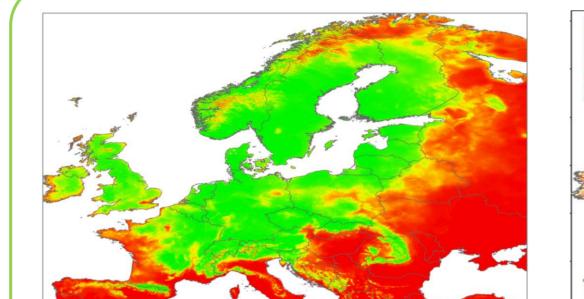
SUSTREE: Utilizing genetic diversity for adapting forests to climate change

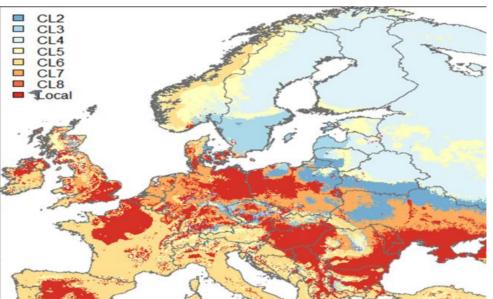
Background

- Many forests in Central Europe (CE) are vulnerable to climate change.
- Genetic variation within tree species can be utilised to select adapted planting materials suitable for future conditions.
- SUSTREE aims to develop tools for practitioners and spread awareness on the transnational issues of climate change and adaptation.

Decision Support Tools



Tree species vulnerability



Forest seed transfer

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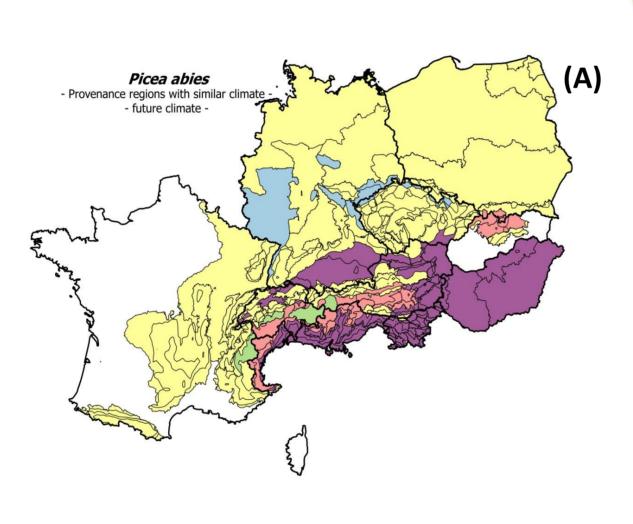
SUSTREE Documentary Movie

BORDERLESS FORESTS

The trailer of Documentary can be found in the following link https://youtu.be/8kE4hpBkNts

Policy Relevance

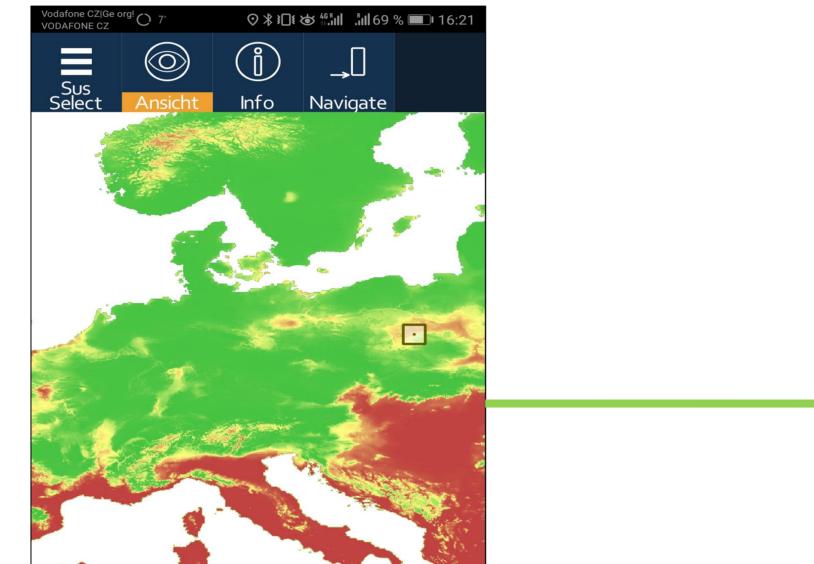
Forest seeds and seedling are legally regulated within the Council Directive 1999/105/EC. It provides the basis for all national regulations in which, among others, national Regions of Provenance are defined.



