

# ALPTREES

## Economic Opportunities & Risks of Non-native Tree Species In The Forest Value Chain

EUROMONTANA Webinar, 27th of May 2021  
Pädagogische Hochschule Steiermark



Native trees refer to tree species of natural, post-glacial forest development in the Alpine Space region.



**Non-native trees (NNT)** also known as “non-indigenous”, “alien”, “introduced”, “allochthonous” or “exotic” trees, refer to tree species, breeds or hybrids in the Alpine Space region, whose presence there is as a result of human activity, due to intentional or accidental introduction.



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*Cedrus libani* A. Rich (Lebanon cedar)

**Safe NNT that currently pose no risks**



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*Pseudotsuga menziesii* (Mirb.) Franco (Douglas-fir)

**NNT that can pose risks in some environmental contexts, but are safe in other environments**

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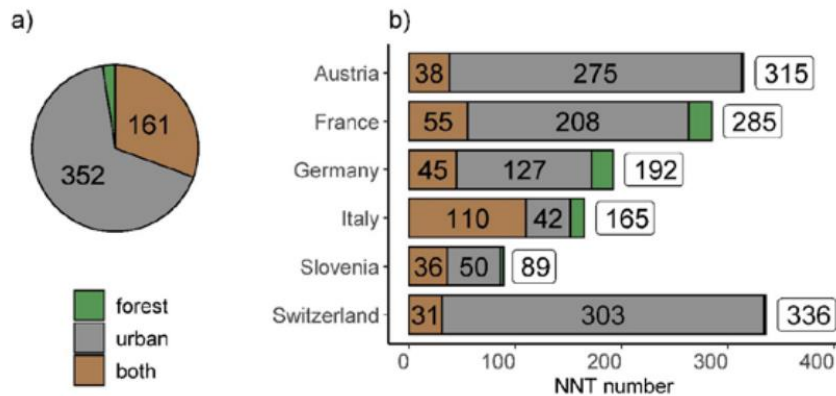
*Prunus serotina* Ehrh. (black cherry)  
NNT expected to pose high risks and that cannot be controlled by specific management measures

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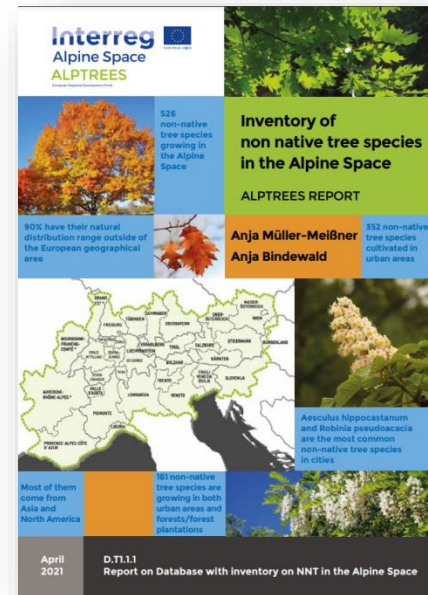
# Non-native trees in the Alpine Space

- In total **526 NNT** are currently growing in **forests and urban** areas in the Alpine Space
- 67%** are currently being cultivated exclusively in cities

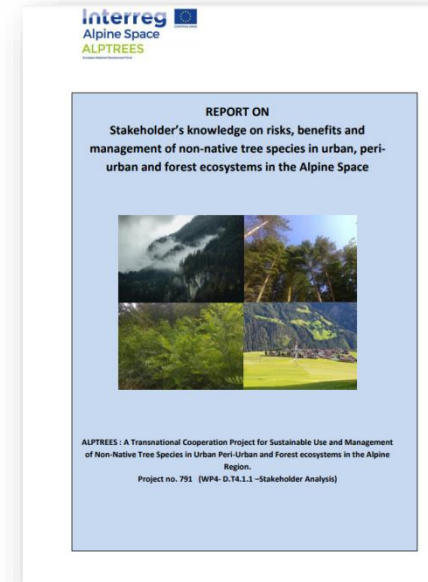
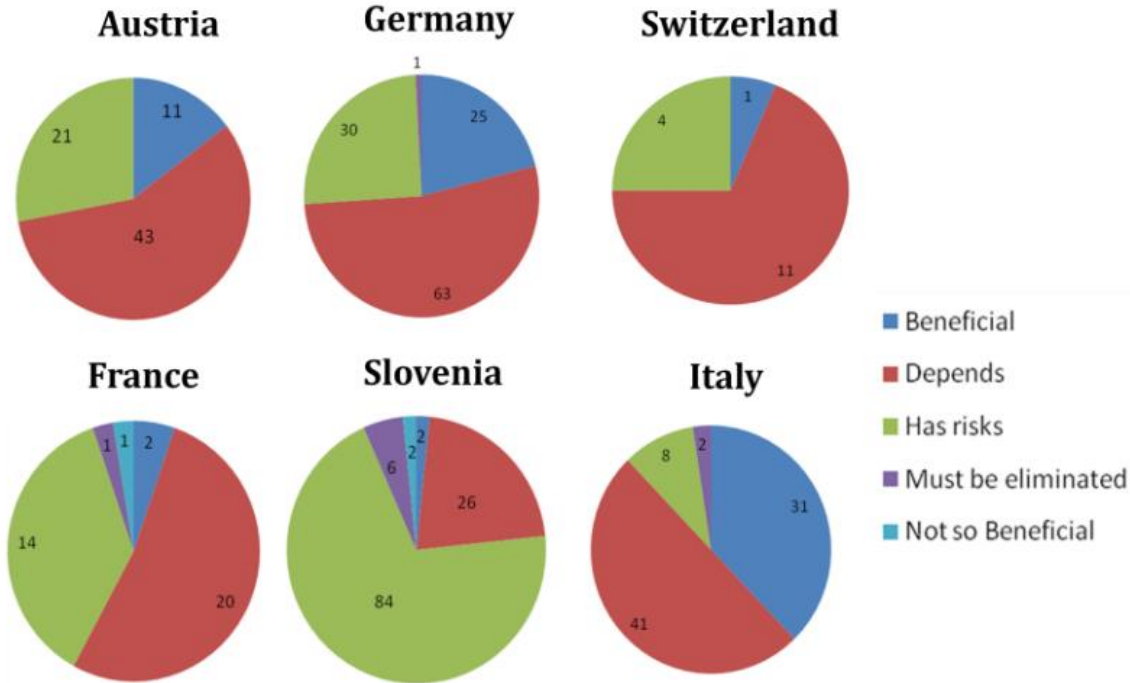


