



biodiversa



E CODEAL

Enhancing biodiversity-based ecosystem services to crops through optimized densities of green infrastructure in agricultural landscapes

Yann Clough
CEC, Lund, Sweden

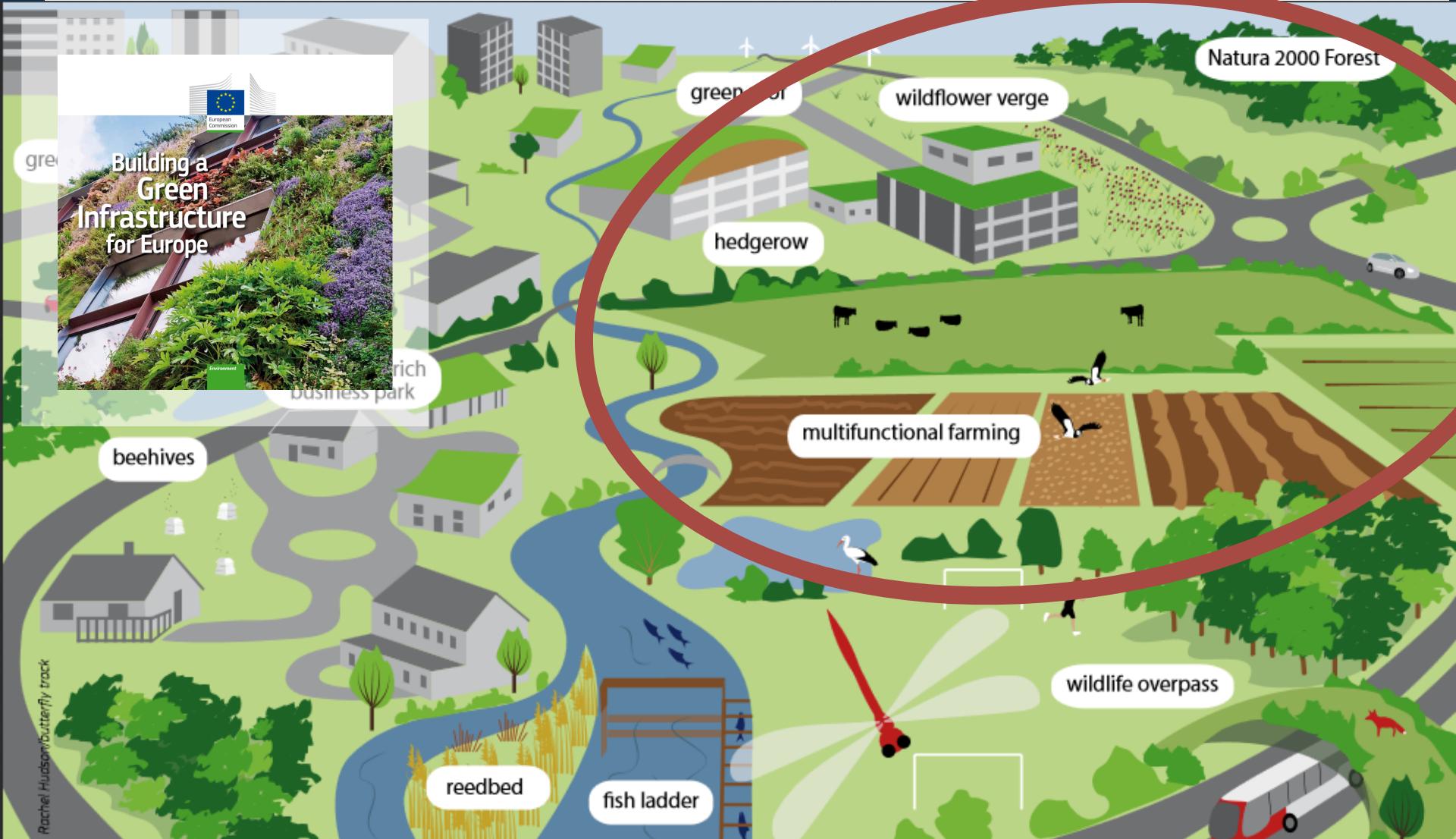
Paris, April 29th 2015, Kickoff of the funded projects



Andrea Holzschuh



Maj Rundlöf



BiodivERsA/FACCE-JPI joint call on "Promoting synergies and reducing trade-offs between food supply, biodiversity and ecosystem services"



