

LV SIDEA congress  
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## COLLECTION AND CONSUMPTION OF WILD FOREST PRODUCTS IN EUROPE

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This project has received funding  
 from the European Union's Seventh  
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 under grant agreement No 612385



## A work carried out under the StarTree project (Working Package 3)



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## Outline

- Background
- Research objective and methodology
- Results
- Conclusions and policy implications

Slides can be download from the web: search "pettenella"



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Multipurpose trees and non-wood forest products, a challenge and opportunity [www.star-tree.eu](http://www.star-tree.eu)

## Background



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## Non Wood Forest Products' (NWFP) economic role

- FAO estimates that NWFPs generated **US\$88 billion** in 2011 ([SOFO, 2014](#)).
- **76 million tonnes** of food from the forest were consumed on average in 2011 ([SOFO, 2014](#)).
- **1 billion people** are thought to depend on *wild* foods ([Burlingame, 2000](#)).
- **80%** of the population of developing countries rely on traditional medicines, mostly plant drugs, for primary health care.

In the past a focus on the role of NWFP in DC



Estimated income from the informal forest sector in 2011 (in billion USD at 2011 prices)

Region	Woodfuel and construction	NWFPs	Total
Africa	14.4	5.3	19.7
Asia and Oceania	5.9	57.4	77.3
Europe	-	8	8
North America	-	3.6	3.6
Latin America and Caribbean	9	3.6	12.6
World	22.3	88	121.3

Source: FAO (2014), based on various sources.

## Non Wood Forest Products' economic role

- NWFP in Europe: a market segment of the rural economy perceived as marginal and declining:
  - No clear definition (commercial product or/and recreational service?)
  - No data, also due to the complexity of the value chain
  - No innovation
  - Informal (black) economy



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## Definitions (source: Muir, 2018)

<b>Non-wood forest products</b>	NWFPs consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests. (FAO, 1999)
<b>Non-timber Forest Products</b>	The term NTFP encompasses all biological materials other than timber which are extracted from forests for human use (DeBeer & McDermott, 1989)
<b>Wild forest products</b>	"Wild product" results from the "collection of edible plants and parts thereof, growing naturally in natural areas, forests and agricultural areas" (EU Art. 12, comma 2, Reg. 834/07 "organic law")
<b>Minor forest produce</b>	All non-timber forest produce of plant origin including bamboo, brush wood, stumps, cane, tussar, cocoons, honey, wax, lac, or kendu leaves, medicinal plants, and herbs, roots, tubers and the like. (Government of India)
<b>Secondary or side use of forests</b>	All kinds of use in forests and forest lands not covered by forest, except for timber and minor forest materials, including: animal breeding, beekeeping, farming, processing of wood and wild fruits and berries, medicinal plants; placement of apiaries; collection of wild food resources, medicinal plants, technical raw materials and other; procurement of secondary forest resources (stumps, bark, etc.) Kyrgyzstan Forest Law
<b>Forest by-products</b>	E.g. berries, mushrooms, herbs, decorative plants as well as hunting, bee-keeping and the grazing of cattle. Categories of forest use: wood production, resin production, secondary forest materials and technological raw materials, the use of forest by-products, scientific research, cultural and social purposes, hunting economy, recreation (including tourism) and other forest uses not prohibited by law. Estonia Forest Law
<b>Natural forest produce</b>	Refers to wild or semi-cultivated plants or mushrooms which can be used as such or with some processing. This also includes the by-products of trees and soil materials. (Finland's National Forest Programme 2015)
<b>Wild food</b>	Wild food is defined as anything edible that requires no human input to increase its production (ACF, USA, 2008; ACF, 2012; FAO, 2004; FAO, 1999.)
<b>Wild meat (bushmeat)/game meat</b>	All meat from animals hunted or trapped for meat that is available for consumption; meat from game that roams in farms (a farm has an enclosed space) is excluded (UNECE, 2017).



### NWFP

- Weak component of the society
- Defensive attitude in marketing
- Definition based on negative attributes



### WFP

- Modern segment of an affluent society
- Aggressive attitude in marketing
- Definition based on positive attributes



