

COST-Action FP1403



(Nov. 2014 – Nov. 2018)

Non-Native Tree Species for European Forests: EXperiences, Risks and OpporTunities

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NNEXT-Chair

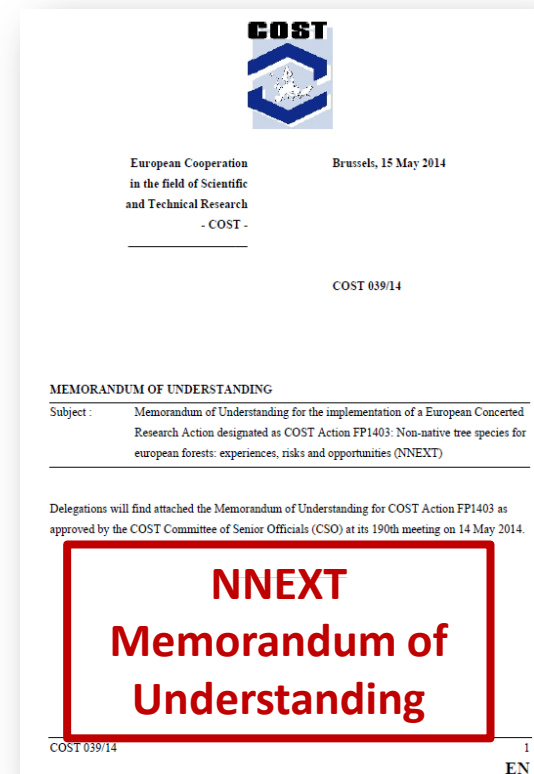
WHAT IS OUR AIM IN ?

Work in a multidisciplinary European NETWORK to...

Understand & Inform about **Non-Native Trees** in Europe

1. WG 1 - MONITORING
2. WG 2 - PATHWAYS
3. WG 3 - SILVICULTURE
4. WG 4 - RISK

<http://nnext.boku.ac.at/>



WG – MAIN TOPICS

WG 1 – MONITORING: Current NNT distribution in Europe and historic reasons for introduction

WG 2 – PATHWAYS: Introduction and distribution pathways of FRM, traceability of provenances, the role of natural regeneration and appropriate provenances

WG 3 – SILVICULTURE: Management practices, multifunctionality, economic importance and public perception

WG 4 – RISKS: Ecological risks for and caused by NNT, (biotic and abiotic risks), invasive behaviour and potential distribution of NNT under climate change, the impact on biodiversity and ecosystem services



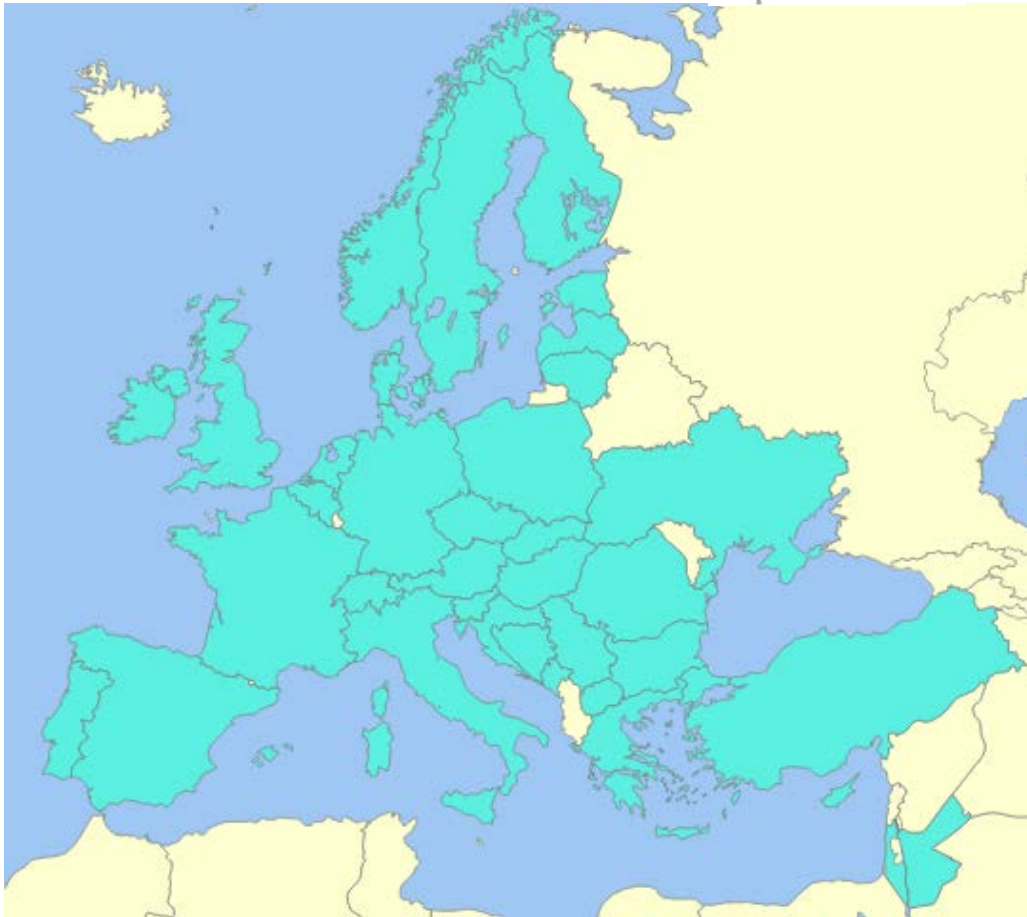
COST ACTION FP1403 **NNEXT** (21.11.2014 – 20.11.2018)

