

4<sup>th</sup> Forest Innovation Workshop  
Firenze, Italy – 15-16/01/2020

Operational  
Group EIP-AGRI



## SPNA - Precision Silviculture in Nouvelle-Aquitaine (FR)

### Project management team:

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### Speaker:

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ROSEWOOD French CNPF Contact



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## SPNA - Presentation outline

### Presentation of the SPNA project

- What are the regional issues ?
- How SPNA is supposed to address them ?
- Who are the partners ?
- What is the Programme of activities ?

### Synergies with the actual workshop

- EIP-AGRI on forest sector and Rural development program
- Cross-border cooperation and Opportunities through other relevant EU programmes / instruments



(1/3)

- # LES MASSIFS FORESTIERS DE LA REGION NOUVELLE-AQUITAINE
- 
- The map displays the Nouvelle-Aquitaine region with a green background. A network of rivers is shown in blue, and various forest massifs are delineated by colored borders. A legend in the bottom right corner identifies the colors: red for the Garonne, blue for the Adour, green for the Dordogne, and purple for the Vézère. The map also shows the regional boundaries of Nouvelle-Aquitaine.
- Carte Landcover 2012**
- Garonne
  - Adour
  - Dordogne
  - Vézère
- Carte en projection UTM sur le datum  
ETRS89. Révision : 01/08 - 1003001



(2/3)

SPNA shall provide foresters with a decision tool helping continuous improvement of silviculture with new technology !



## Regional context (3/3)

### Chestnut

France has 50% of the world surface

- + 250 000 ha (2<sup>nd</sup> species after oaks)
- 38 400 m<sup>3</sup>/year of raw timber (35% national harvest)
- 21 500 m<sup>3</sup> /year of sawn timber (64 % national harvest)



### Weaknesses and Threats

- Important dieback increased by climate change
  - Drought risk higher since 2003
  - Favourable conditions for pests and diseases
  - Lack of active sylviculture
- Biotic risks
  - Chestnut blight (*Cryphonectria parasitica*)
  - Chestnut ink (*Phytophthora cinnamomi* and *cambivora*)
  - Chestnut gall wasp (*Cynips*)



SPNA shall improve and boost chestnut sylviculture with a set of decision tools !



## SPNA in a nutshell

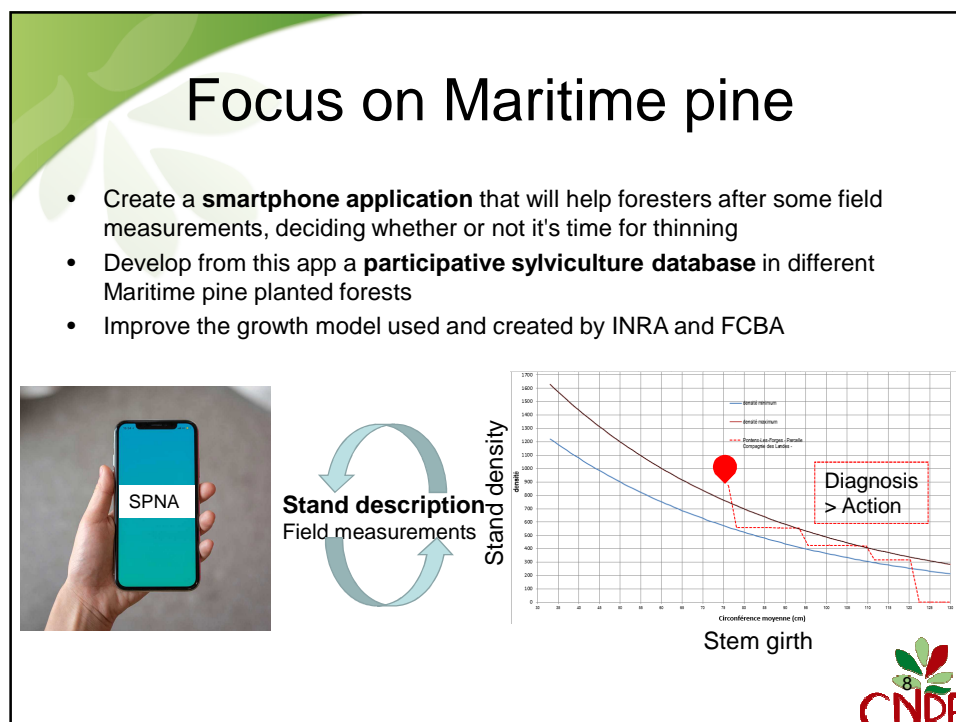
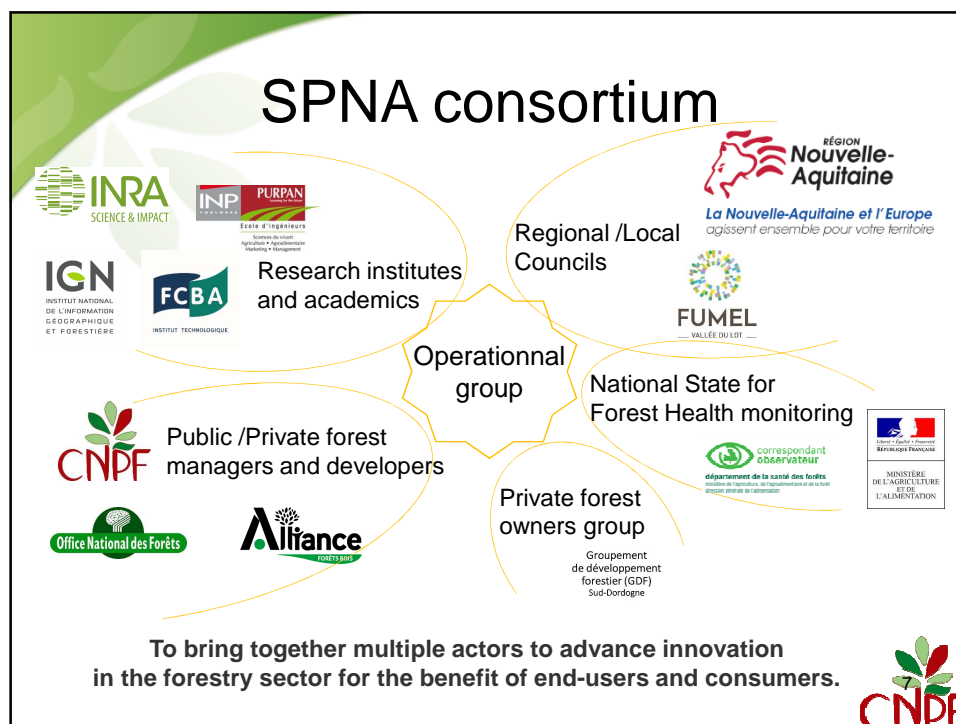
- **3-year program** from 01/06/2019 to 31/05/2022
- 493 123 €
- 10 partners

