

Green Economy

Multiple use of forest

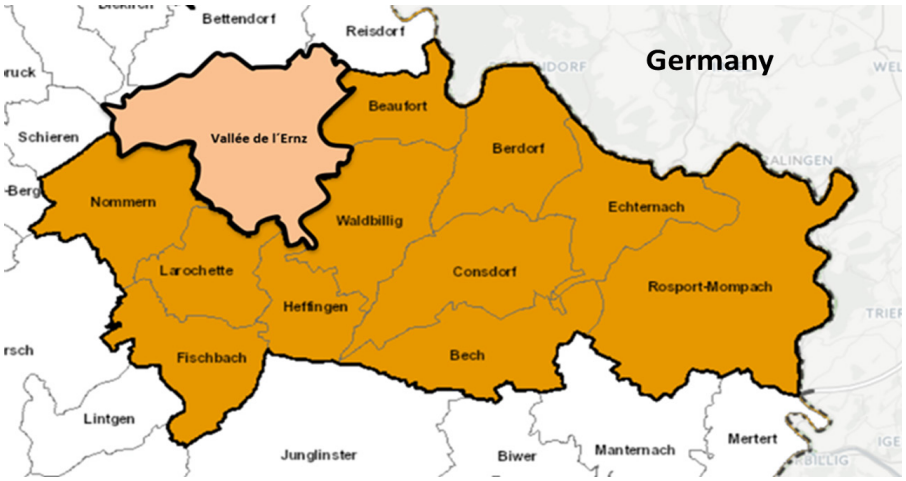
Contents

The LAG LEADER Region Mëllerdall 4
National nature reserve “Kéidenger Brill – Supp“ 6
The sustainable souvenir 7
Daycare center “Bei de Kueben” in Angelsberg 8
Annen Multipurpose Hall in Manternach 9
LAG Aktiivinen Pohjois-Satakunta 10
Leader Kantri 11
Multiple use of forests 12
eSERVICES FOR FOREST OWNERS 13
The forest sector is the foundation of the Finnish bioeconomy 14
Everyman’s right in Finland 14
Lauhanvuori–Hämeenkangas Geopark - area 15
Patented solutions for efficient biogas production 16
The Nordic stump grinding and arborist service 17
AD ELO 18
ADICES 19
DUECEIRA 19
National Forest of Buçaco 20
SIRO 21
WOODSER - Wood Industry Lda. 22
Serra do Caramulo Guide to Vascular Flora 23
SEED FOR THE FUTURE 24
LIGNOBIO 25
NATURE TRAILS OF LOUSÃ MOUNTAINS 26
Mortágua Biomass Plant 27
Leader Västra Småland 28
Leader Linné Småland 29
Röshults djur och natur 30
Ängabackens Björksoda 31
Lövsjö Loghouse 32
Multiple Use of forest 33
Timjan 34
Asa 35

Layout: Leader Pirkanmaa, Johanna Veijanen, Kantri ry, Finland 10/2020



The transnational cooperation project “Green economy – multiple use of forest” was launched in Finland, Luxembourg, Portugal and Sweden 2018 as part of the EU’s LEADER funding programme.
The aim at the transnational level was to exchange views with the partners. The insights and know-how gained then used to work in a more targeted manner in the main thematic areas of “green economy”, “renewable energies”, “climate change and CO2 reduction” and “forest multifunctionality”. This was within the framework of joint seminars and excursions in the respective partner countries.
This booklet shows best practices from each country.



The LAG LEADER Region Mëllerdall

The LAG Region Mëllerdall is one of the five LAG´s in Luxembourg which benefit from the European LEADER program. It has been qualified for LEADER support since the LEADER+ period (2003-2006).

In total the LAG Region Mëllerdall counts 32 members, 13 members belong to the public sector (12 municipalities and the Natur- & Geopark Mëllerdall) and the other 19 members are associations. Situated in the eastern part of the Grand-Duchy of Luxembourg, near the German border, it covers 296 km2 and has about 27.400 inhabitants. The LAG´s office is located in Echternach, Luxembourg's oldest town.

The region, known in Luxembourg and abroad as "Luxembourg´s little Switzerland", can be described as a rural region with a huge variety of landscapes, that have forged its development through the centuries and contribute still today to its richness and the enchantment of people coming from near and far.

The aim of the LAG is to encourage the development of the region by supporting initiatives that value, strengthen, empower and focus on "tourism and culture", "the community" and "the region". Hence the slogan "De Mëllerdall – Eis Regioun" (The Mullerthal - Our Region). It is through projects with local partners and inhabitants, that the LAG encourages the sustainable development of the region. Since 2003, a great variety of projects have emerged in sectors such as tourism, regional products, regional economic cycles, cultural and natural heritage, integration and education. The Mullerthal Region shall continue to be a liveable place for its inhabitants and a region that is well worth discovering for visitors.





Naturpark
Mëllerdall
Geopark

A very important step in the Mullerthal region was the establishment of the Natur- & Geopark Mëllerdall in 2016. Building on the pillars of sustainability (ecology, economics & socio economics) the Natur- & Geopark Mëllerdall pursues several goals as for example the preservation of the biological diversity or the promotion of regional products. Furthermore, the Natur- & Geopark is an important partner who supports, initiates and promotes the sustainable development of the region. The institution is also the project executing organization of the LEADER-project "Green economy – multiple use of forest" and in addition the Natur- & Geopark Mëllerdall is going to apply for the international program UNESCO Global Geopark in 2020.



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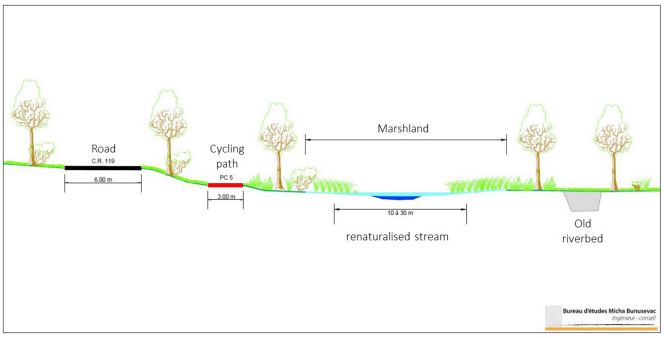


BEST practice

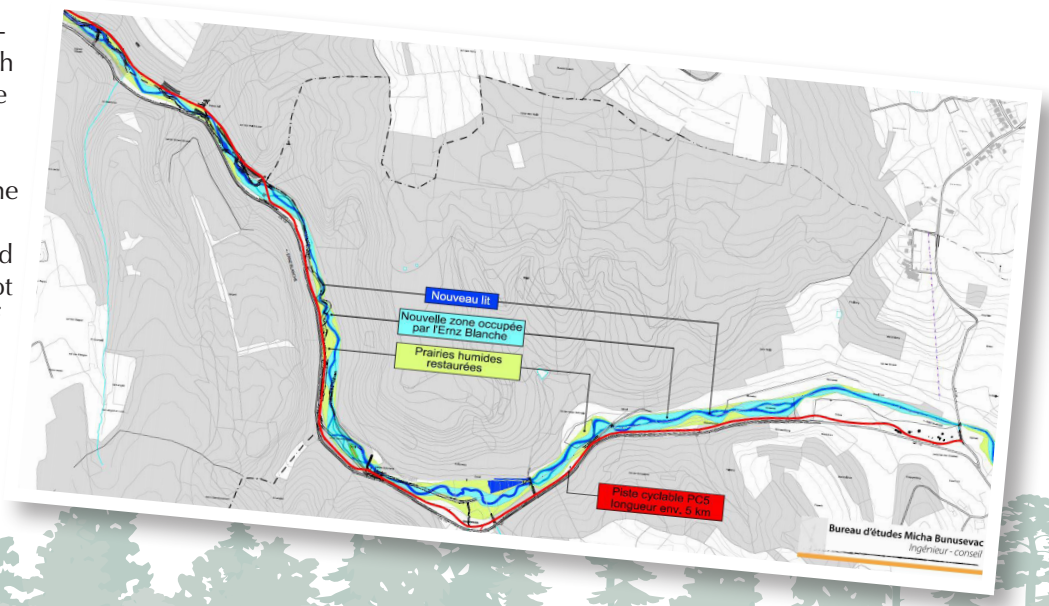
National nature reserve “Kéidenger Brill – Supp“



