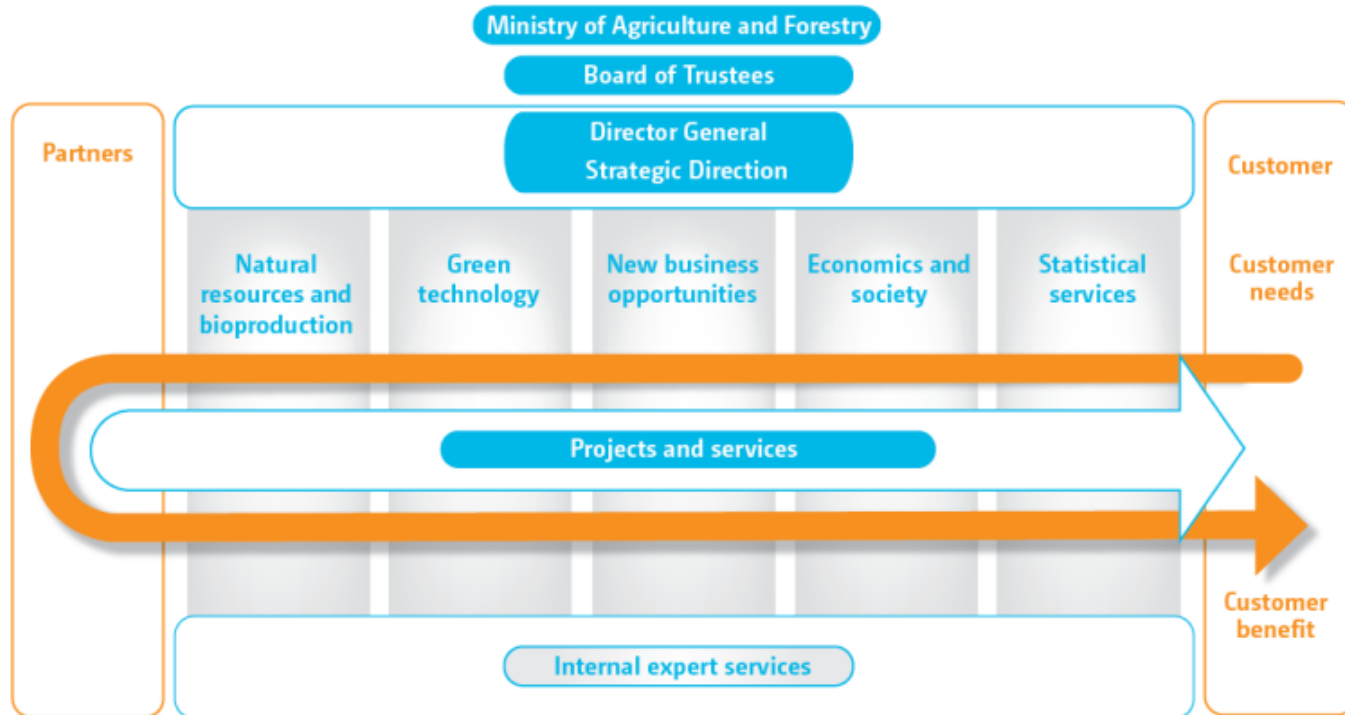


# UNECE Meeting

Oulu 10.9.2015

Elina Virtanen

# Natural Resources Institute Finland

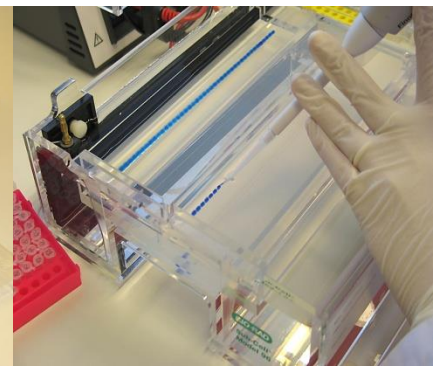
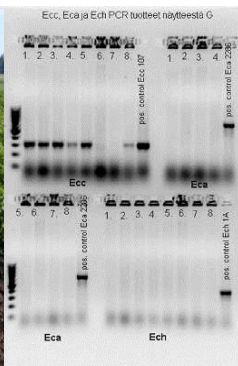


Our focus:

- biomass-based products and energy
- food systems and food security
- health and well-being
- sustainable natural resources economy and policy

