



Advanced situation awareness with localised environmental community observatories in the Future Internet

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The phenomenal advances in information and communication technologies over the last decade have led to offering unprecedented connectivity with real potentials for “Smart living” between large segments of human populations around the world. In particular, Voluntary Groups(VGs) and individuals with interest in monitoring the state of their local environment can be connected through the internet and collaboratively generate important localised environmental observations. These could be considered as the Community Observatories(CO) of the Future Internet(FI). However, a set of FI enablers are needed to be deployed for these communities to become effective COs in the Future Internet. For example, these communities will require access to services for the intelligent processing of heterogeneous data and capture of advanced situation awareness about the environment. This important enablement will really unlock the communities true potential for participating in localised monitoring of the environment in addition to their contribution in the creation of business enterprise. Among the eight Usage Areas(UA) projects of the FP7 FI-PPP programme, the ENVIROFI Integrated Project focuses on the specifications of the Future Internet enablers of the Environment UA. The specifications are developed under multiple environmental domains in context of users needs for the development of mash-up applications in the Future Internet. It will enable users access to real-time, on-demand fused information with advanced situation awareness about the environment at localised scales. The mash-up applications shall get access to rich spatio-temporal information from structured fusion services which aggregate COs information with existing environmental monitoring stations data, established by research organisations and private enterprise. These applications are being developed in ENVIROFI for the atmospheric, marine and biodiversity domains, together with a potential to be extended to other domains and scenarios concerning smart and safe living in the Future Internet.

References:

ENVIROFI(2011-2013). The Environmental Observation Web and its Service Applications within the Future Internet. EC FP7 Integrated Project, Contract: FP7 284898.