



COST

Sustainable management of *Ambrosia artemisiifolia* in Europe (SMARTER)

FA1203

Start date: 19/11/2012

End date: 18/11/2016



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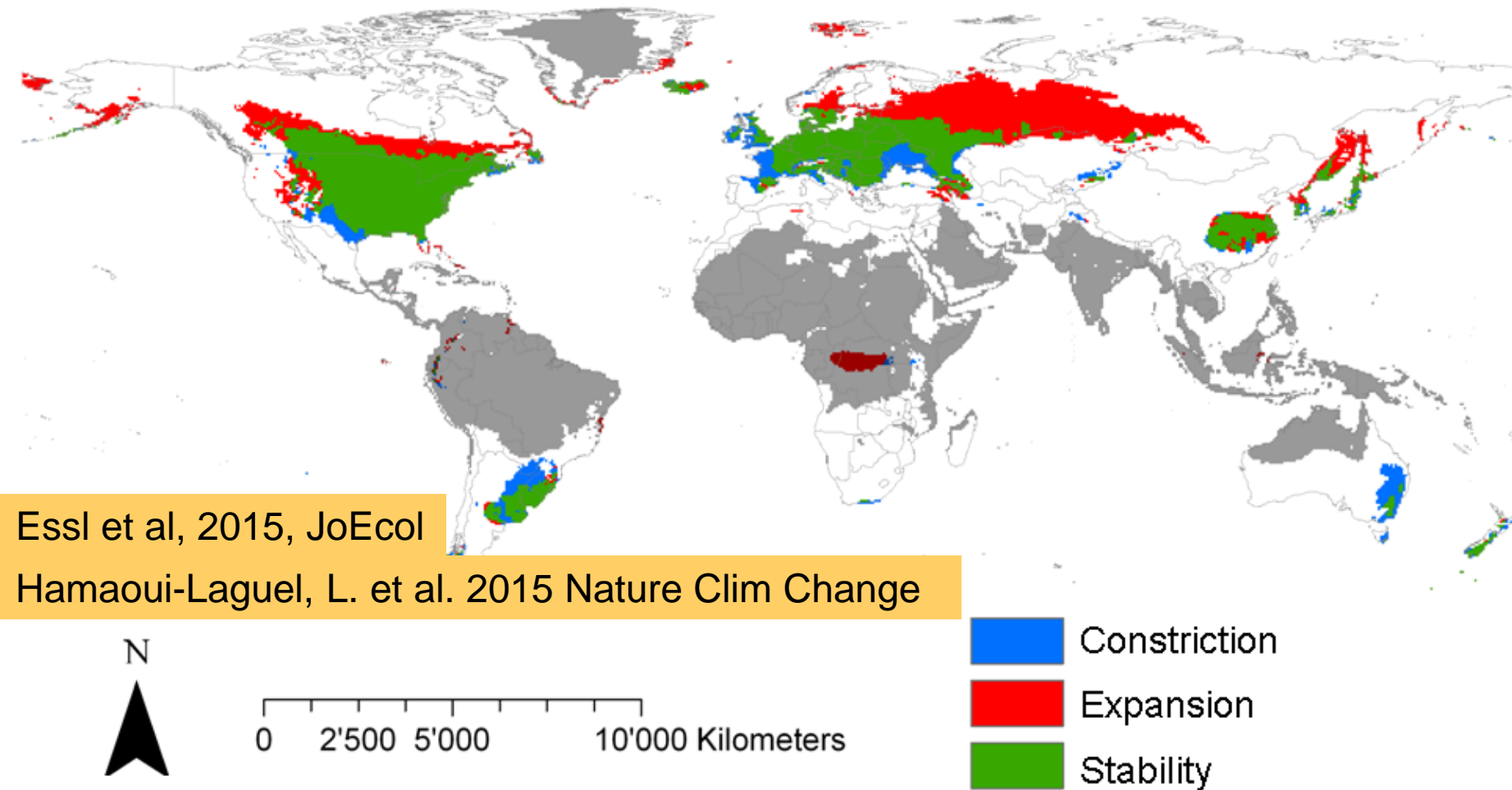
The problem

