

Atmosphere and Climate Competence Center

ACCC Flagship - Safe climate and Clean air

 from deep scientific understanding to practical solutions













#### **EXCELLENT SCIENCE**

in understanding the atmospheric - Earth surface interaction & feedbacks

climate competences
for different audiences
From schools to
universities, from

NOGs to business

WORLD CLASS GROUND BASED RESEARCH INFRASTRUCTURES

Flagship station SMEAR-II in Hyytiälä, FINLAND

POLICY DIALOGUE on climate change & AQ from regional to global scale

**HELSINGIN YLIOPISTO** 

UNIVERSITY OF HELSINKI

INNOVATIONS in atmospheric monitoring & carbon footprints
From indoor to outdoor

RESEARCH NETWORK AND
R&I COLLABORATION in all
continents from Europe to
Asia, and America, from
Arctic to Antarctic



# ACCC -- WORLD LEADING RESEARCH & INNOVATION ECOSYSTEM IN ATMOSPHERIC SCIENCES

800

Researchers (Physics, Chemistry, Biology, Forest Sciences, Geosciences, Meteorology, And Social Sciences) 21%

of highly cited researchers in Finland

boreal forest volatile organic compound pherocarbon dioxide atmospheric chemistry atmosphere ecosystem vegetation arctic altitude aerosol formation nitrate altitude aerosol formation nitrates autumn aerosol air pollution simultaneous me suburban arctic extreme events seasonal variation air pollution simultaneous me suburban arctic extreme events seasonal variation air pollution simultaneous me suburban arctic extreme events seasonality size distribution

1000+

partnerships with global research institutes

	1990	2018	2028
disciplines covered	2	12	19
professors	1	40	80

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI



GLOBAL SOUTH

CLIMATE

SCIENCE

DIPLOMAC

CARBON SINK & **AGRICULT URE LAND** 

SOILS AS C-SINK

NEUTRALI

13

ACCC ROADMAP

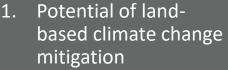
### **ACCC FLAGSHIP**

**Implementation** In 2020-2028, 2029 -

**Funded by the Research Council of Finland** 

**HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET** UNIVERSITY OF HELSINKI

#### **ACCC RESEARCH PROGRAMS**



- Air quality climate interactions
- Climate change impact & adaptions





CLIMATE NEUTRAL

CITIES &

HEALTH

NOVEL **ATMOSPS PEHRIC** OBSERVA==

TION TECH

**SMFAR** 

**OPERATIO** 

NAL

PHASE OF PEEX

CLIMATE ANALYTIC

8

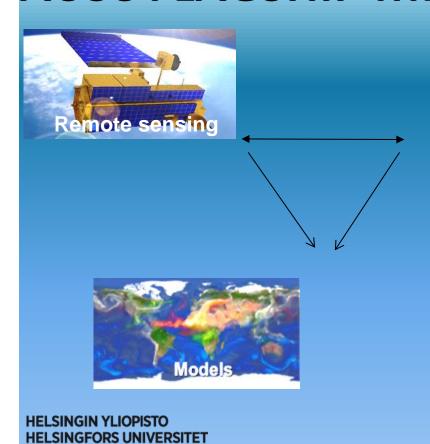
SOLVING AIR I POLLUTIO COCKTAIL







## **ACCC FLAGSHIP METHODS**



**UNIVERSITY OF HELSINKI** 

