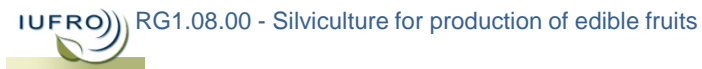




Encouraging dialogue and knowledge exchange across neighbouring sectors

Dr. Sven Mutke
mutke@inia.es



Coordinator



Partners



This project has received funding from the European Union's H2020 research and innovation programme under grant agreement No.774632.

Gourmet flavours with Mediterranean *genius loci*



Mediterranean pine nut kernels



Sweet chestnuts



Acorns



Strawberry tree fruits



Blueberries, myrtle berries, etc.



Gourmet flavours with Mediterranean *genius loci*

Pine nuts (200+ M€/yr)



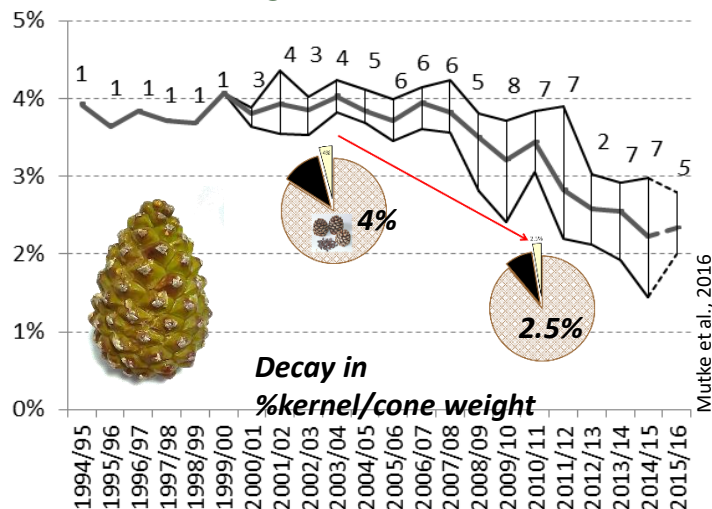
Chestnut (400+ M€/yr)



☠ Invasive exotic pests and pathogens ☠



Western conifer seed bug
Leptoglossus occidentalis



Asian chestnut gall wasp
Dryocosmus kuriphilus





EL BIERZO || 2020
noviembre

19.20

XI Jornadas técnico-científicas
Technical and scientific conferences

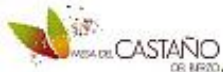


@
**C^{Bio}
CASTANEA**

www.castanea.es
www.biocastanea.es



Organiza:



Patrocinan:



Colaboran:



Primer premio
Biocastanea 2017

Daniel Sánchez Enjuto
Ponferrada (León)

"El instante"



Accesit
Biocastanea 2017

Francisco Javier
Domínguez García
Jerez de la Frontera
Cádiz

"Un día más entre
castaños"



Primer premio
"El castaño es
biodiversidad"
Biocastanea 2018

José Pablo
Álvarez Gonzalez
Fabero (León)

"Y vio la luz"



Primer premio
"Fotografía
histórica"
Biocastanea 2018

Julián Rodríguez
Asensio
Ponferrada (León)

"La hilandera"