Building a Green Infrastructure for Europe

Benefits provided by Green Infrastructure

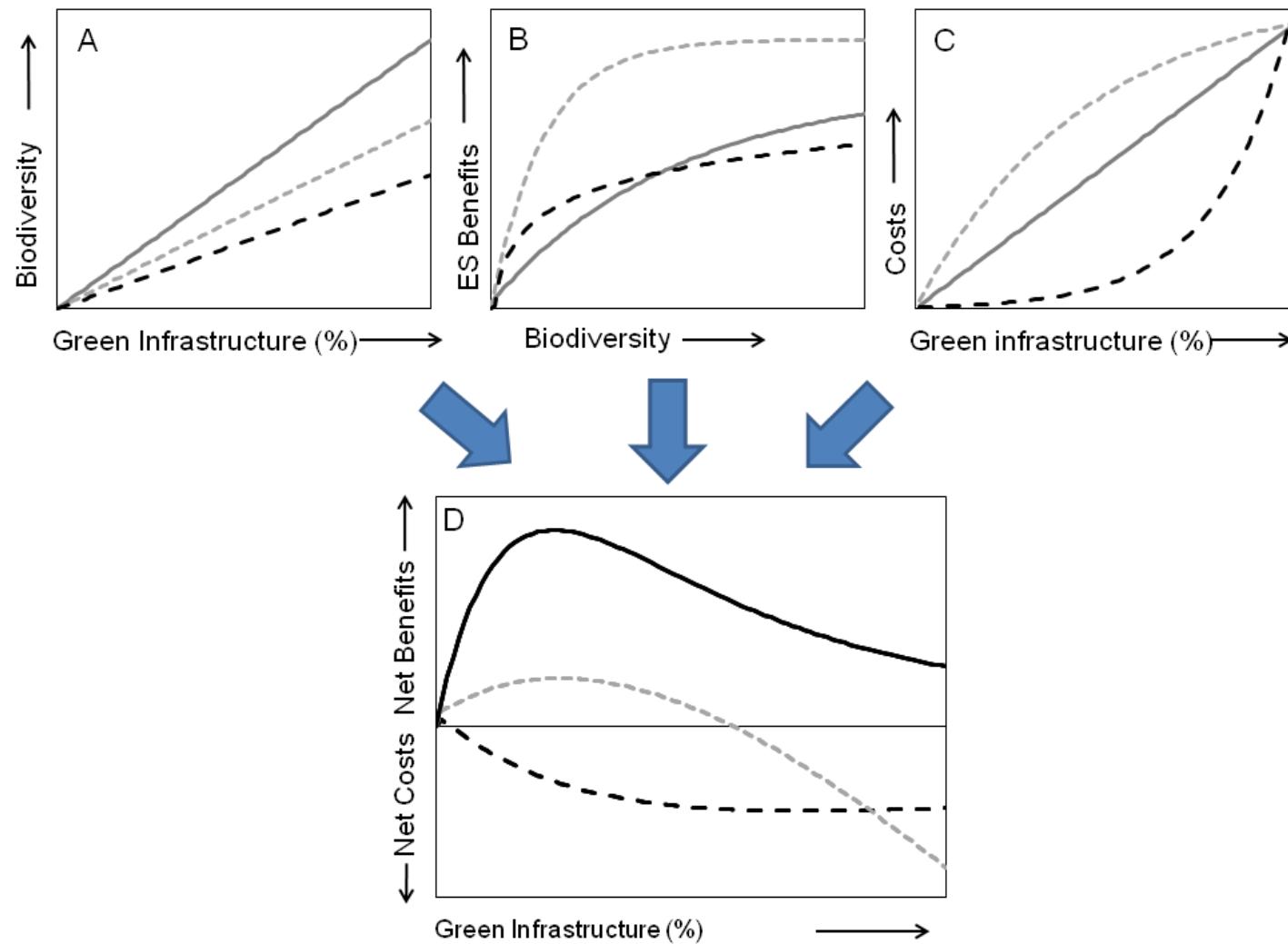
- Environmental benefits**
 - Provision of clean water
 - Removal of pollutants from air and water
 - Pollination enhancement
 - Protection against soil erosion
 - Rainwater retention
 - Increased pest control
 - Improvement of land quality
 - Mitigation of land take and soil sealing
- Social benefits**
 - Better health and human well-being
 - Creation of jobs
 - Diversification of local economy
 - More attractive, greener cities
 - Higher property values and local distinctiveness
 - More integrated transport and energy solutions