- EU Funding for WG/MC Meetings, Short Term Scientific Missions, Training Schools, Dissemination (<http://nnext.boku.ac.at/>, books, conference,..) and administration (~10h/week)
- Research not paid → days, weeks and months of voluntary work

Steering committee/Core group:

- Chair: **Elisabeth PÖTZELBERGER (AT)** [till April 2016 **Marcela van LOO (AT)**]
- Vice-Chair: **Heinrich SPIECKER (DE)**, Albert-Ludwigs-University Freiburg
- **WG Leaders:**
 - ❖ **WG1 – MONITORING** **Hubert HASENAUER (AT)**, University of Natural Resources and Life Sciences (BOKU), Vienna
 - ❖ **WG2 – PATHWAYS** **Monika KONNERT (DE)**, Bavarian Ministry of food, agriculture and forestry, Office for Forest Seeding and Planting, Teisendorf
 - ❖ **WG3 – SILVICULTURE** **Frits MOHREN (NL)**, Wageningen University
 - ❖ **WG4 – RISKS** **Anna GAZDA (PL)**, University of Agriculture, Krakow

COST ACTION FP1403 **INNEXT** PARTICIPANTS



Participants:

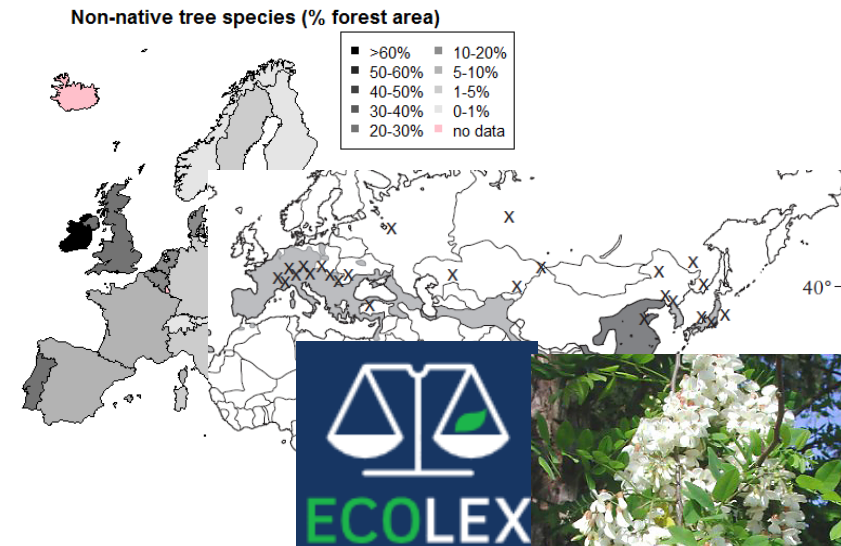
- > **160** in total
- **64** MC-Members
- **44** MC-Substitutes
- **3** NNC Participants
- **4** IPC Representatives
- > **30** add. WG-Members

| | |
|-----|----|
| WG1 | 16 |
| WG2 | 27 |
| WG3 | 34 |
| WG4 | 59 |

Countries: 34 + 2NNC (most recent: Jordan)

WHY A EUROPEAN NETWORK?