**C^{Bio}
CASTANEA**



Red Estatal del Castaño

EL BIERZO
FERIA INTERNACIONAL DE LA CASTAÑICULTURA
INTERNATIONAL MEETING ON CHESTNUT



EUROCASTANEA
European Chestnut Network



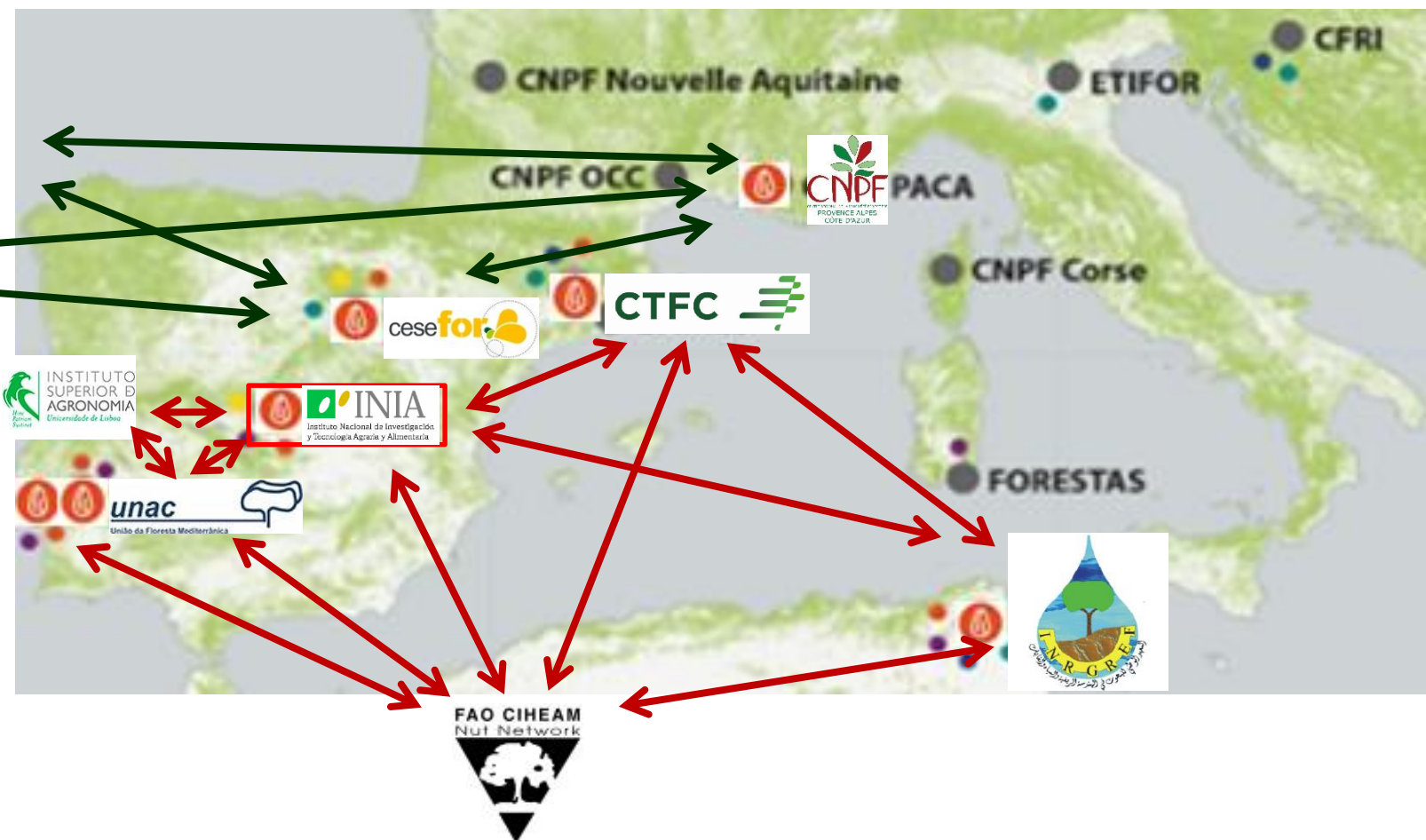
Encouraging dialogue and knowledge exchange

Mediterranean pine nuts orchards



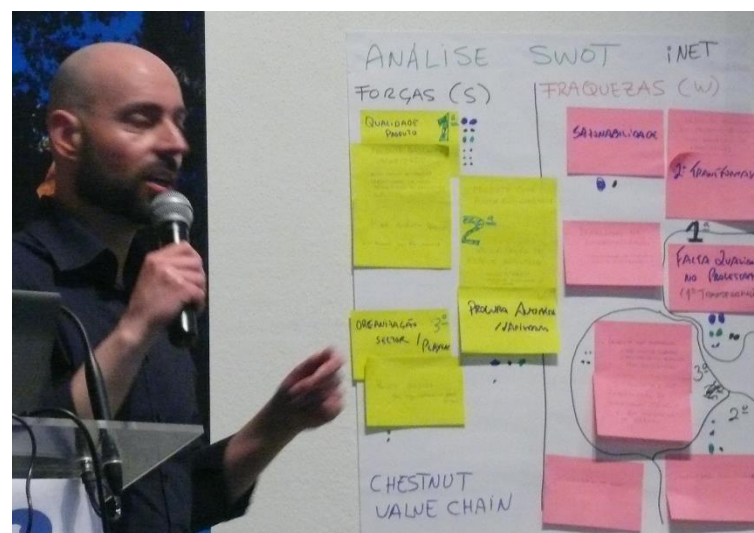
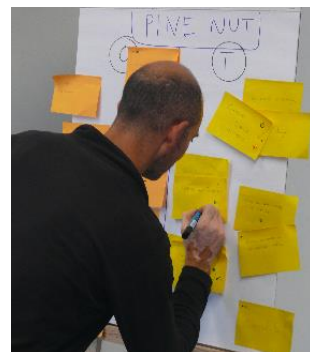
Pinus pinea L.





