



BOOSTING RURAL BIOECONOMY NETWORKS FOLLOWING MULTI-ACTOR APPROACHES

NEWSLETTER

THE INFORMATION PROVIDED BY THE BRANCHES PROJECT **n°4 | October | 2022**
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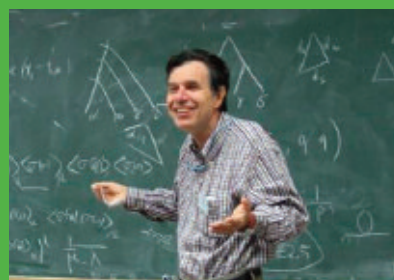
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BRANCHES



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PARTNERS



Latest developments in the BRANCHES Project

On September 13-14, the General Assembly of the "BRANCHES" Project was held in Valladolid, Spain, where Partners had the opportunity to meet in person and work together for the first time after finally overcoming the pandemic emergency.

The meeting, kindly hosted by AVEBIOM (Asociación Española de Valorización de la Biomasa), served to



take stock of the situation in the presence of Alessandra Sasso and Rasa Pakeltienė respectively Project Officer and Project Reviewer delegated by the European Commission for BRANCHES.

An important outcome of the "mid-term meeting"-after having earned compliments from Brussels for the conduct of the Project-was also outlining the next steps toward the conclusion of the three-year period of activity. In that regard, it was agreed to produce an end-of-project publication

containing all of the bioeconomy Practice Abstracts (PAs). The publication will be supplemented by interviews with the protagonists of the same selected good practices to learn from them how the current crisis (health, war and environmental) is affecting the sector in which they work. The publication will consist of a concise document, a "Factsheet," to be addressed to national and European policymakers to facilitate the needed development of the sector.

In combination with the meeting, AVEBIOM also organized a study tour to two interesting production facilities.



Premium Pellets Spain (PA17 – A mobile straw pellet mill)

Premium Pellets Spain is part of the agribusiness group Farming Agrícola. In 2018, Farming Agrícola established a new business line based on pelleting grasses for livestock feed (using alfalfa, fescue or oat hay) and pelleting straw for bedding and energy.



The new business is based on the use of a mobile pelletiser that can be used in two ways:

- Dynamically in the field, collecting grass and straw and turning it into pellets in a single pass
- Statically, in the farm yard, using previously stored bales of grass and straw. The machine is the innovative Krone Premos 5000, a model with only a few dozen machines already in operation around the world, and still being fine-tuned.

The visit was led by Javier Díaz, managing director of Premium Pellets Spain, who after a quick presentation of the company showed both the pellet production chain and the energy production chain. The company is in fact equipped with a district heating plant that meets Farming Agrícola's thermal needs. This heating network operates using either excess straw pellets or wood chips,



depending on the available stocks, including 2 different combustion technologies: Okotherm and Herz. In order to cope with the high demand for energy in a sustainable way, the company, which is already self-sufficient and powered by photovoltaic panels, intends to increase the production of renewable electrical energy also by exploiting the winds that characterise this vast province of Spain.

Cheese factory AGROPAL

The **AGROPAL cooperative** brings together more than 8,000 farmers who create a number of production chains through different agro-livestock activities that are complemented by agro-industrial processing. To meet its thermal needs, the cooperative has been equipped with a 5.5 MWth power plant fuelled with approximately 7,000 t/y of locally produced biomass (straw pellets). The main driving forces that oriented the Consortium towards bioenergy were:



- The availability of residual biomass. Agropal has 250,000 t of straw, some of which is used for cattle fodder, but still produces a large amount of surplus that would otherwise have to be mulched or burnt in the field.
- The soils would begin to suffer from the surplus of mulched straw.
- The consortium needs large amounts of energy to handle the dehydration of fodder and other production tasks that require high amounts of heat.

The visit took place at the Quesos Cerrato dairy, where Alejandro Velasco (strategic investment manager) described the activities of the consortium and showed the circular approach adopted in all production chains where the production of heat from a straw pellet boiler (which was visited) completes the bio-economic circuits.

The first two showcase days videos are online

During the summer period, the first two videos were published and are now available on the project website at <https://www.branchesproject.eu/materials/videos>.

The videos cover the showcase days that took place in Spain and Italy. A third video from Finland on the role of farmers in agroforestry ecosystems is also available on the project site at the same address.