- Funding via **Rural Development Program (RDP)** in Nouvelle-Aquitaine :
  - EAFRD : 209 508 €
  - Council of Nouvelle-Aquitaine Region : 185 790 €
  - Self-financing : 98 825 €



- Focus on 2 tree species relevant for regional economy and landscape in a climate change context.
- **Maritime pine**, the objective is to develop a smartphone app that will help foresters after some field measurements, deciding whether or not it's time for thinning.
- **Chestnut**, the aim is to provide foresters and communities with a set of innovative and digital tools in order to boost sylviculture

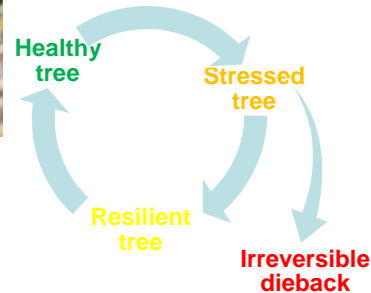
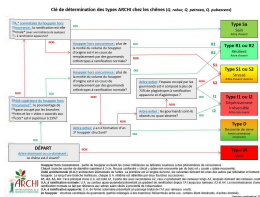




## Focus on chestnut<sup>(1/6)</sup>

At local /tree scale

- Train foresters to the **ARCHI** chestnut tool to diagnosis tree's health status



Dichotomous /identification key integrated in a smartphone app for trained foresters



## Focus on chestnut<sup>(2/6)</sup>

At local /tree scale

- Apply and test the **BIOCLIMSOL** application



- **Bio** stands for biological data such as tree health,
- **Clim** stands for climatic data such as temperature, wind, and droughts,
- **Sol** stands for soil and its positive or negative effects on water availability.



Diagnose the forest, soil and climate conditions of the local site to assess which tree species are suitable regarding the climate change.





## Focus on chestnut<sup>(3/6)</sup>

### At local /tree scale

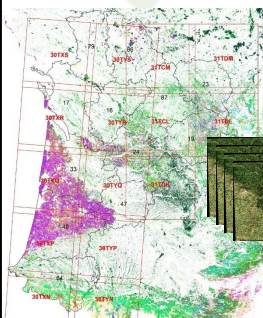
- Set up **marteloscopes** with the goal of training foresters to silviculture.



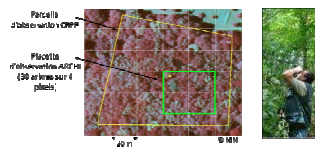
## Focus on chestnut<sup>(4/6)</sup>

### At macro /forest massif scale

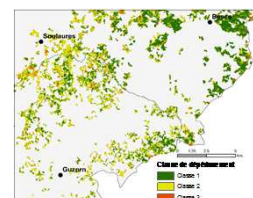
- Better assess the forest stands on an annual basis in quantity and quality regarding health risks and using **remote sensing tools**.



