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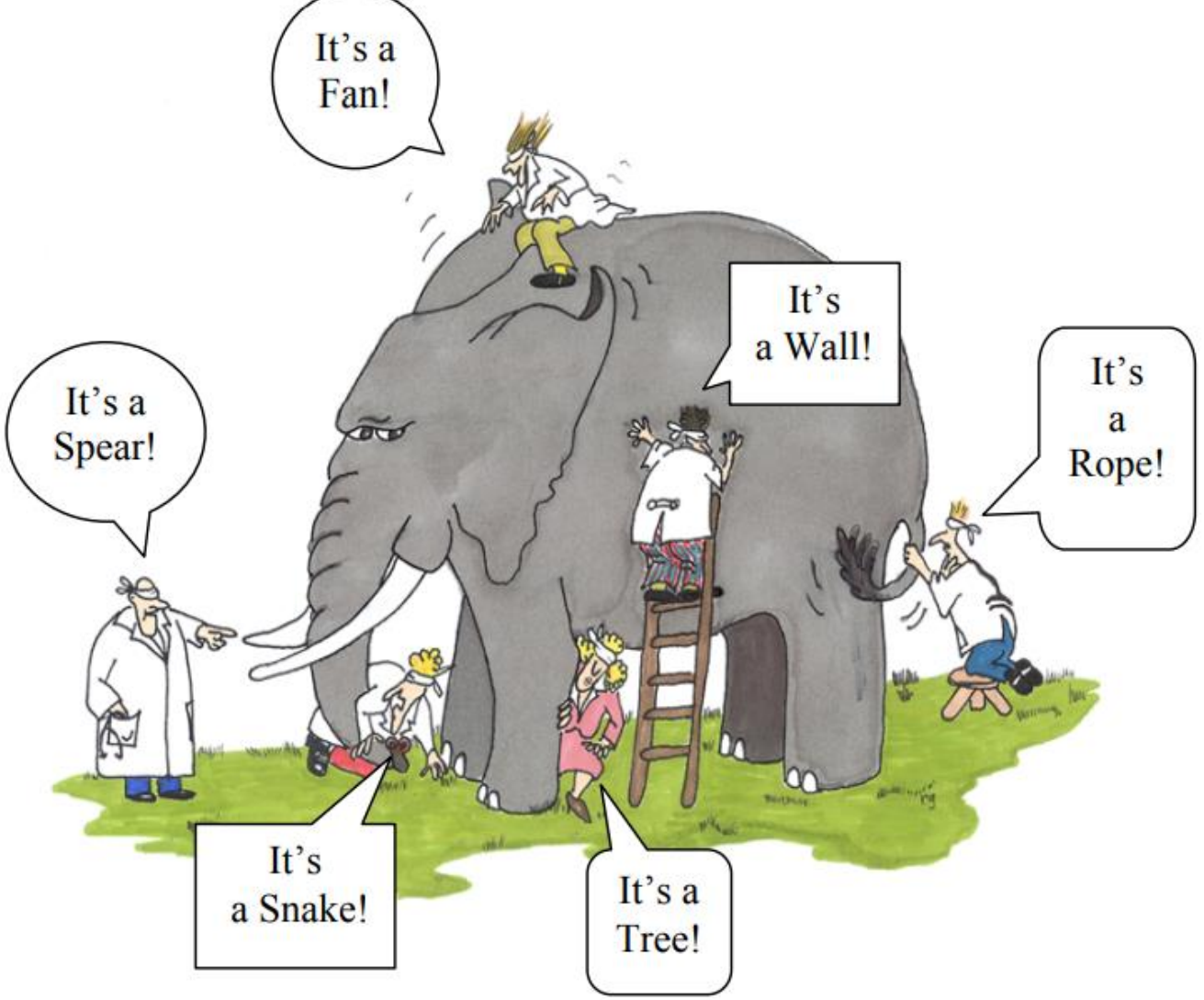
What science can tell us *about* Forest Biodiversity in Europe