The Spanish video

Prepared by AVEBIOM and CIRCE, concerns a well-designed technological system for the energetic valorisation of agricultural residual biomasses (vine shoots produced on the 200 ha of vineyards of the Granada Cooperative) used as biofuel to feed a district heating



plant. This plant meets the heating needs of four facilities: the state archive, two schools and an environmental education centre in the municipality of Villafranca del Penedès. Interesting technological aspects concern the choice and set-up of specific machines for the harvesting and processing of the pruning residues and the plant for their energy conversion. The entire supply chain described is an excellent model of sustainability to produce energy with high efficiency, low costs and minimum environmental impact.

The Italian video

realised by ITABIA and CNR IBE, was filmed during the demonstration tests of three different machine set ups for the harvesting of whole trees, the processing of trees into logs and the chipping of tops and small trees. The video shows three reliable and available te-



chnologies to make forest biomass supply chains sustainable in Italy. In particular, the innovations proposed by the video serve to optimise the quality standards of lignocellulosic biomass, at low cost for the end user. As mentioned, both videos described are available on the project website at the following url: <https://www.branchesproject.eu/materials/videos>.

BRANCHES project will show at Ecomondo Fair

ECOMONDO "the green technology expo" , the reference event in Europe for the ecological transition and development of the circular bioeconomy, will be held in Rimini (8-11 November 2022). Throughout the Fair, the European Union will coordinate a special Stand to give visibility to ongoing EU-funded projects related to the themes of sustainable development and circular bio-economy. The BRANCHES Project will also be present on 11 November, represented by the ITABIA team in a stand set up to inform visitors on the state of the art of ongoing and planned project activities.



The BRANCHES Prize: Italian 'Good Practice' selected

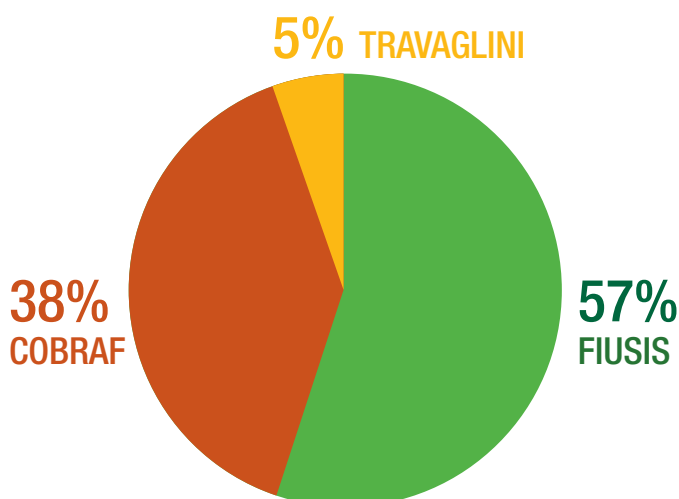
The identification of the good practice to be nominated for the BRANCHES Award took place through the involvement of the Italian NTN and other experts according to the criteria outlined and reported here below:



1. 7 good practices, selected from the Italian PAs of the Project, were proposed and sent by e-mail to a group of about 50 experts (including those of the NTN) and then responses were solicited by telephone.

2. After about a month, ITABIA received the evaluation forms from 21 experts containing the reasons for their choice.

The pie graph shows the outcome of the consultation, which identifies as the winner, the PA concerning the FIUSIS, 1 MWe biomass thermoelectric plant and the related olive tree pruning supply chain (BRANCHES PA no. 1). Second was the COBRAf Project (BRANCHES PA no. 23) which concerns the development of biorefineries starting from the use of 4 oil crops.



FIUSIS plant and its supply chain will be the subject of a showcase day that ITABIA and CNR IBE are organising for 20 and 21 April 2023. In this regards, we take the opportunity to thank in advance Marcello Piccinni, founder and sole director of the company for his availability in hosting the event.