The nature reserve „Kéidenger Brill – Supp“ is situated on the territories of the municipalities Larochette, Heffingen, Fischbach and Junglinster in the west of the Natur- & Geopark Mëllerdall. With an area of 158.6 hectares the nature reserve is an integrated part of two Natura 2000 habitat areas and one Natura 2000 bird reserve area.
The characteristics of this nature reserve are the existence of numerous naturally occurring species of birds and plants dependent on the wetlands of the alluvial plain and their preferred habitats, like the alluvial and riparian forests, reed beds, wet meadows, swamps, stagnant and running waters.
During the renaturation works, the nature reserve and the valley of the river „Ernz blanche“ were structured as a large retention basin with a volume of 110 000 m³. This natural retention basin offers protection against floods during heavy rain for the village of Larochette by reducing and lowering the high water flow. Furthermore, the retention basin operates as an erosion protection and improves the water quality of the riwer “Ernz blanche”. Another aim of the renaturation measures was the restauration of the faculty of self-purification.



In order to make the nature reserve accessible for nature, hiking and cycling enthusiasts, a bicycle path with a length of 5 km was built along the area. This cycle path will be part of the Luxembourg cycling path network. In order to be able to cross the wetlands, many bridges were built with a multitude of resting areas and picnic benches. Thus, the area is not only a habitat for a large number of animal and plant species but also a recreational area for people from the neighbouring towns.







The sustainable souvenir

In a small farming village, located in the municipality of Rosport-Mompach is situated the penitentiary center of Givenich. In the agricultural property, which passed to the state, through a foundation in 1890, the occupants do paid work inside and outside of the building in areas such as agriculture, horticulture or carpentry during the day and only have to spend the night in the penitentiary center.
Jailbird, an initiative of „défi-job“, an association fostering the social reintegration of the inmates of the Givenich penitentiary center through work, is one of the multiple workshops. In the joinery of Jailbird, the artist Massimo Marchesini generates adapted products to the skills of the prisoners and transfers his knowhow to the inmates.

Together with the Natur- & Geopark Mëllerdall, Massimo has developed little souvenirs, which can be easily produced by the inmates of Jailbird on a scroll saw or a turning lathe. By manufacturing these souvenirs, the detention is useful time of supervised work, the acquisition of skills and the recovery of self-esteem, which all improve their chances of social and professional reintegration. The souvenirs are products halfway between art and craftmanship, but the most important thing for Jailbird is the development process.
Local timber from local tree species, like ash or oak were chosen as raw material for the souvenirs. They can be purchased in all tourist information offices of the Mullerthal region and are a nice souvenir of the holidays in the LAG LEADER Region Mëllerdall.







Daycare center “Bei de Kueben” in Angelsberg

In 2015, the municipality of Fischbach in cooperation with the architectural office “COEBA Dave Lefèvre et associés”, located in the west of the Natur- & Geopark Mëllerdall, started the planning of the construction project of a new daycare center and the expansion of the kindergarten in Angelsberg. Planned, built and completed in 2017 according to the highest standards and under the slogan “Don´t let it get you down, be cheeky, wild and wonderful!”, the building is CO2-neutral thanks to the saving technologies and the high use of renewable, ecological and partly recycled raw materials in the construction. Furthermore, the building is characterized by the implementation in wood-concrete hybrid construction with straw bales as insulation material.

The facade with an area of 1300 square meters was built with larch of European origin. For the insulation, they used 185m3 of straw from Germany. Due to the compression into straw bales, the straw has very little air pockets. Therefore, the insulation can withstand fire for over an hour, which fulfills the fire protection regulations. Another remarkable point in the construction of the daycare center is the energy supply. The building has a very low energy consumption, which is provided by a wind turbine with an output of 5.4 kW and a 30 kWp photovoltaic system, placed on the roof of the building. Furthermore, thermal energy is provided by a wood chip firing system.



Annen Multipurpose Hall in Manternach

The Multipurpose Hall of ANNEN PLUS SA, a company specialized in facade engineering, located in Manternach, pushed in 2014 the boundaries of wood construction to a whole new level by applying new methods of design, manufacturing and assembly. Through the transmission of design data by a parametric model to the manufacturing space furnished with a CNC code automated cutting, the wooden building with 23 vaults and width spans ranging from 22.5m to 53.7m and his 27.000 individual pieces is a prime example for the industry 4.0 in the timber sector. The design of the project in Manternach is inspired by the double curvature masonry vaults of Eladio Dieste, designer of Warehouse in Montevideo (1977 - 1979). Where Dieste used unit elements of the same dimension (bricks), the Hall in Manternach proposes to generate the curvature directly thanks to the shape of the boxes that compose it. Each box is unique and has a specific location within the structure. This modular design also allows to dismantle the individual elements and re-use them in a different structure, thus considering the principles of circular economy. The Hall, which will accommodate a 5800 m2 facility, including a timber prefabrication factory and offices, is characterized by the fact, that the construction method only needs wood to wood connections and neither screws nor glue. This new method, applied a first time in this project, was developed by IBOIS, the laboratory for timber constructions of the Swiss Federal Institute of Technology in Lausanne. The project is supported by the temporary association of the architects Yves Weinand (Liège, Belgium) and Valentiny (Remerschen, Luxembourg) and the wooden supporting structure is calculated by the planning office Weinand (Liège, Belgium).