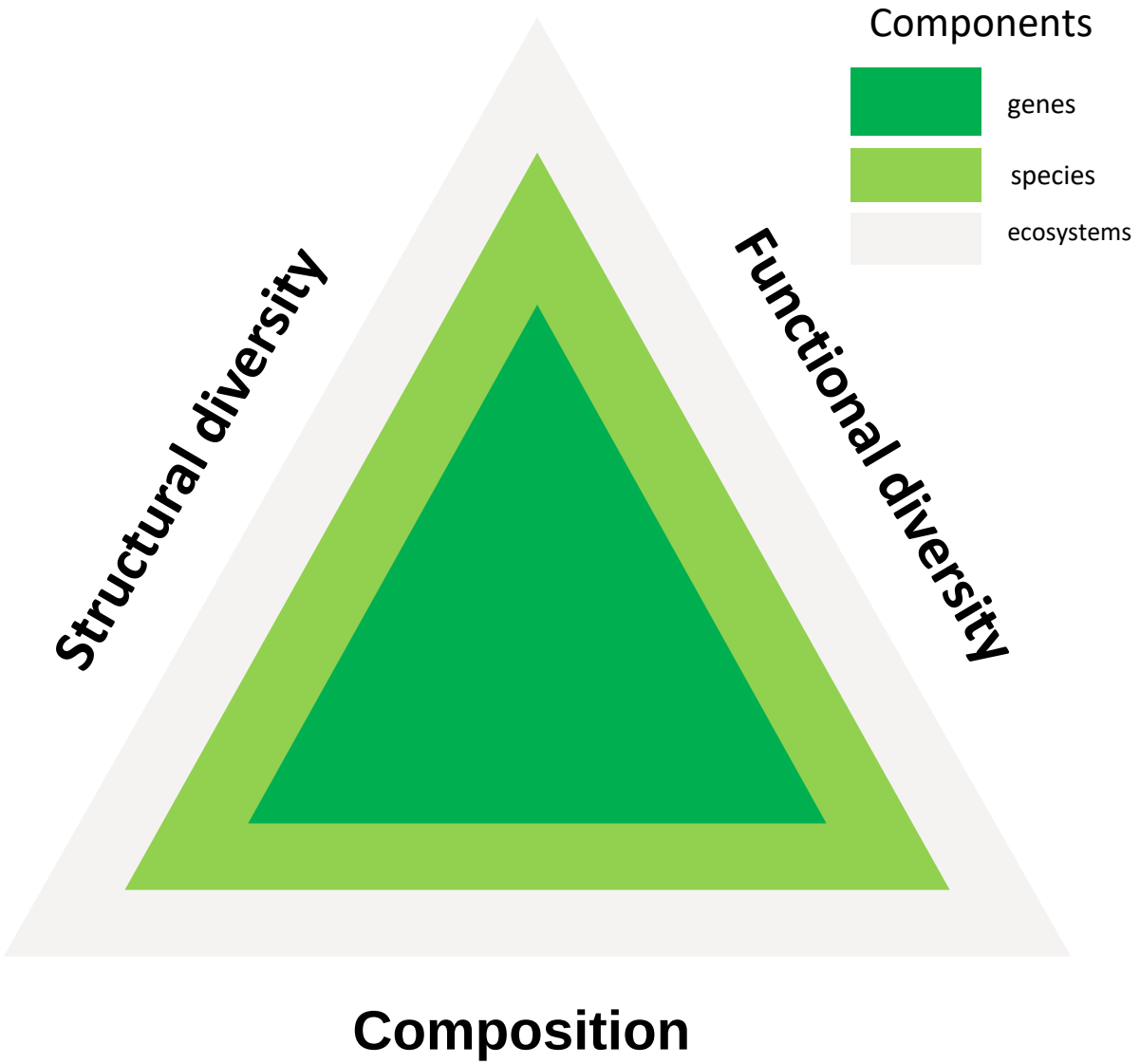
Helga Pülzl and Bart Muys

What is biodiversity?



Source: Himmelfarb et al 2002: 1526 (artist: G. Renee Guzlas). All rights reserved ©. Reproduced by permission of J. Himmelfarb, P. Stenvinkel, T.A. Ikizler and R. M. Hakim.