 - Enhanced tourism and recreation opportunities
- Climate change adaptation and mitigation benefits**
 - Flood alleviation
 - Strengthening ecosystems resilience
 - Carbon storage and sequestration
 - Mitigation of urban heat island effects
 - Disaster prevention (e.g. storms, forest fires, landslides)
- Biodiversity benefits**
 - Improved habitats for wildlife
 - Ecological corridors
 - Landscape permeability



Maj Rundlöf



Beatriz Moisset CC (detail)





Klimatförändringen, ekosystem och arter

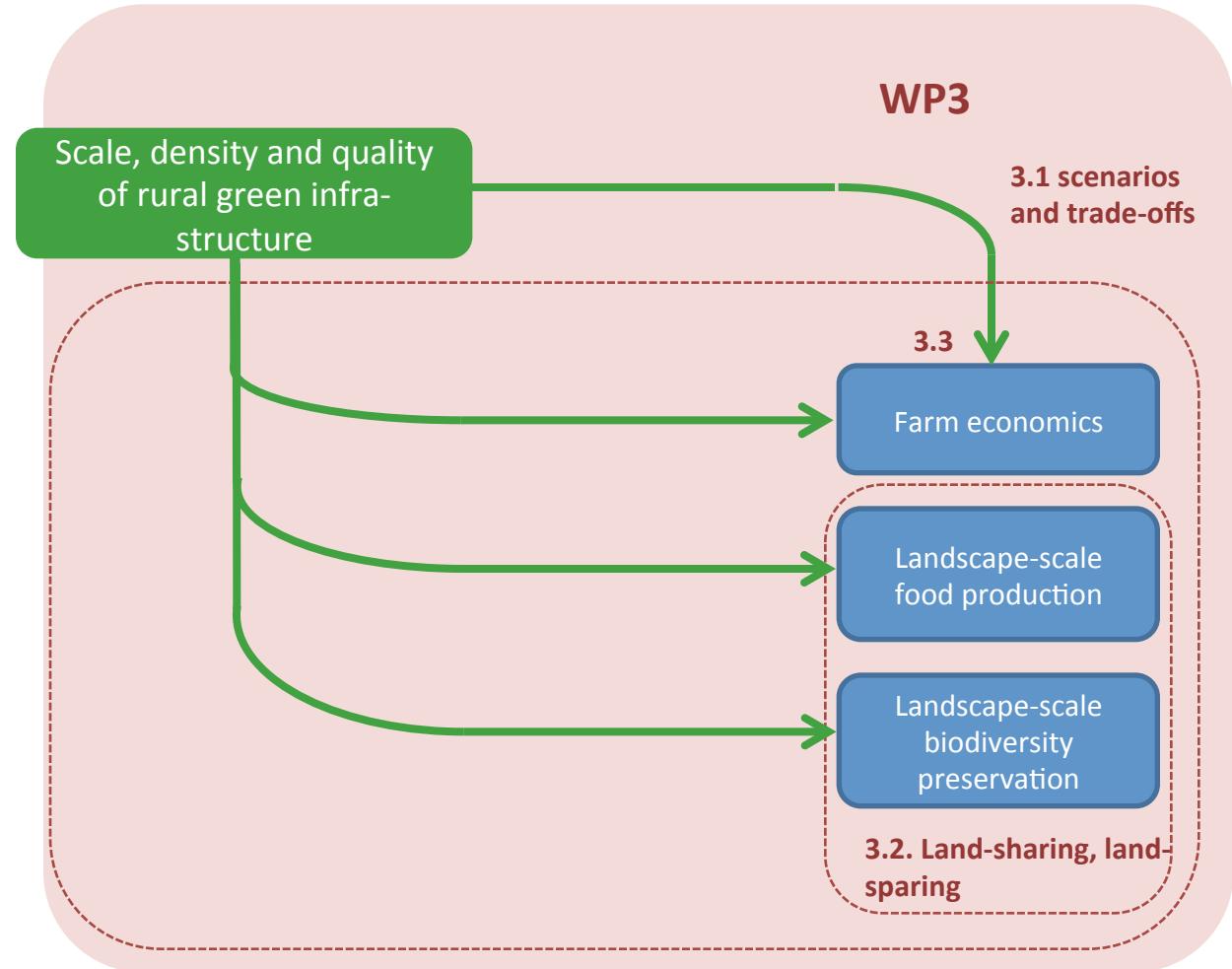
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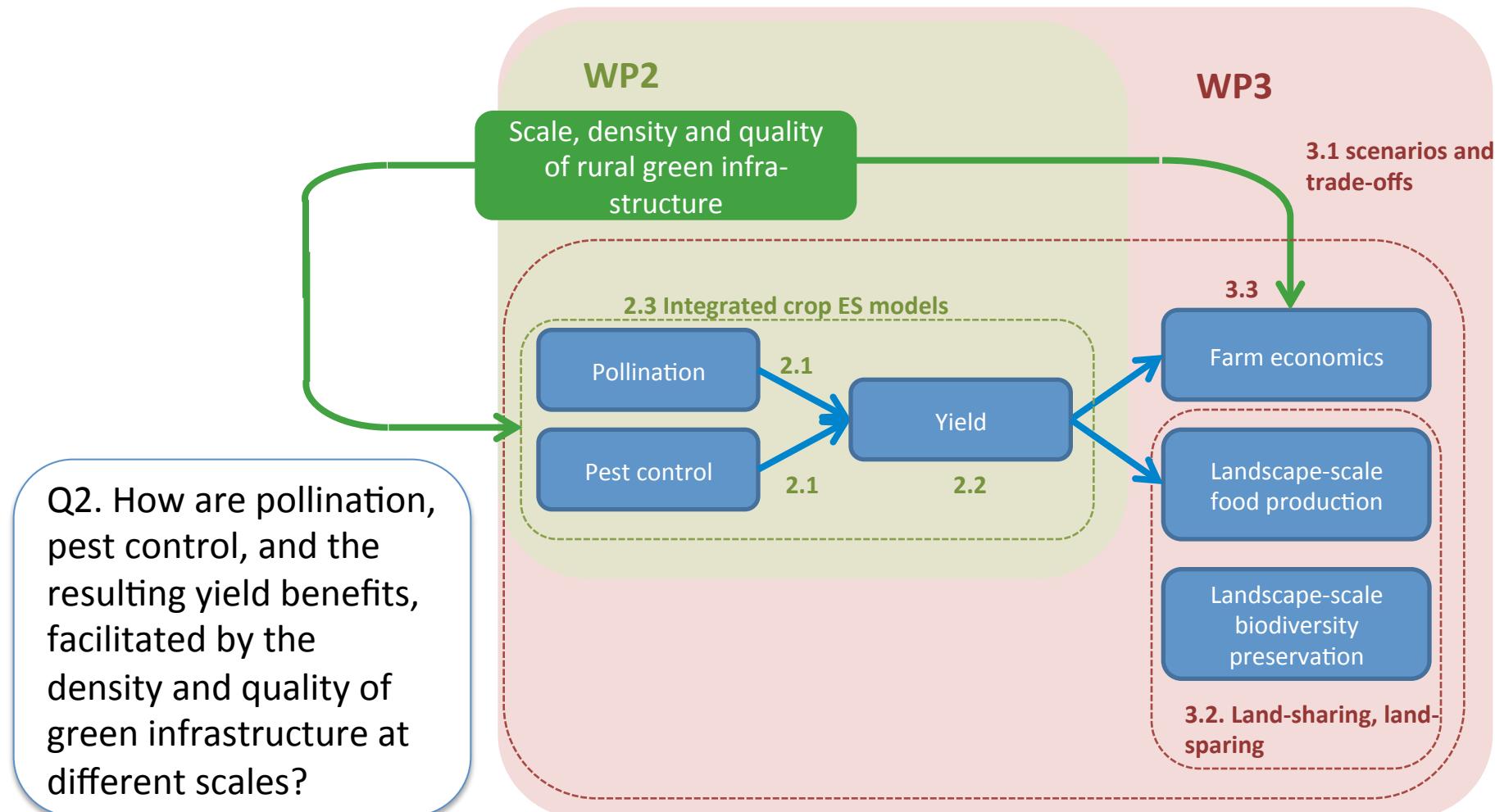