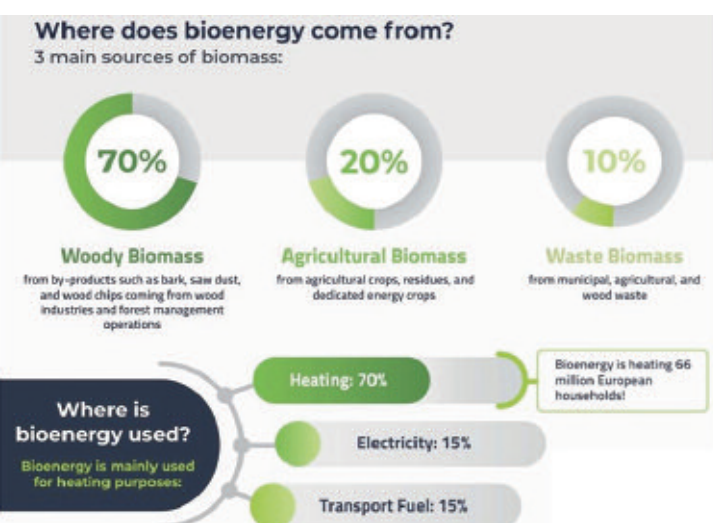
Few thoughts on the war in Ukraine

As was predictable from the very beginning, the Russian invasion in Ukraine has gone far beyond the limits of the territories directly affected to involve the entire planet, and not only on an emotional level. Given the complexity of the matter, from this newsletter, we can only observe how energy aspects continue to play a major role. This is not only because of the pressure on supplies, but also because of the risks that can be generated by infrastructures damaged by missiles. In this regard, two recent news events give us food for thought.

1. The Nord Stream methane pipeline - which transported no less than 27.5 billion cubic metres of Russian gas per year to Europe over a distance of 1,220 km - is out of action due to sabotage (without responsible ...), which by opening 4 leaks has compromised the operation of this infrastructure costing around 15 billion Euros.

2. The nuclear power plant at Zaporizhzhia (5.7 GW of power), the largest in Europe and among the first in the world, is now shut down due to attacks by Russian militias and its inactivity constitutes an enormous risk due to the difficulty of monitoring the state of the reactors. Once again it is evident how strategic Renewable Energy Sources (RES) are! In fact, in addition to not producing climate-altering gases or radioactive waste, they have the great advantage of being made up of plants that can be scaled down to small sizes and scattered across the territory to support production activities instead of being concentrated in a single point; this makes them a war target of little interest due to the low damage they can produce in terms of energy or subsequent explosions and contamination.

Bioenergies account for 57% of renewables consumed in Europe



As we know, bioenergy strongly contributes to the reduction of greenhouse gas emissions and to the sustainable management of forests, while enabling the achievement of Europe's green economy goals.

These aspects are covered in the recent publication entitled 'Bioenergy: A Renewable Energy Champion' (<https://bioenergyeurope.org/component/attachments/attachments.html?id=1663&task=download>), a brochure produced by Bioenergy Europe, a Brussels-based international non-profit organisation

that brings together more than 40 national associations and 90 companies in the sector, as well as universities and research institutes from across Europe. The document shows the potential of bioenergy on the European continent and points out that it accounts for 57% of the renewable energy consumed in Europe. Of these, 70% are used for domestic heating (66 million Europeans use them in their homes), 15% for electricity production, and 15% as biofuel for transport.

'Discovering the Bioeconomy' a book for tomorrow's stakeholders

During the 'EU Bioeconomy Conference 2022', held in Brussels on 6 and 7 October, an original book was presented, a text designed within the framework of the H2020 Biovoices Project to introduce children between 5 and 8 years old to the world of the bioeconomy. This book, entitled 'Let's Discover the Bioeconomy', was produced by APRE (Agency for the Promotion of European Research) and financed by the European Union to ensure wide distribution in 11 languages. Through attractive infographics and old-fashioned interactivity (100% manual), the text explains complex concepts such as: What are bio-based products? How does a biorefinery work? What is a biomass and what is it used for?



The book also provides examples and references to everyday life with practical examples: did you know that plant and algae waste can be turned into kitchen cleaning products? Did you