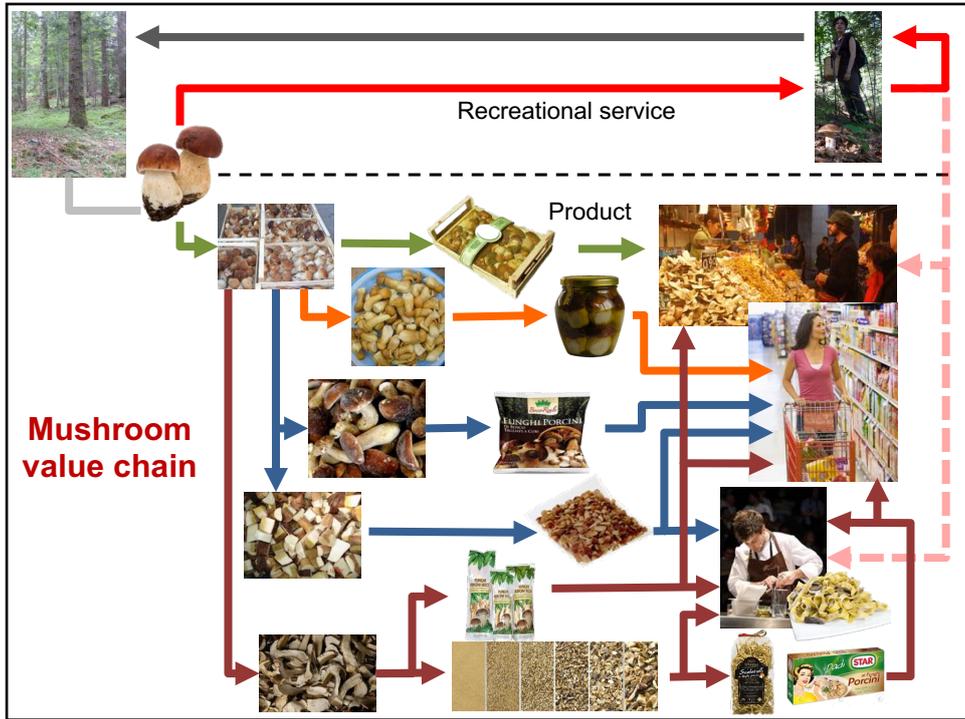
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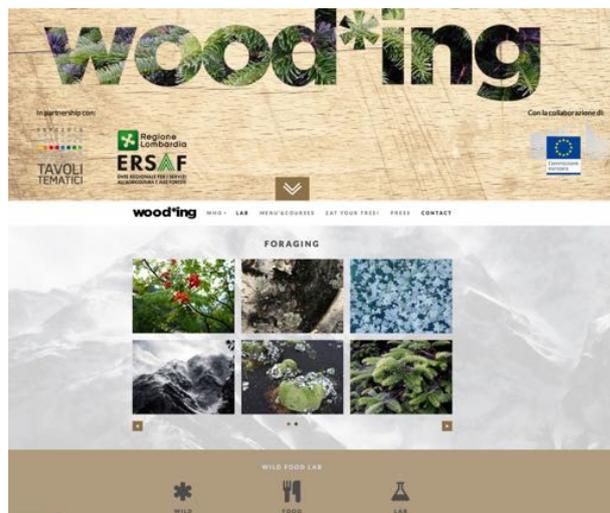
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## Dynamic market conditions Some examples: *foraging*

<http://www.wood-ing.org/>



# Resins



## LA EMPRESA MEMORIA



RESINAS NAVAS DE ORO se crea con el fin de dar cobertura y viabilidad al momento actual (la demanda del mercado internacional ha creado nuevas oportunidades para el sector de la resinación) que se está viviendo en España, en especial en **Castilla y León** y poder facilitar con su creación el aprovechamiento y el desarrollo del sector de la **industria de la resinación y destilación** dentro de la región donde se produce.

