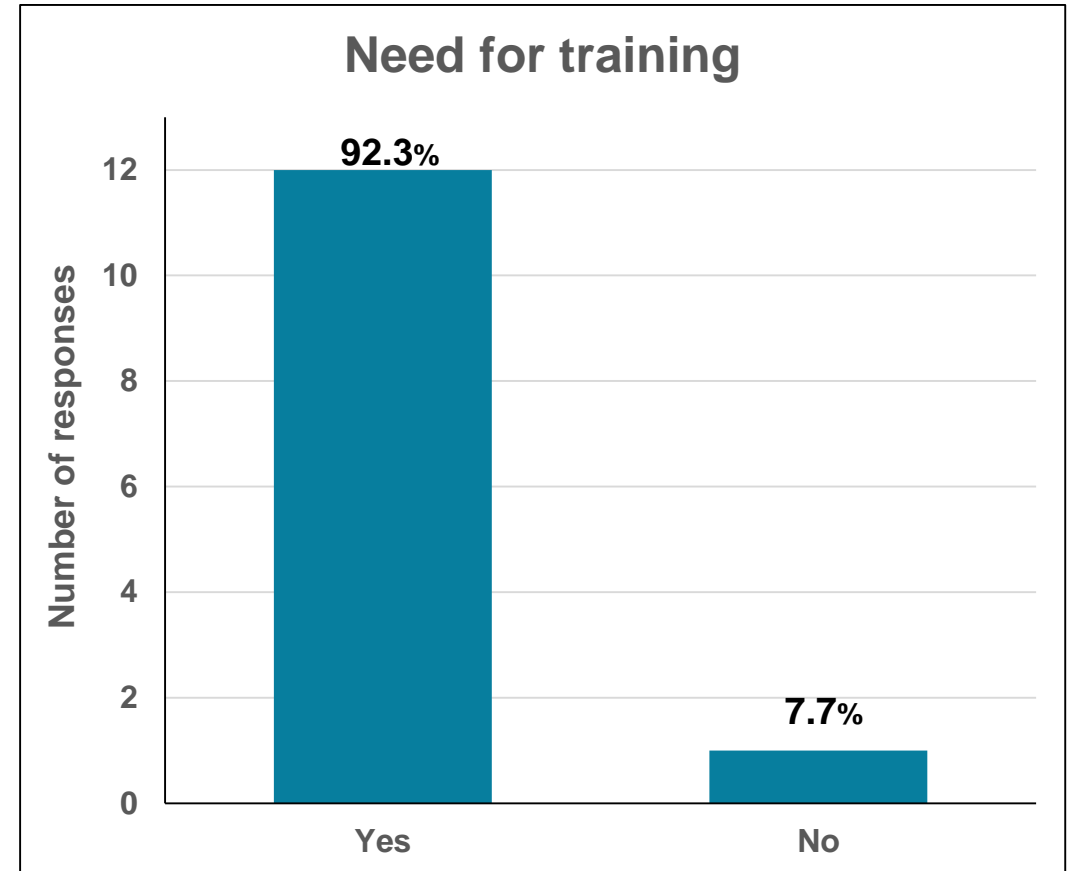
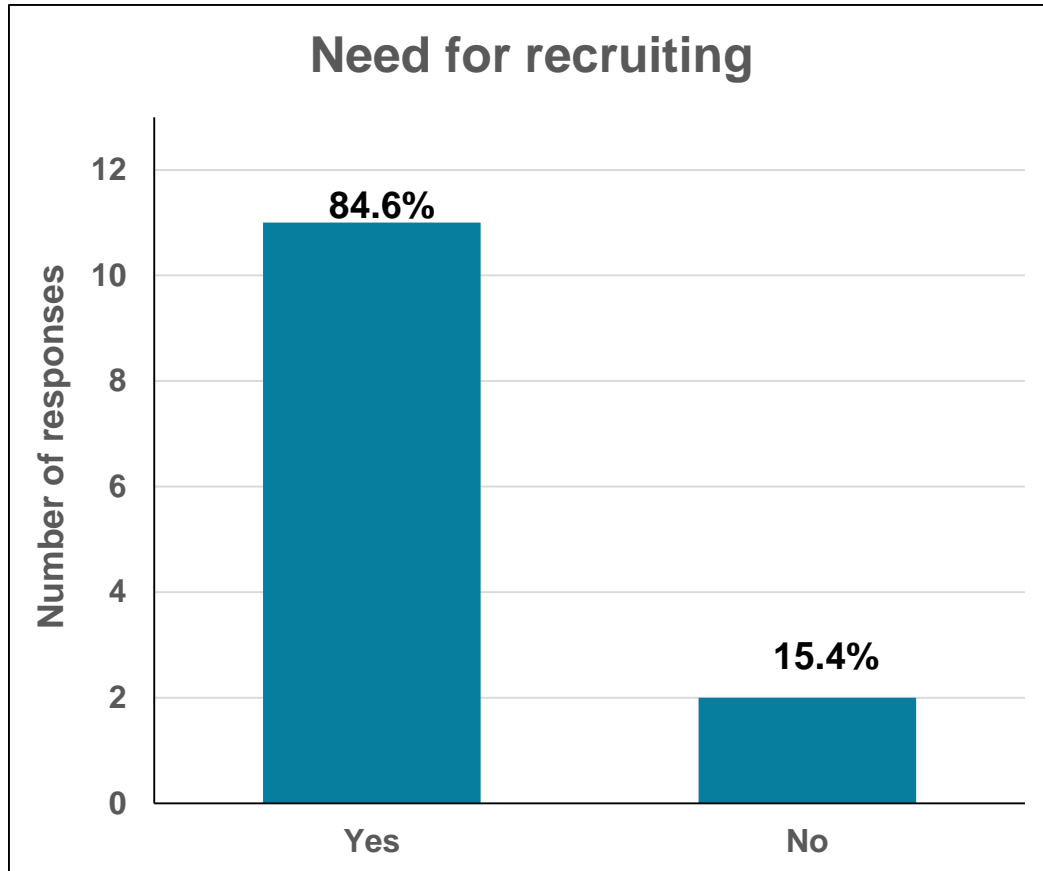
# Mapping the competence situation and needs

