

GMES Initial Operations (GIO) Land Monitoring Services



The European Environment Agency (EEA) has contracted GAF AG, Germany, to map high-resolution Forest and Impervious Area characteristics for two lots in West, Central and South-Eastern Europe in the framework of the GMES Initial Operations (GIO) Land Monitoring Services.

After several years of industry support to the Global Monitoring for Environment and Security (GMES) initiative, there is now a first operational GMES land service being implemented within the GMES Initial Operations (GIO) Programme. The GIO Land Monitoring Service (LMS) comprises mapping of seamless high-resolution (HR) Layers,

addressing key characteristics of five main land cover types; these include artificial surfaces (impervious areas), forest areas, grassland areas, wetlands and water bodies. Under the coordination of the European Environment Agency (EEA), industry will be responsible for the main stages of the production process and EEA Member States will engage in verification and enhancement of the products.

GAF is the lead in a consortium that has been contracted by the EEA to implement the High-Resolution Forest and Imperviousness Layers of the GIO LMS for two lots, covering West, Central and South-Eastern Europe. Together with its partners SIRS (France), DLR (Germany) and Joanneum Research (Austria), GAF will be providing up-to-date HR Layer products on tree cover density, forest types, forest cover and degree of imperviousness as well as its change over time, derived from ortho-rectified optical earth observation satellite imagery ([IRS-LISS III](#), RapidEye) of the reference years 2011/12, also referred to as Image2012.

The two project lots will be implemented from 2012 to 2014, with a total of 2.6 million km² covering the following countries: UK, Ireland, France, Denmark, Netherlands, Belgium, Luxembourg, Germany, Austria, Switzerland, Liechtenstein, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Serbia, FYR Macedonia, Romania, Bulgaria. The GIO LMS products will provide information complementary to national land cover databases and to the CORINE Land Cover (CLC) map 2012, which will be produced by the European Environmental Observation and Information Network (EIONET) and EEA from the same satellite data in parallel.

Further information on the GIO land monitoring services may be obtained from the [EU GMES Website](#) and the [German GMES Website](#).