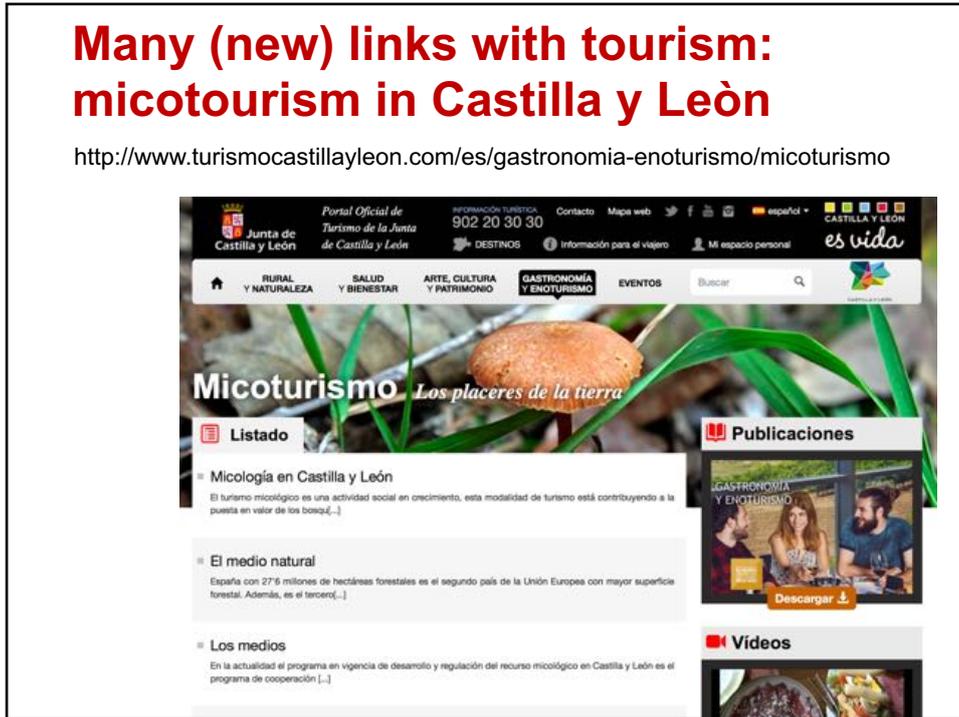
<https://resinasnavasdeoro.es/>

# Sap water



## Many (new) links with tourism: micotourism in Castilla y León

<http://www.turismocastillayleon.com/es/gastronomia-enoturismo/micoturismo>





**Territorio**  
THE TRAIL  
MAP OF THE TRAIL  
ITINERARI  
TOWNS ALONG THE TRAIL  
PARKS  
MUSEUMS  
TOURIST INFORMATION  
FOTOGALLERY

**FIRMS**  
Bed & Breakfast  
Caseificio / Salumificio / A.Z. Vitivinicola  
Farmhouse holidays  
Fattoria Didattica  
Hotel  
Museo / Collezione privata  
Restaurant  
Sale of local products

**Link**  
Fungo di Borgonaro  
Heteo Aquino  
Strada del Prosciutto  
Emilia Romagna Turismo

Enterprises: 62 (in 2008); > 100 in 2011

- 15 Agritourisms/ Farm businesses
- 12 Hotels/Guest quarters
- 8 Bed&Breakfasts/Inns/Hostels
- 9 Cheese, sausage and wine growing and producing factories
- 2 Didactic farms
- 3 Museums/Private collections
- 30 Restaurants/Porterhouses
- 26 Typical products sellers




## A WFP as imago product for presenting a territory

- Traditional local products
- “Green” products
- “Slow food” culture



A wstar

## Networking



## Road, trail, path... the tools for connecting different economic actors



Google search		hits
Strada della castagna	<i>Chestnut road</i>	35,200
Strada del tartufo	<i>Truffle road</i>	361,000
Strada del fungo	<i>Mushroom road</i>	265,000
Strada del porcino	<i>Porcino road</i>	58,900
Strada del marrone	<i>Marron road</i>	78,400



## Research objective and methodology



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- **Objective:** to assess the consumption and collection of NWFPs in Europe
- **Design:**
  - Unit of analysis: household
  - Scale: EU28 (no Malta, Luxembourg and Cyprus) with Serbia, Turkey and European part of Russian Federation
  - Panel study (distributed by a polling agency)



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- **Sample:** respondents: 17,346 (95% confidence level,  $\approx 4.21\%$  confidence interval).
- **Post-stratification** by number of households per country and by size of households within country
- **Questions:**
  - Socio-economic (urban/rural, income, size of household)
  - Consumption (14 products & how were they obtained)
  - Collection system (8 groups, 45 products – consumption vs. sale, quantity, location & use)
  - Other (forest ownership, frequency of picking, problems with and income from picking)



