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"Resin resource monitoring & modelling in a context of climate change"

Inter-regional workshop INIA Madrid

January 21/22, 2019

Session1. Resin production from pine forests: resources, inventory and monitoring – where are we?

Coordinator

EFI

Partners

[cesefor] CNPF CTFC Forestas SardegnaForeste GOBIERNO DE ESPAÑA MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES INIA Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria

ETIFOR valuing nature esset HRVATSKI ŠUMARSKI INSTITUT CROATIAN FOREST RESEARCH INSTITUTE INSTITUTO SUPERIOR D AGRONOMIA Universidade de Lisboa unac União da Floresta Mediterrânica University of Ioannina Department of Preschool Education

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Portuguese resin traceability & statistics

Paula Soares & Cristina Santos

Instituto Superior Agronomia
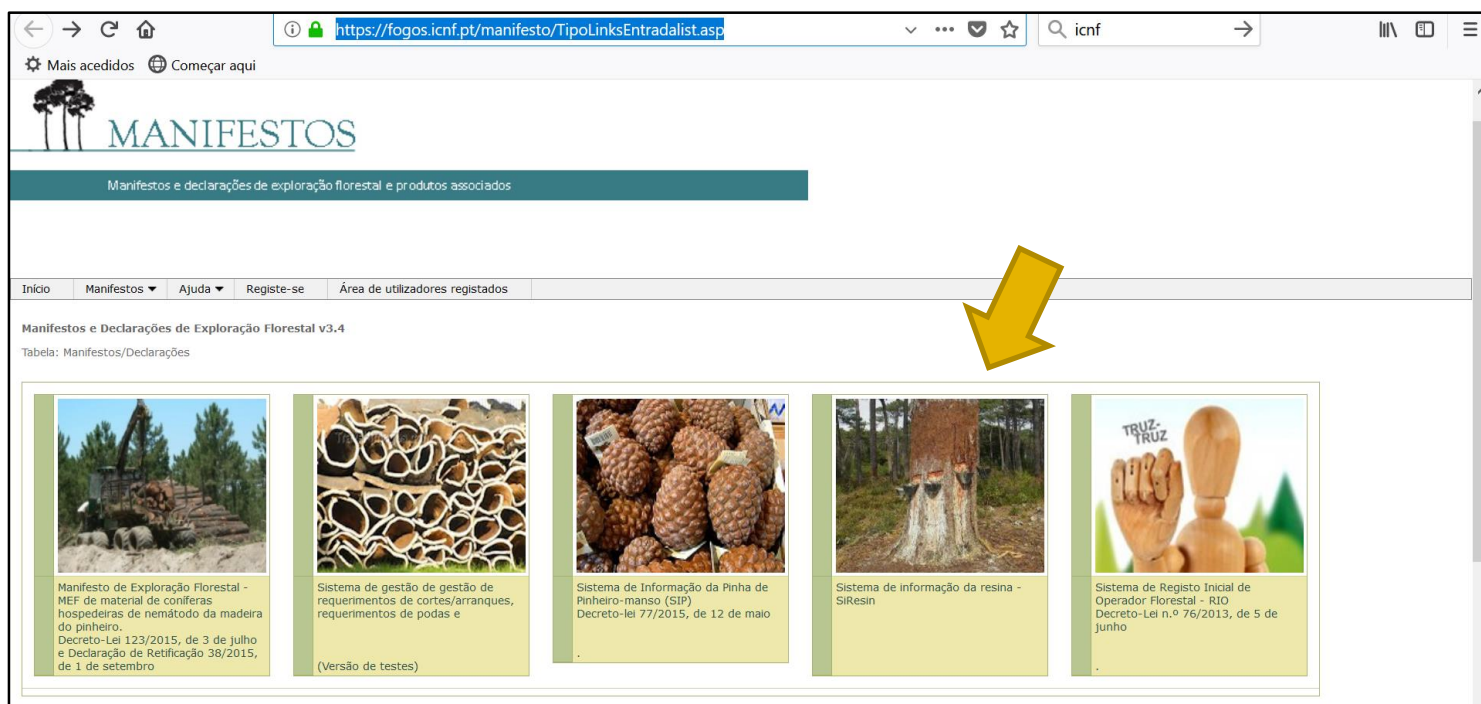
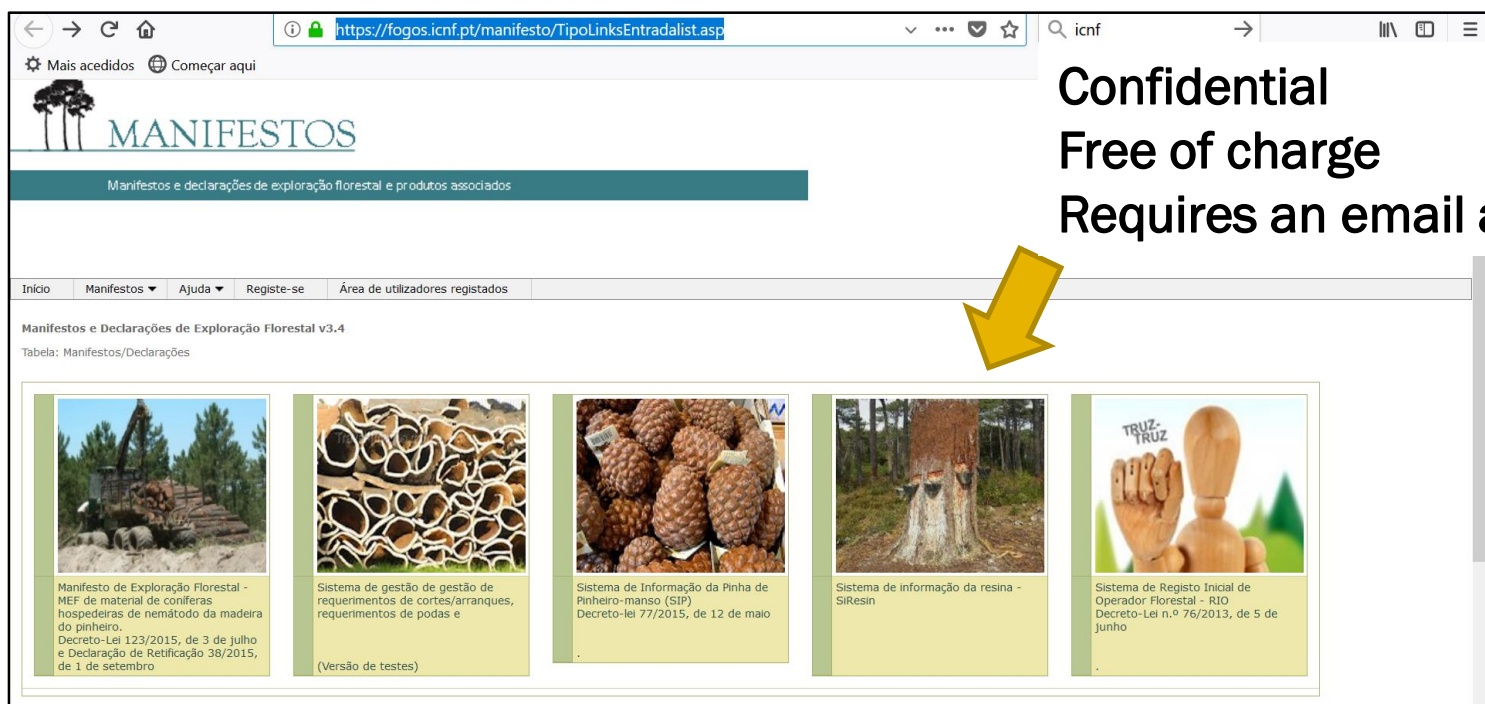Instituto da Conservação da Natureza e das Florestas