**Figure 6** NNT growing in forests, cities or both forests and cities a) across the entire Alpine Space region, b) for the individual countries in the Alpine Space. The box contains the total number of NNT in each case.

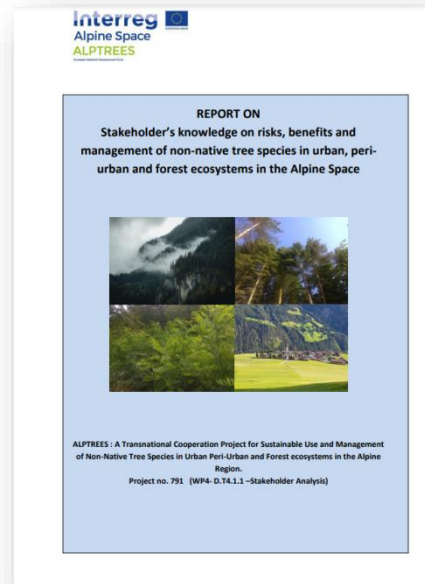
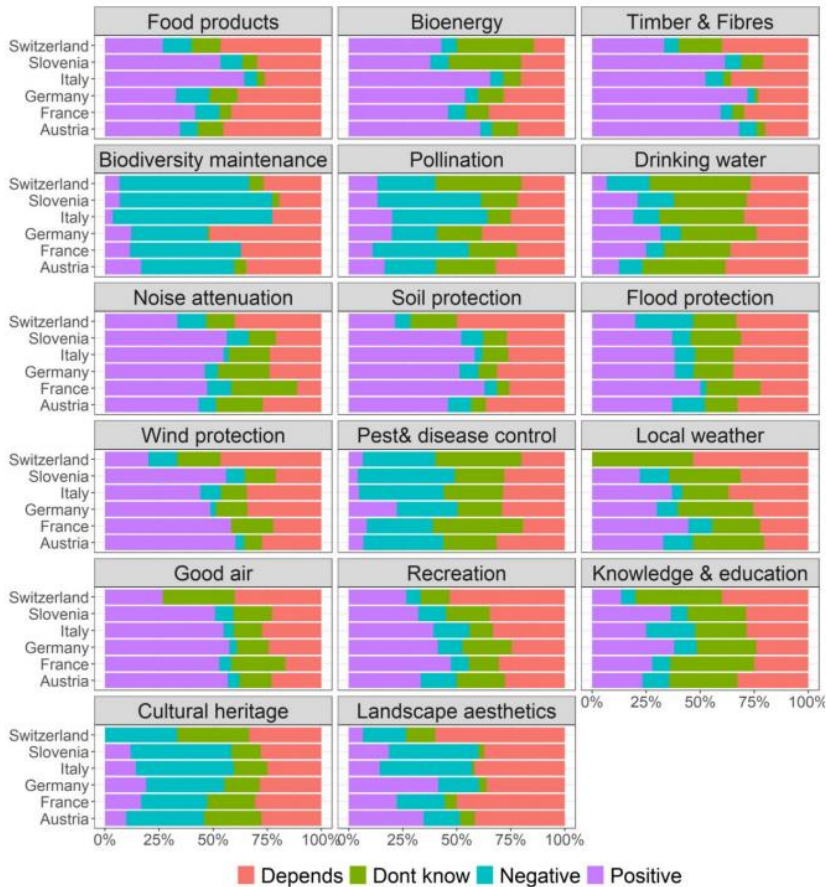
- Most NNT from **Asia** (248, i.e. 53%), **North America** (180, i.e. 39%)



[https://alpine-space.eu/projects/alptrees/deliverables/d.t1.1.1-alptrees\\_report-on-database-with-inventory.pdf](https://alpine-space.eu/projects/alptrees/deliverables/d.t1.1.1-alptrees_report-on-database-with-inventory.pdf)