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# Results





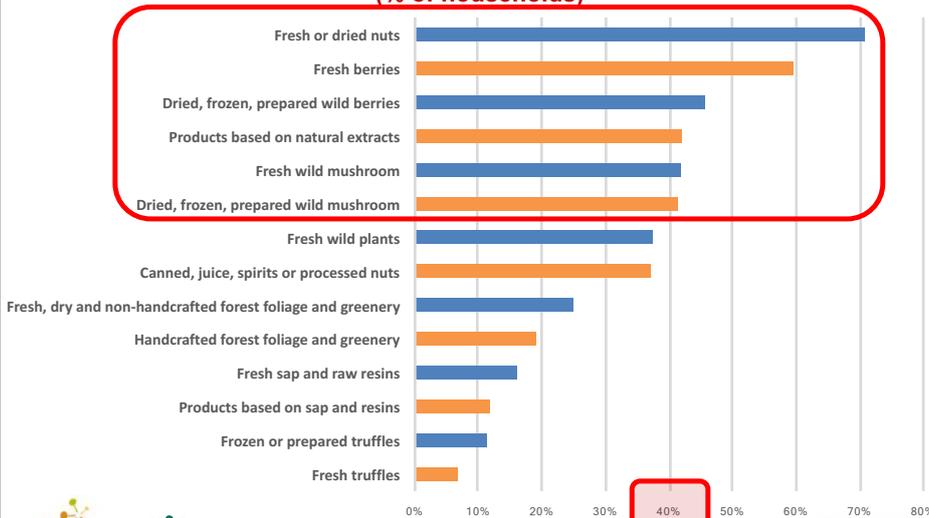

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## Consumption of WFP (% of households)



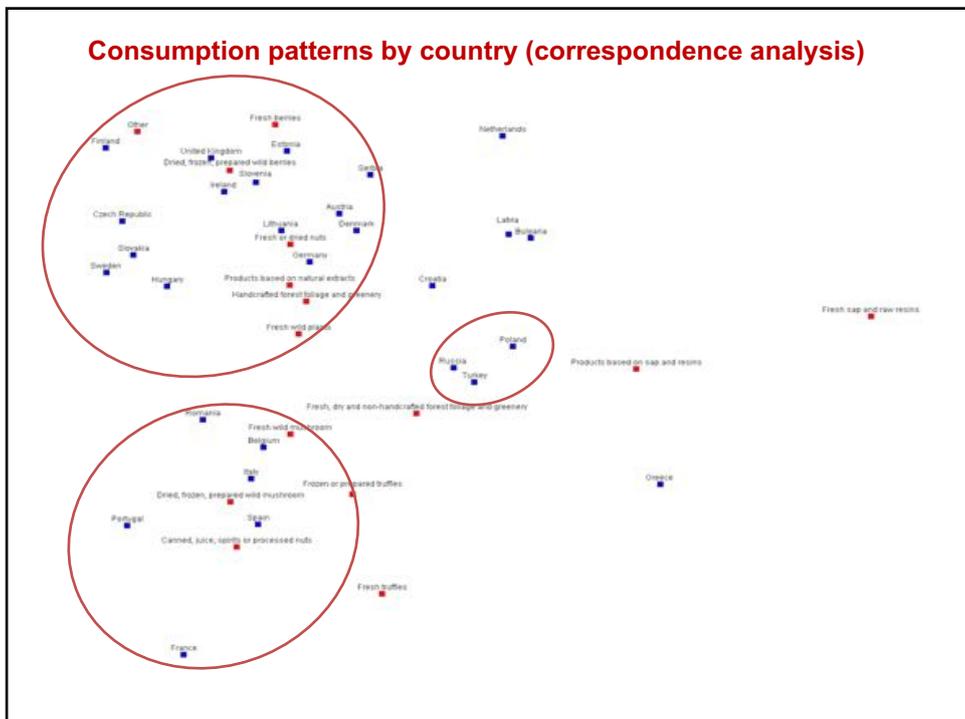
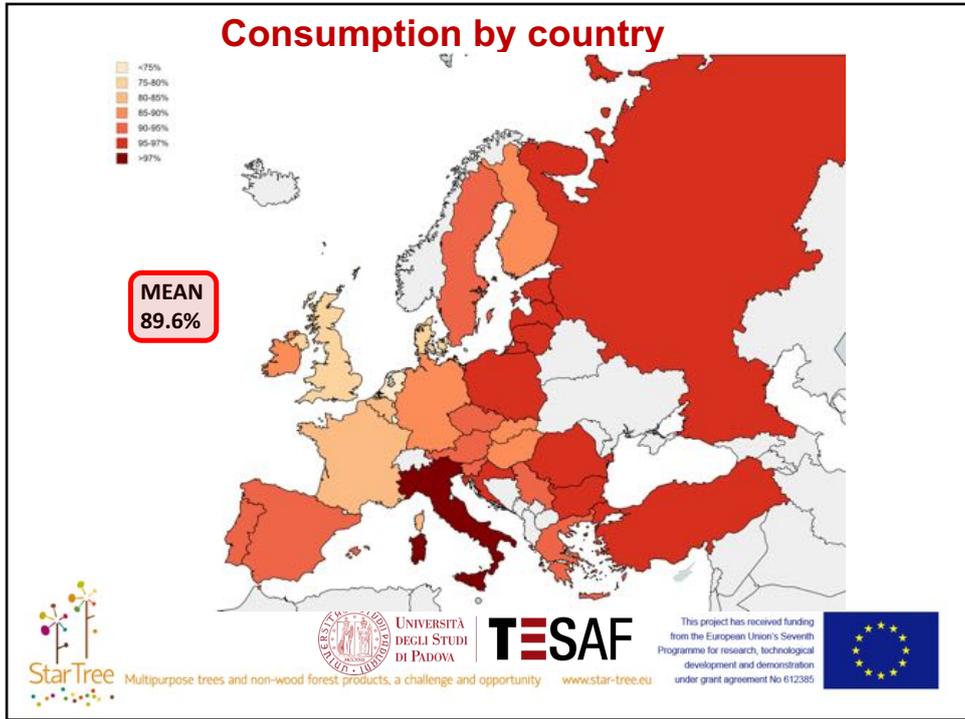