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Decree-Law nº 181/2015, 18 August
Legal regime for the resin activity and circulation of pine resin

SiResin - Resin Information System

https://fogos.icnf.pt/manifesto/TipoLinksEntradalist.asp

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Confidential
Free of charge
Requires an email address

https://fogos.icnf.pt/manifesto/TipoLinksEntradalist.asp

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SiResin - Resin Information System

Allows:

- registration of the resin operator (forest owner, resin worker, or others that have activity in the resin commercialization circuit)

- prior declaration (mandatory) of the resin activities:

  - resin tapping
  - resin transportation
  - resin storage
  - resin import and export
  - resin used by 1st transformation industry

Estimates of resin yield

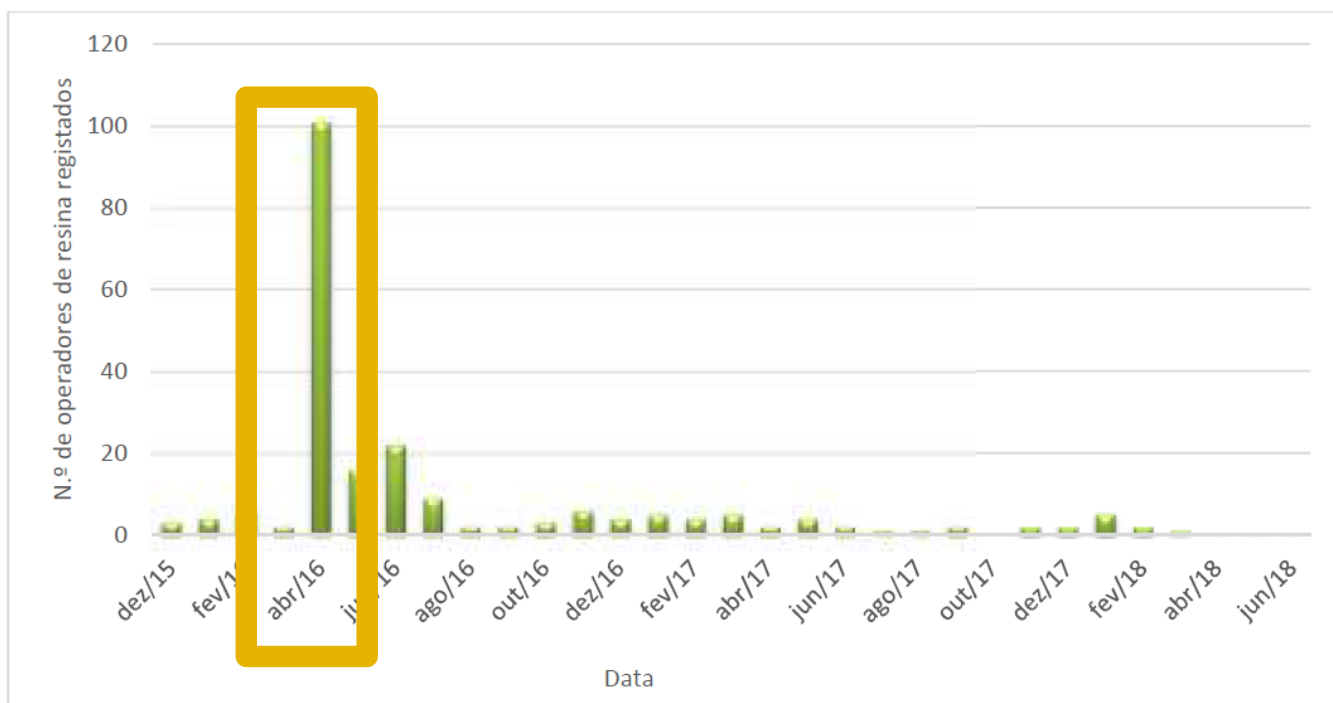**Starts:** April 2016

SiResin - Resin Information System

Allows:

- **registration of the** ~~~~rker, or others t~~~~ circuit)

- **prior declar**~~~~

  - r
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  - r
  - r
  - r

Starts: April 2

> Registration – once in a lifetime

SiResin - Resin Information System

Allows:

- registration of the resin operator (forest owner, resin worker, or others that have activity in the resin commercialization circuit)

- prior declaration (mandatory) of the resin activities:

    - resin ta
    - resin tr
    - resin st
    - resin in
    - resin used by 1ˢᵗ transformation industry

> **Declaration** – every year, at the beginning of the season
> Declared resin yields are estimates

Starts: April 2016

Resin Tapping Activity in Portugal

Maritime pine
Pinus pinaster

IFN6 – ICNF (2013)

± 900 000 ha
30% of the forest area

	Pinheiro-bravo	Eucaliptos	Sobreiro	Azinheira	Carvalhos	Pinheiro-manso
1995	977 883	717 246	746 828	366 687	91 897	120 129
2005	795 489	785 762	731 099	334 980	66 016	172 791
2010	714 445	811 943	736 775	331 179	67 116	175 742

Stone pine
Pinus pinea

Resin Tapping Activity in Portugal

IFN6 – ICNF (2013)
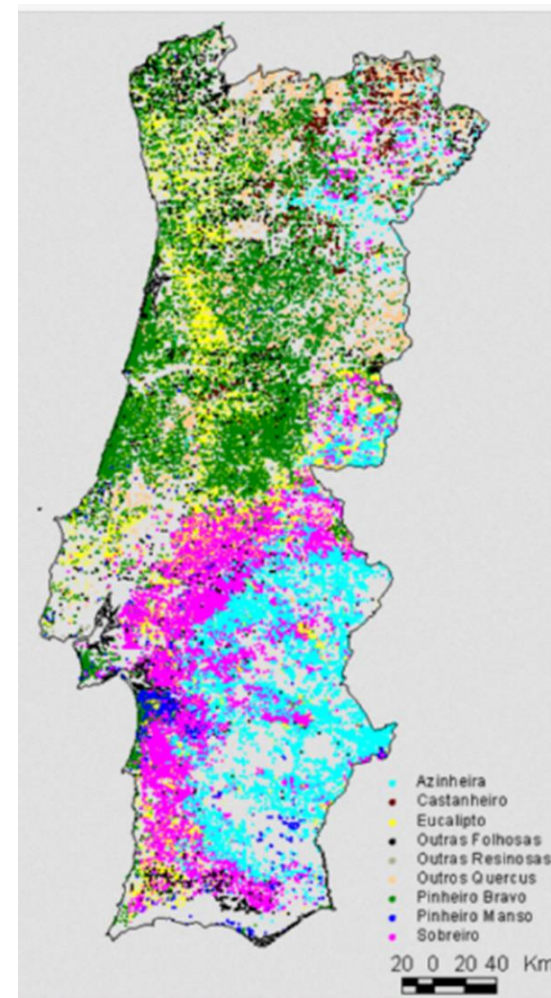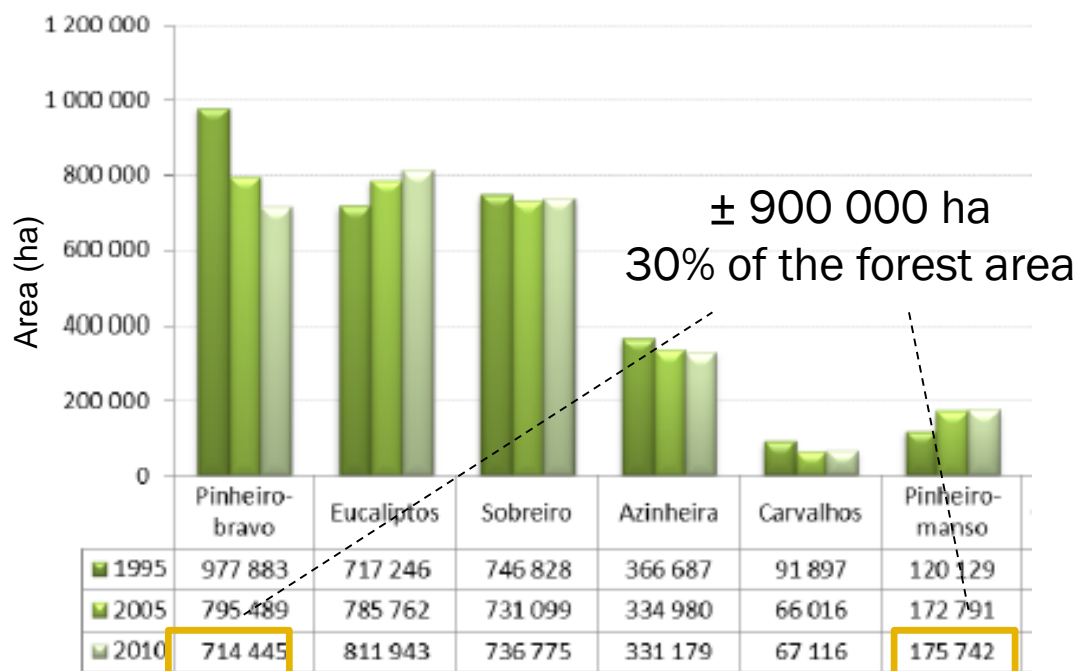
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Azinheira
Castanheiro
Eucalipto
Outras Folhosas
Outras Resinosas
Outros Quercus
Pinheiro Bravo
Pinheiro Manso
Sobreiro

20 0 20 40   Km

Evolution of burned area in Continental Portugal

Evolution of burned area in Continental Portugal

(Centro Pinus, 2018)

http://www.por...