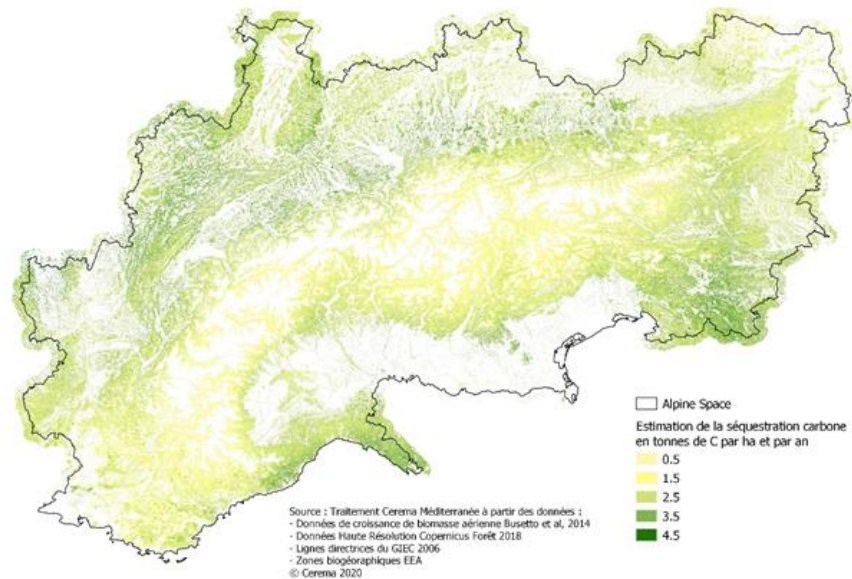
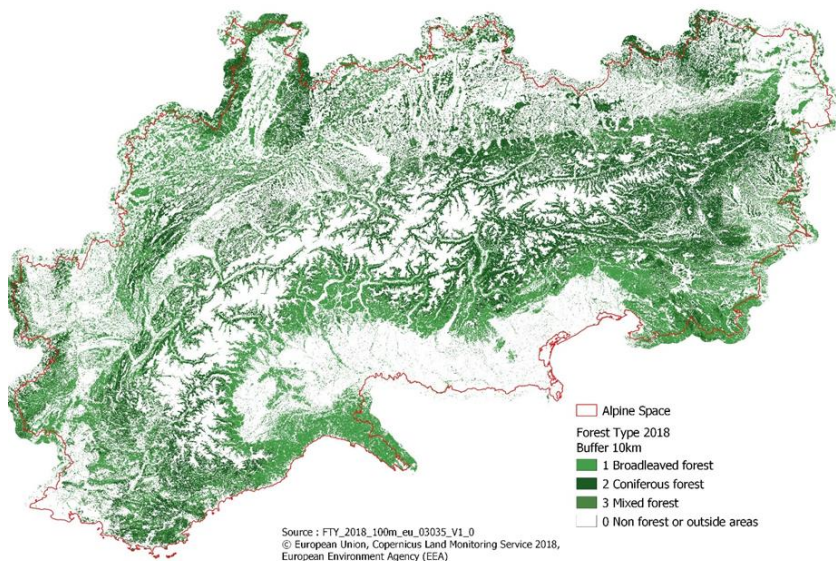


<https://alpine-space.eu/projects/alptrees/deliverables/d.t.4.1.1-stakeholder-analysis-report.pdf>



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$$Seq\_carbone\_buffer10km = 0,47 \times Croiss\_biomass\_tot\_buffer10km$$



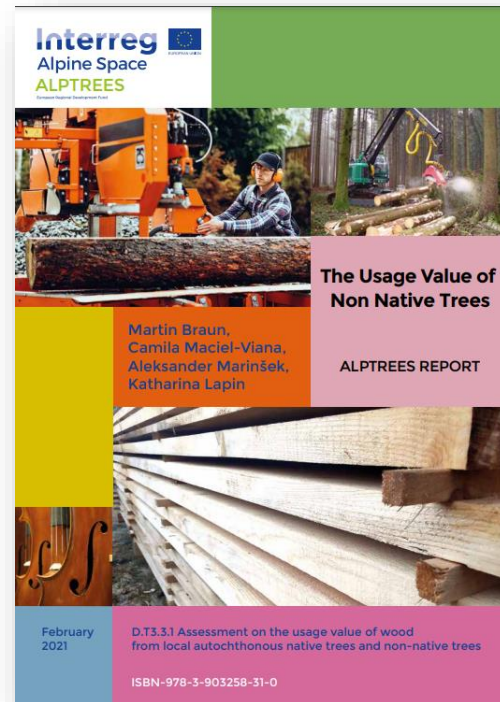
**Forest\_2018** et **Forest\_2018\_buffer\_10km** rasters are obtained by reclassifying **Forest\_type\_2018** and **Forest\_Type\_2018\_buffer\_10km** in 2 classes : 0 : Non forest or outside areas ; 1 :Forest.