Scoping Seminar *Wild Nuts & Berries iNet 2018*

Coruche/Alcácer do Sal, Portugal, June 2018



Encouraging dialogue and knowledge exchange

Forests & plantations

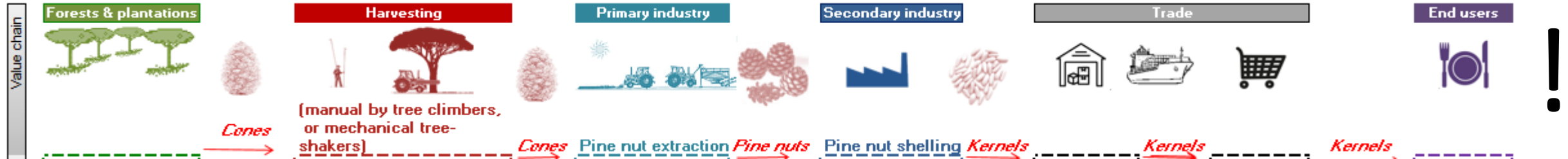


?

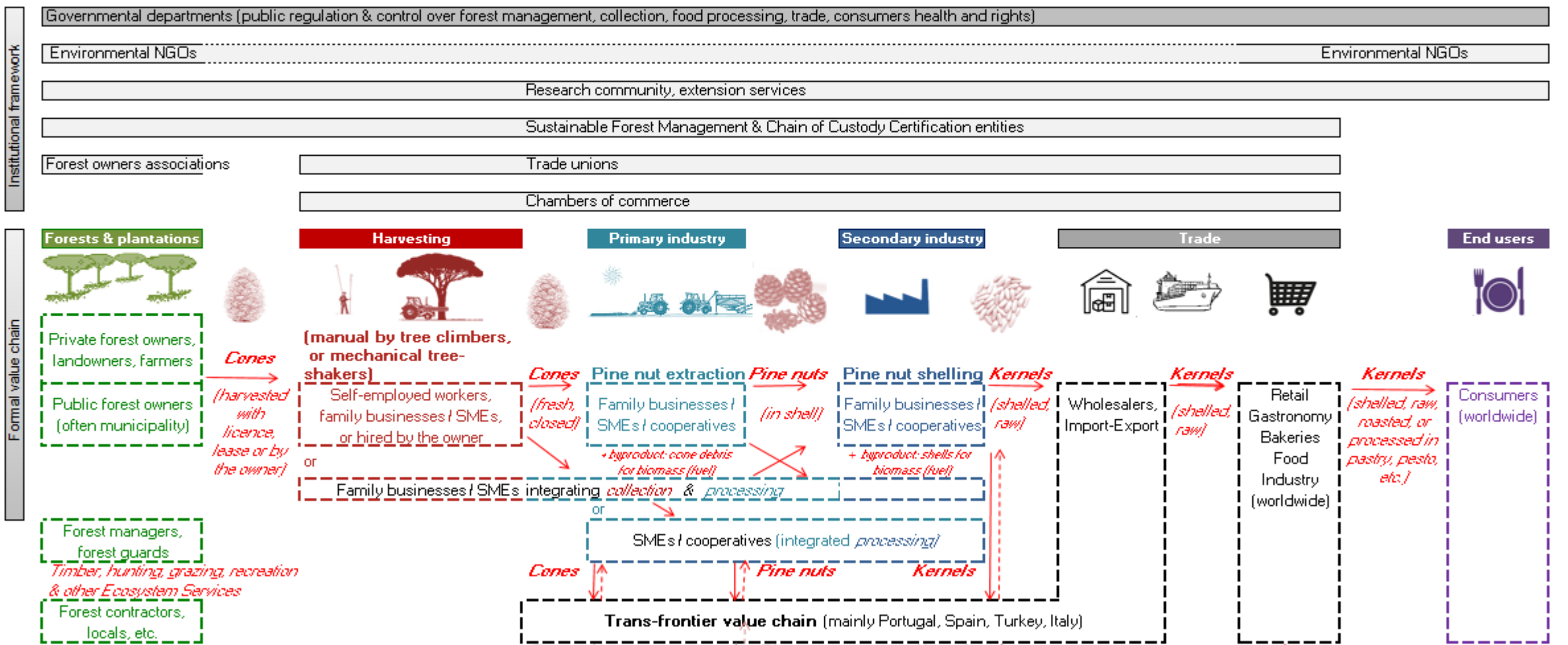
Cones



Mediterranean pine nut value chain



Mediterranean pine nut value chain ecosystem



Persisting illegal practices:

Illegal harvesting & thefts

& a complete parallel, non traceable, "tax-free" supply chain & black market (also trans-frontier)



Encouraging dialogue and knowledge exchange

Scoping Seminar *Wild Nuts & Berries iNet 2018*

Coruche/Alcácer do Sal, Portugal, June 2018

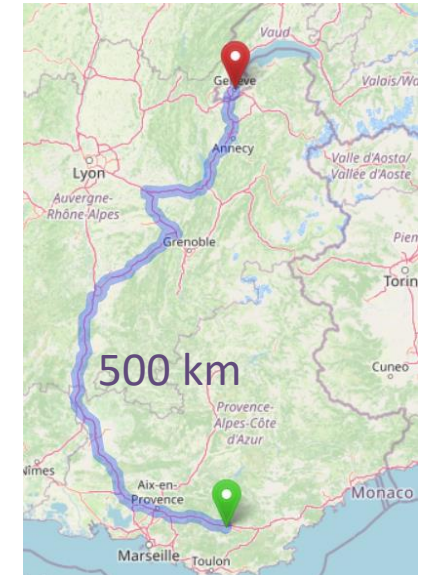
PINE NUTS VALUE CHAIN

- Black market (parallel value chains)
- Robbery
- Tax fraud
- Lack of control/effective regulation