Data source: IC...

Evolution of burned area in Continental Portugal

539,921 ha

burned area (ha)

Total burned area
Área total ardida
540 000 ha

Maritime pine area
Área de pinheiro-bravo
125 000 ha

Lost area (without natural regeneration)
Estimativa de área perdida
(sem regeneração)
75 000 ha

Area with natural regeneration
Estimativa de área com regeneração
50 000 ha

Resin tapping to life
minimum dbh is 20 cm (63 cm of perimeter)

Fonte: ICNF^b. 2017 e IFN6p

(Centro Pinus, 2018)

http://www.por...
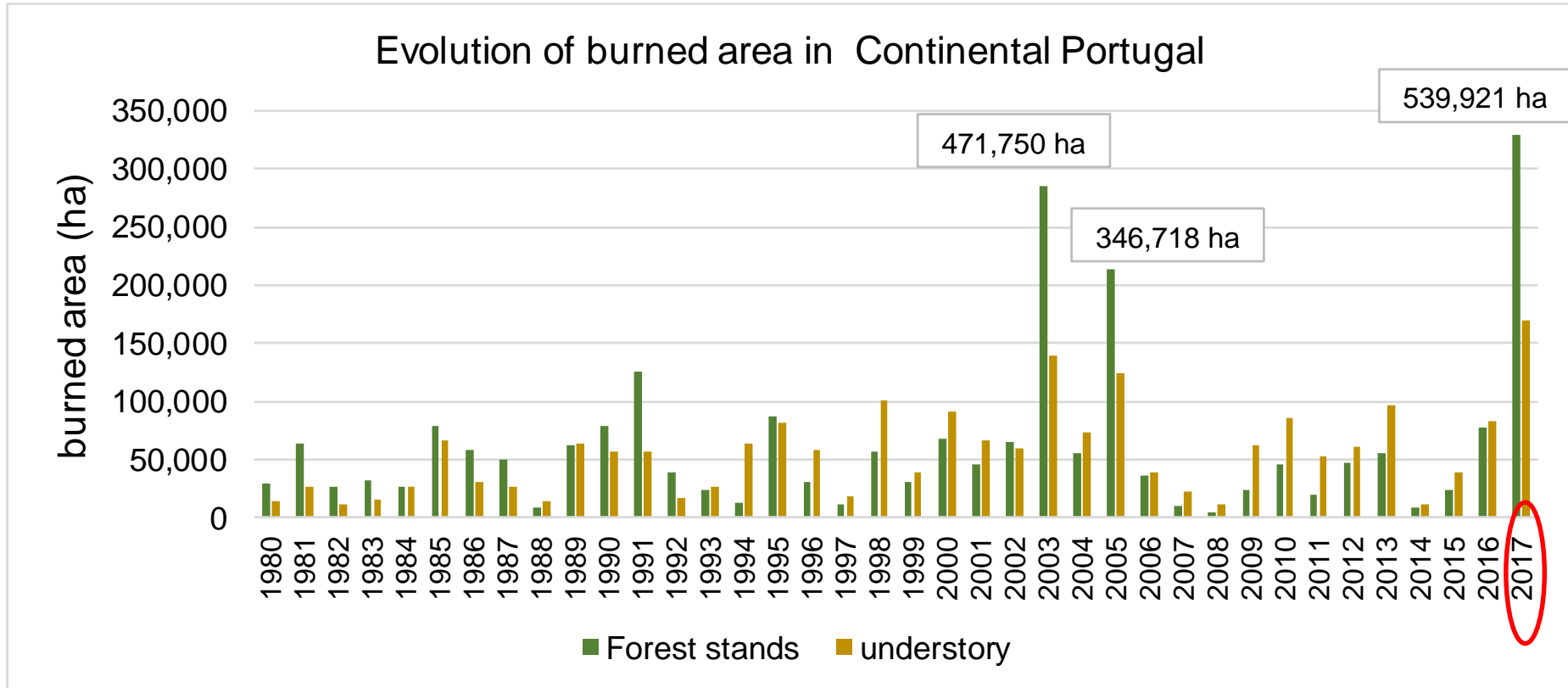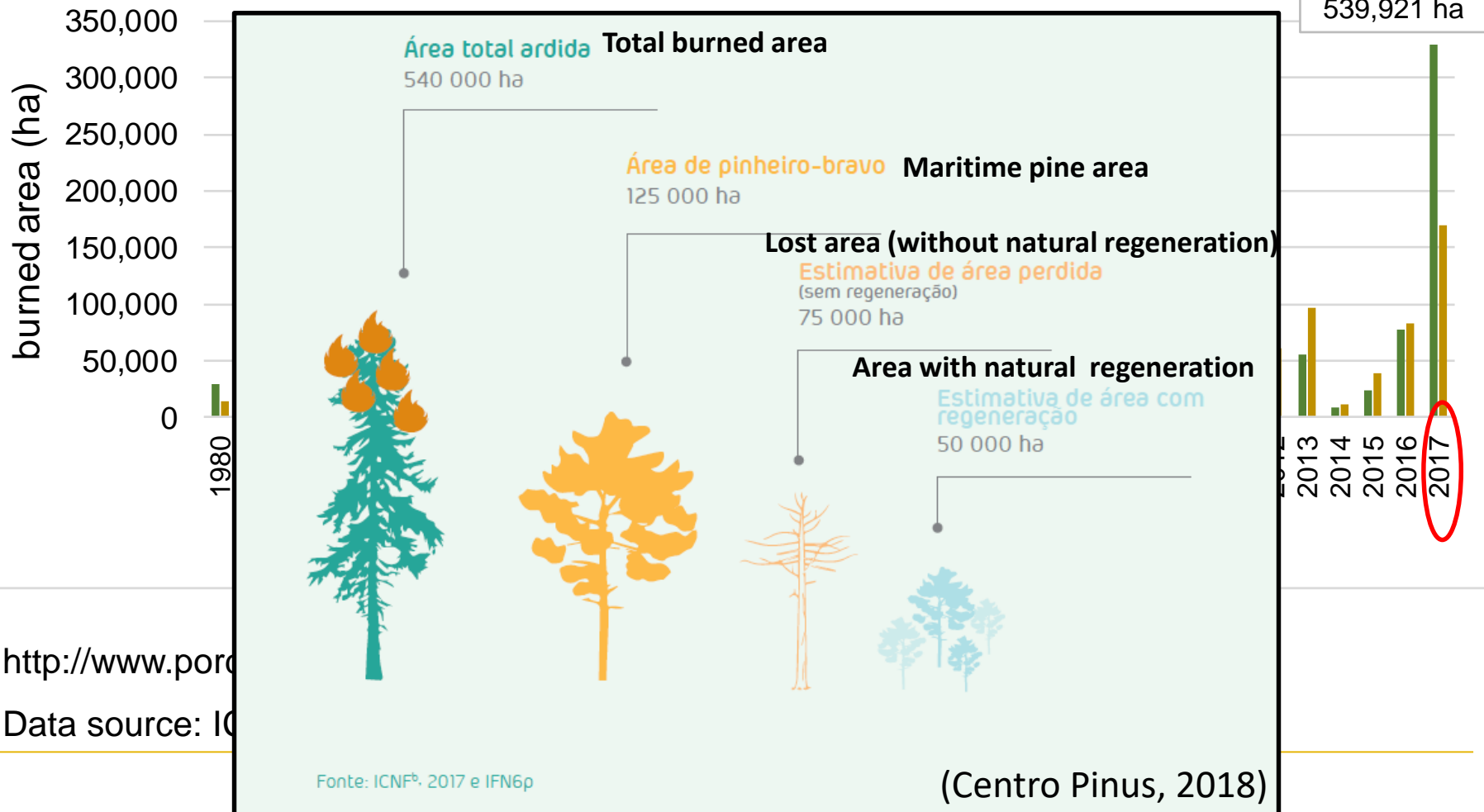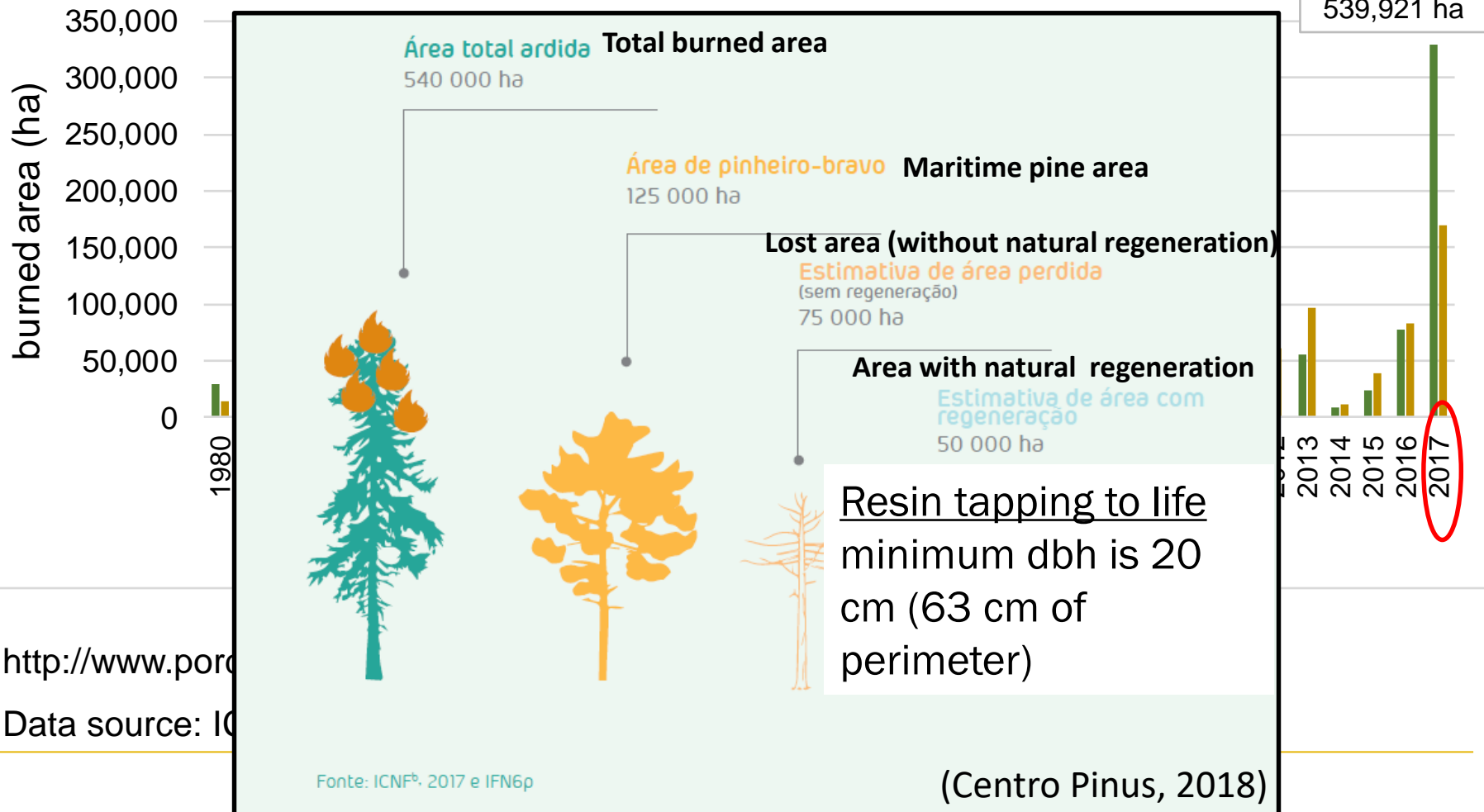
Data source: IC...

