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iCUPE

INTEGRATIVE AND COMPREHENSIVE UNDERSTANDING ON POLAR ENVIRONMENTS

ERA-PLANET
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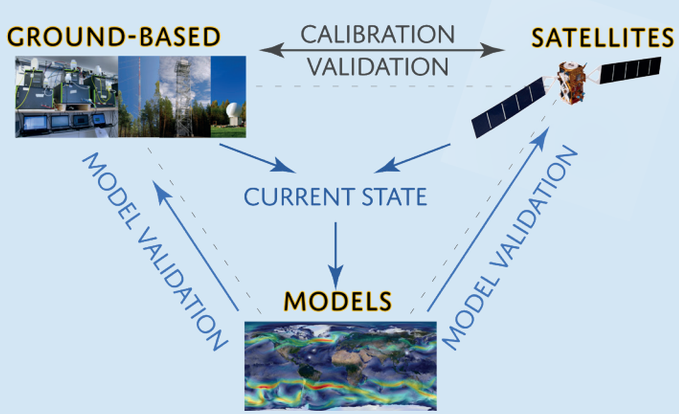
HORIZON 2020

iCUPE IS PART OF ERA-PLANET (EUROPEAN NETWORK FOR OBSERVING OUR CHANGING PLANET), ANSWERING TO ITS THEMATIC STRAND 4 (POLAR AREAS AND NATURAL RESOURCES). iCUPE STARTED IN SEPTEMBER 2017 AND LASTS FOR 3 YEARS.

OUR MISSION IS TO IMPROVE OUR UNDERSTANDING OF THE STATE OF THE POLAR AREAS BY **INTEGRATING IN-SITU (BOTH LONG-TERM AND CAMPAIGN MEASUREMENTS), SATELLITE OBSERVATIONS AND A MODELLING PLATFORM**. SPECIFICALLY WE WILL FOCUS ON THE POLLUTION SOURCES AND SINKS, ENVIRONMENTAL AND ANTHROPOGENIC CHANGES AND ELEMENTS OF THE CRYOSPHERE. WE WILL RELATE THE OBSERVED PARAMETERS TO IMPACTS AND DELIVER NOVEL DATA PRODUCTS, METRICS AND INDICATORS TO THE STAKEHOLDERS.



WORK PACKAGES IN iCUPE:

WP 0: MANAGEMENT (LEAD: TUUKKA PETÄJÄ, UHEL)
- ADMINISTRATIVE, FINANCIAL, LEGAL MANAGEMENT AND QUALITY; PROJECT MEETINGS; INTERNAL COMMUNICATION AND OFFICIAL REPRESENTATION

WP 1: GROUND-BASED COMPONENT FOR SHORT-LIVED CLIMATE FORCERS (SLCF)
(LEAD: ANDREAS MASSLING, AU)
- INTEGRATION OF OBSERVATIONS
- IMPROVEMENT OF DATA FLOW OF NEAR-REAL-TIME DATA
- INTERACTIONS WITH PLANNED INTENSIVE OBSERVATIONS
- SOURCES AND SINKS OF ATMOSPHERIC POLLUTION IN THE POLAR AREAS

WP 2: IN-SITU COMPONENT FOR ORGANIC CONTAMINANTS, MERCURY AND OTHER HEAVY METALS (LEAD: CARLO BARBANTE, CNR)
- DEFINING HUMAN IMPACTS ON POLAR REGIONS
- HG MONITORING IN POLAR REGIONS AND EVALUATION OF THE ATMOSPHERIC MERCURY LIFECYCLE
- MODELLING OF HALOGEN/OZONE AND ITS INFLUENCE OF ARCTIC CHEMISTRY
- INTERACTIONS BETWEEN ENVIRONMENTAL SPHERES

WP 3: SATELLITE REMOTE SENSING OF ARCTIC SURFACES (LEAD: ANGELIKA HUMBERT, AWI)
- STREAMLINING SATELLITE REMOTE SENSING DATA FLOWS
- OPTICAL SATELLITE REMOTE SENSING
- RADAR SATELLITE REMOTE SENSING
- CONTRIBUTION TO THE STRATEGIC DEVELOPMENT OF COMPREHENSIVE EARTH OBSERVATIONS

WP 4: INTEGRATING IN-SITU, SATELLITE AND MODEL COMPONENTS FOR IMPROVED ENVIRONMENTAL ASSESSMENT
(LEAD: JEAN-DANIEL PARIS AND KATHY LAW, CNRS)
- NOVEL QUALITY ASSURANCE METHODS, PROXIES AND OBSERVABLES
- METHODOLOGIES FOR VALIDATION OF PRECIPITATION AND CLOUD SATELLITE PRODUCTS
- SOURCES AND SINKS AND TRANSPORT OF ARCTIC POLLUTION
- IMPACT ASSESSMENT AND FUTURE EXPOSURE SCENARIOS

WP 5: DATA PROVISION, INTEROPERABILITY, AND FACILITATION OF DATA AND SERVICES
(LEAD: STEFFEN NOE, EULS)
- ICUPE DATA MANAGEMENT PLAN
- APPLIANCE OF ERA-PLANET PRINCIPLES AND KEY ENABLING TECHNOLOGIES FOR INTEROPERABILITY
- COMPLIANCE OF ICUPE TO GEOSS AND COPERNICUS DATA SHARING PRINCIPLES AND GCI INTEROPERABILITY TESTBEDS
- IMPLEMENTATION OF INTEROPERABILITY INTERFACES ON INTERNATIONAL AND COMMUNITY-BASED STANDARDS, GEOSS DATA MANAGEMENT PRINCIPLES AND GEO LABEL
- FACILITATING ICUPE DATA PILOTS, DATA AND SERVICES TOWARDS ERA-PLANET COMMUNITY, GEO AND COPERNICUS

WP 6: DISSEMINATION AND STRATEGIC DEVELOPMENT (LEAD: HANNA LAPPALAINEN, UHEL)
- STAKEHOLDER ENGAGEMENT
- INTERACTION WITHIN ERAPLANET STRANDS
- RESEARCH IMPACT ASSESSMENT
- FUTURE STRATEGIES AND CONTINGENCY PLANS