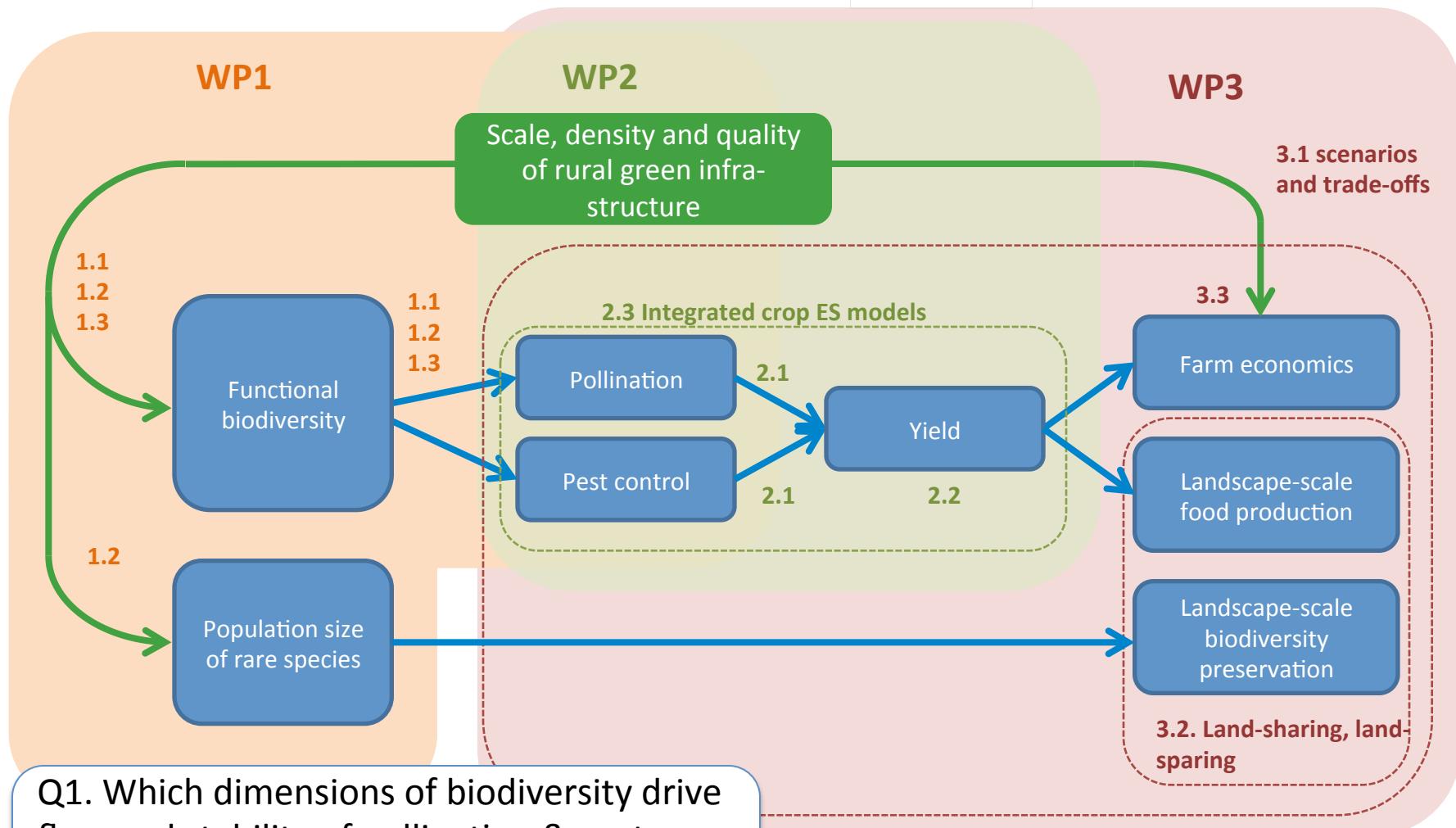
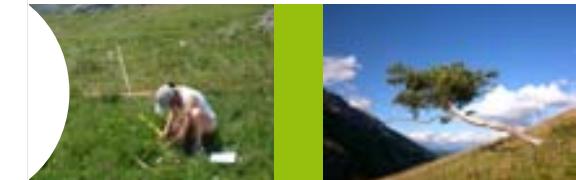
	20	10	S	70	70
Träda	20	-			
Salix	20	-			10
Krävfixerande grödor	50	20	-	20	\$
Obrukade fältkanter	10	20	S	100	40
Vallinsödd	40	20	-	50	70