photo: Eric Meier, www.wood-database.com



Figure 3:  
left - Red oak (*Quercus rubra*) in the forest stand,  
right - veneer sample of its wood



<https://alpine-space.eu/projects/alptrees/deliverables/d.t.4.1.1-stakeholder-analysis-report.pdf>



Volume ●  $\geq 100$  ● 10-100 ● 1-10

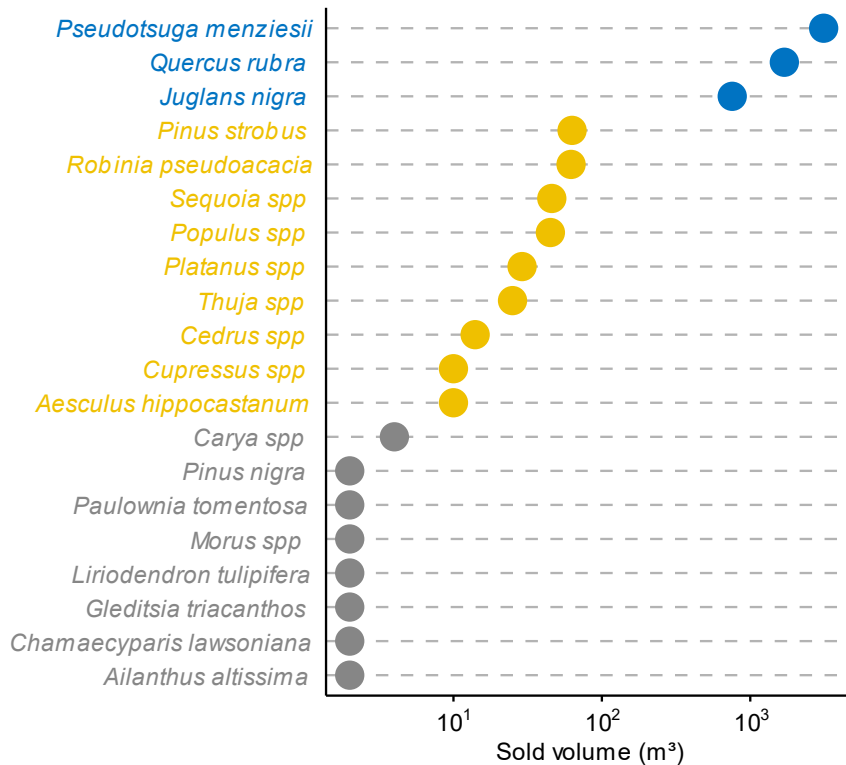


photo: Eric Meier, www.wood-database.com

Figure 2:  
left - Douglas fir (*Pseudotsuga menziesii*) in the forest stand and its needles and cone  
right - veneer sample of Douglas fir

# The Usage Value of Non Native Trees

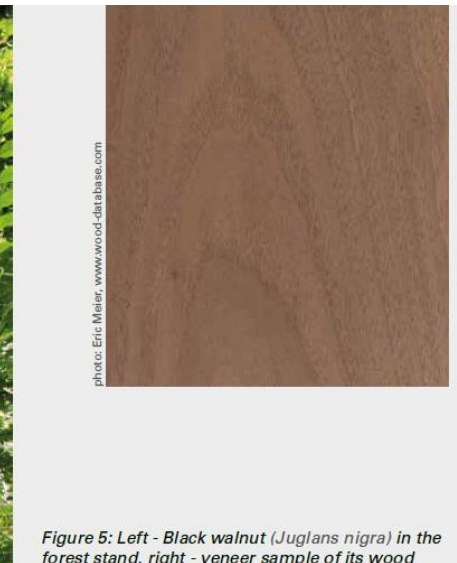
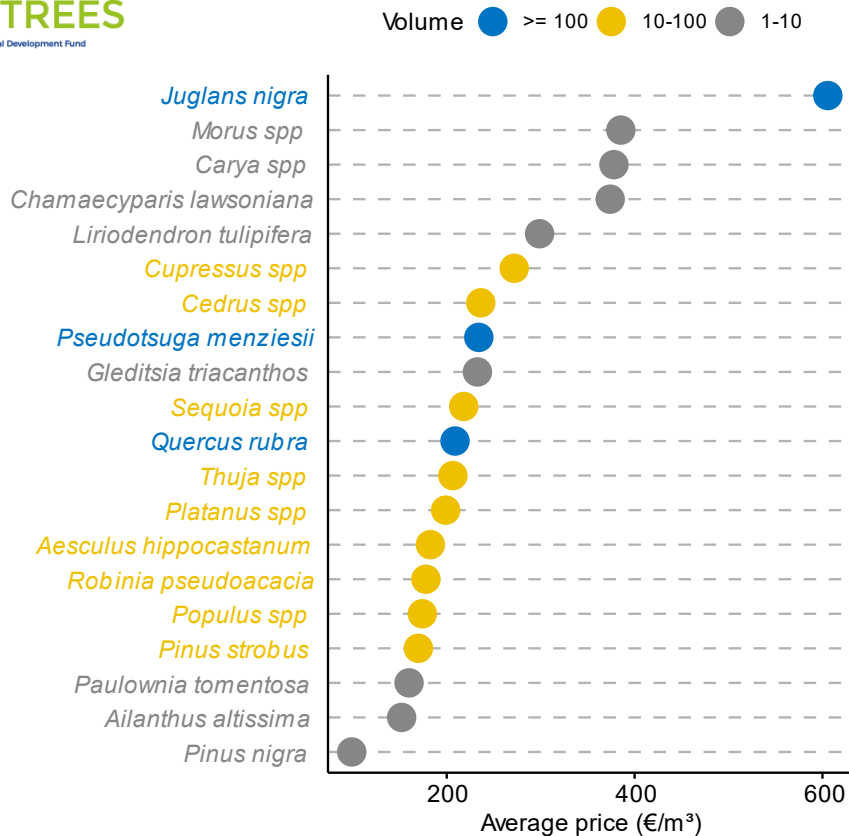