Pollen → human health

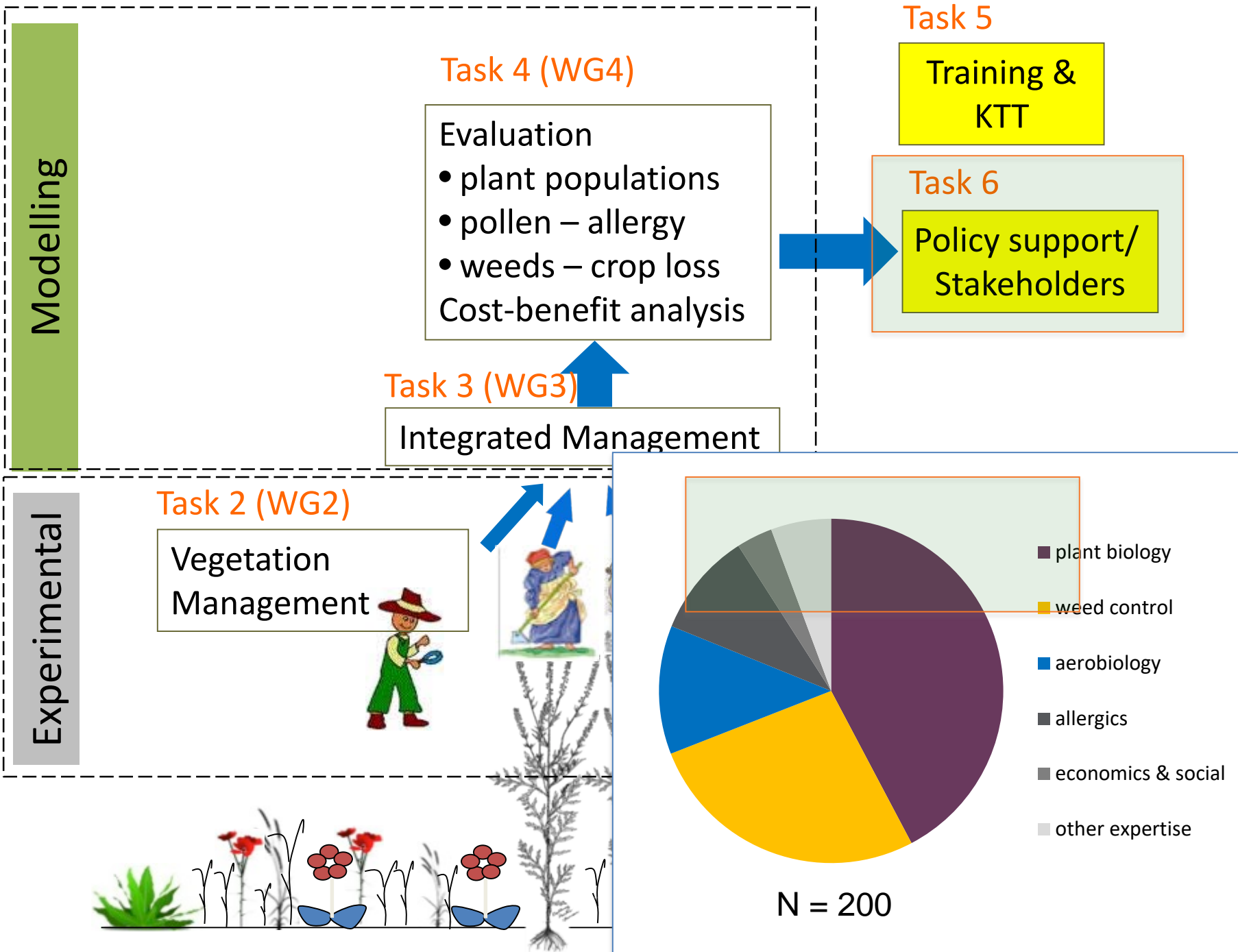
Seeds (plant) → agriculture



The potential distribution of *A. artemisiifolia* under current and future (A1b in 2100) climate



In Europe: Great potential to further expand north and east, with airborne ragweed pollen concentrations to increase c. 4x by 2050



WG 1: Classical biological control in Europe: ragweed biocontrol as a template for Europe



2013: Accidental introduction to Europe with massive impact and fast spread of *O. communa*

new solutions

The infographic illustrates various control methods for ragweed and the insects and fungi that feed on it. The methods are listed on the left side:

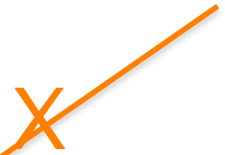
- Competitive vegetation
- Uprooting by hand
- Mechanical harrowing
- Planting roadsides

The central part of the infographic shows a large green ragweed plant with yellow arrows pointing to various insects and fungi. The insects and fungi are:

- Fallen feeder:** *Trigonarhinus lamentosus* (Coleoptera)
- Seed feeder:** *Smicronyx perpusillus* (Coleoptera)
- Defoliator:** *Ophroeta slobodkini* (Coleoptera)
- Seed feeder:** *Euresta bella* (Diptera)
- Defoliator:** *Zygogramma disrupta* (Coleoptera)
- Defoliator:** *Tarachidia confecta* (Lepidoptera)
- Leaf pathogen:** *Puccinia xanthii* (Basidiomycota)



O. communa



SMARTER contribution to and expectations from the workshop

- The way forward for classical biological control of **invasive weeds** in EU
- How to react to non-authorized introductions of potential biocontrol agents

Monday afternoon: biological control agents of plants

Urs Schaffner. Accidental introductions are increasing in Europe: how to react?

Heinz Müller-Schärer. *Ambrosia* and *Ophraella* as a model for discussion of regulatory issues

Discussion in groups of regulatory issues with release of non-indigenous biological control agents of plants

Urs Schaffner. short report of the SMARTER workshop in Brussels, 21/22 Jan. 2015 on: Regulating classical biological control of invasive plants across Europe: SMARTER & stakeholders discuss

Tuesday morning: discuss hypothetical scenarios

Agent Z [fungus?] for augmentative control of *Ambrosia artemisiifolia*