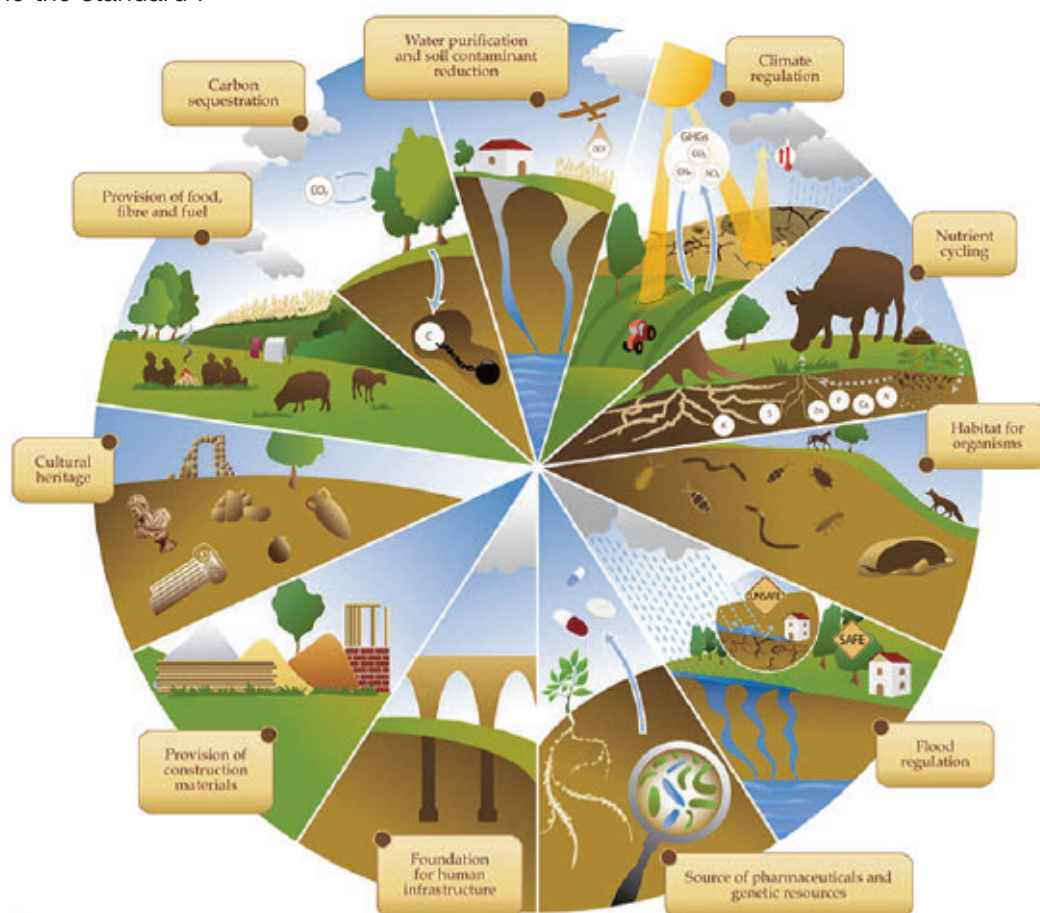
know that your toothbrush can be made from plastic fibres of vegetable origin? Did you know that there are nappies and clothes made from renewable resources or sofas made from fruit and vegetable waste? According to author Chiara Pocaterra, coordinator of Biovoices and editor of the book, if we really want to create a culture of sustainability, we need a radical change in the way we think and - precisely for this

reason - we need to turn to children. With this in mind, the writing of the book was the result of a collaboration between 30 experts (scientists, industry, trade associations, etc.) and the Biovoices team who translated their contributions into a language that children could understand. "This book is just the beginning of an educational pathway on the bioeconomy that all schools should include," comments Christian Patermann, a former European Commission official who is considered one of the founding fathers of the bioeconomy in the Old Continent.

EU soils should be in a healthy condition by 2050

The European Commission is working on a legislative proposal to introduce measures to combat soil degradation. To gather the views of experts and citizens, it has launched a public consultation. Objective: to identify the most effective and shared actions. Target: all European citizens and experts from universities, research centres, national institutions, local authorities of the different EU countries. Anyone is therefore invited to participate by 24 October, by registering on the Commission's website and answering the questionnaire, https://environment.ec.europa.eu/news/commission-consults-citizens-and-stakeholders-possible-eu-soil-health-law-2022-08-02_en.

The objective of the consultation is twofold: on the one hand, to collect as many opinions and points of view of European citizens as possible, in order to understand how much the problem of soil degradation is actually felt and which regulations could gather an adequate consensus in the continental public opinion. On the other hand, they also want to gather the professional opinions of those who work with the soil issue on a daily basis. Alongside the 13 questions intended for the general public, seven more technical ones are planned. All this is part of the more general EU Soil Strategy 'Healthy Soils for the Benefit of People, Food, Nature and Climate'. According to Brussels, all EU soils should be in a healthy condition by 2050 and protection, sustainable use and restoration of soils have to become the standard'.