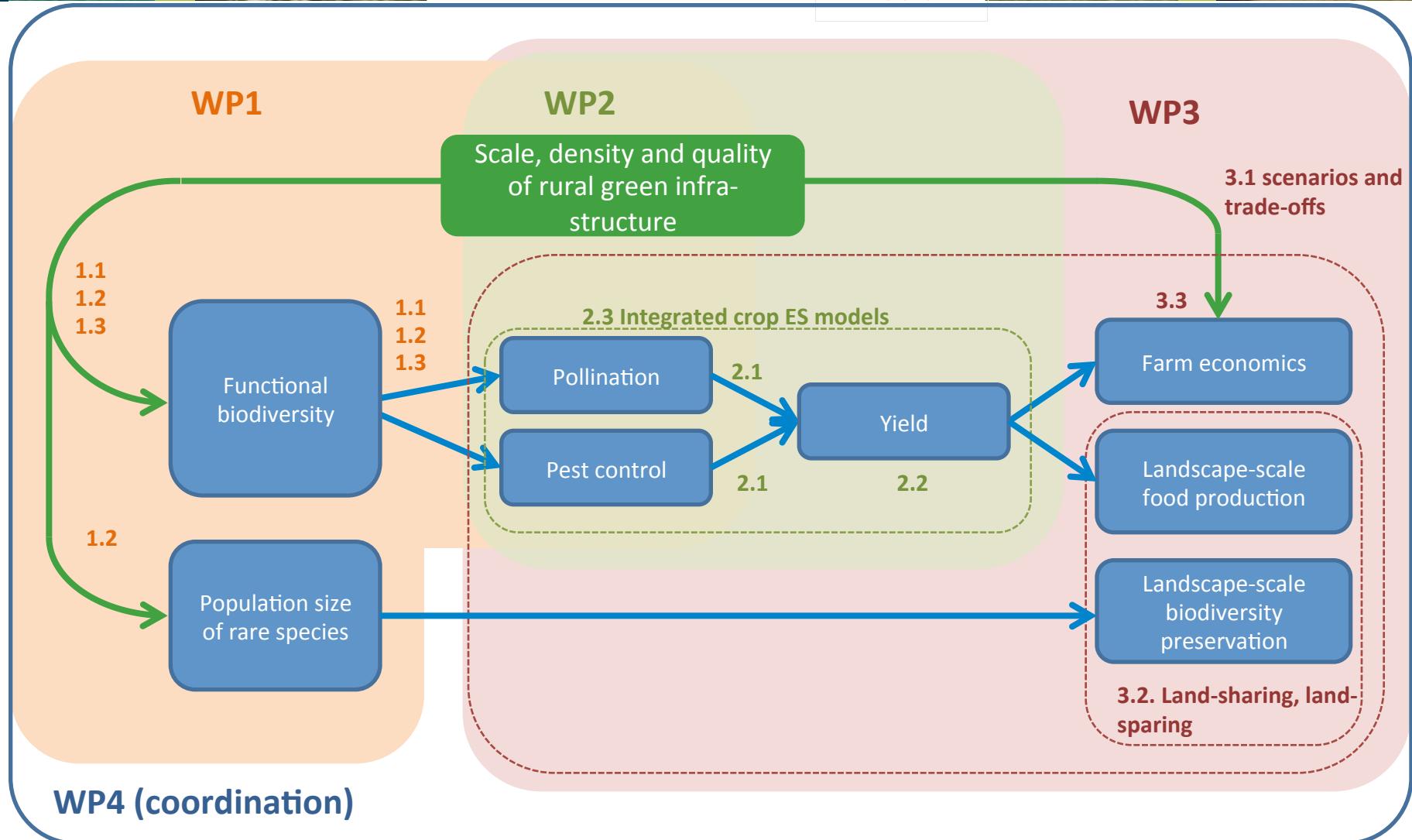
Q3. What are the costs and benefits of establishing green infrastructure at different spatial scales, and the implications for the scales at which food production, ecosystem services and biodiversity preservation should be integrated?