- Market competition/composition TR, PRC, PR...
- Different national regulation (transborder transfer)
- New/^{rowd} equipment for mechanical harvesting



Combining WN&B economic development and products quality

Marseille, March 7/8, 2019



Encouraging dialogue and knowledge exchange



Wild harvested nuts and berries in time of new pests, diseases and climate change

Pine nut & chestnut pests & diseases

Encouraging dialogue and knowledge exchange



Biological control in chestnut

Ink disease (*Phytophthora spp.*) by resistant hybrid rootstocks

Chestnut blight (*C. parasitica*) by inoculating hypovirulent strains (RNA virus)



Gall wasp by parasitoids



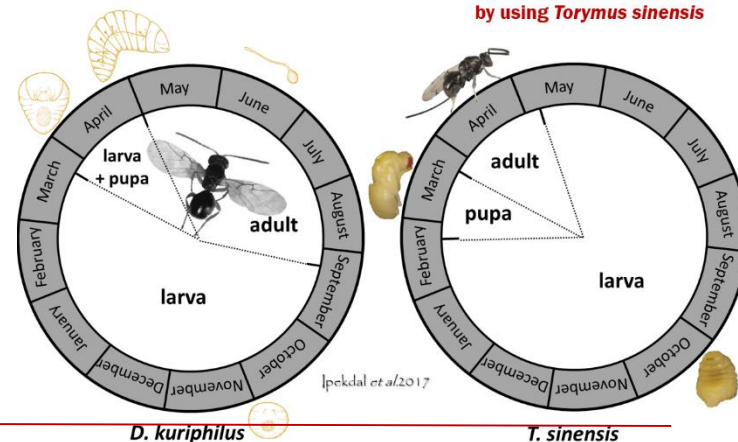
Classical Biological control against the chestnut gall wasp:
Introduction and establishment of the exotic *Torymus sinensis* in France