Figure 5: Left - Black walnut (*Juglans nigra*) in the forest stand, right - veneer sample of its wood

# The Usage Value of Non Native Trees



Figure 36: Paulownia beehive, Tomasoni, Italy

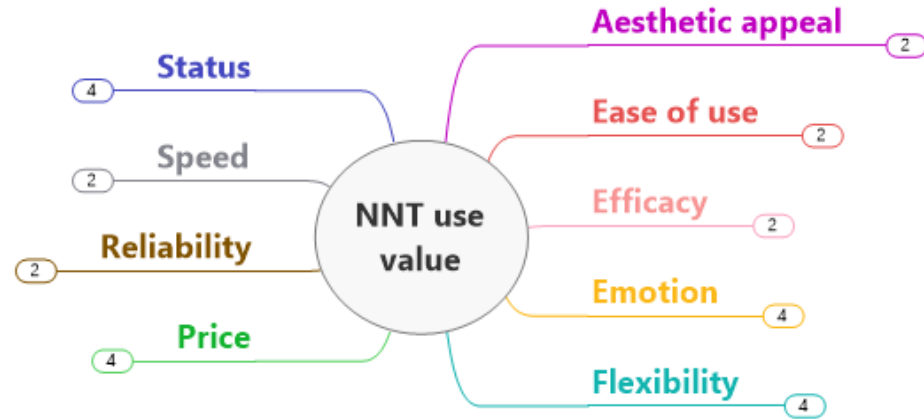


Figure 37: Paulownia smartphone speaker amplifiers, Tomasoni, Italy



Figure 35: Robinia parquet flooring. Advertised with children's toys to illustrate its durability, Weitzer, Austria

- **Economic benefits** have been collected by some active actors.
- There is interest in **keeping or increasing economic benefits** yielding.
- Some of the NNT wood values have been wasted. There is space for value adding (**quality, marketing, research**).
- Customers' requests have **indirect impact on the utilization** of NNT wood.



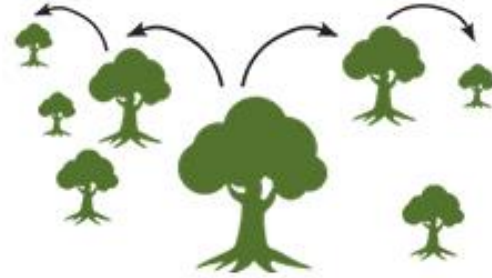
- There are **gaps in the supply chain**.
- NNT wood availability, acquisition and manufacturing are **scattered**.
- Volumes of NNT wood applied in the production are **minimal**.
- NNT wood species occupy **production's niches**.



PHASE introduction  
NAME alien species



establishment and reproduction  
naturalized alien species



spreading and causing damage  
invasive alien species

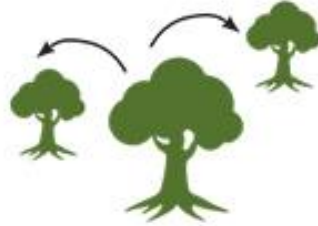
**Alien species** are all living being, which are transported by humans (on purpose or not on purpose) outside their native range, which could not be reached without the help of humans.



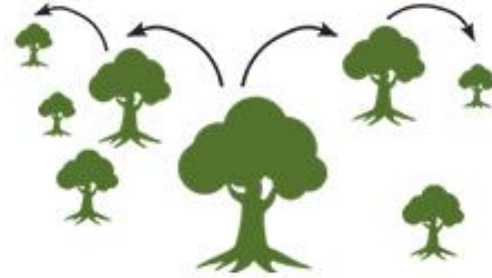
**Invasive alien species:** ...threaten biodiversity, ecosystems or the way we live



PHASE introduction  
NAME alien species



establishment and reproduction  
naturalized alien species



spreading and causing damage  
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# Risks