## Background information

- Questionnaire open: Feb. 10 – March 11, 2022
- Number of responses: 13 out of 50



# Need for recruiting and training new personnel



**Which needs do you foresee you will have recruiting relevant personnel for the coming 4-7 years? Please address your needs for personnel with general toxicology and related science educations versus specified education.**

**Challenges in recruiting competent personnel**

**Expertise needed for**

- **New EU regulations, i.e. Do Not Significant Harm principle and Single Use Plastic Directive**
- **New Biomaterials development**
- **Recycling and utilization of industrial side streams**

**Important needs in toxicology**

- **General toxicology**
- **Occupational toxicology and industrial hygiene**
- **Regulatory toxicology and ecotoxicology**
- **Environmental toxicology**
- **Risk assessment**
- **Exposure assessment**

**Which needs do you foresee you will have recruiting relevant personnel for the coming 4-7 years? Please address your needs for personnel with general toxicology and related science educations versus specified education.**

**Poison Information Center has a continuous need for MDs and Pharmacists (BSc) with special expertise covering pharmacology, toxicology and acute medicine.**

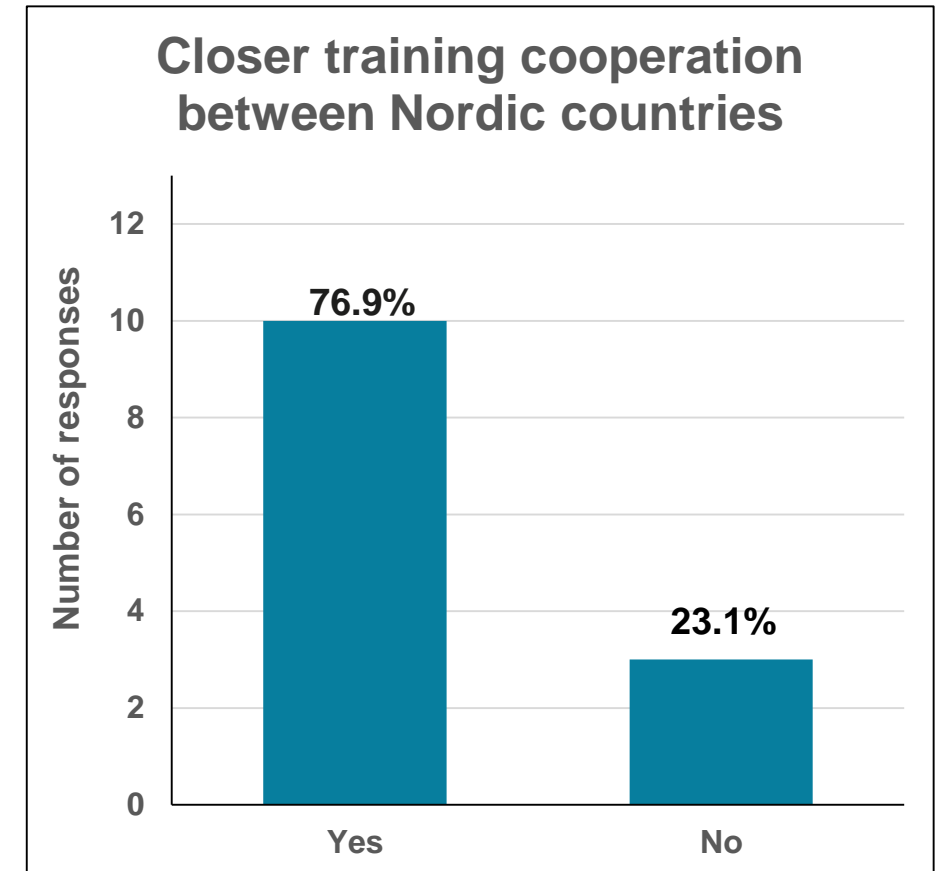
- **Problems in recruiting medical doctors with interest in clinical toxicology**
- **Currently no subspecialty training in clinical toxicology**
- **Currently no professorship in clinical toxicology**

**Major general challenges in maintaining / recruiting competent personnel**

- **Retirement**
- **Lack of resources for recruiting personnel with needed expertise**
- **ECHA is competing for competent personnel**

# Nordic training cooperation

- **Joint Nordic training courses and workshops in toxicology and risk assessment (NIVA, NKE)**
- **Student exchange programs, post-graduate training courses**
- **A list of Nordic experts including their field of expertise**
- **An organization similar to the former Nordic School of Public Health should be established**



# Toxicology and risk assessment in Finland: Universities

- **University of Eastern Finland**
  - Postgraduate program in toxicology 1981-2001