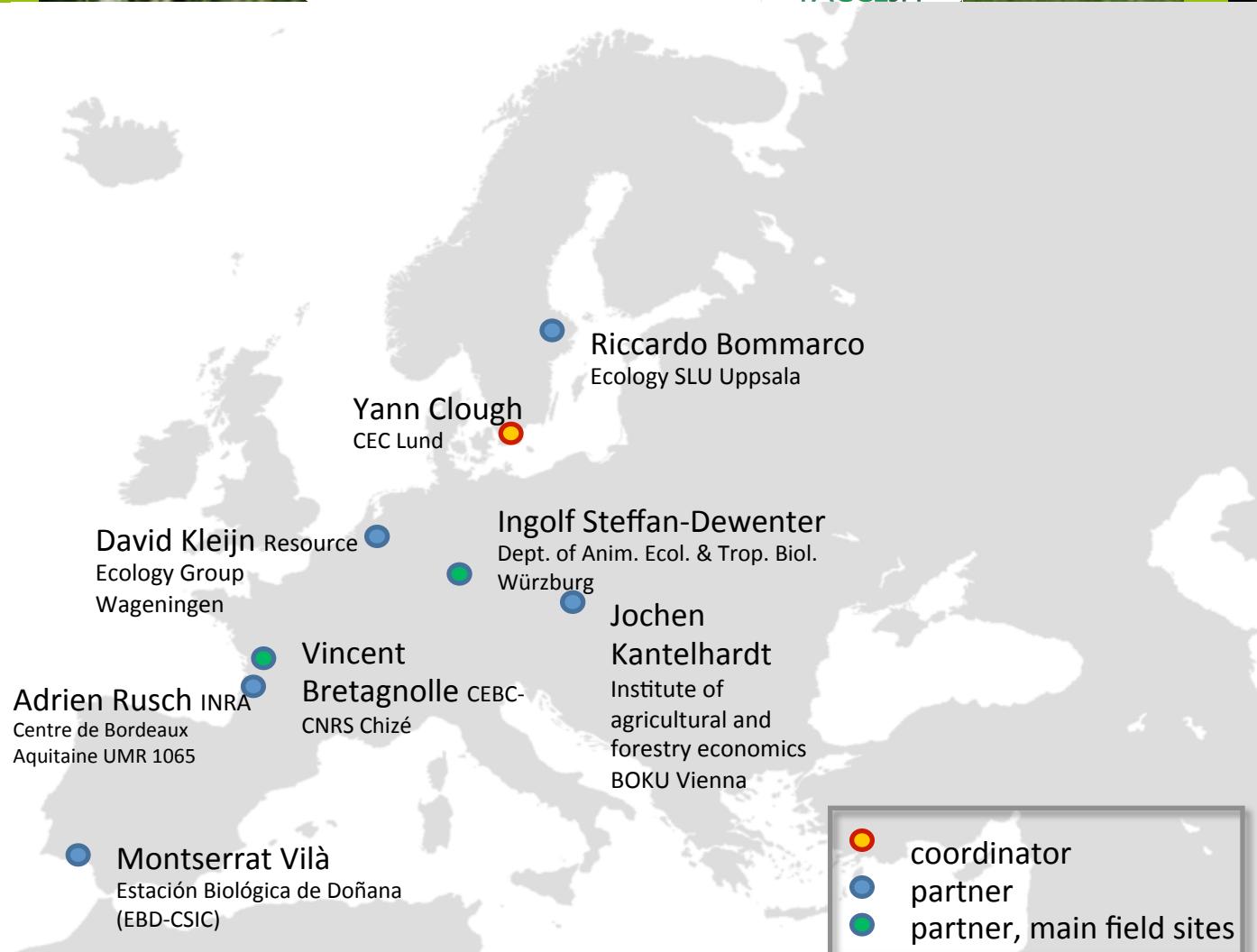
Q1. Which dimensions of biodiversity drive flow and stability of pollination & pest control services, and how do they change along gradients of green infrastructure?





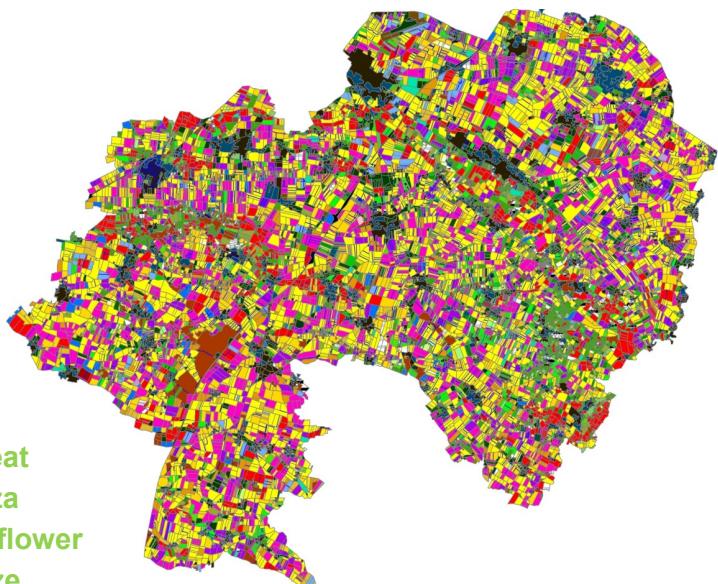
ECODEAL Kickoff, Lund March 2-4th, 2015

BiodivERsA/FACCE-JPI joint call on "Promoting synergies and reducing trade-offs between food supply, biodiversity and ecosystem services"