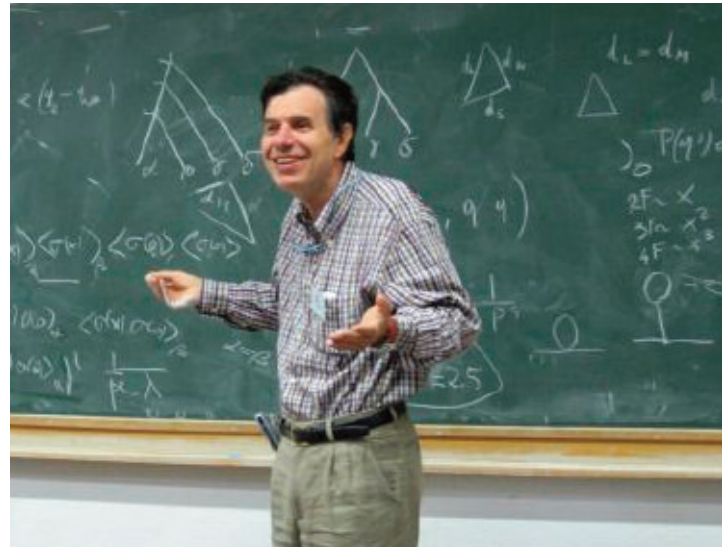
Giorgio Parisi

During these days, the Nobel Peace Prizes for 2022 are being awarded and the choice will be made between figures who have distinguished themselves by opposing war or climate change. Between the two categories, there is a link given by renewable sources of energy; in fact, the abandonment of fossil fuels reduces the risk of wars and makes it easier to fight global warming.

Giorgio Parisi, Nobel Laureate in Physics 2021, awarded for "Innovative contributions to the understanding of complex physical systems" recently stated:

“It was easier to win the Nobel Prize than to convince my neighbours to install solar panels”.

Regardless of the difficulties encountered, the prize was awarded, while the panels were not installed. This shows that even today, poor environmental culture and bureaucratic complications are the first obstacle to sustainable development.



5 December 2022: World Soil Day

Soil nutrient loss is a major soil degradation process that threatens nutrition and is recognised as one of the most important global issues for food security and sustainability

worldwide. World Soil Day 2022 (#WorldSoilDay) and its campaign "Soils: Where Food Begins" aims to raise awareness of the importance of maintaining healthy ecosystems and human well-being by addressing the growing challenges in soil management, increasing soil awareness and encouraging societies to improve soil health. As part of this wide-ranging initiative, on the morning of 5 December, the Bionet Green Chemistry Association (part of the Italian NTN of BRANCHES) is promoting an event entitled 'Green Chemistry for Soil Regeneration' to be held in Florence at the Accademia dei Georgofili.



The 31th edition of the EUBCE, The European Biomass Conference & Exhibit: call for papers

EUBCE is the largest biomass conference and exhibition in the world. Each year, EUBCE brings together the greatest minds and latest advancements in biomass, with the aim of accelerating research and market uptake across the globe. During the conference, over 2,000 experts from both academia and industry share and discuss groundbreaking ideas, technologies, applications, and solutions for the sourcing, production, and utility of biomass. The scientific programme is coordinated by the Joint Research Centre of the European Commission. The 31th edition of the EUBCE will be convened in person, over the course of four days, from the 5th to the 8th of June 2023, in Bologna (Italy) plus one day dedicated to technical visits. The call for papers is open until 18 November 2022 and EUBCE invite experts to start planning your paper to be part of the technical programme in June 2023. Some topics are very close to the Branches project, which is why we point out the opportunity. The conference topics are:

- Sustainable resources for decarbonising the economy
- Sustainability, impacts and policies
- Biomass, bio-based products and bioenergy integration
- Biomass conversion for bioenergy
- Biomass conversion to intermediate bioenergy carriers and sustainable biofuels
- Biomass conversion to bio-based products and chemicals

YOU can find all information about the topics, the abstract submission guidelines in the EUBCE website, https://www.eubce.com/call-for-abstracts/?utm_campaign=Call%20for%20Papers%20Octobers&utm_medium=email&utm_source=EOACLK or contact papers@etaflorence.it for more information.