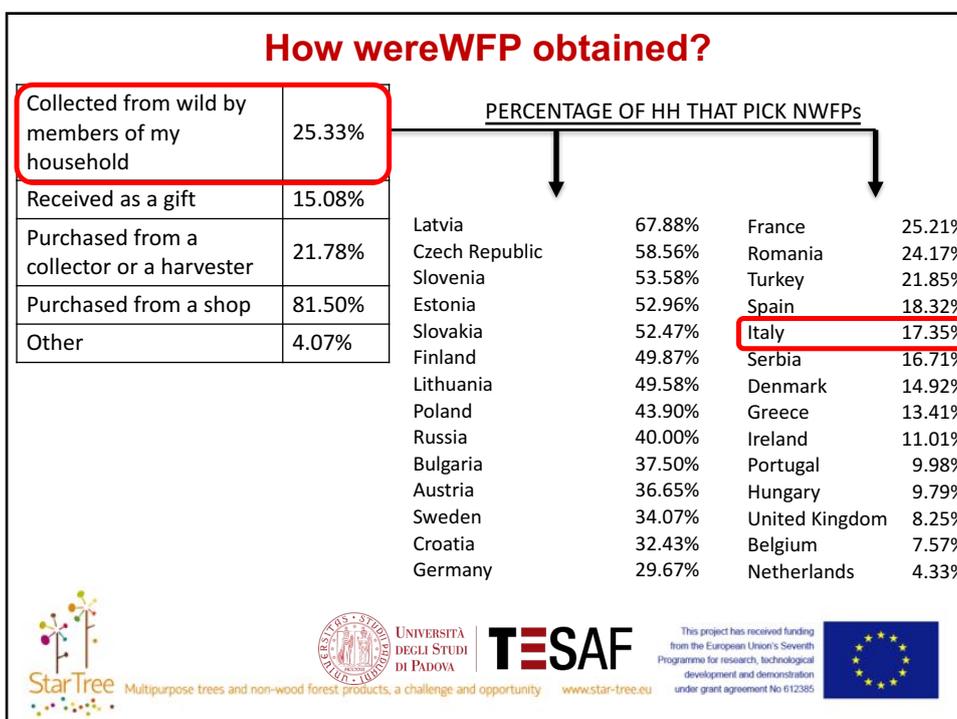
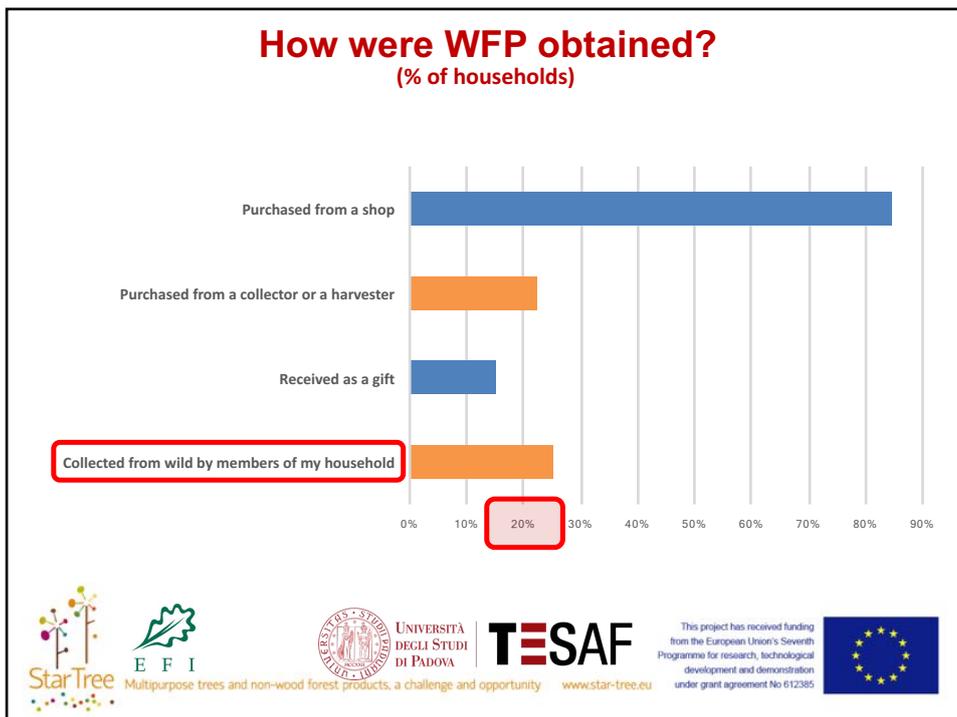