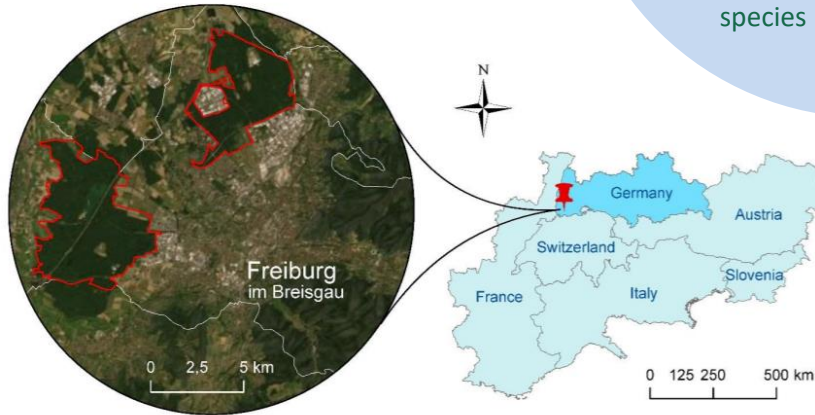
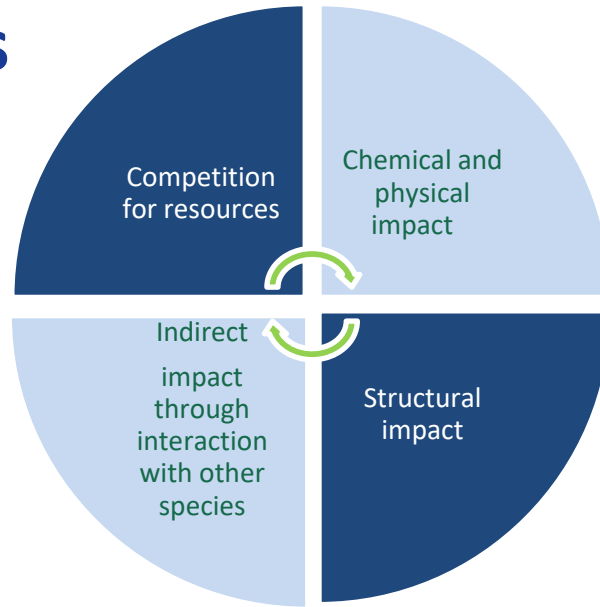


Figure 1 Location of the studied forest area in the lowlands of the Alpine Space near the city of Freiburg in south-west Germany.

Semi-natural oak-hornbeam forests (European Union habitat type 9160)

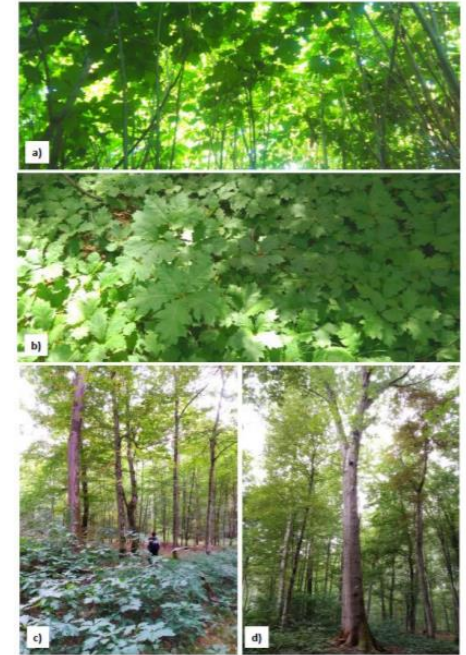
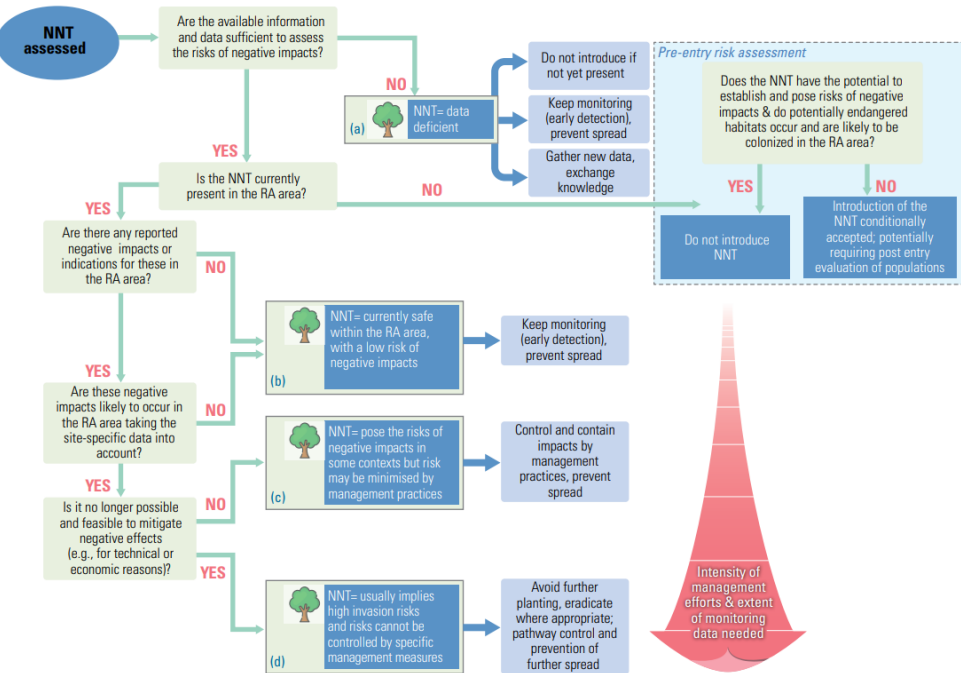


Figure 6 Red oak occurrence in semi-natural oak-hornbeam forest stands (habitat type 9160) near the city of Freiburg, south-west Germany: a) high cover of red oak saplings and b) seedlings, c) natural regeneration of red oak, and d) adult red oak.