Elements of forest biodiversity



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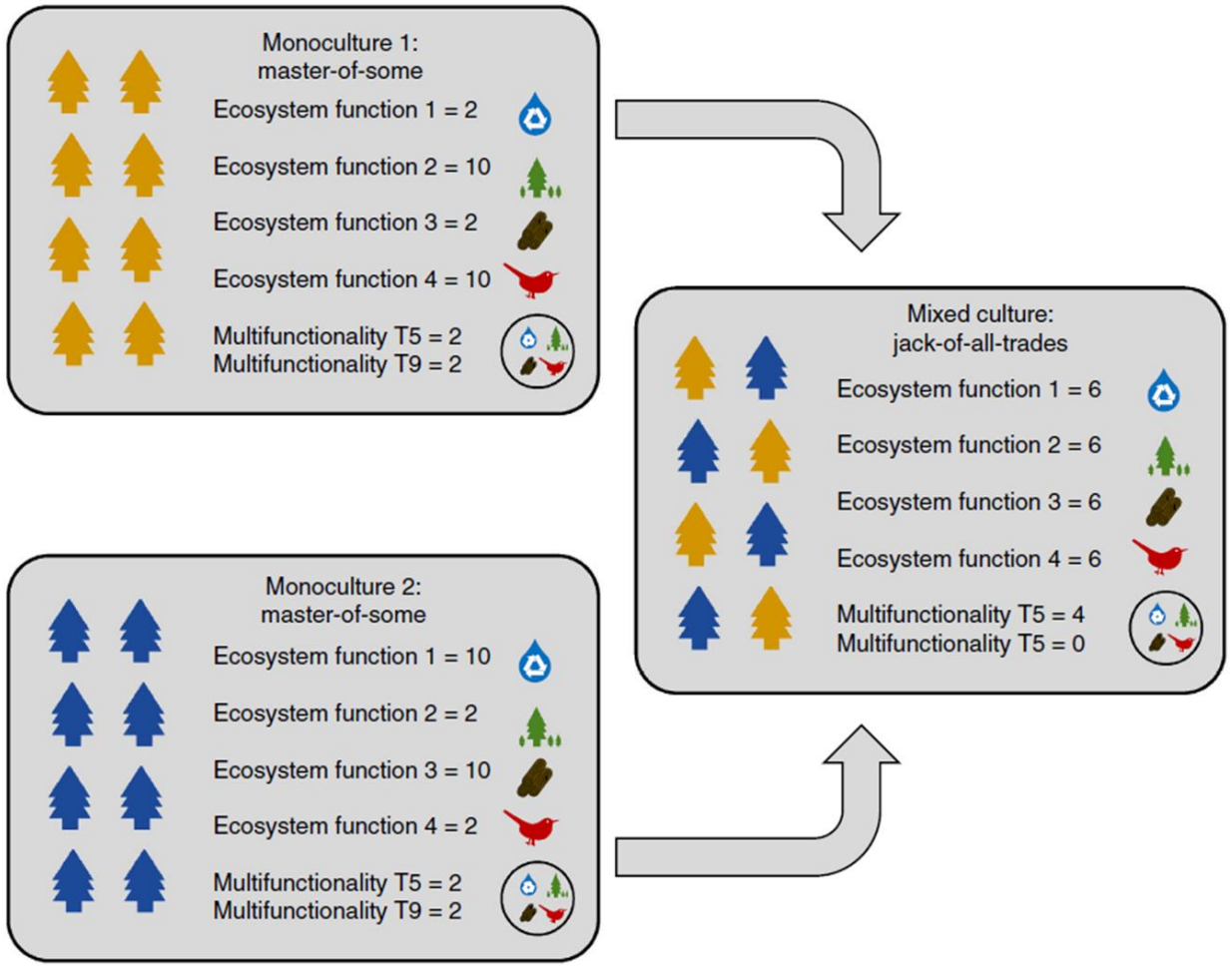