- ✓ Many national projects on NNT
- ✓ Huge differences in knowledge on NNT across European countries:
 - % of NNT in forest cover
 - Regional history of introduction
 - Legal situation
 - Utilisation of NNT products and services
 - Economic importance
 - Management practices/experiences
 - Environmental concerns
 - Public perception



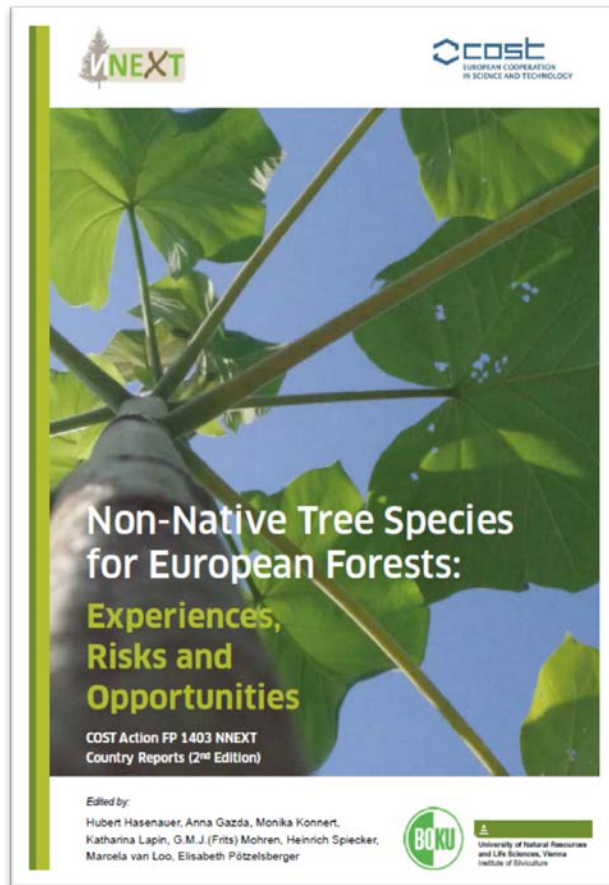
COUNTRY REPORTS

35 countries, 12 Questions:

1. NNT in the country (species, percentage, maps)
2. Economic value (timber properties and prices, management costs)
3. Research activities (provenance trials, networks,..)
4. Biotic and abiotic risks
5. Non-economic (dis-)advantages
6. Management models (Silvicultural systems, problems)
7. Growth performance
8. Mixtures with NT
9. Key differences NT vs. NNT
10. Impact on ecosystem
11. Public perception
12. Legal restrictions



COUNTRY REPORTS



CONTENTS

- AUSTRIA| _____
- BELGIUM _____
- BOSNIA AND HERZEGOVINA _____
- BULGARIA _____
- CROATIA _____
- CYPRUS _____
- CZECH REPUBLIC _____
- DENMARK _____
- ESTONIA _____
- FINLAND _____
- FRANCE _____
- GERMANY _____
- GREECE _____
- HUNGARY _____
- IRELAND _____
- ISRAEL _____
- ITALY _____
- LATVIA _____
- LITHUANIA _____
- MACEDONIA _____
- MONTENEGRO _____
- NETHERLANDS _____
- NORWAY _____
- POLAND _____
- PORTUGAL _____
- ROMANIA _____
- SERBIA _____
- SLOVAKIA _____
- SLOVENIA _____
- SPAIN _____
- SWEDEN _____
- SWITZERLAND _____
- TURKEY _____
- UKRAINE _____
- UNITED KINGDOM _____

FINLAND

T. YLIOJA¹, S. RUOTSALAINEN,
M. ROUSI² and P. PULKKINEN³

1. List the exotic forest tree species

Finland is located between latitudes ranging from 60° to 70°N and longitudes ranging from 20° to 31°E. Total land cover of Finland is 30.4 million ha, of which 86 % is forestry land (26.2 million hectares). (Finnish Statistical Yearbook of Forestry 2014). The share of exotic tree species in Finnish is only 0.1%.

SIBERIAN LARCH, *Larix sibirica*
Is the most cultivated exotic tree species in Finland. The area of cultivation of *L. sibirica* is about 20,000 ha. The most western edge of the natural range of *L. sibirica* is in Russia, close to Finland, on the eastern side of Lake Aanisarvi towards White Sea in the north. Pollen, cones and a trunk of *L. sibirica* that originates from pre-glacial times, indicates that, historically, the species has grown in the area of present day Finland.

