

This series of informative fiches aim to present, in summary, examples collected by the ENRD Focus Group on Knowledge Transfer and Innovation. The case studies describe practices and approaches that EU Member States and Regions have put in place in order to promote Knowledge Transfer and Innovation, mainly but not exclusively, through their Rural Development Programmes in the current period. These examples aim to contribute to the understanding of what has worked well and less well in supporting innovation through the 2007-2013 RDPs and as far as possible, draw lessons in the view of future improvement of the programmes.

## Project Pot Plant in Lombardy, Italy

### Optimized production of certified native plants

**SUMMARY:** The increasing demand to produce potted plants of native species for restoring protected areas and ornamental purposes in Lombardia lead to this measure 124 funded project that assisted in the establishment of a certification system for the plants to be produced in this emerging supply chain.

#### 1. Why the approach has been put in place

In recent years there has been a sharp increase in the demand for producing large volumes of potted native plants that can be used for 'restoring' vegetation in protected areas. At the

same time, this was also an opportunity to develop and introduce a new type of product to the ornamental plants market and target the private gardens market.

#### 2. How it was achieved in practice

The POTOPLANT project aimed to make available to the market large quantities of potted plants of native origin that would be certified for natural and ornamental use. The project supported the activities of a partnership between research institutions and nurseries towards structuring a chain for the production of certified potted native plants at large scale.

The partners that joined the partnership included the three entities that are part of the Centre of Autochthonous Flora (CFA), namely the University of Pavia, the Natural Park of Monte Barro (Lecco), the Foundation Minoprio (Como) and 10 plant nurseries.

The partnership selected at least 10 local plant species to be tested and eventually put in production. The starting point was the collection of reproduction material for testing. Up to 40,000 plants were produced for testing in the nurseries. The plants and reproduction techniques were evaluated and according to the findings the production process was optimised and certified with the ISO22005 standard.



## Current KT&I support examples across the EU27

The Autochthonous Flora Centre provided a list of native species for which their morphological characteristics had already been studied. This allowed the partners to proceed almost directly in the phase of collecting reproduction material and testing the cultivation techniques in the field.

The collection of reproduction material was made by the personnel of the Lombardy Seed Bank of the University of Pavia. In order not to affect the plants population a small percentage of individuals were collected following the European standard for the collection of germplasm ENSCONET. Also in order to achieve the maximum diversity of alleles from a population, the sampling was carried out uniformly and randomly by several stations in order to select a variety of phenotypes. For seeds collection, part of them were treated and stored in the seed bank, where they were cleaned, dried and frozen in order to be preserved for a long time and, if so needed, recovered to start production.

Part of the reproduction material was handled by the Minoprio foundation which performed a series of tests to determine the optimal conditions for the production and developed the cultivation protocols. The remaining seeds and vegetative material were provided to the nurseries, which started the experimental production according to the developed protocols. During the testing phase, the producers received advices by specialists that helped to calibrate and optimise the cultivation protocols. All plants produced and sold within the project were certified for their autochthony.

Demonstrations of the new products were organised at the Park Headquarters of the Minoprio foundation and the botanical garden of the University of Pavia. The goal was to exhibit the native plants in decorative gardens for recreational use. Selected plants were also

showcased on open days at different gardens. During these events, the public was asked to fill in questionnaires that helped to evaluate the attractiveness of the Autochthonous Flora plants to consumers and hence assess their market potential.

As mentioned, during the project, the Centre Autochthonous Flora took part in various initiatives of both scientific and horticultural exhibitions for advertising the new products.



The staff of the three entities were sought to illustrate the results of the project to the general public and also to technical personnel potentially interested to use native plants certified on a large scale. They participated to initiatives in which, without additional cost for organisation or equipment, they communicated the results of the project by distributing promotional material, potted plants, posters, making presentations, etc.

### 3. Lessons learnt for the future

**Results:** 20 protocols were prepared on optimised ex-situ cultivation of native species. More than 28,000 certified plants were produced under the brand FLORA AUTOCTONA® (certified origin) including over 12,000 plants with environmental certification UNI EN ISO 14020 on certified native plants.

During the implementation of the project the consortium Florovivaistico Alto Lombardo (DIFLOAL) was established. The Consortium has more than 60 members including plant nurseries, consulting services, services for

publishing and exhibitions and greenhouse producers.

As a follow up the consortium implemented a new project which aimed at starting actual full-scale production of certified plants with particular focus on large-scale flora restoration in protected areas. This project was funded under measure 124 in 2012. The POTOPLANT project paved the way through testing the feasibility and technical potential of this new project.

#### Lessons learnt:

- ⇒ Such projects often need to tackle technical difficulties that may arise during implementation. In this particular project, at the beginning there were phyto-sanitary and plant health problems. Another problem was related to the creation of a stock of “mother plants” directly in the farms. Pollination proved difficult and it became uneconomical to maintain a full stock of “mother plants” at the nurseries. Although it is better to find the mother plants in nature, this method results in higher costs of seedling.
- ⇒ In addition, the tight time-span dictated by the project timetable was not ideal for all the different stages of the cultivation. This problem, however, could be overcome by optimising the seasons of collection / planting / cultivation.
- ⇒ In projects where natural processes are involved, the administrative span of the project may not coincide with natural cycles of cultivation and time needed for testing, measurements and analysis, etc. Consequently, the terms and conditions applied on innovative projects need to take into account the sometimes unpredictable nature of the innovation process.

For more information:

- <http://www.anticapieve.com/>
- <http://www.lagodidro.regione.lombardia.it/shared/ccurl/257/50/Pedrini%20S.%20-%20Progetto%20Pot%20Plant.pdf>

*Information included in this fiche is primarily coming from the case studies carried out within the ENRD Focus Group on Knowledge Transfer & Innovation. The fiche is compiled by the ENRD Contact Point on the basis of the information collected in the EU Member States and Regions and takes into account views expressed at the European, national and regional level. This notwithstanding, the content does not necessarily reflect the official position of the EU institutions and national authorities.*