Nicolas Borowiec¹, Marcel Thacon¹, Lisa Brancaccio², Sylvie Warot¹, Madalina Viciruc³, Lucian Fusu³, Alex Aebi⁴, Seichi Moriya⁵, Jinping Zhang⁶, Jean-Claude Malausa¹, Elodie Vercken¹, Nicolas Ris¹

(millions of *Torymus* released every year)



Preliminary control practices in Turkey
Classical biological control of the ACGW
by using *Torymus sinensis*





Wild harvested nuts and berries in time of new pests, diseases and climate change

Pine nut & chestnut pests & diseases



[Calama et al., 2020]



...yet no solution for the bug *Leptoglossus*,
collapse of the Mediterranean pine nuts sector



Egg parasitoids (*Ooencyrtus* sp.)?

...ongoing research

[Pajares[†] & Ponce, 2019; Farinha, 2019]

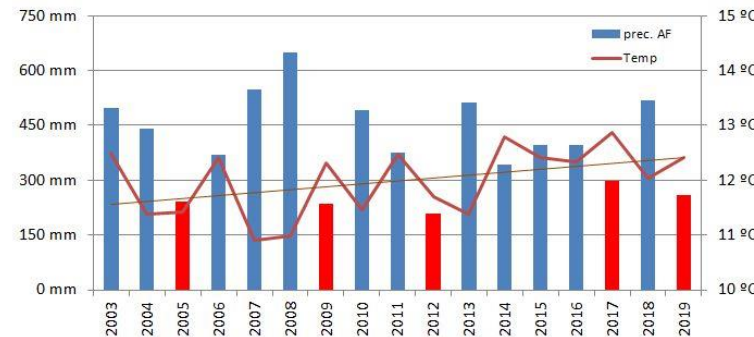
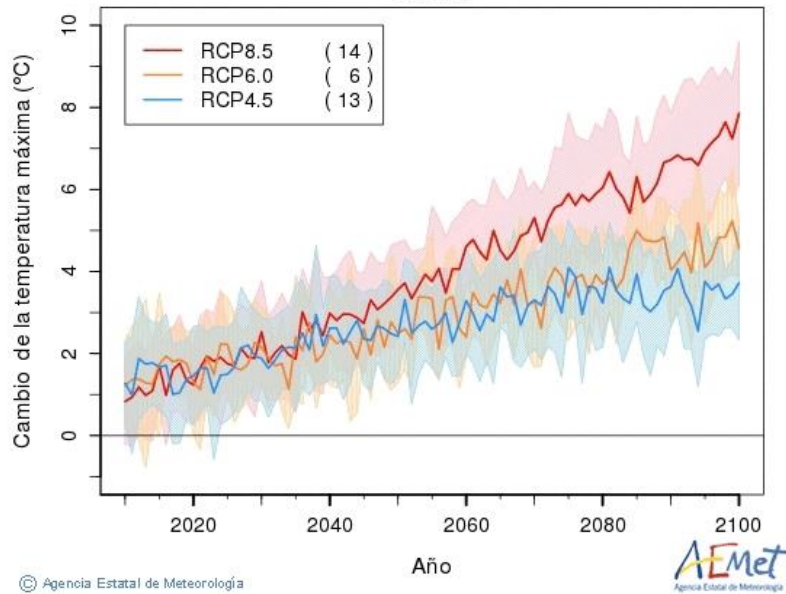
Wild harvested nuts and berries in time of new pests, diseases and climate change
Interregional Workshop, Palencia, June 12-14, 2019

Climate change scenarios and forest production in the Douro basin - how can forest stands be adapted to?

Some clues for forest owners.