  - M.Sc. program in toxicology 2002-
  - Ecotoxicology, environmental health
- **University of Tampere**
  - FHAIVE (earlier FICAM) (Finnish Hub for Development and Validation of Integrated Approaches) 2008-
- **In other universities toxicological education as a part of medicine, veterinary medicine, pharmacy, biology, food science & nutrition**

# Toxicology and risk assessment in Finland: State research institutes and agencies

## State research institutes until ~ 2016

- Finnish Institute of Occupational Health:  
~ 50 toxicologists
- Finnish Institute for Health and Welfare:  
~ 40 toxicologists

## State agencies

- Finnish Safety and Chemical Agency: ~ 10
- Finnish Food Authority: ~ 5

General directors ordered discharges in 2016.

Consequences:

- Now ~ 10 toxicologists
- Proposal to discharge all toxicologists; Ministry did not accept. However, no replacement of retired or resigned persons:  
⇒ Now 1 toxicologist



# Initiative to secure toxicological expertise in Finland, 2017-2019

In 2017, general directors of 4 state research institutes (Finnish Safety and Chemical Agency, Finnish Food Authority, Finnish Institute for Health and Welfare, Finnish Institute of Occupational Health) expressed their concern about “radical decrease” in toxicological expertise to Ministries

- Ministry of Social Affairs and Health ordered a proposal for securing toxicological expertise and established a working group
- Interview of ~ 50 experts from various sectors
- A proposal for establishing a toxicological centre of expertise at the Finnish Institute for Health and Welfare

# A proposal for Toxicological Centre of Expertise

- Intersectoral network, coordination at Finnish Institute for Health and Welfare, experts from 5 state research institutes / agencies
- Develop and maintain toxicological expertise and risk assessment in Finland
- Participate in educating new toxicologists together with universities
- Coordinate national toxicological cooperation and projects
- Enable new kinds of opportunities for intersectoral action and create a competence base for the future

**Proposal accepted, but no budget money granted so far ⇒ does not exist!**

# Toxicological Centre of Expertise

