The eEnviPer project is currently completing the testing of a cloud-based e-government solution for the application, administration and consultation of environmental permits in five European municipalities and regions. This profile explores the experience and lessons learned so far of one of eEnviPer’s five pilot sites, the Italian Region of Apulia.
The Apulia Region

Located in the southeast of Italy, Apulia covers a total area of 19,358 km², with 800 km of coastline and a population of around four million. Apulia’s strong cultural and trade links in the Mediterranean region, and its infrastructure, make it a region with high economic potential.

Over the last two decades, the industrial base of the region’s economy has changed radically. Alongside older and highly capital-intensive large-scale plants - such as ILVA (steelworks) in Taranto and ENI (petrochemicals) in Brindisi and Manfredonia - a network of modern small- and medium-sized firms has been developing, which now provides approximately 70% of the jobs in the region. The majority of these firms are financed by local capital, and highly specialised economic clusters have developed, producing on a national scale.

In terms of environmental technology, renewable energy sources such as solar and wind energy contribute significantly to the region’s energy supply and demand, while technologies such as photovoltaic energy production remain unexploited. However, experts predict an increase of investments in this field in the near future.

Context of the Italian eEnviPer pilot

As a member of the European Union, Italian environmental regulations have adopted the European Directives on Environmental Impact Assessment (EIA) and Integrated Pollution Prevention and Control (IPPC). In addition, environmental permits are a requirement of the Italian decree on the control of accidents involving dangerous substances. Standard environmental permits are a regional responsibility, usually delegated to regional authorities. In the case of IPPC permits - the subject of this eEnviPer pilot project - the responsibility however remains at the national level, with the Ministero dell’Ambiente e della Tutela del Territorio e del Mare (MATTM).
The eEnviPer pilot in Apulia has been implemented by the Regional Agency for Environmental Prevention and Protection (ARPA Puglia), supported by Planetek as their business partner. ARPA Puglia is a technical body of the Apulia Regional Government. ARPA has an advisory role, but not the authority to issue permits. It is responsible for controlling activities with chemical, biological or physical risk factors, with the objective of preventing harmful impacts on human beings and the environment. It has offices and laboratories located across the entire region to ensure the environmental surveillance and intervention. ARPA Puglia is also in charge of several research activities concerning the assessment of environmental pollution, air quality control, exposure assessment, natural resource damage assessment, water resources and water quality management, and innovative monitoring technologies.

As the ultimate authority for environmental permits lies with either the Ministry of Environment or the local authorities (the Region, the Provinces and the Municipalities), a significant part of the engagement activities during the eEnviPer pilot was devoted to interaction with the other authorities directly involved in the permitting process. If an application concerned a protected area, for example, its management body needed to be consulted.

With so many public bodies involved in the environmental permit process in Italy, offices suffer from the amount of paper-based documents to be exchanged and other resulting communication problems. This situation means that eEnviPer - which explicitly addresses these issues - is in a favourable position, and very much appreciated.

In terms of e-Government, Italy's National Agency for Digitisation of Public Administration (Digit PA) has recently included ‘Information Technology (IT) for the Environment’ as an area of intervention in its 2012-2014 Information and Communications Technology (ICT) National Plan. IT for the Environment is therefore a main objective in the computerisation of public administration, and will particularly focus on improving interactions with both citizens and businesses.

**Pilot test reactions**

ARPA introduced eEnviPer to Apulia in the spring of 2013, and tested it on the IPPC application of a large refinery in Taranto. Based on the results of the eEnviPer pilot, Planetek gathered feedback from users and potential customers of the eEnviPer platform about the system, as well as what thoughts they might have in relation to its future uptake.

**Managing permits across agencies**

Users highlighted the fact that - since several institutional actors are often involved in a single environmental permits process - communication can be one of the main difficulties encountered.
Although the IPPC Directive provides for a maximum application period of 150 days (i.e., around 5 months) for environmental permits, recent statistics show that in Italy, the average time needed to issue a permit is 14-21 months, the worst performance in the EU\(^1\).

The main reason for this lack of efficiency, according to eEnviPer users in Italy, is the poor level of sharing of information. Especially in the process of releasing a permit, which involves different public bodies at different stages, the lack of availability of a detailed log of the activities carried out by an office, and the complexity of the communication channels among different institutions, may lead to redundant execution of tasks, or to branching of a single procedure in a multitude of similar procedures, sometimes mutually exclusive. A user testimony reported a case where two different investigation processes were started for the same plant, but it was impossible to execute an inspection on-site, because it was unclear who had the responsibility to authorise it.

A platform such as eEnviPer, acting as a clearing house for all information concerning permits and making it accessible to all stakeholders involved, can be the right solution to overcome those communication problems. However, if one link in the chain is missing, this can lead to confusion and a loss of effectiveness. Therefore, in order to increase the future uptake of the eEnviPer service, Apulia Region is focusing on ensuring the involvement of all relevant actors.

**Security issues**

Public administrations still show some resistance to relying on cloud services. In particular, the standard contractual arrangements established with cloud providers to guarantee information security are received with scepticism. In general, public administrations demand additional solutions to ensure the integrity and long-term accessibility of sensitive documentation (e.g., legal documents).

In order to be considered as an official tool by the relevant public authorities, eEnviPer will therefore have to introduce some additional functionalities, such as easy backups on external storage of the documents repository to prevent any loss of legally relevant information.

**Compiling the information repository**

Users also stressed that the completeness of eEnviPer’s knowledge base feature is very important. The availability of a comprehensive repository that includes all the

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\(^1\) Source: [http://www.asca.it/news-Ambiente_Aia_Italia_fanalino_di_coda_in_Ue_per_tempi_rilascio-1254994.html](http://www.asca.it/news-Ambiente_Aia_Italia_fanalino_di_coda_in_Ue_per_tempi_rilascio-1254994.html)
information for sites of interest, and easy access to and easy sharing of its contents, with support of advanced GIS features, is fundamental for the efficient and quick management of the process.

Special attention should therefore be paid to the information layers that constitute the knowledge base of the framework. The Italian eEnviPer team is currently working with stakeholders to identify which additional information needs to be included for the next phase of the current environmental permits application.

**Adjusting for internal workflows**

Although the regulatory framework is the same for each department involved, the workflow from the reception of an application to the release of the permit is different. In addition, internal workflows complement the eEnviPer workflow and sometimes overlap with it. Therefore, the workflows defined by eEnviPer need to be adapted on a case-by-case basis. Additional flexibility is needed because the regulatory framework can change rapidly.

The integration of specific workflows is a key success factor for the platform, and eEnviPer’s workflow management system is able to accommodate such adjustments.

**Conclusion**

A service such as eEnviPer is currently missing in the Italian market. Authorities, environmental experts and investors currently use custom-made solutions tailored to their needs, mainly to support EIA analyses.

Therefore, the key advantage eEnviPer is its capacity to support all stakeholders involved in the process at the same time - from the investor who submits the application and follow the evolution of the evaluation process, through the citizen who wants to understand and possibly comment on what is happening in his/her municipality, to the different entities involved in the evaluation of the environmental impacts - and for all the steps of the process. The expectation of the consulted Italian authorities is that the adoption of a system such as eEnviPer would oblige all stakeholders to put the information generated by the process in a single repository, accessible by all the authorised persons, and would consequently help to overcome the bottleneck of inter-office communication. By coordinating the different stakeholders in the environmental permits process, eEnviPer makes a substantive contribution to improving the transparency and efficiency of the process.