LAG Aktiivinen Pohjois-Satakunta

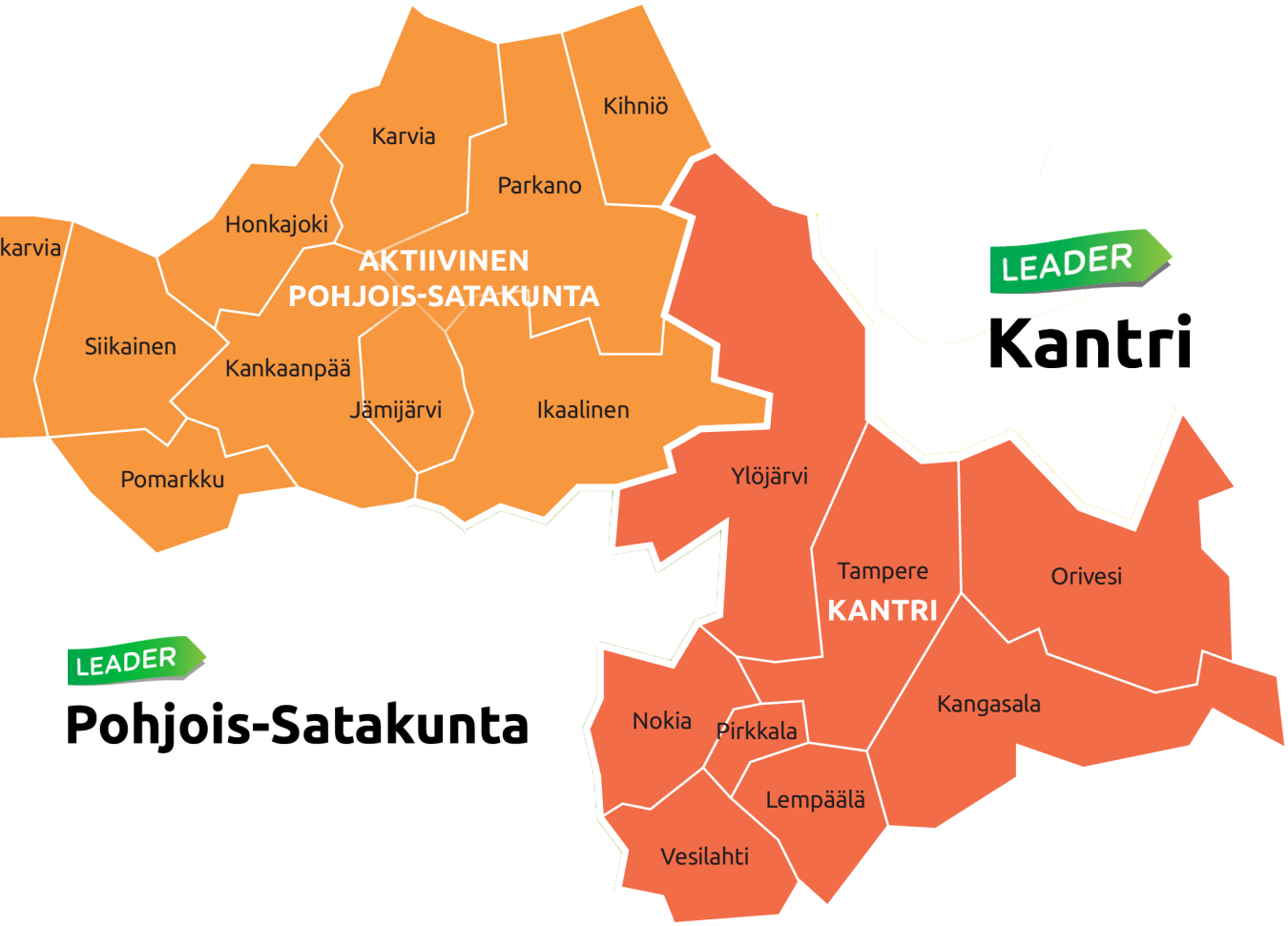


– Our local tool for highly diversified and innovative rural development! LAG Aktiivinen Pohjois-Satakunta's main goal is to finance "grass-root "-level development projects, which regenerate economical, cultural, social and environmental vitality in our area.

Our Leader-area is located in the West –Finland province and the Lag-area consists of ten municipalities. Three of these municipalities are small towns - Kankaanpää, Ikaalinen and Parkano.
Seven municipalities belong to Satakunta region and three to Pirkanmaa region. Even though the municipalities of the area are situated in two different regions and four sub-regions, the area is relatively homogenous, when it comes to population and economical structure. We have a long tradition of inter-regional co-operation in Pohjois-Satakunta area has a quite varied and multisided nature. You can find the seashore with characteristic archipelago areas, plenty of lakes and rivers, bogs, forests, sweet hilly areas as well the agricultural sceneries.
We have wide NATURA-areas as Hämeenkangas and Pohjankangas and tens of protected oasis and areas. In some areas the human being hasn't touched anything after the last Ice Age!
Although we are located in southern part of Finland we have also large wilderness areas - you can climb on sand ridges of Jämi in Jämijärvi and admire all the coniferous green forests covering the territory so far you are able to see. Pohjois-Satakunta is not called the Lapland of South Finland in vain! Thanks to these nature areas we have also the Unesco Geopark- status – you are warmly welcome to visit Geopark Lauhanvuoriregion with its unique and particular geographical properties and clean nature. www.lauhanvuoriregion.fi
The big number of different cultural environments give also their own significance to the areal development of Pohjois-Satakunta territory.
Our Lag area has also well working optical fiber connections nearly everywhere. A great part of our municipalities have been among the first ten topmost optical fiber connection coverage munipalities in Finland.

Innovative entrepreneurship – high level education sector
We have a very strong entrepreneurship tradition in Pohjois-Satakunta area and many special entrepreneurship sectors, too. Some important branches are for instance ecological greenhouse cultivation, steel industry and the construction sector (windows, contruction materials and so on). The natural tourism, ecotourism, strong food industry and the bioenergy belong also to our growth sectors. !
Some words about LAG's development activity and program
LAG Aktiivinen Pohjois-Satakunta has been the most active Local Action Group in Finland and Europe during the various Leader programming periods as regards the transnational collaboration projects.
Our LAG has been making funding decisions on approximately 1000 different projects since 1997 which is also the topmost quantity in Finland!
Our website : www.aktiivinen.fi
You can find us in Facebook: Leader Pohjois-Satakunta and in Instagram and Twitter

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LEADER
Kantri

LEADER
Pohjois-Satakunta

Leader Kantri

Kantri ry is a Finnish non-governmental association and a LAG developing the rural areas of Kangasala, Lempäälä, Nokia, Orivesi, Pirkkala, Tampere, Vesilahti and Ylöjärvi.

Kantri ry was founded in 1997 for rural development of Tampere Region. From the beginning it has distributed financial aid for the grassroot level actions in rural areas. In overall, the area has more than 370 000 inhabitants, more than 100 000 of them live at the rural areas, where Kantri ry operates. The population has grown rapidly in past years and is likely to increase in the future as well, as it is the “most favorable place to live in Finland”. The population growth creates pressure on the rural areas. Infrastructure investments and rural planning are required as well as of new citizens combine to the old village far away from the city life. The aim is to prevent the countryside turning into a rural suburb or reservoir for country living. On the other hand, periphery of Kantri´s area suffer from ageing population, negative migration and deteriorating services.

The themes of the Kantri ry´s strategy for the years 2014 - 2020 "Responsibility for Community and Environment" are:

- Environmentally responsible living
- Communality, inclusion and local youth
- Local business

Kantri is at the moment taking part in three transnational cooperation Leader-projects:
Green economy - multiple use of forest
Smart Villages Leader Network
CIRCLE

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Multiple use of forests

National Forest Strategy aims for growth of welfare and overall sus-tainability
The vision and objectives of the strategy derive from the Forest Policy Report. The vision is “Sustainable forest management is a source of growing welfare”.

The three strategic objectives to make the vision come true are:
• Finland is a competitive operating environment for forest-based business,
• Forest-based business and activities and their structures are renewed and diversified and
• Forests are in active, economically, ecologically, socially and culturally sus-tainable, and diverse use

The strategy is implemented by a total of ten strategic projects. The completely new projects added to the Forest Strategy apply to climate sustainable forestry, interna-tional forest policy and influencing EU policies as well as new products made from wood. More projects than before now also include the diversification of forest man-agement methods, the safeguarding of biodiversity, water protection and the diver-sification of business. Projects to be considered as cross-cutting include the im-provement of the availability and usability of forest, nature and environmental data and facilitation of their integration with other data sources. The cross-cutting pro-jects include also an aim to build trust and cooperation between various actors with pluralistic communication and interaction.
The Forest Council follows the implementation of National Forest Strategy. A great variety of stakeholders, Government ministries, forest administration, research and education, forest owners, forest industry, energy sector, environmental organisa-tions, employer organisations and entrepreneurs as well as youth and leisure-time organisations, are represented in the Forest Council.
Several ministries will participate in the implementation of the National Forest Strat-egy. The update was approved by the National Forest Council in December 2018 and the Finnish Government confirmed the updated strategy with a resolution on February 21, 2019.
The National Forest Strategy is also implemented through Regional Forest Pro-grammes, where the special regional characteristics are duly taken into account.

Read more; http://urn.fi/URN:ISBN:978-952-366-006-9



eSERVICES FOR FOREST OWNERS

Metsään.fi is a portal through which people who own forest property in Finland can conduct business related to their forests from the comfort of their own homes. The portal connects owners with related third parties, including providers of forestry ser-vices. This makes it easy to commission management work and to be in touch with forestry professionals.

Forestry businesses, forest management associations and timber buyers can be found in the portal. Forest owners can check which service providers are available in the area surrounding the forest property, and, if necessary, authorise chosen part-ners to view their data or transfer them to their own systems. This makes it easy to get in touch with professionals regarding forestry and logging work. Service provid-ers may also contact forest owners on their own initiative.

The portal saves service providers the cost and effort of visiting sites to obtain the latest data on which to base plans. It also contains up-to-date contact details for forest owners. The aerial photographs and maps are important tools for profession-als, and for small businesses Metsään. fi may replace the need to have their own geographic information system or CRM system entirely. Most private Finnish forest owners are in either employment or retired, and a growing proportion live far from the forests they own. For most owners the forests are not a major source of income and only a small fraction have professional forestry skills.