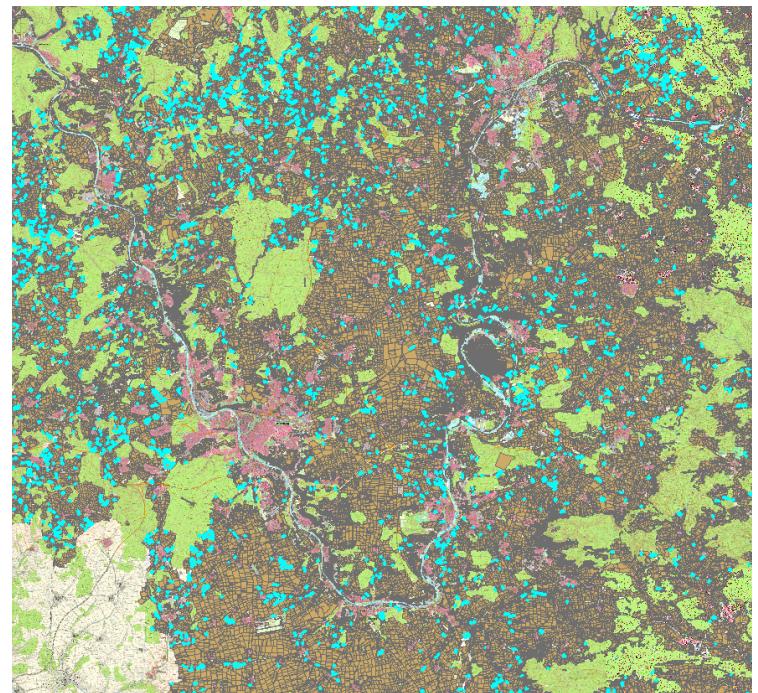


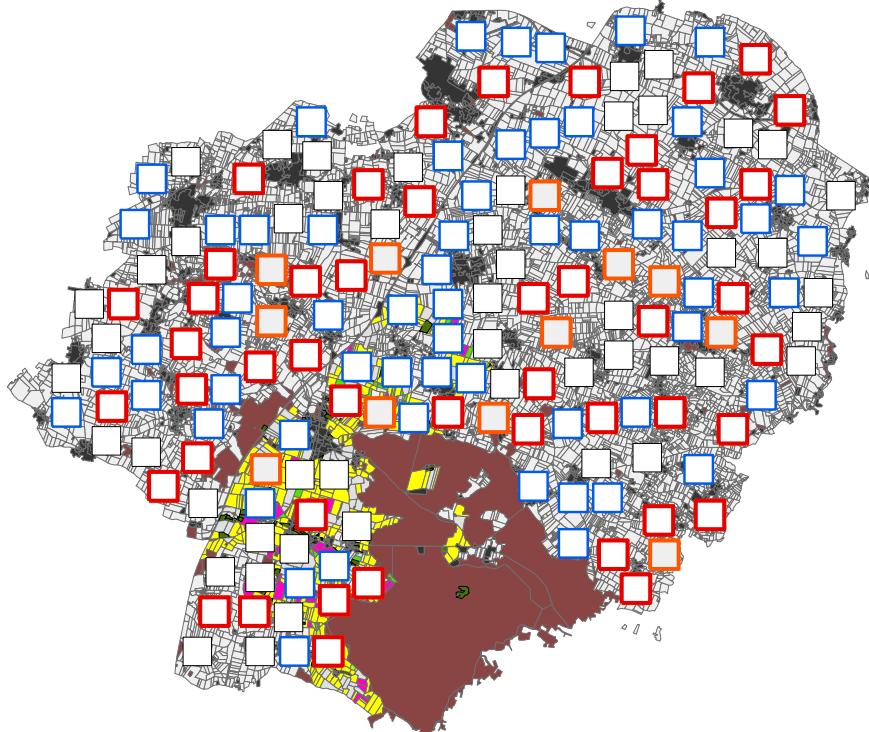


France LTER ZAPVS



Germany Lower Franconia





Green infrastructure

France

Grasslands

Hedgerows

Organic fields

Germany

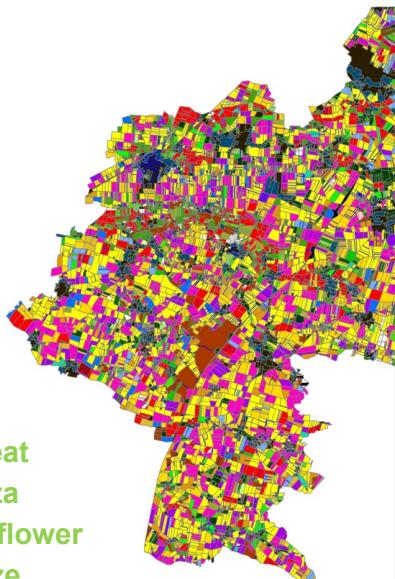
Grasslands

Flower strips

Organic fields



France LTER ZAPVS



Wheat
Colza
Sunflower
Maize
Pea
Grassland

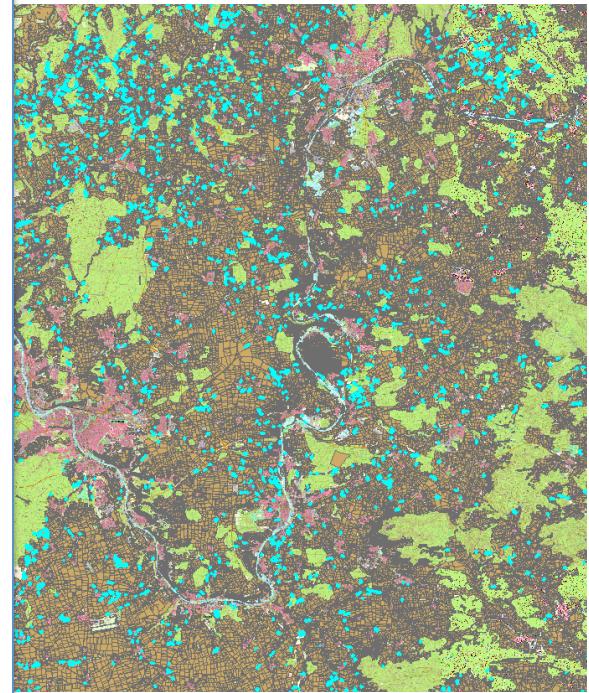


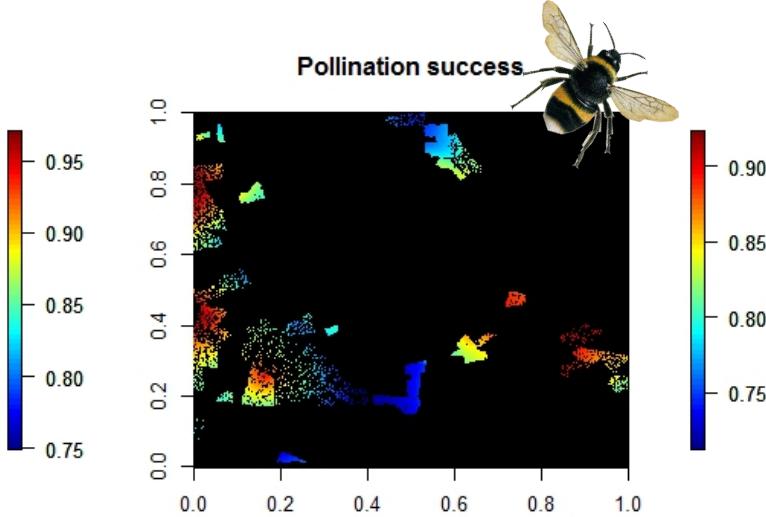
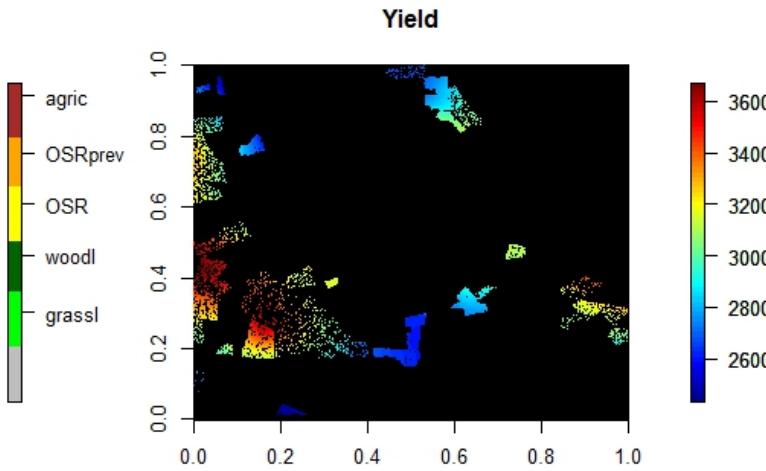
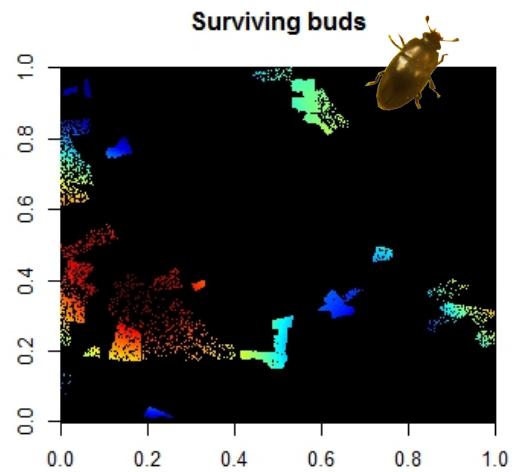
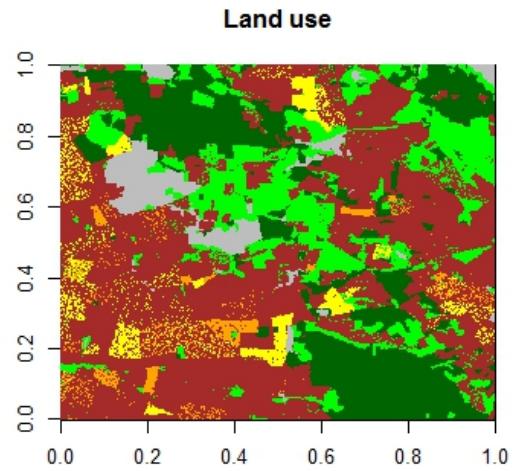
Winterwheat Winter
Oilseed rape