Smartphone App SusSelect

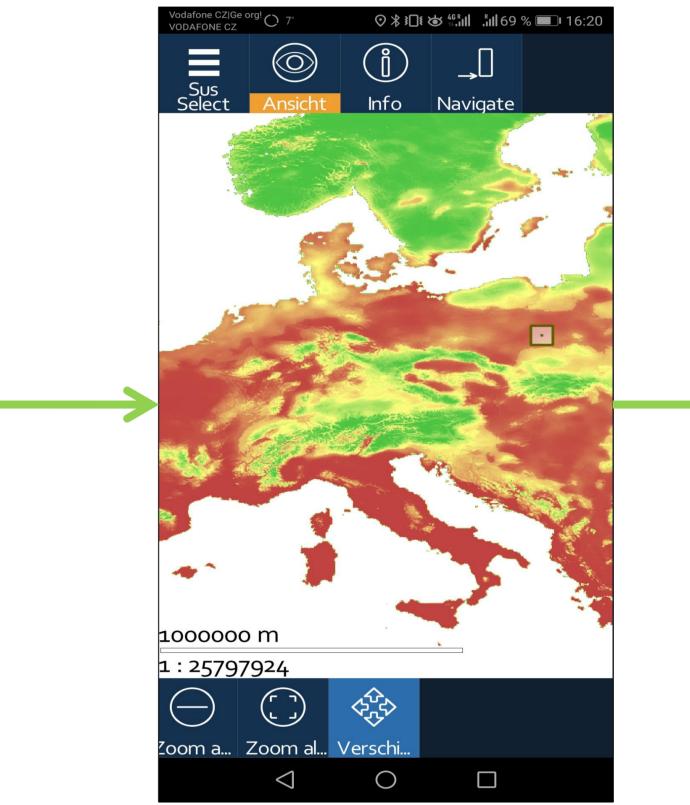


Map the vulnerability of tree species under current climate



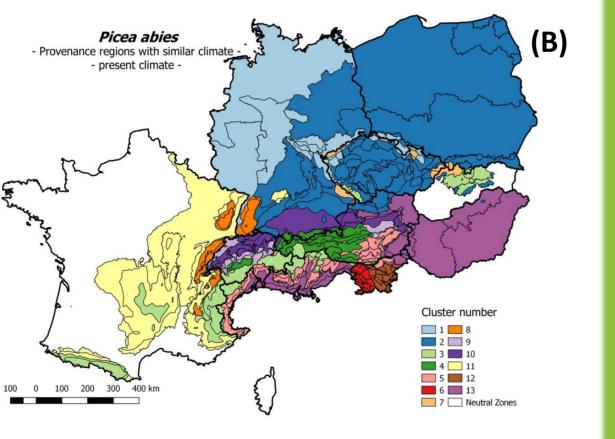
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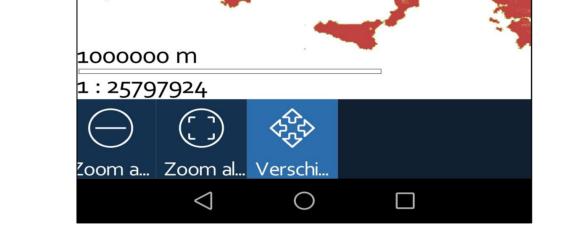
...under future climate