Science to practice event, U. Valladolid
October 9, 2019

CASTILLA Y LEÓN
VERANO



Forest decay or

Species change & reduced stand density

[Calama et al., 2019]





PROGRAM

FCT
Fundação para a Ciência e a Tecnologia

INSTITUTO SUPERIOR D AGRONOMIA
Universidade de Lisboa

incredible
Associação Nacional de Estudos Florestais

FERTIPINEA

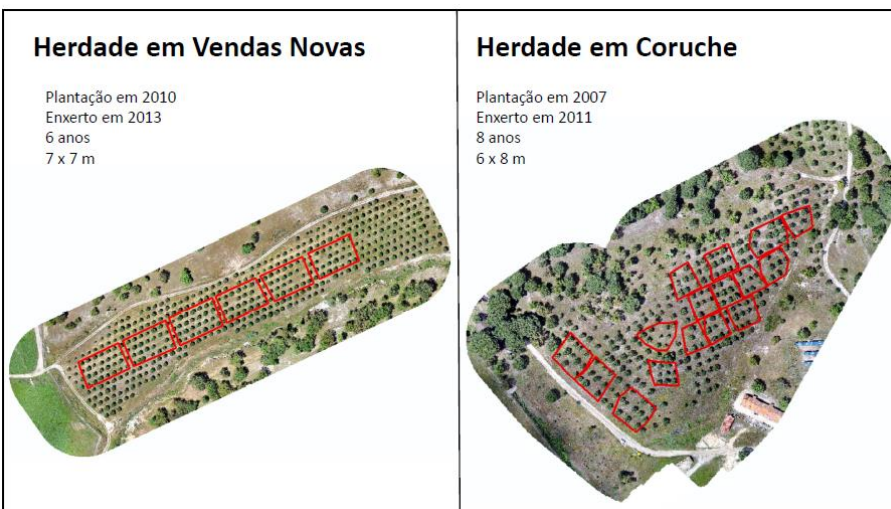
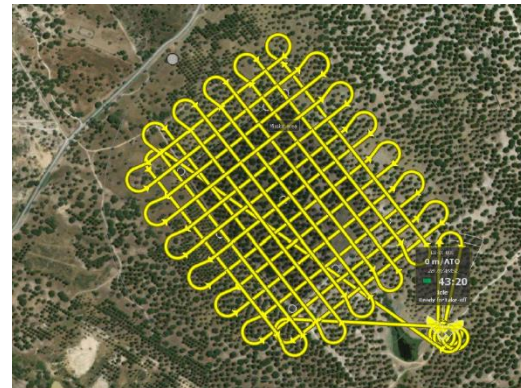
PINHÃO



ISA, U. Lisboa

Research for practice

Phenology, orchard monitoring with drones,
experimental irrigation, fertilisation, etc.





Enhanced production of edibles from forests and orchards

Tunis (Tunisia)
November 12th & 13th, 2019



Organized by

National Institute for Research
in Rural Engineering, Water and Forests (INRGREF)



Interregional Workshop
&
Science to practice

iNet

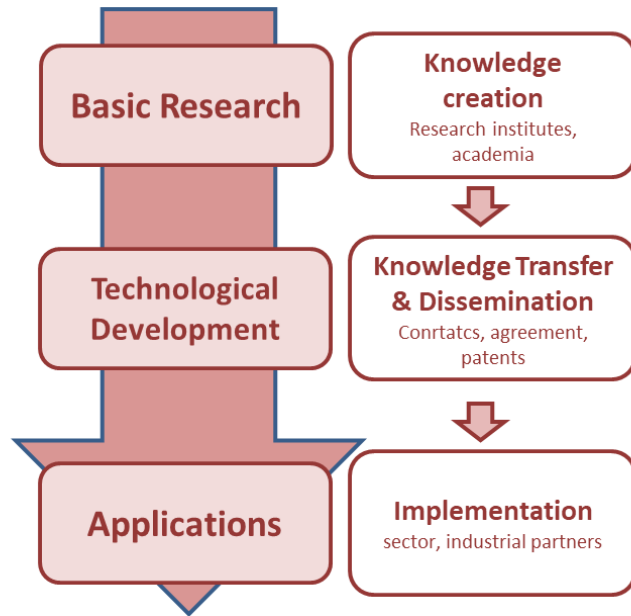


Aleppo pine seeds for *Zgougou* paste
(55€/ha/yr)
[Taghouti, 2019]