Resin Tapping Activity in Portugal
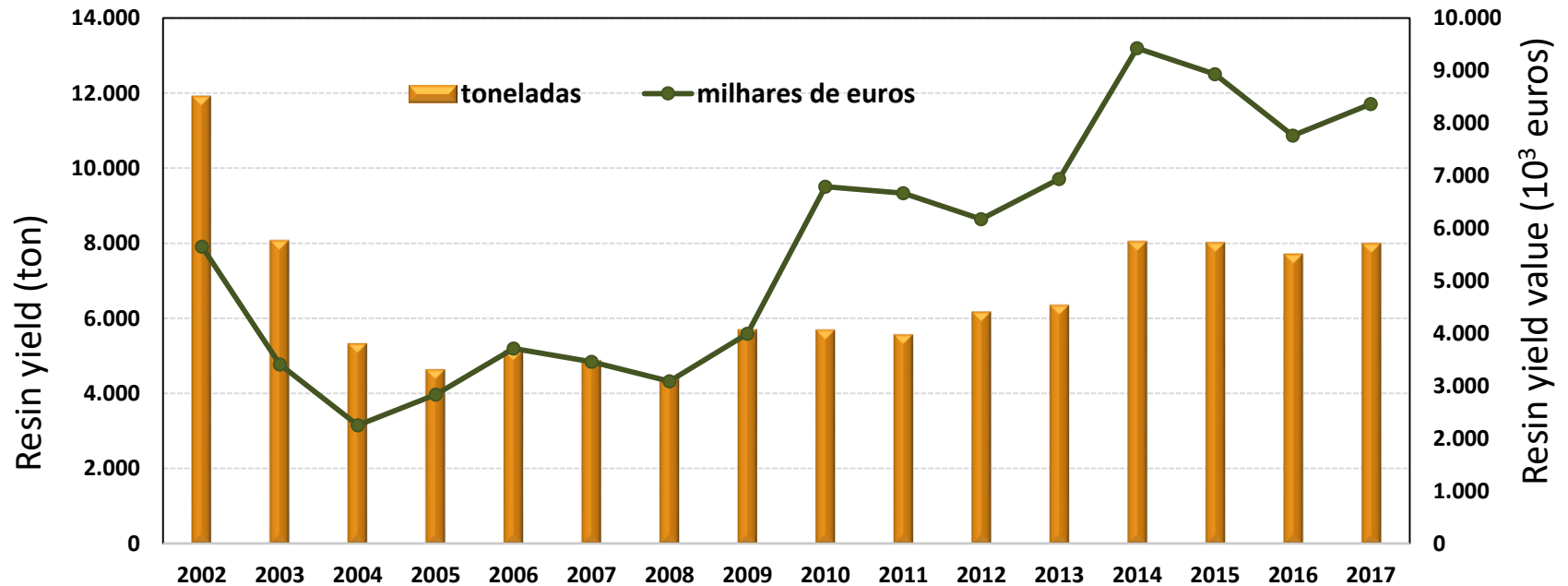
(INE, 2018)

In 2017 (INE, 2018):

Mean resin yield: 8 003 ton

Resin yield value: 8.3 M€

Resin price as industrial raw material: 1.04 €/kg
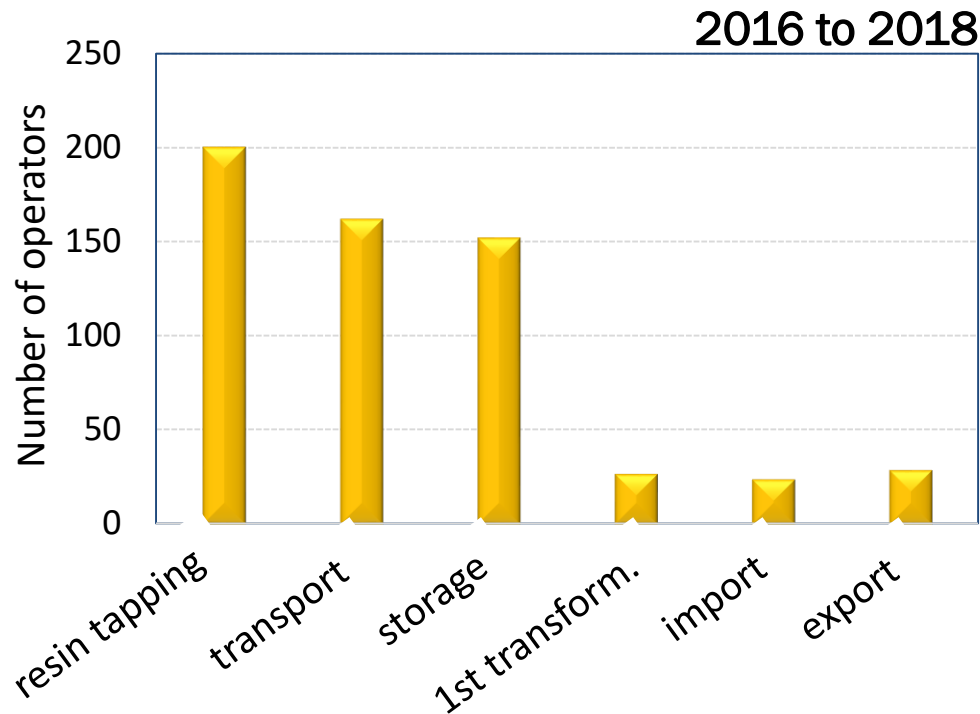
SiResin - Resin Information System

32 months later........