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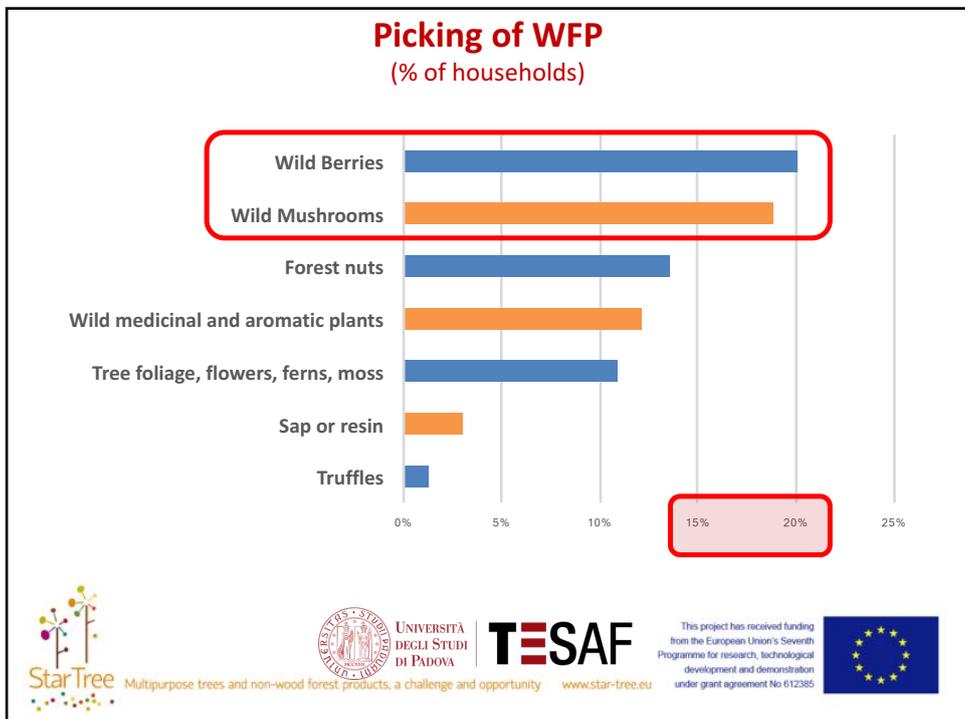
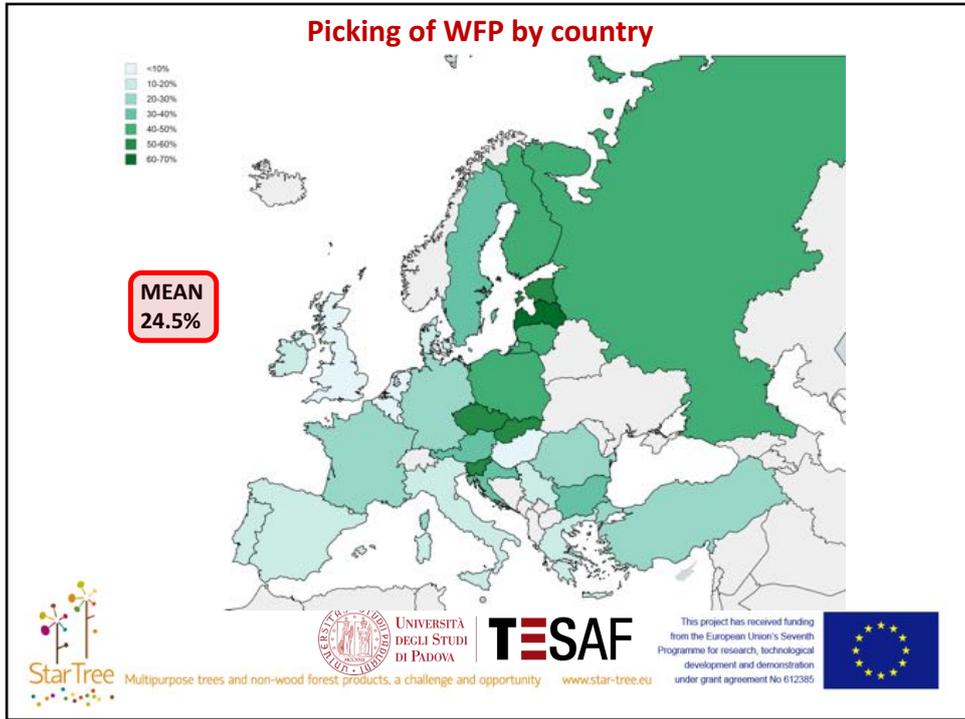
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