Read more; eServices for forest owners, Details about Finland's model in utilising forest data





The forest sector is the foundation of the Finnish bioeconomy

Collaboration between our strong forest sector and other sectors makes Finland a true leader in bioeconomy. We have already made joint efforts to develop knowledge, technologies and solutions that cannot be found anywhere else in the world. Besides wood products and paper, biomasses originating in forests are now being used to create textile fibers, medicines, chemicals, functional foods, plastics, cosmetics, smart packaging and biofuels. Finland's rise to become one of the world's most prosperous countries is based on our ability to utilise renewable natural resources, our green gold. Forests and pris-tine nature are, and have always been, the basis of our existence. Finland has top-notch expertise in sustainable forest bioeconomy. Some 80 per cent of our land ar-ea is covered with forest, which we manage so well that more timber grows every year than we utilise. We also use waste and side streams efficiently. Finland has strong know-how in technology, construction, energy, chemistry, food and health sciences. Innovation, cooperation and combined technologies in these fields make Finland a true leader in bioeconomy.

Read more; Finnish bioeconomy strategy

Everyman's right in Finland

Finland's legal concept of everyman's right gives everyone the chance to enjoy out-door pursuits, and the freedom of the country's vast forests and fells, and many lakes and rivers, with few restrictions. Public access to private land is much wider in Finland, and the other Nordic countries, than in most other countries.

Nature is often fragile, however, and especially here in the North can be slow to re-cover from damage. With the freedom to enjoy the countryside comes the obligation to leave the environment undisturbed and preserve Finland's rich natural heritage for future generations to enjoy.

Read more; Everyman's right in Finland







BEST practice

Lauhanvuori–Hämeenkangas Geopark - area

Lauhanvuori–Hämeenkangas Geopark is the second area in Finland to be designated as a UNESCO Global Geopark. It is an area of internationally valuable geological heritage and of great natural and cultural values. It is located in Satakunta, South Ostrobothnia and Pirkanmaa counties' marchland and celebrates the special cultural features of each of them. There are a lot of nature sites with comprehensive hiking services, easily accessible for most people. There are hundreds of kilometers of trails for hikers, cyclists, riders and a lot of wilderness to be explored and photographed. Many of the sites are valuable habitats for rare species, at the same time. The vast forest areas form a vast multiple use resource for developing of nature tourism.

The Geopark area with its intriguing activities and services for tourists, schools, researchers etc. is the result of persistent co-operation of ten municipalities, dozens of firms, hundreds of local people and lots of different stakeholders. Metsähallitus has constructed an encompassing network of hiking services, firms are developing products and services together and marketing them under the same brand. Local schools provide Geopark-based programs for foreign students together and the Geopark Rangers organize guided trips to main geosites. Local intangible heritage becomes more and more appreciated and visitors can experience it in most of the sites. The area with its incredibly beautiful wetlands, which form an important basis of the whole Geopark, eskers, brooks and springs is worth visiting at every time of year and every time of day.

www.lhgeopark.fi



Patented solutions for efficient biogas production

Doranova Oy is a Finnish environmental engineering company focusing on biogas solutions as well as soil and groundwater remediation activities. Biogas sector concentrates on developing and building advanced biogas and landfill gas power plants that turn waste to electricity, heat and traffic fuels. Soil remediation business line on the other hand is a well-known developer of advanced in-situ soil remediation techniques. Currently Doranova is the largest in-situ soil and groundwater remediation contractor in Finland and also has conducted several projects in export markets.

On biogas market, Doranova has specialized to offer technical solutions for the most challenging conditions. For example, the mechanically separated organic fraction of municipal solid waste (OFMSW) contains a lot of impurities that makes the substrate unsuitable for traditional wet fermentation solutions. Our flagship products to process OFMSW and many other challenging substrates is called Hardferm®. The first full scale Hardferm -biogas plant was completed in summer 2020 and currently Doranova has a rich pipeline of projects in a negotiation phase. Incineration plants and landfill operators seem to be two largest potential customer groups. The first group wants to separate organics before incineration processes to decrease flue gas emissions and the amount of ash. Landfill operators on the other hand are forced to find alternative ways to their current methods and rugged biogas plants offer them the way to capitalize the energy potential of organic waste fractions.







BEST practice

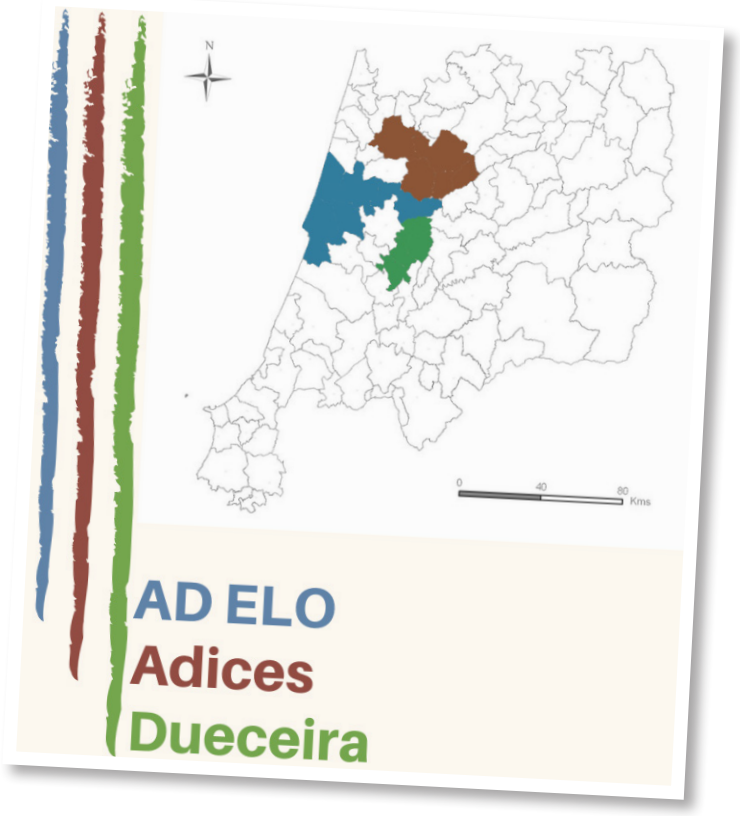
The Nordic stump grinding and arborist service

Mika Vainionpää started his company The Nordic stump grinding and arborist service in Parkano 2004. Nowadays the company is well-known around Finland. Sometimes they work also in another countries. His service covers stump grinding, tree cutting, pruning, tree inventory, consulting, teaching and planting.
If you need trees to be removed or pruned Mika and his workers can do it. Cheapest way to do it is straight fell, after that comes climbing. The company has also invested grapple saw. They have truck with 27 m crane and the saw is end of that. With that truck they can also transport logs and branches off and clean the work site.

Municipalities are biggest employers of the company. Parks and other public environments have to be nursed constantly. This means for example falling down the oldest trees, planting new ones or tree cutting. The company has also worked in the summer residence of the Finnish president and in the animal park in Ähtäri.
Mika is a very positive person and he has always new ideas. He has developed his enterprise in very innovative way during recent years. Leader Pohjois-Satakunta has financed his projects. The focus is in continuous development and improvement of the services.
Mika also take part in arborist competitions around the world and he has a big network of colleagues in Finland and other countries.

You can follow Mika in social media.
https://www.facebook.com/arboristi/ ,
https://www.youtube.com/arborist_fi





Portuguese Partnership
For The Transnational Cooperation Project Green Economy

The territories of the 3 LAGs are located in the Central Region of Portugal, between the plains of the most coastal municipalities (AD ELO) and the mountainous areas of the interior territories (Adices and Dueceira).Altogether they cover 15 municipalities with a total area of approximately 3,085 km2 and a population of about 294,000 inhabitants. Its population takes on predominantly rural characteristics.

AD ELO

– Associação de Desenvolvimento Local da Bairrada e Mondego foi was founded in June 1994 and it's a private non profitable association, recognized as a public-interest legal person. With its headquartered in Cantanhede, its intervention territory covers the municipalities of Cantanhede, Mealhada, Mira, Montemor-o-Velho, Penacova and Figueira da Foz.