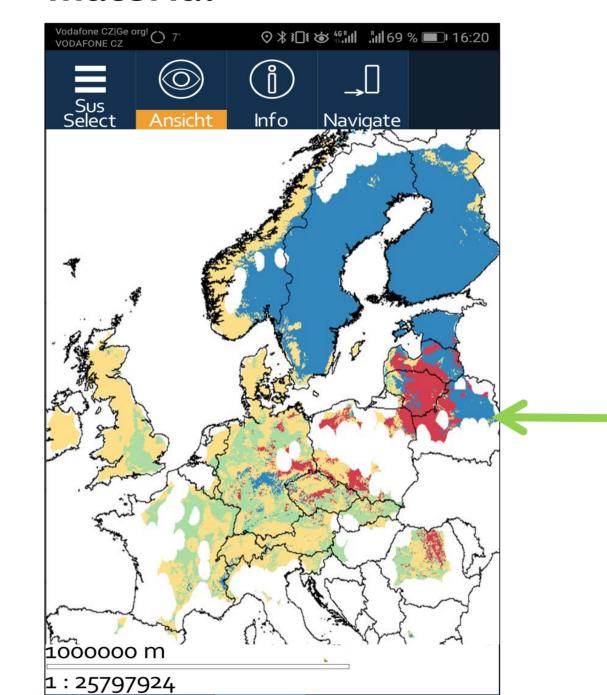


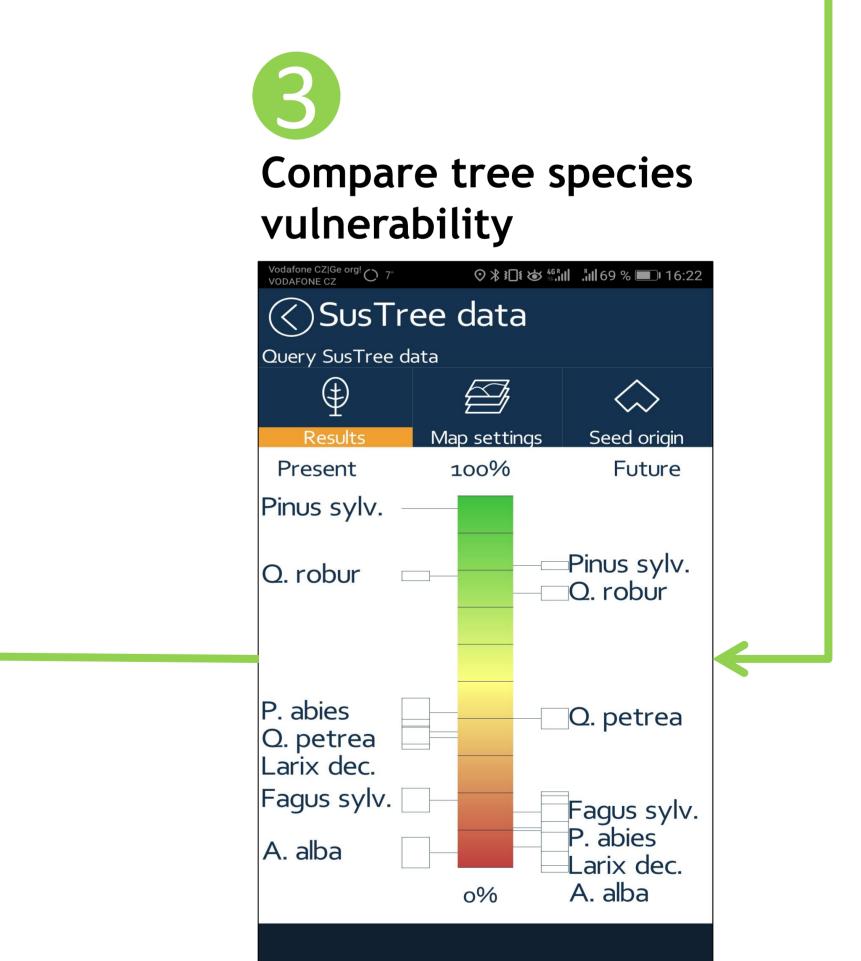
The policy brief contains for example, maps of climatic similarity among present Regions of Provenance for Norway spruce (Picea abies) for present climate, (A) and the expected shift and expansion of south-western (B) and pannonic climate regimes until the end of the century.