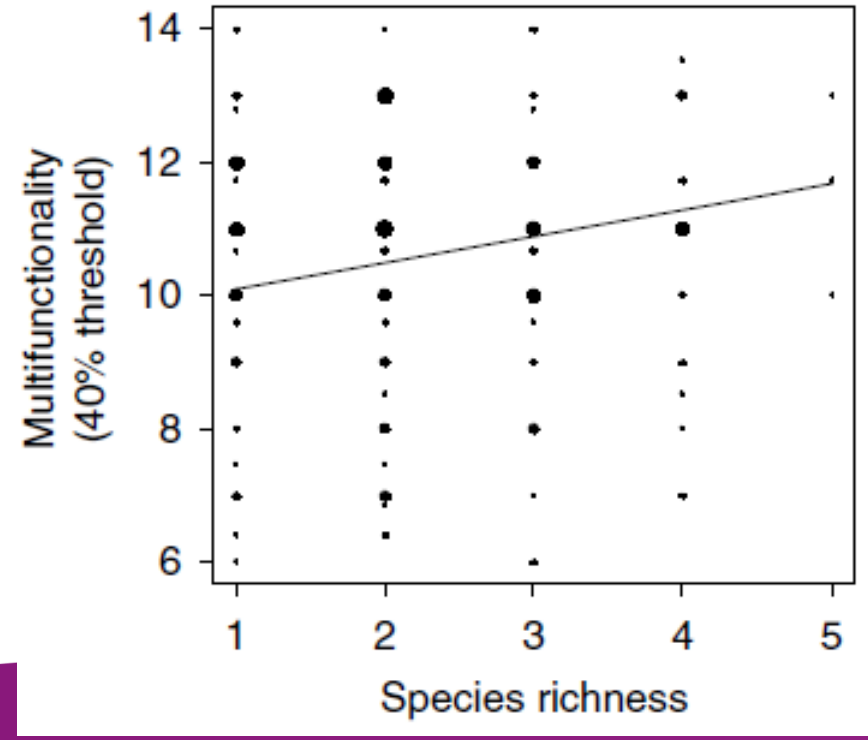
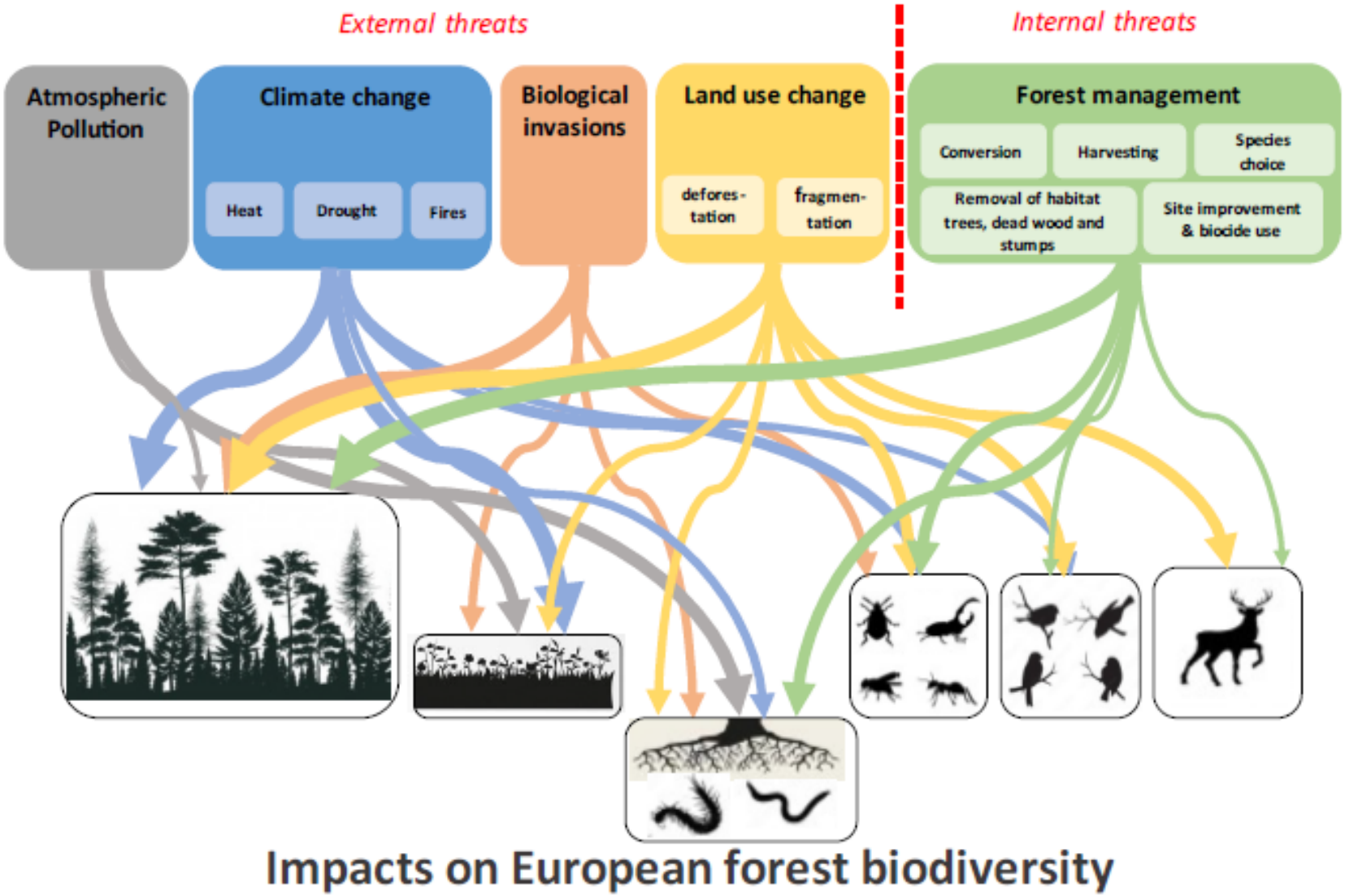
Dimension functional diversity