Over its 25 years of existence it developed countless initiatives that contributed for the integrated development of the territory gathering technical and financial resources to accomplish projects related to accomplish projects related with supporting other companies and economic agents, qualifying and training people, social intervention and innovation, preservation and recovery of heritage, promoting and valuing products and local potential, cooperation and support for internationalization, among others. These projects start from an attitude of working in an extended partnership with the various agents of the territories, both in the public area, and through the mobilization of the organized civil society.

Within the scope of its activities, it promotes local development seeking to project and strengthen the identity of the region in order to make its area of intervention more attractive, both in terms of population settlement, with the improvement of quality of life, as well as strengthening local economic capacity.
Within the scope of its activities, AD ELO also seeks to promote the region and enhance endogenous resources.

Its main activities are interconnected with the implementation and development of community projects that foster rural development, where AD ELO's responsibility for the management of DLBC Rural LEADER AD ELO and DLBC Costeiro Mondego Mar stands out.

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ADICES

– Associação de Desenvolvimento Local is a private, non-profit entity, established in 1991, in the initial context of Portugal's integration into the European Community. The ADICES Territory is located in the north area of the Central Region and includes the municipalities of Águeda, Carregal do Sal, Mortágua, Santa Comba Dão and Tondela.
This territory presents an enormous diversity and richness, the result of the harmonious presence of a set of natural elements, which give it specificity and authenticity, with water lines being a constant in all municipalities, which structure the territory's orohydrography, marked by zones with forest, mountain, valleys and slopes, plateau and plain.
According to the ADICES statutes, the Association aims to "promote integrated local and regional development through the socio-cultural and economic dynamism and the promotion of initiatives in the areas of human resources, training, the environment, equal opportunities and gender, tourism and heritage, culture, sports, leisure and support for productive activities " and, also, the assignment of " Dynamizing and guiding promoters of economic, social, cultural and artisanal initiatives "
ADICES over these 29 years has been promoting initiatives in various fields, ranging from financing to local investment, as the managing entity for the various LEADER approaches, education / training, animation of the territory and cooperation projects, where it has developed a wide range of competences that allow it, in the local and national context, to assert itself as a Local Development Association.
Due to the nature of the work developed, in 2000, it was awarded the Public Utility Entity Status.

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DUECEIRA

– Associação de Desenvolvimento do Ceira e Dueça is a non-profit private association, recognized as a collective public-interest legal person, founded in March 1994. It integrates a partnership of 56 local and regional public and private entities from the most diverse areas and sectors of activity and covers the municipalities of Lousã, Miranda do Corvo, Penela and Vila Nova de Poiares. The intervention territory has predominantly rural characteristics, a mountain orography, a profuse hydrographic network and a dense forest patch.

The Association's Mission is to improve the quality of life of its population by building a positive, renewed and attractive image of the rural world, using the originality of the territory as a factor of affirmation and strengthening the self-esteem of local communities, aiming at its fixation and enhancing. It is assumed as Macro-objective of all the recommended intervention or STRENGTHENING THE COMPETITIVENESS OF THE TERRITORY at the social, economic and environmental level, fostering cooperation and networking.
From its 26-year history, the emphasis on the design, organization and implementation of diverse projects and initiatives of regional, interterritorial and transnational scope with special emphasis on animation and territorial participation in the most diverse areas and themes in close partnership and involvement with agents of the territory (Associates / Partners / other local agents) and the management of community programs and initiatives, of which the management of DLBC Rural Dueceira2020 (Leader Approach) stands out.

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ENTITY / COMPANY IDENTIFICATION

National Forest of Buçaco

In the National Forest of Buçaco (or Bussaco), the National Monument provides a unique natural experience in the Center of Portugal, specifically in Serra do Buçaco, parish of Luso, municipality of Mealhada.
Entering this forest is to find a mystical experience strongly influenced by the local geography in which the atmosphere is marked by frequent rains and fogs, being an unparalleled place for contemplation, relaxation and observation of nature.
The origin of Mata do Buçaco dates back to the 17th century when, in 1628, the monks of the Order of the Discalced Carmelites settled there, bringing numerous exotic plants that they planted in the process of forestation of this area, allowing it to currently have over 1,000 different species , being mainly composed of arboretums, which represent 80% of all flora.
In the discovery of more than 100 hectares, it is recommended to walk and enjoy the different trails and paths identified that combine the natural heritage with the man-built heritage in a perfect combination of man and nature. It is a good example of how to transform the forest into an environmentally balanced tourist product.
The Buçaco National Forest, rich in natural, architectural and cultural heritage, thus constituted an invitation to enjoy a unique tourist experience, steeped in history and an example of preservation and perpetuity of ex-libris species of fauna and flora. With this example, it is possible to demonstrate that the environmental and tourism enhancement of the forest is an opportunity to enhance the valorization of a territory.

Contatcs (telephone, email, website, others):
Fundação Mata do Buçaco
Mata Nacional do Buçaco
3050-261 Luso
T: +351 231 937 000
Website: http://www.fmb.pt/v2/pt/





Identification of the entity / company
SIRO

Leal & Soares SA founded in 1981 was oriented to the wood sector, in particular sawmill industry, wood processing and appreciation, with production essentially intended to exporting. In the face of the challenges arising to this activity sector and in the framework of social and environmental responsibility, emerged the necessity of conceiving products which could promote the usage of wood subproducts resultant of the sawmill and processing activity and in this manner trigger the development of a sustainable vegetal material.
In face of this challenge since 1990 it is mainly engaged in the production of a range of organic and sustainable substrats, vocationed to gardening, floriculture, horticulture and forestry activities, designated with the trademark "SIRO - Sistemas Integrados de Reciclagem Orgânica [Integrated Systems of Organic Recycling]".
The process of production of these substrates meet a sustainable consumption, using in adquated manner the raw materials to satisfy the need without compromising the future generations. SIRO products are the combination of traditional recipes with technology integration. Thus in a scientific manner the different "ingredients" are combined in balance, with a rigorous control of quality since the gathering of the means until the final product conception. Therefore to the development and evolution of the production process the company has a laboratory which perform the control of raw material used and carries out the essential analysis of the substrate, validating if the defined quality indicators are in compliance with what is required by the company and by the client. The Research Center of the company helps creating new substrates, enhancing also the continuous refinement of the existing substrates. The company has two units of production, the first in Mira (Portugal) and the second in Galicia (Spain), standing out by example for the focus on a sector that promotes the efficient reutilization of natural resources, especialing those originating from the forest.

Contacts:
Zona Industrial de Mira,
Polo 1, Lote 39
3070-337 Mira
Portugal
T: +351 231 452 350
EMAIL: geral@siro.pt
Website: https://portal.siro.pt/pt/programs/cindex.aspx



IDENTIFICATION OF THE ENTITY/COMPANY

WOODSER - Wood Industry Lda.

WOODSER – Wood Industry Lda, was formed in 2000 and has the headquarters in Cantanhede, being devoted to the wood industry sector.
This is a company dedicated to forest exploitation on a global perspective, starting from chopping down trees and complementary operations in a selective and sustainable way, with the goal of producing wood based products, including firewood, pallets and other products necessary to different economical activities with particular highlight of the construction industry.
In the fulfilment of its activity, WOODSER promotes the total reutilization of the wood based products, boosting the full reuse of the waste resultant of the activity and valuing the recycling and reclaim of organic compounds, allowing a further usage which includes the operations of composting and other biologic transformations.

By fulfilling these practices associated with the company's activity, WOODSER provides and triggers the environmental appreciation and the better economical exploitation of the forest products, becoming so an example to highlight in the use and sustainable development of the forest.