[https://alpine-space.eu/projects/alptrees/deliverables/alptrees\\_d.t1.2.1-report-on-field-survey\\_fva\\_31-03-2021\\_final.pdf](https://alpine-space.eu/projects/alptrees/deliverables/alptrees_d.t1.2.1-report-on-field-survey_fva_31-03-2021_final.pdf)



Step	Aim
<b>Pre-risk assessment</b>	
<b>1 STEP</b>	<b>Definition of the risk assessment (RA) area</b>
<b>2 STEP</b>	<b>Identification of the current and potential occurrence of NNT</b>
<b>3 STEP</b>	<b>Collation of relevant and available knowledge on NNT</b>
<b>4 STEP</b>	<b>Inventory of site-specific habitat features important for nature conservation value</b>
<b>5 STEP</b>	<b>Generation of site-specific knowledge on the risks posed by NNT in the RA area</b>
<b>6 STEP</b>	<b>Assessment of the current and potential impact of NNT in the RA area</b>
<b>7 STEP</b>	<b>Development of management recommendations</b>
<b>8 STEP</b>	<b>Conclusion of the SSRA</b>

Identify the needs, motivations and goals of the SSRA.

Provide a geo-referenced and spatially explicit map of the RA area.

Identify the presence of currently or potentially occurring NNT in the RA area.

Collate relevant knowledge on ecology, extent and distribution, management and impact.

Identify the relevant site-specific habitat features important for the nature conservation value of the RA area that might be affected by NNT.

Generate new evidence concerning the spatial extent and impact of the NNT on the habitat features.

Assess the negative impact of NNT on the RA area based on the knowledge collected in the previous steps.

Develop a plan for management measures regarding NNT under consideration of legislation and management goals

Summarize the results of the SSRA for further communication, including justification, full applied methodology, reference list, and limitations of the results.



# Economic Opportunities



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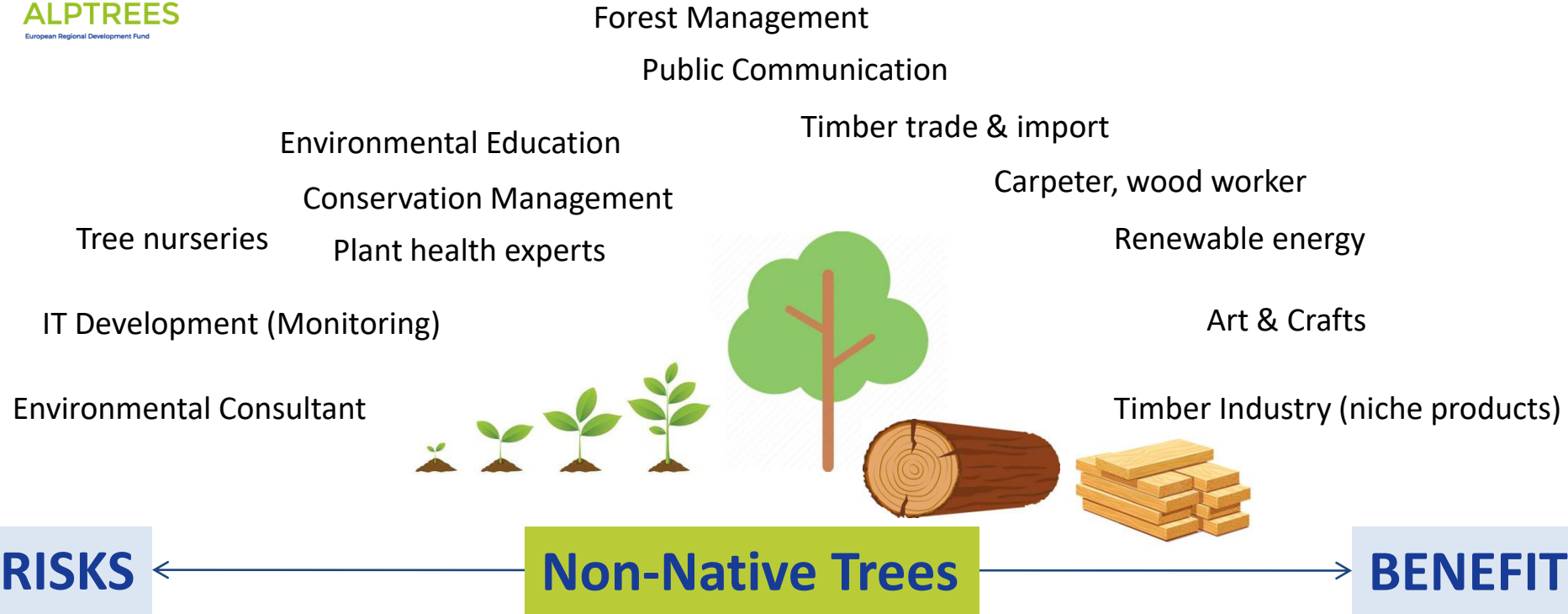


**RISKS** ←

**Non-Native Trees**

→ **BENEFIT**

# Economic Opportunities



**Interreg**

Alpine Space

**ALPTREES**

European Regional Development Fund



EUROPEAN UNION

# ALPTREES podcast series

A horizontal audio waveform graphic with a rainbow color gradient. The waveform is mirrored across a central horizontal axis. The word "Podcasts" is written in a large, black, sans-serif font across the center of the waveform.