From satellite data



Field observation (ARCHI)  
for calibration and validation



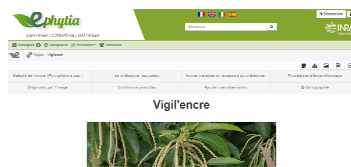
Mapping of chestnut  
dieback



## Focus on chestnut<sup>(5/6)</sup>

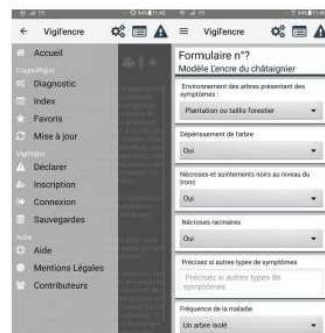
### At local /tree scale

- Train and test the **Vigil'encre** app (by INRA) to signal any diseased chestnut tree by promoting citizen surveillance *via* the use of a collaborative reporting tool.
- Disseminate knowledge on the ink disease caused by *Phytophthora cinnamomi* and *P. cambivora*.



Vigil'encre application :  
Web interface

[http://ephytia.inra.fr/fr/P/157/Vigil\\_encre](http://ephytia.inra.fr/fr/P/157/Vigil_encre)



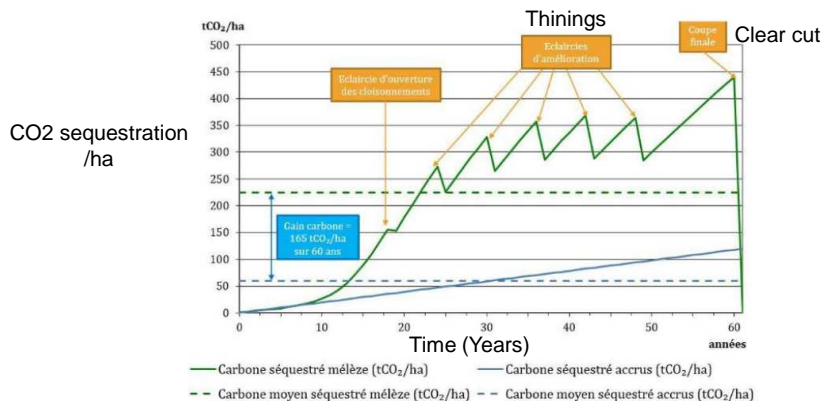
Reporting form



## Focus on chestnut<sup>(6/6)</sup>

### At macro /forest massif scale

- Develop a **CLIMAFOR** tool to evaluate the carbone stock of chestnut tree stands according to different sylvicultures.
- Extension workshops and local meetings for the implementation of these sylvicultural itineraries (local community of Fumelois)



# Synergies with the actual workshop

(1/2)

## EIP-AGRI on forest sector and Rural development program

Projects - Operational groups <https://ec.europa.eu/eip/agriculture/en>

Fulltext search	Geographical location	Keywords		
Contains any of these words	Choose some options	Forestry x	Search	Reset

Results after a quick request on Operational Groups on “forestry” topic :

- SPNA is not listed yet ?
- 2 OGs seem relevant for SPNA :
  - e.g.: New techniques for monitoring the carbon balance and the state of health of wood and fruit chestnut trees - Talking Chestnuts (contact [r.ranieri@openfields.it](mailto:r.ranieri@openfields.it))
  - e.g.: Technical innovation and carbon capture on management of state-owned forests of Alto Appennino Modenese (contact [direttore@parchiemiliacentrale.it](mailto:direttore@parchiemiliacentrale.it))

➡ The EIP-AGRI Service Point could organise thematic workshops and invite project leaders like today.



# Synergies with the actual workshop

(2/2)

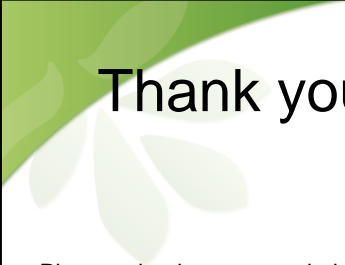
## Cross-border cooperation and Opportunities through other relevant EU programmes / instruments

The EIP-AGRI Service Point in combination with National /Rural Network could help forest actors:

- ➡ • Inventory and update the different projects (EIP or any EU project) on forestry and sub-thematics
- ➡ • Organize workshops according to geography (cross-border or interregional) and thematics (specific thematic) relevance for cooperation.







# Thank you for your attention ! Merci !

Please, check out our websites :

CNPF: <https://www.cnpf.fr/n/international-and-european-cooperation/n:1993>

CNPF Nouvelle-Aquitaine: <https://www.nouvelle-aquitaine.cnpf.fr/>

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