2016 to 2018

Number of registered resin operators: **223**

Top 3:
Leiria
Coimbra
Viseu

N.º de operadores por concelho
- 0
- 1 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- > 25

(ICNF, dezembro de 2018)

http://www.icnf.pt/portal/florestas/fileiras/resource/doc/sire
sin/notas-informativas/RJRCR-N2%20junho2018_ICNF.pdf

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32 months later…….

2016 to 2018

Total (2016-2018): 4 328 resin declarations
But only 46% are validated at origin or destination

(ICNF, dezembro de 2018)

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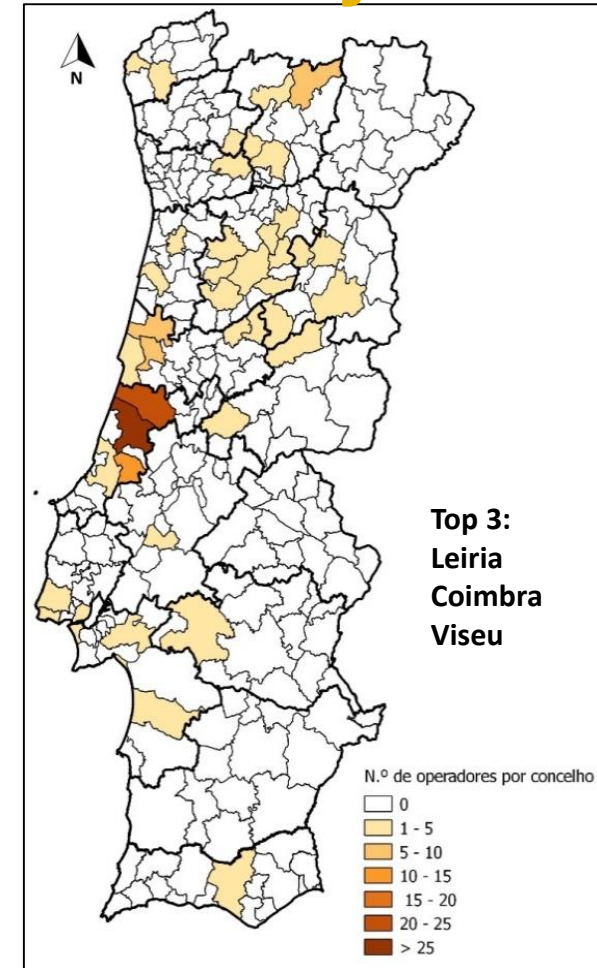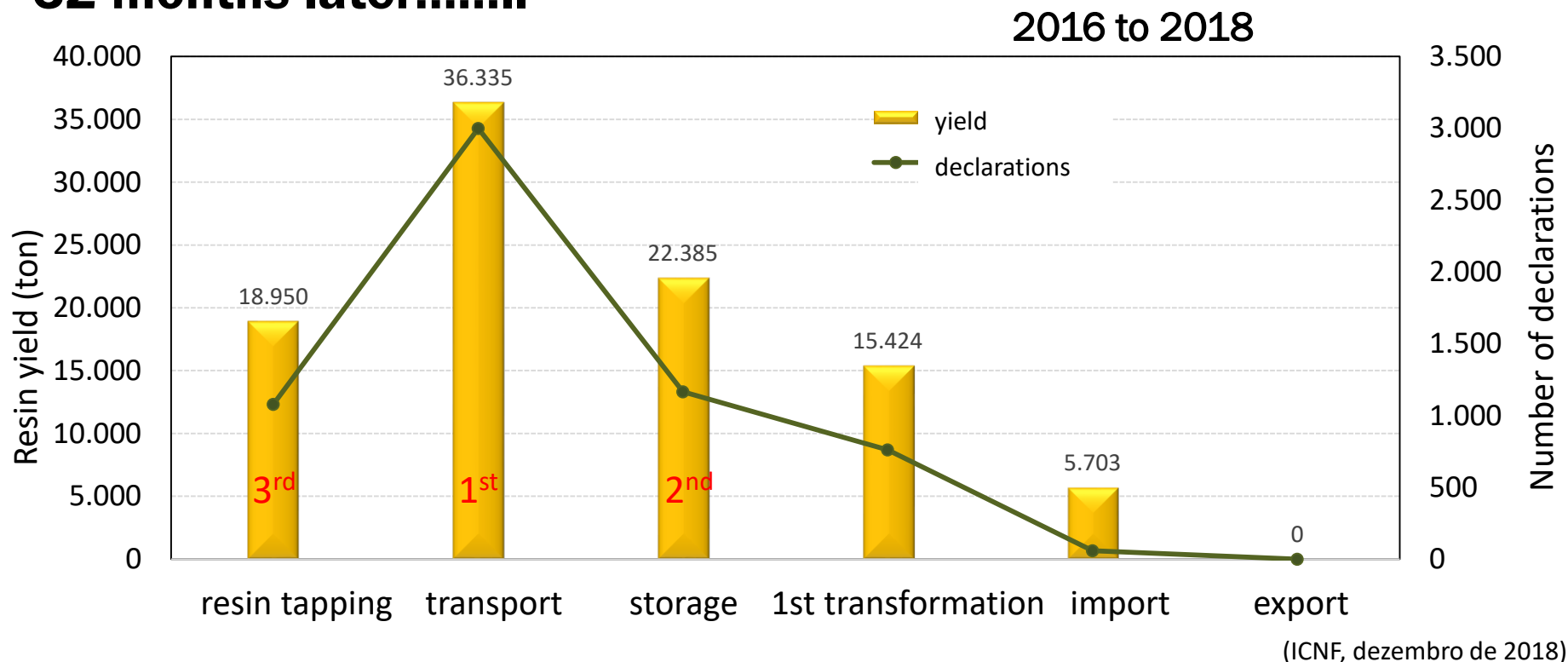# SiResin - Resin Information System