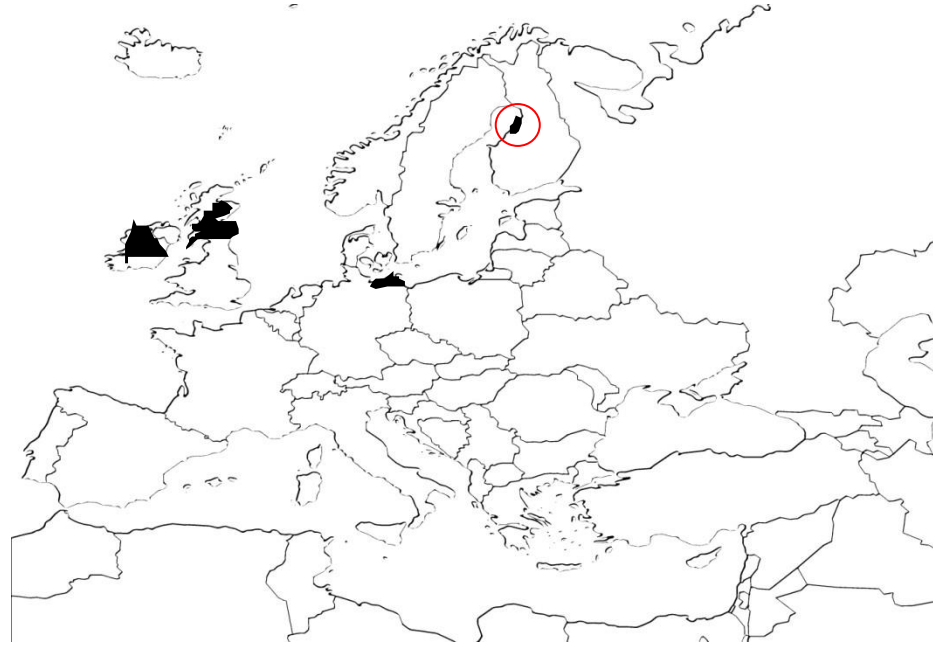
# Agrobiotechnology team

- Seed potato research
  - plant pathology
  - plant physiology
- Potato laboratories and field experiment facilities
- 4-6 researchers, 2-4 assistants



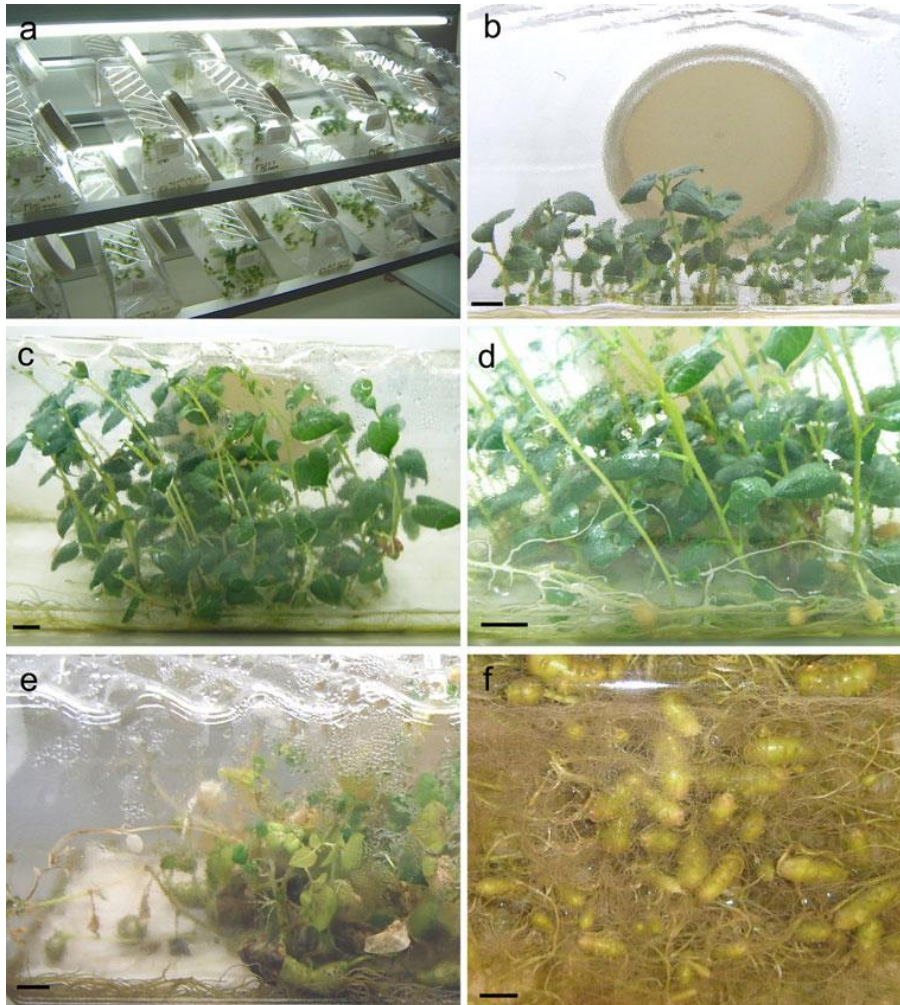
# The potato in focus

- plant pathology and disease control
  - molecular biological laboratory as service and research laboratory
  - bacteria and virus analyses
- plant physiology and cultivation methods
  - new technologies for micro- and minituber production
  - effects of long summer days on cultivars
  - fertilizing and other cultivation techniques





# LiquidLab -bioreactor in microtuber production



- in vitro microplants were transferred to each vessel
- growth medium with sucrose concentration of 2% and 8%
- microtuber induction 8-11 weeks
- conditions 10 h light/14 h dark
- microtuber weight >0,20 – 1,0 g

Kämäräinen-Karppinen T, Virtanen E, Rokka V-M & Pirttilä AM (2010). Novel bioreactor technology for mass propagation of potato microtubers. *Plant Cell, Tissue and Organ Culture* 101: 245-249.

Thank you!