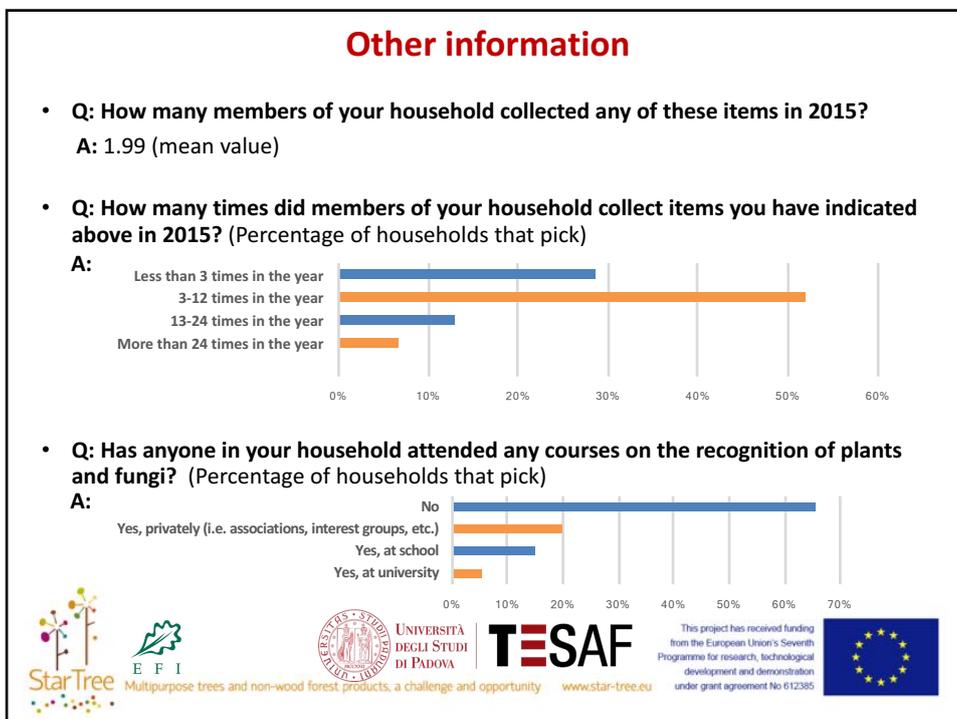
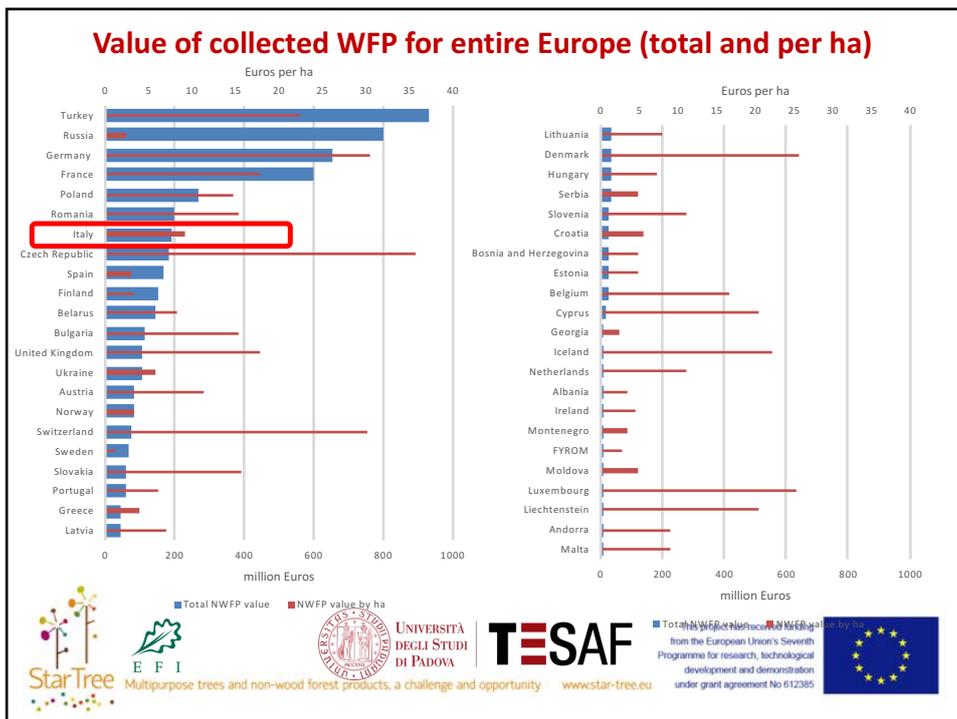
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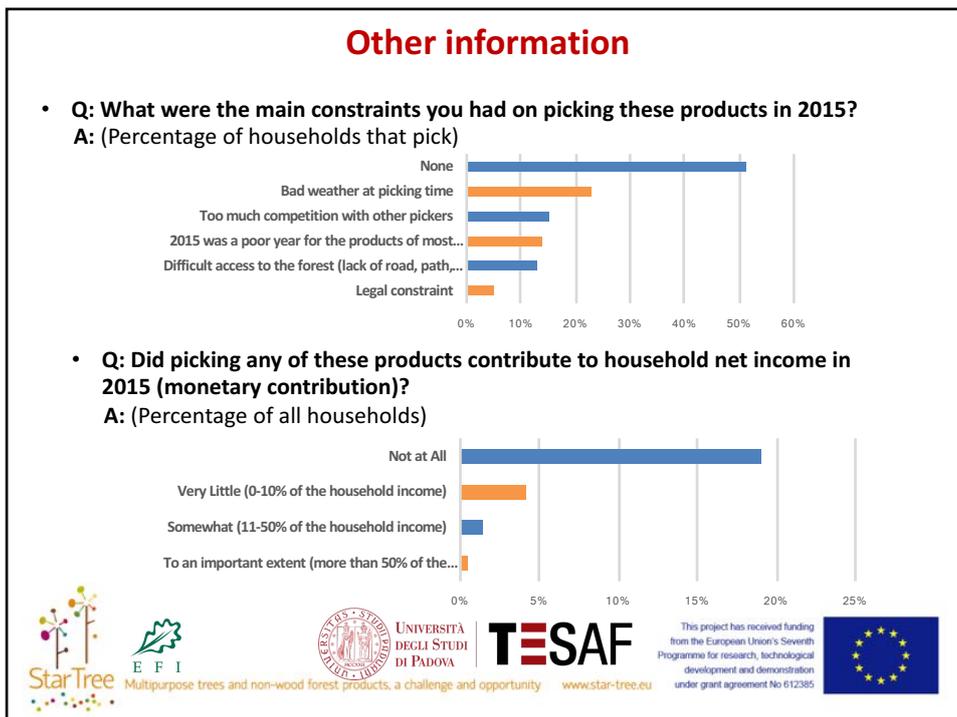