Contacts :
Zona Industrial Cantanhede, Nº 1
3060-197 Cantanhede
T: +351 231423980

Email: geral@woodser.pt



PROJECT IDENTIFICATION

Serra do Caramulo Guide to Vascular Flora

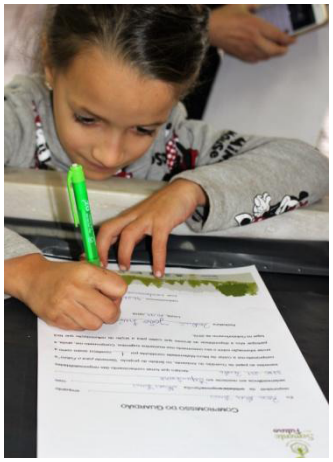
The ADICES- Local Development Association, throughout its 29 years of existence has contributed decisively to the development of its intervention territory in the most diverse aspects.
Support for industrial and agricultural investment, the qualification of human resources, combined with the encouragement of traditional arts and crafts, support for associations, the preservation of gastronomic identity, the requalification of leisure areas and the recovery of built heritage, as well as the valuation of forest assets are some of the many areas in which it has been actively participating.
This Association also has the mission of providing studies, research, cooperation and activities within the scope of local and regional development in conjunction with other public and private entities that pursue the same goals.
If initially the municipalities of Carregal do Sal, Mortágua, Santa Comba Dão and Tondela were its area of activity, in recent years it has received the entire municipality of Águeda, constituting an area of enormous potential where the triangle Aguieira, Caramulo, Pateira is today a space for innovation, attraction and harmonious development.

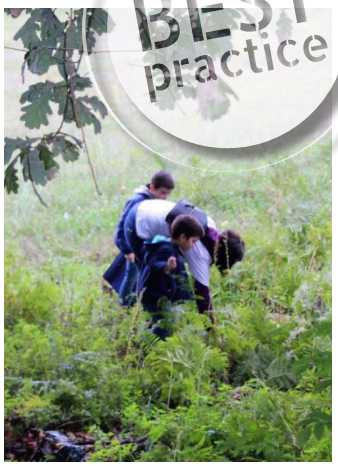
The edition of this publication is part of this form of daily activity: giving visibility to the great potential that this region has in its different territories.
O CEISCaramulo – "Centro de Estudos e Interpretação da Serra do Caramulo" it is the partner of this will turned into action.
As part of the "Green Economy" Cooperation project carried out under measure 10.3 of PDR2020, accomplished in partnership with Local Action Groups from Finland, Luxembourg, Sweden and the Portuguese ADELO and DUECEIRA, this publication presents the flora of the Serra, like the backbone of the ADICES territory.
The publication of the "Guia do Flora Vascular da Serra do Caramulo" aims to be a lever of renewed hope, after a significant part of the "most beautiful mountain" massif was seriously injured in the great fires of 2013 and 2017.
If compost was made from the ashes for the regeneration in progress, from these pages we want to make sap of hope for the desired and deserved development of a region that has done everything to maintain its identity, making known its enormous potential in heritage, environmental and landscape areas.











BEST practice

PROJECT IDENTIFICATION
SEED FOR THE FUTURE
- MICRO-MATERNITIES OF NATIVE TREES

Project for Awareness, Involvement, Civic Mindedness and Education towards the Environment developed with the engagement of the civil society (citizens, families, companies, institutions, etc.) to collectively building answers to specific needs of the territory such as the lack in short term of trees to reforest the extended areas burned by wildfires (mainly the ones of the year of 2017).
The prompting of reactive behaviours onto communities before the recent adverse circumstances; the stimulus towards proactive actions in favor of the territory; the promotion of the Affection to the territory and the preservation of the connection to the earth were some of the objectives and focus of the project.
This consisted on the performance of voluntary actions of collecting seeds in nature - in particular of native trees such as oaks, cork oaks, chestnuts and ash trees, species more resistant against the fire; on the creation of micro-spaces/maternities for their planting; on the constant care throughout the period of one year of the plants awaiting their maturation; on the subsequent carry out of reforestation campaigns.
In order to do so there was the direct responsibilization of the participants/beneficiaries through the acknowledgment of a Compromise of Guardian of seeds and tree seedlings which would define a Caregiver Profile in order to foster the involvement of the communities and their co-responsibility on the resolution of local problems.

This action promoted by Dueceira in partnership with the City Councils, Activar, ADSCCL, Lousitânea and Aflopinhal had as an intervention territory the municipalities of Lousã, Miranda do Corvo, Penela and Vila Nova de Poiares and was supported by the Ministry of the Environment through the Environmental Founding and it's Measure 4 - "Involvement of citizens in their square kilometer of action".



PROJECT IDENTIFICATION

LIGNOBIO

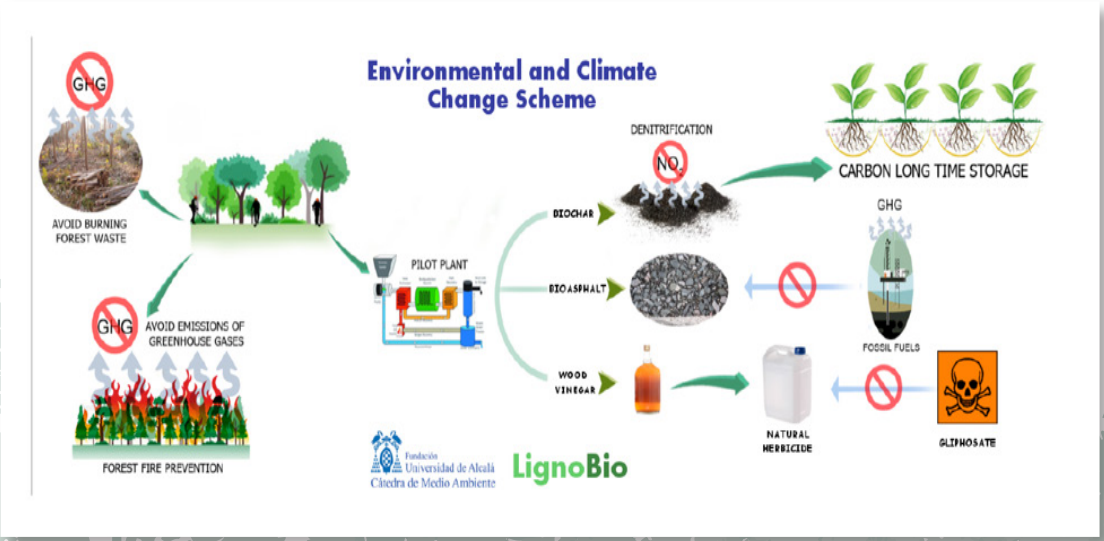
- CONVERSION OF FOREST WASTE INTO BIOPRODUCTS OF HIGH INDUSTRIAL INTEREST THROUGH TECHNOLOGY THERMOCHEMICAL ASSISTED BY MICROWAVES

Experimental project supported by the Programme LiFE Environment (EU) which intends to demonstrate the financial and environmental viability from the usage of the waste generated on the process of deforestation as a source of raw material for production of bioproducts of high added value, such as: bio-herbicide; bio-concrete; bio-coal; etc.

To this effect it aims to transform this waste through a process thermochemical assisted by microwaves , in bio-fuels to use in boilers and a substitution of conventional fuel oils, favoring the agricultural efficiency and serving to avoid denitrification and encouraging the water storage and nutrient exchange.

It is a partnership between portuguese and spanish entities, streamlined by the Foundation General of University of Alcalá de Henares, Spain, which integrates LAG Dueceira and also the National Institute of Agrarian Research of Spain, the LAG ADASUR (SP) and LAG Douro Histórico (PT) and the companies specialized in asfalts, bio-products markets and others: PROBISA, ECO2 and NEOLIQUID.

Locally the project also foresees: the establishment of protocols with the Forest Association Aflopinhal for selecting, collecting and transporting of Biomass; (eucalyptus and also agriculture waste: grapevine, olive tree, orchards); the establishment of deals with the farmers and the producers, land owners, local agents with forest intervention and councils for demonstrative tests subsequent of the natural herbicide and natural fertilizer in safety lanes on roads, forest paths and forest and agricultural land; the technical follow-up of the works and the monitoring of the gathering and the demonstrative applications.





PROJECT IDENTIFICATION

NATURE TRAILS OF LOUSÃ MOUNTAINS

Anchor project of Dueceira in the scope of the strategy of efficiency collective provere - inature, which envisions to grant simultaneously quality and visibility to the Biotype Lousã Mountains as a space physical-natural of excellence - highlighted by its classification in Rede Natura2000 - and crucial resource for the dynamic social-economic of the land and region of center.