LODGEPOLE PINE, *Pinus contorta* var. *latifolia*
The second common exotic tree species is the lodgepole pine, *Pinus contorta* var. *latifolia*. The area of

POLAND

A. GAZDA¹, S. MIŚCICKI², R. WAŚIK²,
J. GOCZAŁ¹, K. KĘDRA¹

1. List the exotic forest tree species

The total area of forests in Poland is 9.16 million hectares (the Central Statistical Office figure as of 31 December 2012), making the forested area of Poland 29.3% (Report on Forests in Poland 2013). There are almost 50 non-native tree species planted in Polish forests (SZYMANOWSKI 1959, BIAŁOBIK 1965, BELLON 1977).

The most frequent non-native tree species within the State Forest: *Quercus rubra* (99% of all compartments), *Robinia pseudoacacia* (98%), *Pinus strobus* (96%), *Aesculus hippocastanum* (95%), *Pseudotsuga menziesii* (89%), *Pinus nigra* (82%), *Pinus banksiana* (81%), *Pinus rigida* (53%), *Juglans nigra* (49%), *Acer negundo* (49%), the rest of introduced species are less frequent. The total area inhabited by introduced tree species is about 5% of all forested area (GAZDA 2013).

SPECIES LIST TREES INTRODUCED INTO POLISH FORESTS ACCORDING TO BELLON (1977)





| | | |
|-----------------------------------|--------------------------------|-----------------------------|
| <i>Abies balsamea</i> , | <i>Picea pungens</i> , | <i>Thuja occidentalis</i> , |
| <i>Abies concolor</i> , | <i>Pinus banksiana</i> , | <i>Tsuga canadensis</i> , |
| <i>Abies grandis</i> , | <i>Pinus contorta</i> , | <i>Acer saccharum</i> , |
| <i>Abies nordmanniana</i> , | <i>Pinus nigra</i> , | <i>Carya ovata</i> , |
| <i>Abies procera</i> , | <i>Pinus rigida</i> , | <i>Padus serotina</i> , |
| <i>Chamaecyparis lawsoniana</i> , | <i>Pinus strobus</i> , | <i>Quercus rubra</i> , |
| <i>Chamaecyparis obtusa</i> , | <i>Pinus peuce</i> , | <i>Betula grossa</i> , |
| <i>Chamaecyparis pisifera</i> , | <i>Pseudotsuga menziesii</i> , | <i>Carya cordiformis</i> , |
| <i>Larix kaempferi</i> , | <i>Tsuga heterophylla</i> , | <i>Juglans nigra</i> , |
| <i>Picea sitchensis</i> , | <i>Thuja plicata</i> , | <i>Fraxinus americana</i> , |
| | | <i>Robinia pseudoacacia</i> |

The most frequent and abundant alien tree species in Polish forests are: northern red oak, black locust, Weilmuth pine and horse chestnut among the woody plants. Alien tree species are the most numbered in

Hasenauer, H., Gazda, A., Konnert, M., Lapin, K., Mohren G.M.J., Spiecker, H., van Loo, M., Pötzelsberger, E. (Eds.) 2016. Non-Native Tree Species for European Forests: Experiences, Risks and Opportunities. COST Action FP1403 NNEXT Country Reports, Joint Volume. 2nd edition. University of Natural Resources and Life Sciences, Vienna, Austria. 420 pages. ISBN 978-3-900932-42-8

Updates on <http://nnext.boku.ac.at/>

WHERE TO MEET **INNEXT** ?

- ✓ MC meetings (4x, 153 )
- ✓ WG meetings (9x, 227 )
- ✓ Training schools (1x, 14 )
- ✓ STSM (5x, 15 , >400d)

Until now...




Excursion at Warsaw meeting April 2016; Source: R.Brus

- Next WG/MC meeting
7th-8th Feb. 2017, Prague
- 2nd Training School in 2017
- STSM call April 2017



Training School August 2016

- **Final NNEXT Conference Sep. 2018, Vienna**

A photograph of a person walking away from the camera down a dirt path in a field of young, green trees. The trees are planted in rows and have large, heart-shaped leaves. The background shows a line of trees and a clear blue sky with some light clouds. The text 'Thank you, and see you NNEXT time!' is overlaid in a large, bold, green font at the top of the image.

**Thank you, and see you
NNEXT time!**

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<http://nnext.boku.ac.at>