### Other information

- Q: How much are WFPs sold/consumed?**

	Tree foliage, flowers, ferns, moss	Forest nuts	Wild Mushrooms	Truffles	Wild Berries	Wild medicinal and aromatic plants	Sap or resin
All consumed	<b>75.7%</b>	<b>77.1%</b>	<b>85.2%</b>	<b>48.8%</b>	<b>89.0%</b>	<b>89.4%</b>	<b>74.3%</b>
90% consumed	9.5%	5.3%	4.9%	18.3%	4.1%	3.8%	3.9%
75% consumed	6.0%	6.0%	4.3%	9.8%	2.6%	2.3%	10.1%
50% consumed	5.4%	5.8%	3.0%	9.6%	2.2%	2.0%	5.3%
25% consumed	1.6%	2.5%	1.4%	6.9%	0.9%	1.1%	1.8%
10% consumed	1.1%	1.7%	0.9%	7.7%	0.8%	0.9%	3.3%
All sold	0.8%	1.6%	0.4%	5.4%	0.4%	0.6%	1.5%

MORE SOLD THAN OTHERS






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## Conclusions and policy implications



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- Consumption of WFP:
  - Very high rates – but are they really wild? (product origin)
- Collection of WFP:
  - a mass social activity (1/4 of Europeans!)
  - increases from West to East, from urban to rural
  - vast majority picks in forest that does not belong to them (importance of harvesting rights)
  - not regulated access prevailing
- Economic importance of NWFPs
  - for 0.5% of the EU households – more than 50% of income!
  - represent about 30% of roundwood value



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**More information:** <http://star-tree.eu/>

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