PROMOTE

GSE-PROMOTE.ORG

- Portfolio consists of 16 individual Services
- Service Grouping for the Co-location Splinter Meeting:
  - Ozone Services
  - UV Services
  - AQ Services (European, Regional/Local, new in Stage 2)
  - Greenhouse Gases

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Ozone Services

- Services: Records of Ozone Columns and Profiles, NRT Columns, Column Forecasting (up to 9 days) having global coverage
- Service Network: 3 institutional providers building upon precursor services (DUE)
- Service Expansion: extend time range of records, include new sensors, include specific products for the upper troposphere
- Standards: none but clear requirements on data accuracy/delivery time
- Validation: against high quality in-situ measurements having global coverage
- Users: 4 signed SLAs – operational used by ECMWF (but more active users with no SLA as data are on the Web – e.g. WMO), UV service providers
- Sustainability: METOP series up to 2020, high quality in situ network has to be insured, gap on ozone profiling after Envisat
- Financial: relevant core service for the FP7 Call

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UV Services

- Services: Global UV Records, European/Regional UV information (e.g. sunburn time) on demand
- Service Network: 1 institutional and 1 commercial provider, building upon a serious of EC Framework projects
- Service Expansion: add more Regions (e.g. all Mediterranean Sea), inclusion of additional information (e.g. better cloud and aerosol information)
- Standards exist as defined by WHO: UV Index, Skin Type etc.
- Validation: against high quality in-situ measurements
- Users: 6 signed SLAs – most active ones are the German Association of Dermatologists UV radiation and an Association in Italy to control exposure of workers to surface
- Sustainability: METOP series up to 2020, availability of high quality in situ measurements being of key importance,
- Financial: relevant core and downstream services for the FP7 Call, commercial product development possible

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Greenhouse Gases Demonstration Service

- Services: Global CO2, CH4 Data, CO2/CH4 Sources and Sinks via Inversion
- Service Network: 1 institutional provider supported by 2 research institutes
- Service Expansion: successful demonstration of inversion
- No Standards but high accuracy requirements
- Validation: against limited in-situ measurements and models (GEMS)
- Users: 1 signed SLA, many other users (e.g. JRC) as data are freely available
- Sustainability: gap after ENVISAT, possible extension via OCO and GOSAT missions, Sentinel 4/5 needed
- Financial: relevant core services for the FP7 Call

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New Air Quality Services

- Services: Support to Aviation Control, Pollen Forecasting, Satellite Based Particulate Matter, Dust Awareness – Service roll out just starting right now
- Service Network: 7 service providers
- Service Expansion: expand existing pollen services to cover Europe, Aviation control support over Europe and Africa, demonstrate PM retrieval from satellite derived AOD, Dust awareness products for environmental agencies around the Mediterranian Sea
- Only Standards for PM
- Validation: intercomparison to in situ measurements
- Users: 10 signed SLAs but still no user feedback gathered (high interest by hospitals and health organisations, clear user requirements of VAACs, NILU already using first satellite based PM data)
- Sustainability: MSG and METOP insure service for one other decade, Sentinel 3/4 in addition
- Financial: relevant downstream services for the FP7 Call,

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European Air Quality Services

- Services: Global satellite based tropospheric columns (e.g. HCHO, NO2), Integrated European AQ Analysis and Forecast (50 km2)
- Service Network: 6 service providers including modelers and institutions having long term experience on satellite data handling
- Service Expansion: starting with 3 models and expand to 5 providing one European AQ service via an Ensemble approach, from median to weighted mean to take into account different model strengths, inclusion of satellite data in the forecasting
- No Standards but clear QA procedures
- Validation: different models against each other, important intercomparison activity ongoing in GEMS
- Users: 5 signed SLAs, SLA with EEA in preparation, regional/local AQ service providers
- Sustainability: Sentinel 3/4 needed, ‘best’ emissions database
- Financial: relevant core services for the FP7 Call, national contributions will be key

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Regional and Local Air Quality Services

- Services: Regional/Local AQ Forecasts (5-1 km2)
- Service Network: 12 service providers (institutional and private)
- Service Expansion: 25 regions in Europe serving 30% of the European citizens by mid 2009
- No Standards but clear QA procedures
- Validation: selection of right in situ measurements is key
- Users: 30 signed SLAs, institutional users based on legislation as well small private users
- Sustainability: in situ data are the backbone
- Financial: relevant downstream services for the FP7 Call, commercial product development possible

PROMOTE Portfolio	Atmosphere Pilot Service - Core Services								Downstream
	EU Air Quality: Forecast	**EU Air Quality:** Assessment	**EU Air Quality:** Modelling of Scenarios	**EU Air Quality:** Inverse Modelling	**Regional Sources and Sinks:** Greenhousgases and related tracers	**Availability of Renewable Energy Resources**	**Global Monitoring/Forecasting:** emissions, transport of trace gases, aerosols, clouds and GHGs	**R&D**	
Total Ozone Record							X	X	
NRT/Forecast Total Ozone Column							X	X	
Stratospheric Ozone Profile Record							X	X	
UV Information Service								X	X
Longterm Multi-Sensoral UV Record							X		
Air Quality Records		X						X	
Integrated Air Quality Platform for Europe	X	X						X	
Regional/Local Air Quality Forecasts									X
Desert Dust Awareness									X
Satellite-based Particulate Matter Demonstration Service									X
Pollen Concentration Observation and Forecast Service									X
Urban/regional AQ Assessment									X
Support to Aviation Control Service									X
Methane derived from SCIAMACHY					X		X	X	
CO2 derived from SCIAMACHY					X		X	X	
CO2 and CH4 sources/sinks apportionment via inversion					X			X	
Aerosols record service (AOD at 500nm, Aerosol Type)							X		