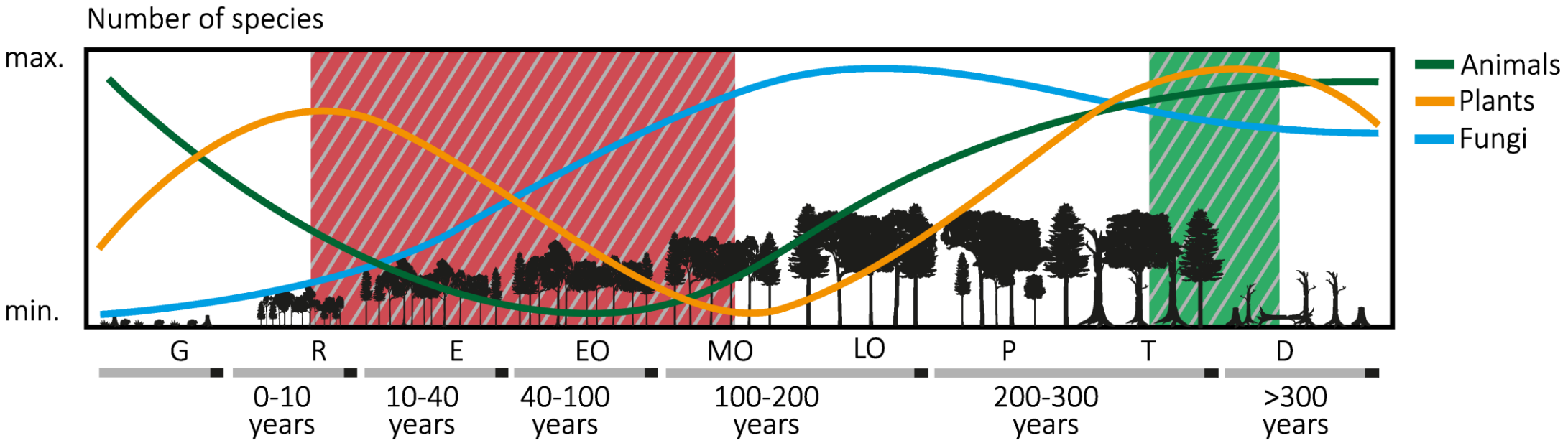


van der Plas et al. 2016, Nature Communications

Threats to European forest biodiversity



Potential mismatch between forest management and biodiversity



G = gap; R = regeneration; E = establishment; EO = early optimum; MO = mid-optimum; LO = late optimum; P = plenter; T = terminal; D = decay (after *Hilmers et al. 2018*).