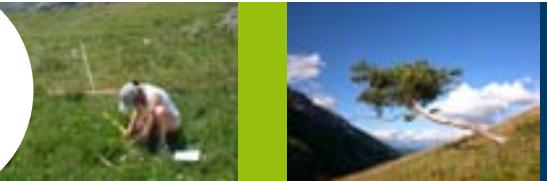


Sunflower Grassland

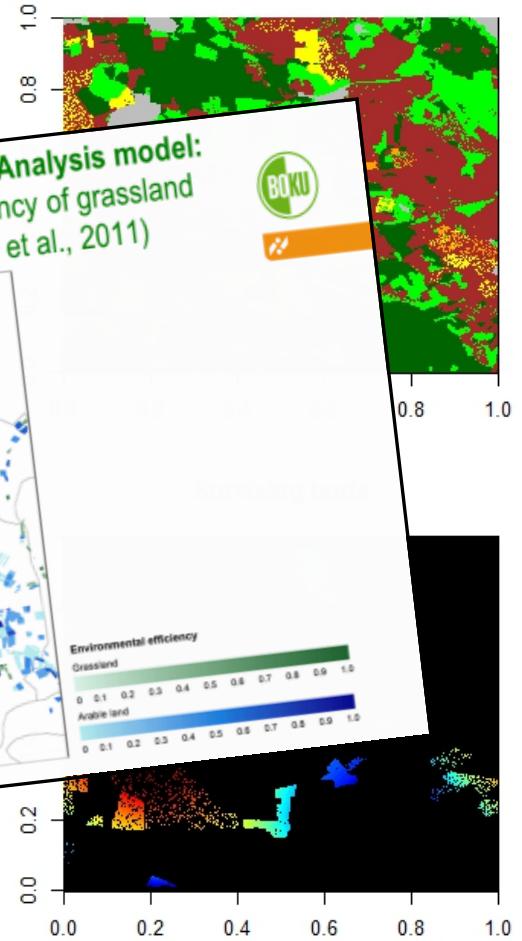
Germany Upper Franconia



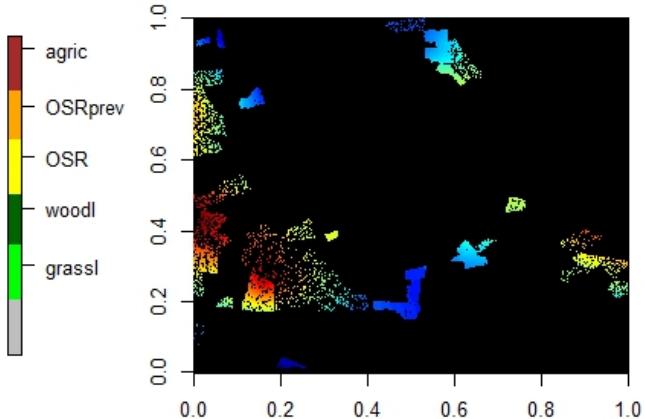




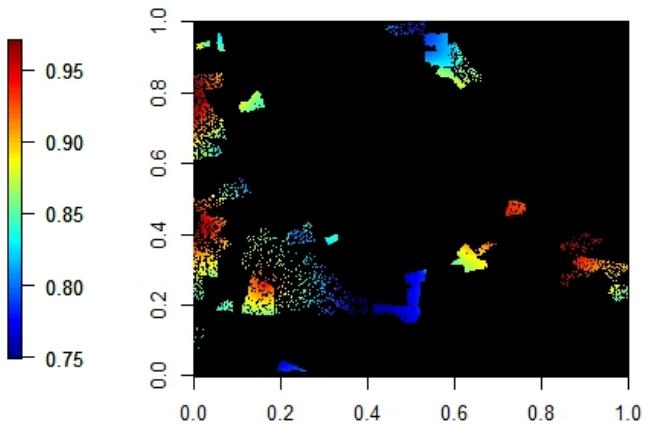
Land use

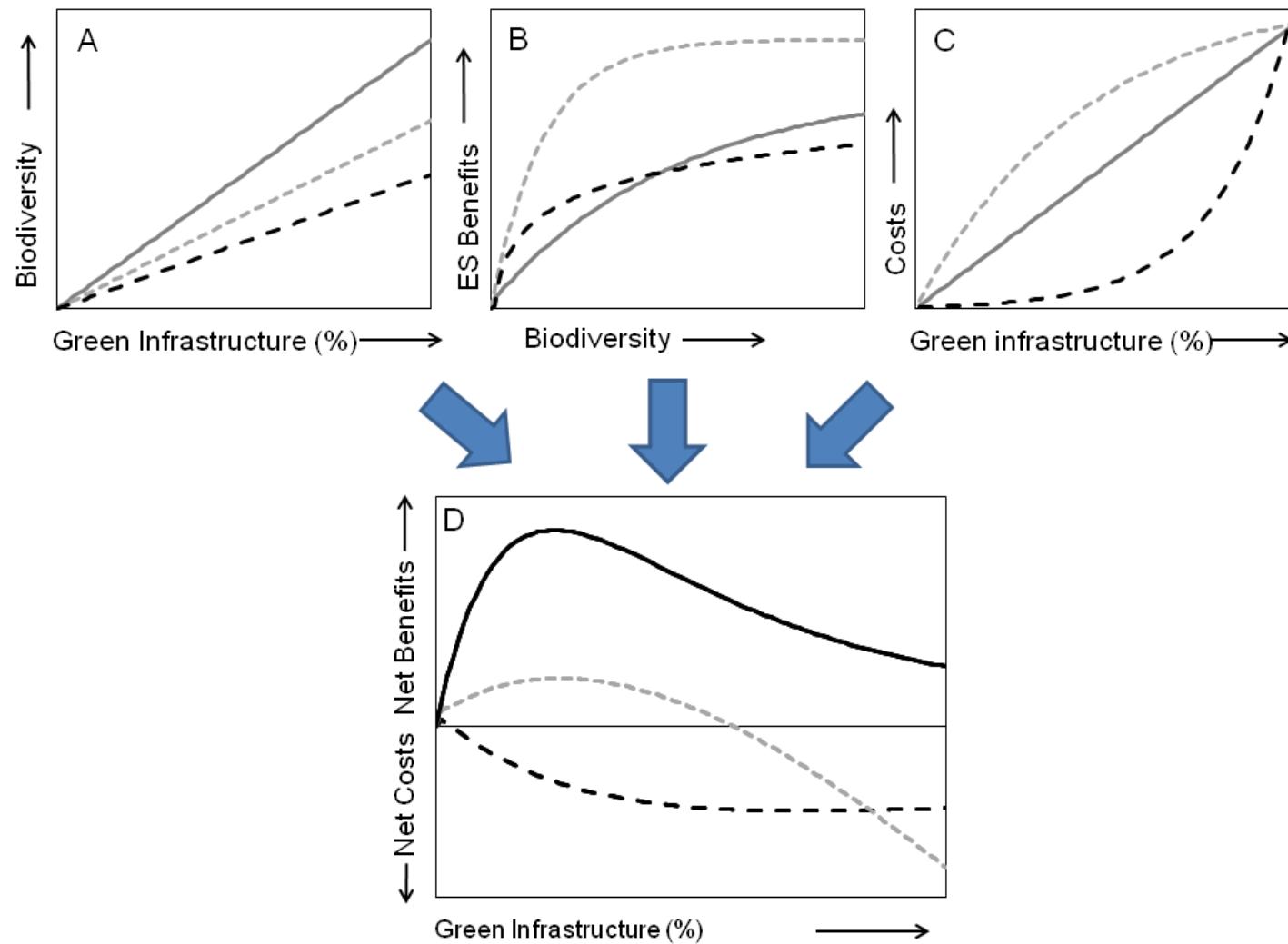
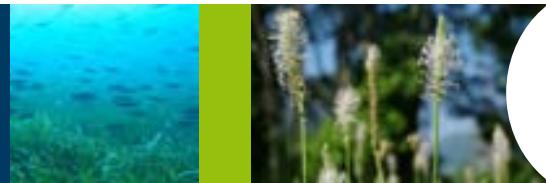


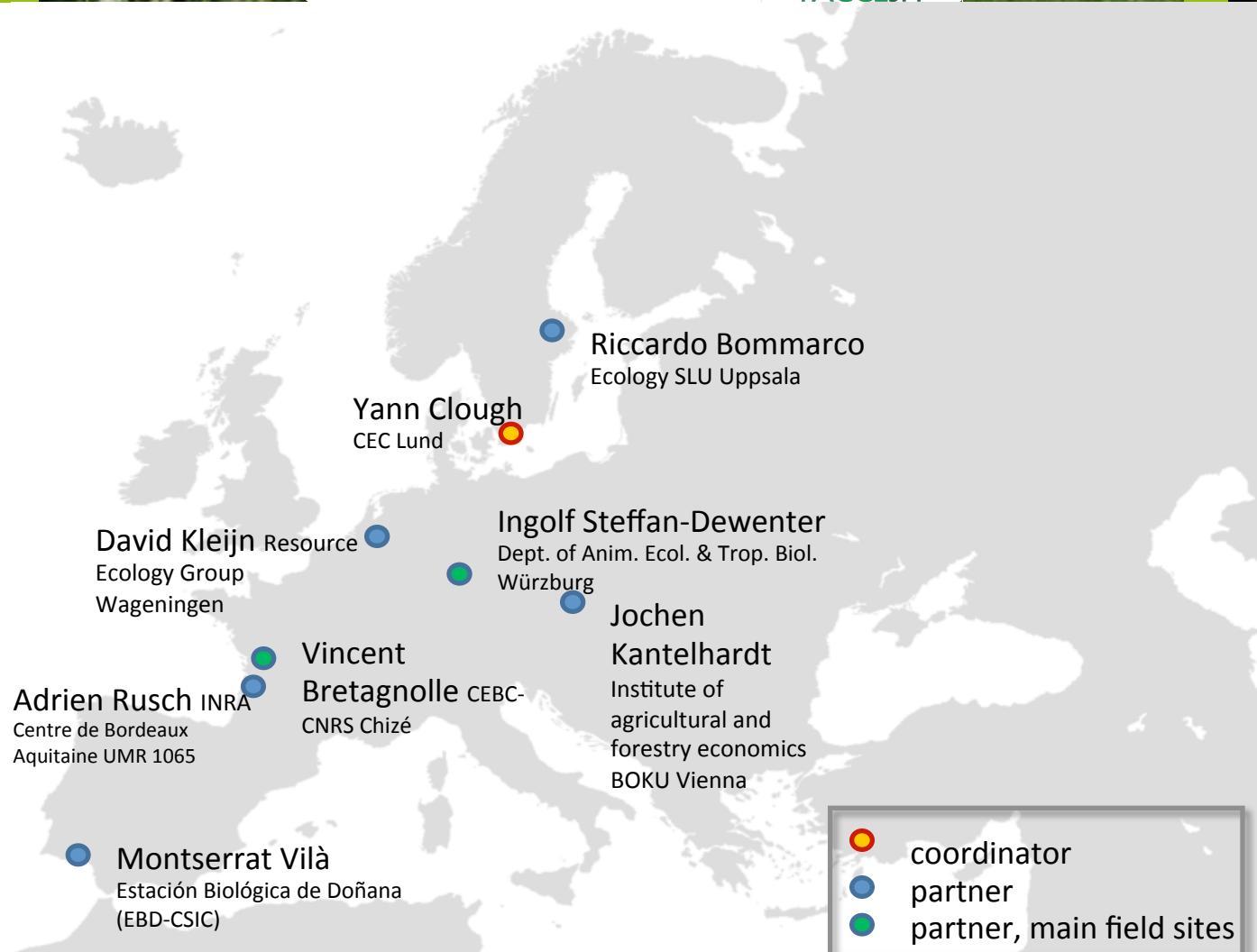
Yield



Pollination success









Klimatförändringen, ekosystem och arter

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WP1. Effect of green infrastructure on species and networks that provide ecosystem services to the crop

WP2. Effect of green infrastructure on crop yields

WP3. Cost and benefits of green infrastructure at farm and landscape level

WP4. Coordination and communication

2015

2016

2017

2018

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 29 21 22 23 24

25 26 27 28 29 30 31 32 33 34 35 36

37 38 39 40



Thank you!