For this purpose, it identifies the network of river trails and mountain outlines for the enjoyment of visitors and tourists, allowing to LIVING THE NATURE IN GREEN & BLUE on an AFFECTIVE READING OF THE TERRITORY on a natural space of high environmental quality which attracts both for its landscape excellence and for the number of events which occur along the year in regards to Active Tourism and Sports of Nature [Trail, Mountain Biking, Cycling, Downhill, Fishing, Hiking, Fluvial Beaches and not to forget the Deer Rut, a unique moment to observe deers…]

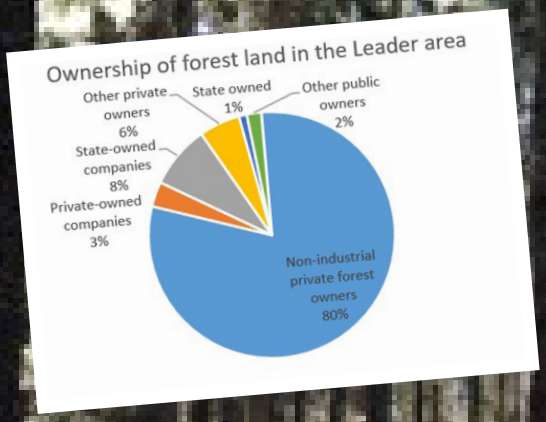
The project foresees the establishment of strategic instruments which steer towards the viability of the process of valorization and certification of Lousã Mountains as a protected landscape, namely through:
Elaboration of support studies to the proposal of classification of Lousã Mountains as a Protected Landscape Area; and on a more practical perspective allowing the revitalization of activities of responsible enjoyment of the spaces, providing its visibility, animation and social and economic promotion, with the direct support to the organization and fulfillment of activities inserted in the Action "Mountain Trails - Sport and Adventure in Lousã Mountains" and specifically of events on the 4 municipalities such as: Louzan Trail; Poiares Trail; Infante´s Trail; Abutres' Trail (World Championship competition) (competitions of small, medium and large distance, daytime and nighttime , to adults and children, and hikings).



PROJECT IDENTIFICATION

Mortágua Biomass Plant

Portugal is one of the European Union countries with the highest percentage of the territory dedicated to forestry activity. This plant is installed in the municipality of Mortágua (intervention area of GAL ADICES) and inserted in an extensive forest area including 29 municipalities, which will contribute to the supply of the plant. Forest cleaning residues represent an important source of renewable energy and excellent environmental practice. This plant has an electrical power of 9 MW and consumes about 8.7 tons of forest waste per hour or about 109,000 tons of waste per year. The waste consumed at the plant is not more than 10% of the total waste produced by that forest area. In addition to the energy produced and the contribution to cleaning the forests, the plant will have a significant socioeconomic impact, as it contributes to the development of new economic activities in regions prone to human desertification. The plant employs about 20 workers and it is estimated that it will indirectly generate around 200 jobs.





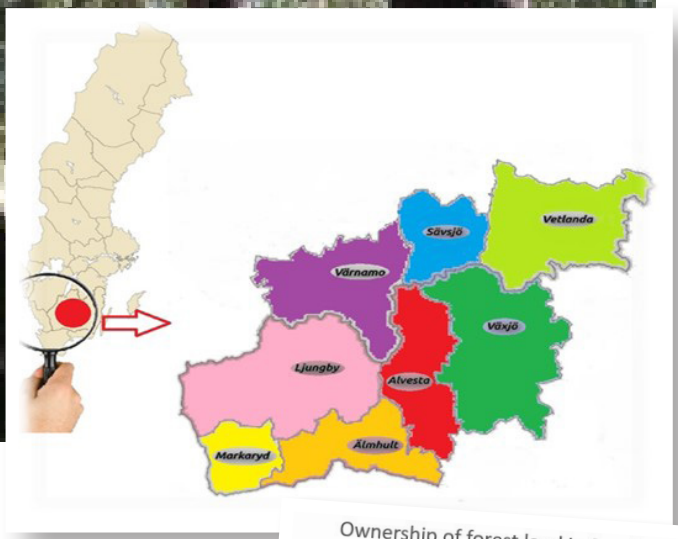
Leader Västra Småland

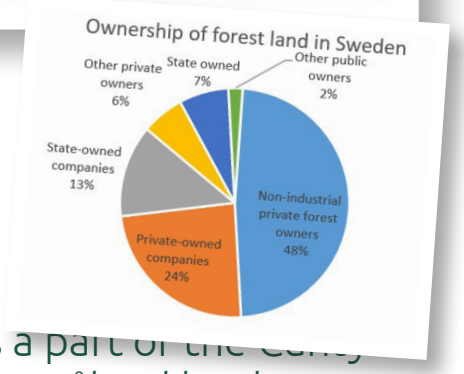
The Region of Leader Västra Småland is located in the county of Jönköping, which is part of the landscape Småland. The area comprises 4 Municipalities.

The LAG consists of 20 members, representing private, public and non-profit sectors.
The Leader region contains mostly forest, farmland and bog and has 85 000 inhabitants.
The size of the area is 3442 square kilometers and 24,8 inhabitants per square kilometer.
The aim targets in our strategy are:
Environment & Infrastructure:
Renewable energy and energy efficiency, local and organic production
Entrepreneurship:
New industries and develop of existing industries, social integration business
Integration:
New venues, strong and developed association life, activities for public health, inclusion
Culture:
Pride of local culture and curiosity of new influences, innovative preservation, accessibility to culture.

The forestry in the Leader area.
The area was completely deforested in the early 20th century. Today 70 % of total land area is forest land.
The figure shows that 80 % of the forest land is owned by nonindustrial private owners. The number of non- industrial private forest owners in the area are 29 000, of which 38% are women. The average size of the properties is 46 hectares.
The most common tree species are Norway spruce 48%, Scots pine 29% and Birch 10% followed by aspen 2%, Alder 3%, Oak 4% Beech 2%.
www.leadervastrasmaland.se







Leader Linné Småland

The Region of Leader Linne Småland are located as a part of the county of Jönköping and Kronoberg, which are part of the Småland landscape. The area comprises 8 municipalities.

The LAG are 16 members, two from each municipality, representing private, public and non-profit sectors.
It is mostly forest, farmland and water in the area of Leader Linne Småland and the total of 167 309 inhabitants.
The area size of 9241 square kilometers and 16 inhabitants at square kilometers.
The aim targets in our strategy are:
Entrepreneurship and self-sufficiency
Entrepreneurship and entrepreneurship, growth in small businesses, skills development, integration.
Innovations
New services and products, innovations, new business ideas and forms of cooperation.
Exciting environments where people and ideas can grow
Meeting places where people with different backgrounds, skills and experience can meet.
The forestry in Sweden
In Sweden 68% of total land area is forest land. The figure show that 48 % of the forest land is owned by 320 000 nonindustrial private owners and 38% of the owners are women.
The average owned privet property are 49 hectares.
We have 15-20 native tree species. The most common tree species are Norway spruce 41%, Scots pine 39% and Birch 12% followed by aspen 2%, Alder 2%, Oak 1%.
The annual increment in Swedish forest are 120 million m3.
The annual cut is 90 million m3/year. An outcome of this is a net storing of 40 million tons of CO2 each year.
WWW.leadelinne.se



Röshults djur och natur

Sofie Palander has, on her farm in Röshult, south of Jönköping, established her horse therapy company. Sofie has created a center where she receives children and young people, with various diagnoses such as ADHD and autism, who get to experience the unique interaction between horse, nature and man.
Sofie is educated at Dance and Circus University in Stockholm both as an educator and as a dancer. She is also a trained equestrian therapist.
Through her company with the horse and forest as a resource, Sofie has created an environment that enhances young people's self-esteem and their ability to better relationships. The social interaction with the horse increases the understanding of communication and strengthens the individual's confidence and courage.
With the help of a forest paddock, children and young people can experience the forest from the horseback in a safe and stimulating way.
In the forest paddock all the trees remain, moss and blueberry on the ground makes the experience genuine.

