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## **The FACCE-ERA-NET+ project Climate-CAFÉ: Climate change adaptability of cropping and farming systems for Europe**

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# Parallel Session L3

## Towards Climate-smart Solutions

Wednesday, 18 March 2015

8:30–12:30

## 58. The FACCE-ERA-NET+ project Climate-CAFÉ: climate change adaptability of cropping and farming systems for Europe

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Climate-CAFÉ aims to improve the “adaptive capacity” of arable and forage based farming systems to climate change (CC) through ecologically intensive adaptation strategies. Strategies will be evaluated at cropping and farming systems as well as regional levels for “Adaptation Pilots” along a North-South climate gradient in the EU. Three categories of strategies will be evaluated: i) Resistance strategies that seek to maintain the status quo through management actions that reduce perturbations due to CC; ii) Resilience strategies requiring systemic adaptation at field and farm level for increasing the adaptive capacity after a climate disturbance; iii) Transformative strategies addressing needs and possibilities for re-configuration of cropping and farming systems. Strategy evaluation will reveal synergies and trade-offs among objectives and their indicators at different scales under 2050-2100 IPCC scenarios. The proposed adaptation strategies will include improved soil and water management via ecological intensification, including new cultivars and cultivar mixtures, novel rotations, alternative tillage options, and the inclusion of legumes cover- and intercrops. Since adaptation is context-specific, the project will work in “Adaptation Pilots” and local networks of researchers, advisors and farmers, representative of regional cropping and farming systems. Experimental data (SE, FI, UK, CH, FR and SP), expert technical and farmer knowledge, and simulation models at the scales of crops (STICS, DAYCENT), farms and landscapes (MODAM, FarmDESIGN) will be used to characterise adaptation strategies and foster learning in participatory co-design workshops. The expected result of the Climate-CAFÉ project is an overview of potential CC adaptation measures at the three considered levels for selected sites across the EU, along with mutual learning experiences for improved understanding and acceptability of CC adaptation strategies among farmers and other stakeholders.