4 Find the best planting material





SUSTREE Project

SUSTREE: ⁶⁶ Conservation and sustainable utilization of forest tree diversity in climate change

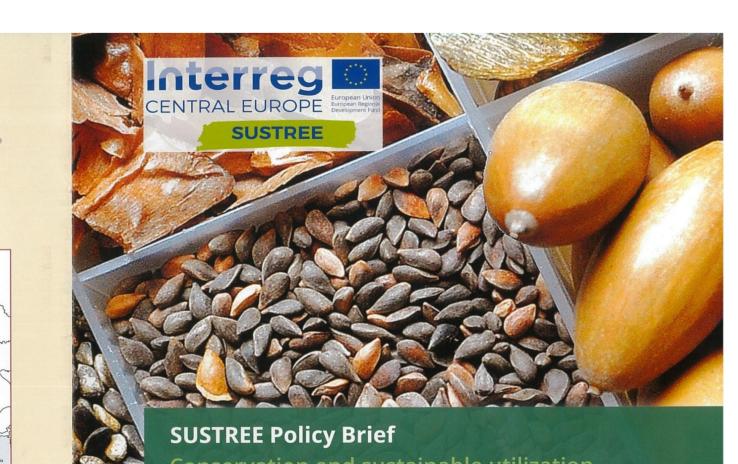
SUSTREE is a transnational project promoting climate change adaptation and genetic diversity of forest ecosystems in Central Europe. Funded by Interreg, SUSTREE comprises of eight partner institutions from six countries (Austria, Germany, Czech-Republic, Hungary, Poland, Slovakia) of Central Europe sharing their expertise, to enable management of the forest genetic resources.

Within this cooperation project

 We develop transnational delineation models or decision support tools for forest seed transfer and genetic conservation based on species distribution models and available intra-specific climate-response function.

• These models are being connected to national registers of forest reproductive material in order to support nursery and forest managers for selecting the appropriate seed and planting material for future forest regeneration.

 Pilot applications in state forest enterprises will document the usability of the introduced



| | gers as well as for policymakers and public bodies responsible for restoration and forest reforestation schemes. | | of forest tree diversity in climate change | | | | |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|
| | OECD Guidelines on the Production of Forest Reproductive Materials , OECD, 2013. Available at: http://t1p.de/a31t | | KEY MESSAGES | | | | |
| ron | Eur-Lex access to European Union Law. Available at: http://t1p.de/0r7s | S | 1 | 2 | 3 | 4 | |
| Dafa | Summary report of the Commission Expert Group on Legislation on seeds and plant propagating material. Section Forest Reproductive Material, Arcachon (FR), 26-27 APRIL 2017. | | Forest trees exhibit manifold local adaptations to the climate of their | Climate change disrupts the link between climate and local adaptations | Regions of Prove- nance, defined within European and National legisla- | Legislations governing refore- station and seed transfer should be | |
| t | Dr. Silvio Schüler Head of Department of Forest growth and Silviculture Austrian Research Center for Forests Seckendorff-Gudent-Weg 8, 1130 Wien Tel: +43 (1) 878 38-2228 | | habitat guaran- teeing optimal growth and survival under stable environmental conditions. | thereby challenging the "local is best" paradigm. | tions, differ among countries and do not reflect climate conditions nor support adaptive management in | based on range-w local adaptation of trees to assist management of genetic resources under climate | |
| Conta | E-Mail: silvio.schueler@bfw.gv.at http://www.interreg-central.eu/Content.Node/SUSTREE.html https://www.facebook.com/SUSTREE-652655298219670/ https://twitter.com/SUSTREE4 | | | | climate change. | change. | |



Zoom a... Zoom al... Verschi...



SusSelect mapping application of the SUSTREE Interreg displays the current and future vulnerability of 7 European tree species, and suggests locations for seedling selection



Beta Version available on Google Play store, Android-4 version

Contact

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CENTRAL EUROPE



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