32 months later.......

2017

2018

The resin tapping is carried out in the center and north and in the south in isolated counties

92% of the number of declarations of resin tapping corresponds to areas where trees are tapped during rotation ("resinagem à vida")

Resin tapping
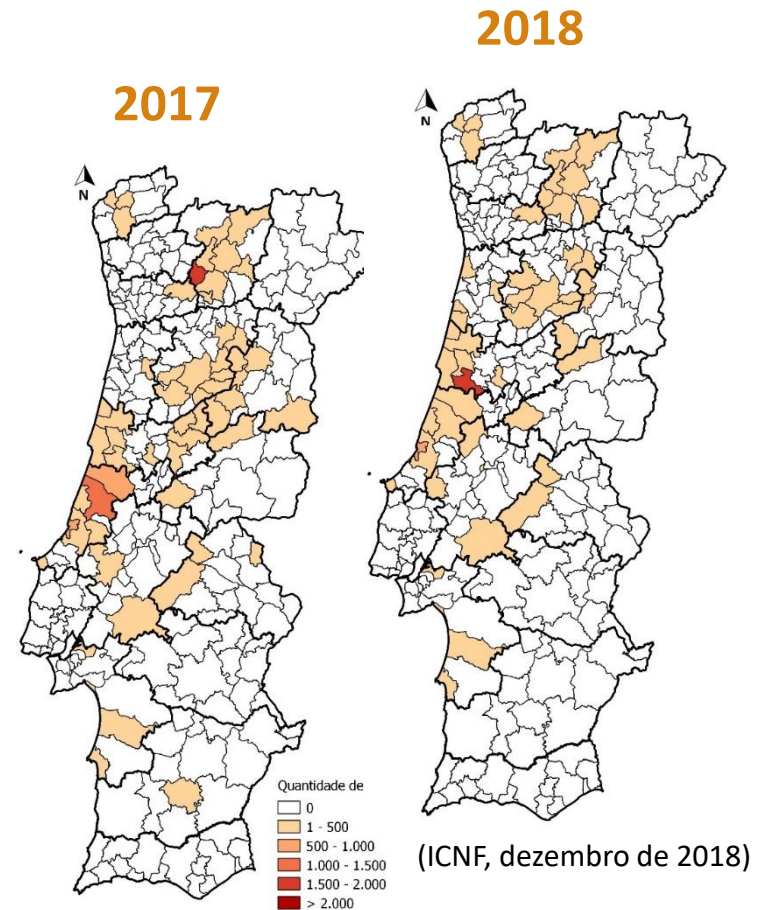
Quantidade de
- 0
- 1 - 500
- 500 - 1.000
- 1.000 - 1.500
- 1.500 - 2.000
- > 2.000

(ICNF, dezembro de 2018)

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32 months later.......

7 operators declared 1st processing

761 1st processing declarations, corresponding to 15 411 ton of resin

During 2016-2018, a total of 5 700 ton of resin was declared as import

- 86% from Brasil
- 84% has Aveiro county as destination

1st processing industry

Distrito	2016	2017	2018	Total Geral
Aveiro	9.241	43	0	9.284
Coimbra	1.721	1.123	757	3.600
Leiria	1.148	788	591	2.527
TOTAL	12.109	1.954	1.348	15.411

Import

País de origem	2016	2017	2018	Total Geral
África do Sul	0	0	35,1	35,1
Brasil	4.904	0	0,6	4,904
Espanha	308	293	0	600
Fiji	164	0	0	1631
TOTAL	5.374	293	36	5.703

(ICNF, dezembro de 2018)

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Remarks.......

- large number of registered operators
- large number of resin declarations
- it begins to be possible to obtain information for a based characterization of the resin sector
- a greater number of <u>enforcement actions</u> are required for greater control in the resin chain

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Remarks.......

STATISTICAL INFORMATION
is fundamental to....

- ensure transparency of resin marketing chain
- improve the knowledge of the economic agents of the resin sector
- support decision-making and for the development of the resin sector

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Reflections.......

1. What do we know about the pine forest, its current and potential resin productivity, and the resin sector in your country? What are the official statistical data, their sources and methodologies?
(...focusing in the value chain from forest to first transformation, and beyond)

2. What are the main data uncertainties, current and for the years coming, limiting the full development of the resin sector? Rural fires, decrease in pine area, labor

3. Which is the actual, ultimate purpose of the inventory, statistics and traceability systems for forests and their resin production? Support decision-making

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Innovation Networks for Cork, Resins & Edibles

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Obrigada

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Agenzia forestale regionale per lo sviluppo del territorio e dell'ambiente della Sardegna
SardegnaForeste

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