Biodiversity can be fostered in any forest

Tree species mixture

Connectivity

Disturbances

Habitat trees

Genetic resources

Microhabitats

Deadwood

Rare biotopes

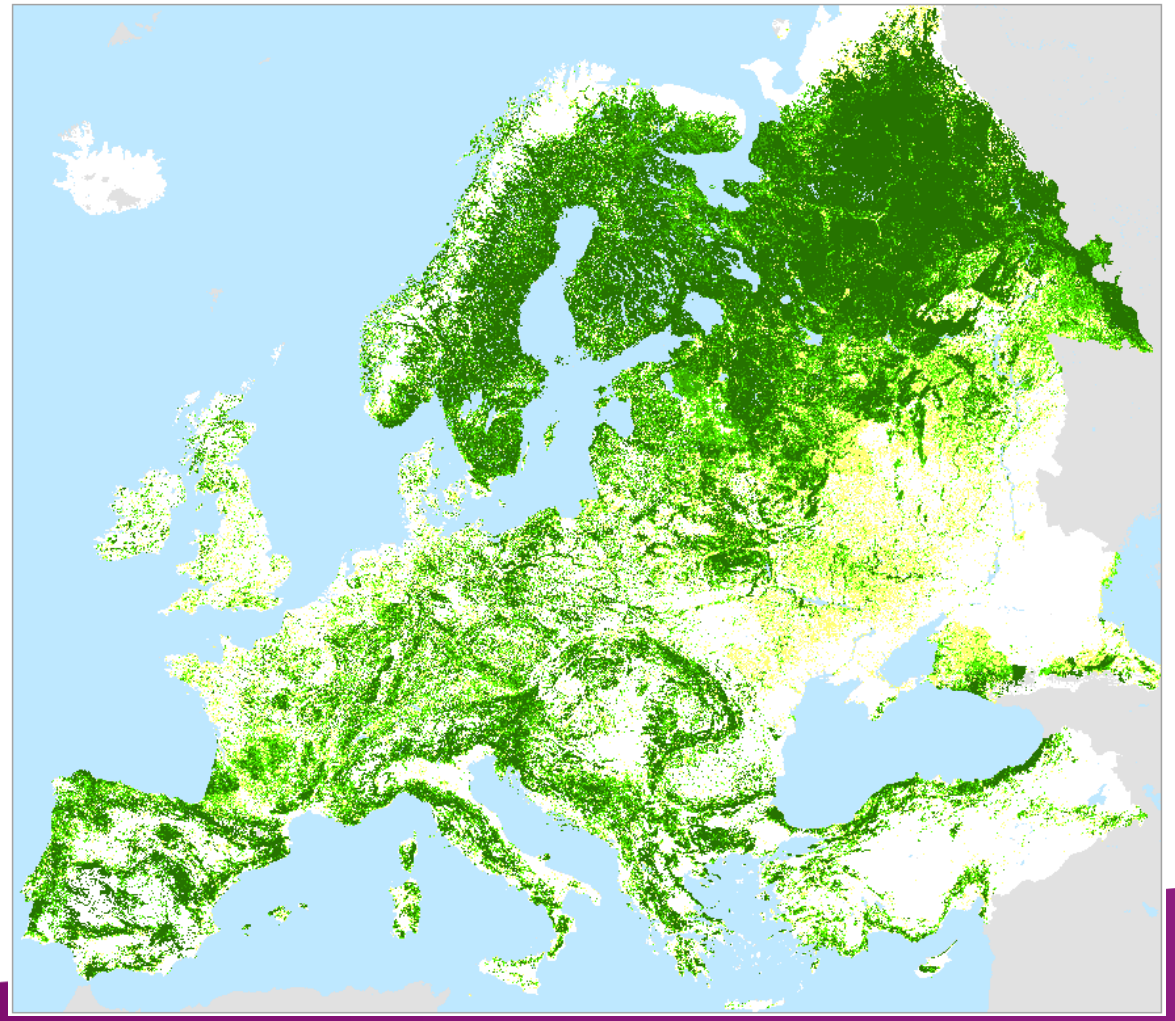
Biodiversity oriented forest management

2x complementary visions – inspired by legacies

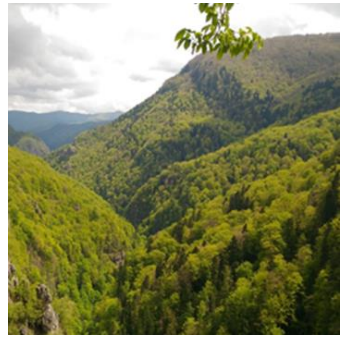
Cultural landscapes