Podcasts

Link to the ALPTREES Podcasts:

<https://www.alpine-space.eu/projects/alptrees/en/home/podcast>

# ALPTREES Project: Keep in touch!



**Interreg Alpine Space ALPTREES** **ALPTREES** **Novice** Št.3

**Strokoma raziskava Ieme Industrije**  
Skupina z Univerze Žiljenskih znanosti, BOKU, Duna, je na sedmem sestanku ALPTREES uvrstjevalne skupine, ki je potekal 16. junija preko spleta, predstavlila njihov pristop k strokovni raziskavi Ieme Industrije. Raziskavo bo vodila v sodelovanju ALPTREES partnerskih država v alpskem prostoru. Namen raziskave je uporaba tujerodnih drevesnih vrst (v nadaljevanju TDV) kot so npr. glastika, alkele, keshiki, itd. Vsi zainteresirani deležniki, ki uporabljate TDV regionalnega pomena v tržne namene, ste vabljeni k deljenju svojih strokovnih informacij na spletnem linku: [https://drive.google.com/file/d/1WqZaPfc0sVr2Z\\_95MkE\\_gXk6G0rua/view](https://drive.google.com/file/d/1WqZaPfc0sVr2Z_95MkE_gXk6G0rua/view)

**Slikovni priročnik**  
V okvirju projekta ALPTREES bo kmalu izšel slikovni priročnik za opredeljevanje določanje TDV v alpskem prostoru. Sodelavci prdne de laje in razvijajo enotaven vodil, ki bo poleg fotografij vključeval tudi več kot 100 ilustracij TDV, s tem želimo omogočiti enostavno in zanimivo določanje TDV za vsakega. Spletne in tiskane različice priročnika bodo kmalu na voljo, zato nas prosim kontaktirajte na naš elektronski naslov, da si zagotovite svoj izvod.

**Podcasti**  
Zdaj imate priložnost, da prisluhnete ALPTREES na poti Učujav v naših prvih dveh podcastih in bodi na tekočem o projektu in dejavnosti TDV v Franciji. Spremljajte naše stran tudi v prihodnje za še več informativnih podcastov. <https://www.alpine-space.eu/projects/alptrees/en/home/podcast>

**Pešeni za otroke**  
Da bi otroci tudi naše najmlajše deležnike, se je ALPTREES ekipa, ki je zasedela za komunikacijo, domislila pesmi za otroke. Pesem naših bab in pradedov "Kajca naša pesem" ki jo je zapel Frederik Vahle v angleščini, opisuje tresne dejavnike v gozdovih in oblahe podnebnih sprememb. Če si želite pesem tega kake na tiskani in zabaven način otrokom različno vsebino, ki vodi k razumevanju dinamike gozdov in postelje. Za ogled videoposnetka klikni na spodnji link: <https://www.youtube.com/watch?v=87SR0uV4Q>

**Children's Song**  
Članek z naslovom "Invazivna drevesa - Princino drevo zaseni drugo drevo", ki sta ga napisala ALPTREES sodelavca iz Slovenije, Aleksander Marinko in Živa Berač Čavnik, je tudi vključen v regionalnem časopisu Večer. Članek najdete na povezavi: <https://www.vecer.com/invazivna-drevesa-princino-drevo-zaseni-druga-drevo-1081777>

**V pripravi**  
• ALPTREES & sotonke uvrstjevalne skupine bo potekal v Mariboru, 5. novembra med 28. in 29. septembrom 2020.  
• ALPTREES delavnica za deležnike bo potekala 30. septembra 2020 v Ljubljani, Slovenija.  
• Spletne in tiskane različice ALPTREES bo potekal 5. novembra 2020.  
• Ostanite z nami za več podcastov (v sodelovanju z deležniki in partnerji iz Italije, Švice in Lindberga), ki bodo objavljeni na ALPTREES uradnem podcast kanalu v prihajajočih dneh.

**Kontaktirajte nas:** [alptree@bfw.gv.at](mailto:alptree@bfw.gv.at)  
Spletna stran: <https://www.alpine-space.eu/projects/alptrees/en/home>  
Lahko nas najdete tudi na Facebooku: <https://www.facebook.com/alptrees/>

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[https://twitter.com/alptrees\\_AS](https://twitter.com/alptrees_AS)

# THANK YOU!



**Thank you! Grazie! Merci! Hvala! Danke!**

Dr. Katharina Lapin [[katharina.lapin@bfw.gv.at](mailto:katharina.lapin@bfw.gv.at)]