In a discreet way, Sofie has installed various materials and objects around the paddock. The installations stimulate the visitor's senses and sometimes the unexpected in the environment results in discovering nature.
Sofie has, among other things, made an installation of an old wagon that periodically gets a new design to stimulate discovery and conversation.
Sofie works with autistic children and with different perspectives, it can be different heights or different spatial perspectives. In this work the forest paddock plays an important role. In the paddock the individual is given the opportunity to look into eternity between the trees, or through climbing up on a large stone a small perspective can suddenly change from small to large.

www.roshultsdjuronatur.se





BEST practice



Ängabackens Björksoda

Martina Petersson has in her farm Sonarp, which is located south of Jönköping, in 2019 produced and launched a new product for Sweden, fermented birch sap.
The beverage itself is an age-old knowledge from Eastern Europe. Martina got introduced to the knowledge when she had eastern Europe guests staying in her cottage. They showed her how to transform the birch sap into a fermented bubbling fresh non-alcoholic drink. Her production is a small-scale and craft-made beverage, where the entire production chain takes place in the courtyard just a few meters from where the birch stands.
It is early spring when the sap starts to rise, and the seasonal work begins. The sap slowly drips through a small hole, which is drilled in the birch. The sap is collected in bags, that are emptied at least every morning. Birch sap consists mostly of fine water, which has been filtered through the birch root system and stem.
The process adds natural sugars, that makes the fermenting procedure possible.

The birch sap is refined by fermentation in two steps. The first fermentation takes place in a tank and the second takes place in bottles. The process is identical to making champagne.
The birch soda is ready after being stored in underground storehouse for at least three months and it is during this storage process that the natural carbonic acid is formed. The result is a dry, non-alcoholic sparkling drink that, with its freshness and genuine taste, fits very well with a meal or as a drink.
Martina's new product and company is an example of what transnational exchanges can contribute. Martina's ability to capture an already existing product from another part of the world and then take it home to Sweden, has turned out to a successful business in the countryside.

www.bjorksoda.se







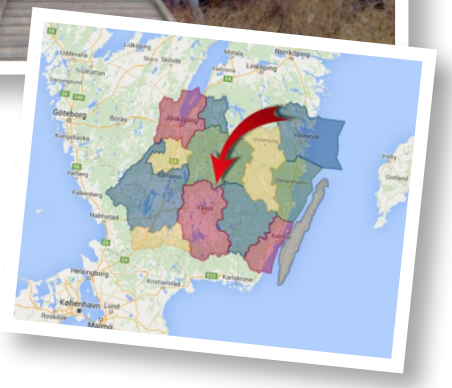
Lövsjö Loghouse

South east of Vetlanda is the factory Lövsjö Loghouse factory located.
Owned and operated by Erik Hjärtfors and Charlott Malmborg. They work under the label Wood Design and offer furniture and wooden houses all with their own design, they also provide training for furniture carpenters.
The factory Lövsjö Loghouse is located only a few kilometres away from Erik's family farm where generations have used both forest and land. The short distance from the forest and to the factory is an important part of their business. This means that they have access to the raw material for all their products in the local area.
Erik has a forest education and has worked with forest and wood all his life. He has operated the factory for more than fifteen years.
Initially with a focus on log houses, which so far has resulted in over 50 built holiday homes in various shapes and sizes. The typical feature of their house is the combination of solid wood and large windows with plenty of daylight. It gives climate-smart houses and if supplemented with solar cells, the house's impact on nature is minimal, the idea is that those who use the houses should be able to live climate smart and be sustainable in the long term.
Over the past ten years, interior design and furniture production has also grown bigger.
They offer today locally produced completely unique store furnishings that are completely unique and tailored to their customers' wishes.
Their customers are private individuals, shops and restaurants.

www.wooddesign.se







Multiple Use of forest

The Swedish part of the transnational project Multiple use of forest
The regional federations in Småland in 2018 wrote a forest strategy to gather power and clarify what efforts needed to be made in the forest industry.
By developing a collaborative project with international contacts, the project aims to strengthen small-scale forestry businesses in the countryside and give them the conditions to develop their business and increase profitability to a greater extent.
The project also wants to show and inspire others, both regionally and internationally. Forests has great potential when it comes to sustainable entrepreneurship and development opportunities.

The Model
The model of which the project is based consists of several different parts where the entrepreneur chooses one or more parts, based on their conditions.
The different parts are:
Coaching.
Information / communication linked to Linne University.
Networking.
Shared learning through international study trips and inspirational meetings.
The strength of the model is identified to be individual coaching and networking meetings in combination.
Entrepreneurs gain better understanding of their business through long-term support and contacts, that are based on trust and sustainability.
The learning process that is found naturally in a university environment is through the communication platform Loomio, available for the participating companies.
The international input from other participators in Loomio provides new perspectives for one's own enterprise.

www.leaderlinne.se
www.leadervastrasmaland.se



Timjan

Vincent & Christina have run Flahult's farm since 1978. The farm is located between Växjö and Jönköpng not far from Värnamo.
Earlier generations have been running both forestry and farming on the farm. Since 1978, no farming has been carried out, but their tourism company have grown gradually over the years.
In the beginning it was a café and a garden with herbs. Vincent & Christina is a good example of what forest owner can do with and around their forest ownership. By seeing the possibilities in the property and surroundings they constantly developing and renew their business. In their tourism company it is easy to see that the opportunities are many and can change over time to suit the demand of the visitors. Most of what they do have an connection to what the forest can provide.

Today they offer their visitors a restaurant and café, a spa, motorhome pitch, an herb garden, greenhouse, playground for children and several marked hiking trails in the forest.
The visitors can experience the forest through the possibility of hiking on their trails. To eat the meals with the meat, berries and mushrooms that are picked and hunt in the forest helps the visitors to understand what the forest can provide. Their spa which, with the help of plants and herbs from the surrounding forest, allows the visitor to enjoy the forest in a relaxing environment.

Over the years that have passed since 1978, the owners have been constantly working to add more activities to their visitors.

www.timjan.se



Best practice

Asa

Cooperation for education, entrepreneurship and deeper knowledge in forestry

Asa is a small village in the center of Småland and an important node for research, education and as a forestry meeting point in southern Sweden. Asa Experimental Forests and Research Station run by the Swedish University of Agricultural Sciences provides access to approximately 2700 ha of forestland for researchers, forest industry and forest owners. It is also a part of SITES, the Swedish Infrastructure for Ecosystem Science, a national research infrastructure for terrestrial and limnological field research. Linnaeus University, located in the nearby city Växjö, offers distance courses/blended learning in sustainable small-scale forestry addressed to forest owners. The courses include not only forest management and silviculture, but also forest mensuration, forest ecology, economy, wood properties and business opportunities within forestry. In cooperation between Asa Research Station and Linnaeus University, hundreds of forest owners each year visit Asa and get a deeper knowledge in forestry and forest management and insights in where the edge of the experimental forest research lies. Asa Herrgård, an estate with hotel, restaurant and forestry including activities such as "the edible country", hunting activity, fishing, canoeing and hiking, is another cornerstone in the successful sharing of knowledge and experiences. They provide housing and meals in beautiful surroundings as well as inspiration. One of the most important outcomes for the forest owners visiting Asa in a course or an excursion is the network they gain with other forest owners. They inspire each other to new business ideas and business development within forestry based on new knowledge.

Links:
Asa Experimental forest and research station:
www.slu.se/en/departments/field-based-forest-research/experimental-forests/asa-experimental-forest-and-research-station/

Linnaeus University, Forestry and Wood technology:
lnu.se/en/meet-linnaeus-university/Organisation/faculty-of-technology/meet-the-faculty-of-technology/forestry-and-wood/

Asa Herrgård:
www.asaherrgard.se/?lang=en
The edible country Asa: https://www.asaherrgard.se/theediblecountry?lang=en

The European Agricultural Fund
for Rural Development:
Europe investing in rural areas

LEADER
Pirkanmaa

BEST practice