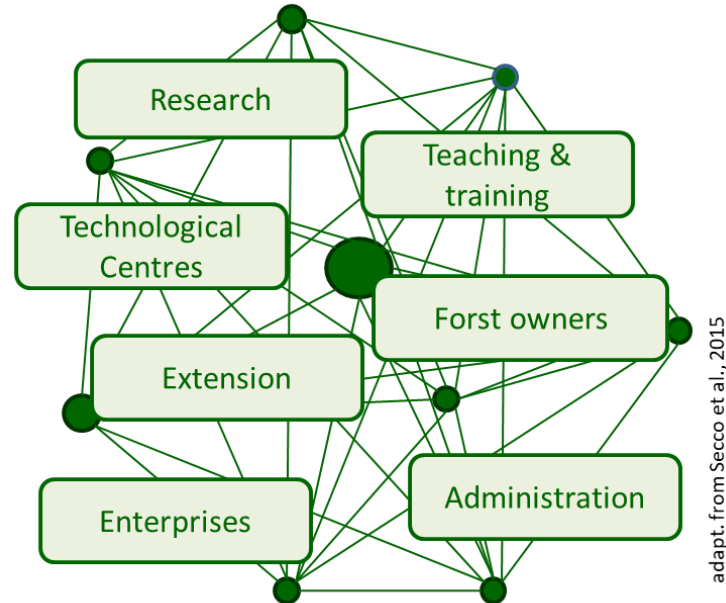


The INCREdible network has been about OPEN INNOVATION

Linear top down model of INNOVATION



Interactive model of OPEN INNOVATION



2030 Agenda / EU Green Deal → Transition to bioeconomy

SMART INNOVATION
technological, organisational,
regulatory, social

Circular, green,
bio-based economy

Fossil fuel-based,
linear economy



Transition to bioeconomy – EIP Agri



Grupo Operacional +Pinhão– Gestão integrada de agentes bióticos associados à perda de produção de pinhão”. <http://www2.icnf.pt/portal/florestas/prag-doe/go/gopinhao>



Grupo Operacional n.º PDR2020-101-031330 (INIAV - Líder)
Nutrição e fertilização do pinheiro-mansinho em sequeiro e regadio

<https://www.unac.pt/index.php/id-i/grupos-operacionais-accao-1-1-pdr2020/fertipinea>



WildFood

Eating the wild: Improving the value-chain of Mediterranean Wild Food Products <https://wildfood.ctfc.cat/>

Grupo Operativo Pinea | Apresentação del Grupo Operativo

"Mejoras e innovación en la producción del piñón nacional"

20 Septiembre 2018. De 10 a 15 h.

Museo Patio Herreriano
de Arte Contemporáneo Español
C/Jorge Guillén, 6. Valladolid

el piñón ibérico
PINUS PINEA



<http://www.fafcycle.es/gopinon/>



MINISTERIO DE
AGRICULTURA, PESCA Y
ALIMENTACIÓN

SECRETARIA GENERAL DE AGRICULTURA Y
ALIMENTACION

DIRECCION GENERAL DE DESARROLLO RURAL,
INNOVACIÓN Y FORMACIÓN AGROALIMENTARIA



Informe de evaluación de las solicitudes de ayudas a la ejecución de proyectos de innovación de interés general por grupos operativos de la Asociación Europea para la Innovación en materia de productividad y sostenibilidad agrícolas (AEI-Agri), convocadas de forma anticipada por

ANEXO B. LISTADO DE SOLICITU

Posición prelación POR PUNTUACIÓN	Nº exp	Nombre Remitente	CIF/NIF	Titulo del proyecto innovador	A1
17	O00000226e2000044455	FUNDACION CENTRO DE SERVICIOS Y PROMOCION FORESTAL Y DE SU INDUSTRIA DE CASTILLA Y LEON	G42164020	Grupo Operativo PINEA: MEJORAS E INNOVACIÓN EN LA PRODUCCIÓN DE PIÑÓN NACIONAL	6

el piñón ibérico

PINUS PINEA

<http://www.fafcyle.es/gopinon/>

*Operational Group PINEA: Improvement and innovation in
national production of pine nuts
(pre-selected)*

CONGRATULATIONS !