Ancient forests

Cultural landscapes



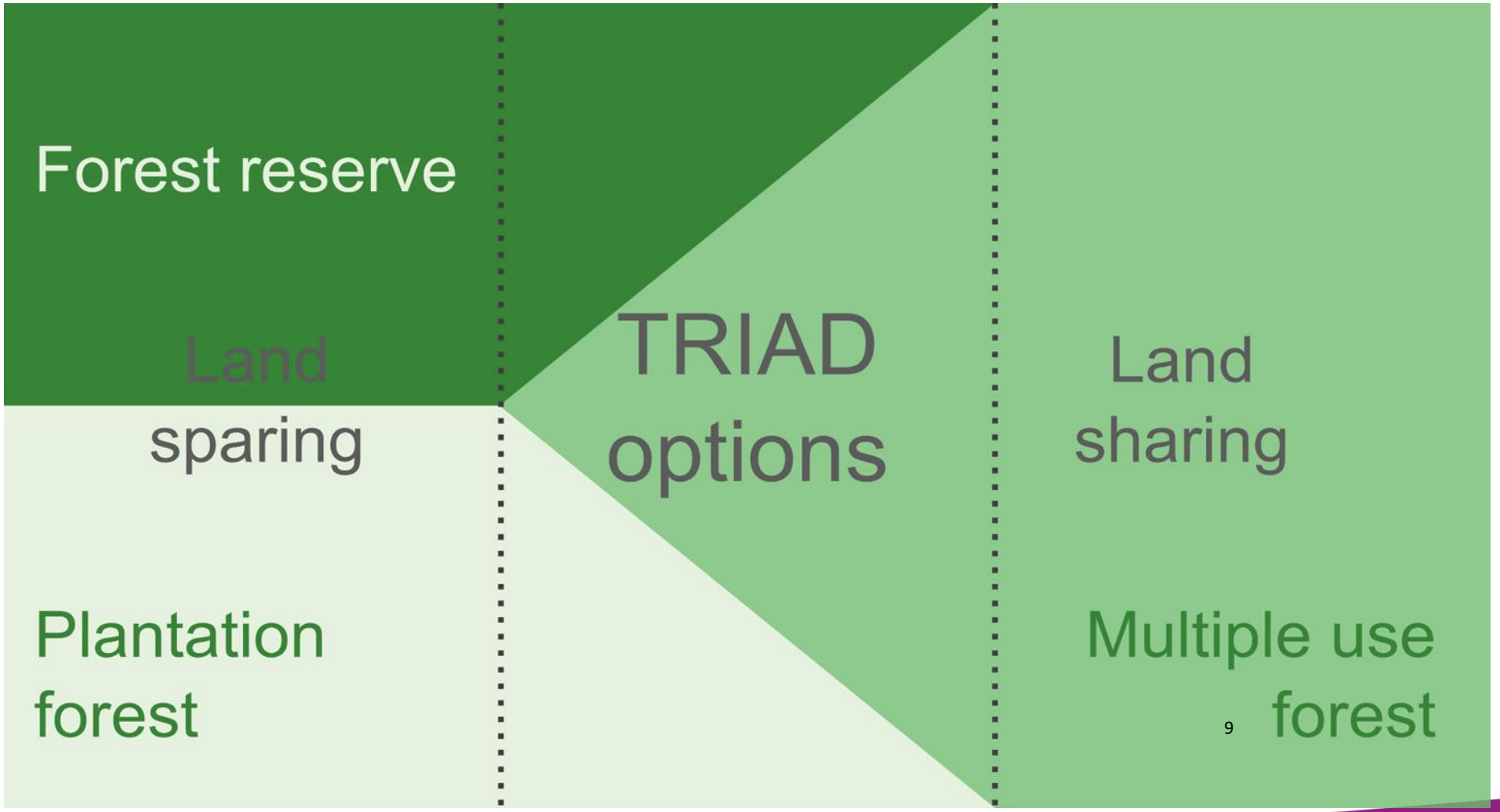
Naturalness



Primary forests

Old growth forests

Forest management at the landscape scale



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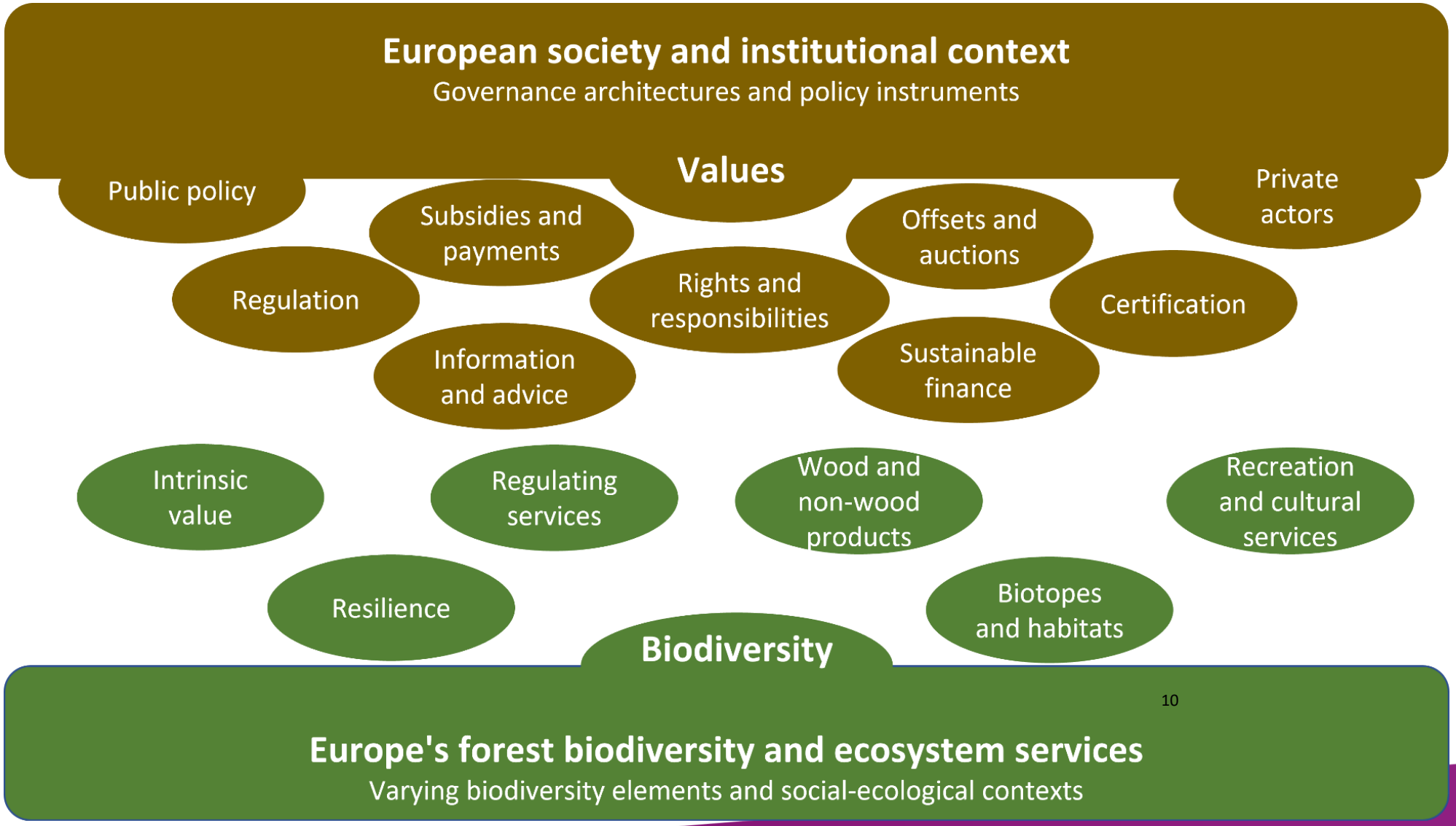
Triad example: 30% unmanaged, 60% multiple use, 10% intensively managed

Developing the optimal policy mix



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Content Executive summary – Understanding forest biodiversity – Monitoring: approaches and trends – Threats – Management promoting biodiversity – Policies and incentives – Implications for practice

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Connecting knowledge to action