

Stakeholder survey on societal demand for improved Forest Reproductive Material

B4EST Project WP5 results

MAIN AIM

Development of bioeconomy, climate change and new threats question the breeders on stakeholder expectations.

This survey aims at:

- Identify priorities in term of productivity, resilience
- Identify divergences between countries
- Identify divergences between stakeholder groups

MATERIAL AND METHOD

Online survey with translations for 9 countries in 2018 -2019

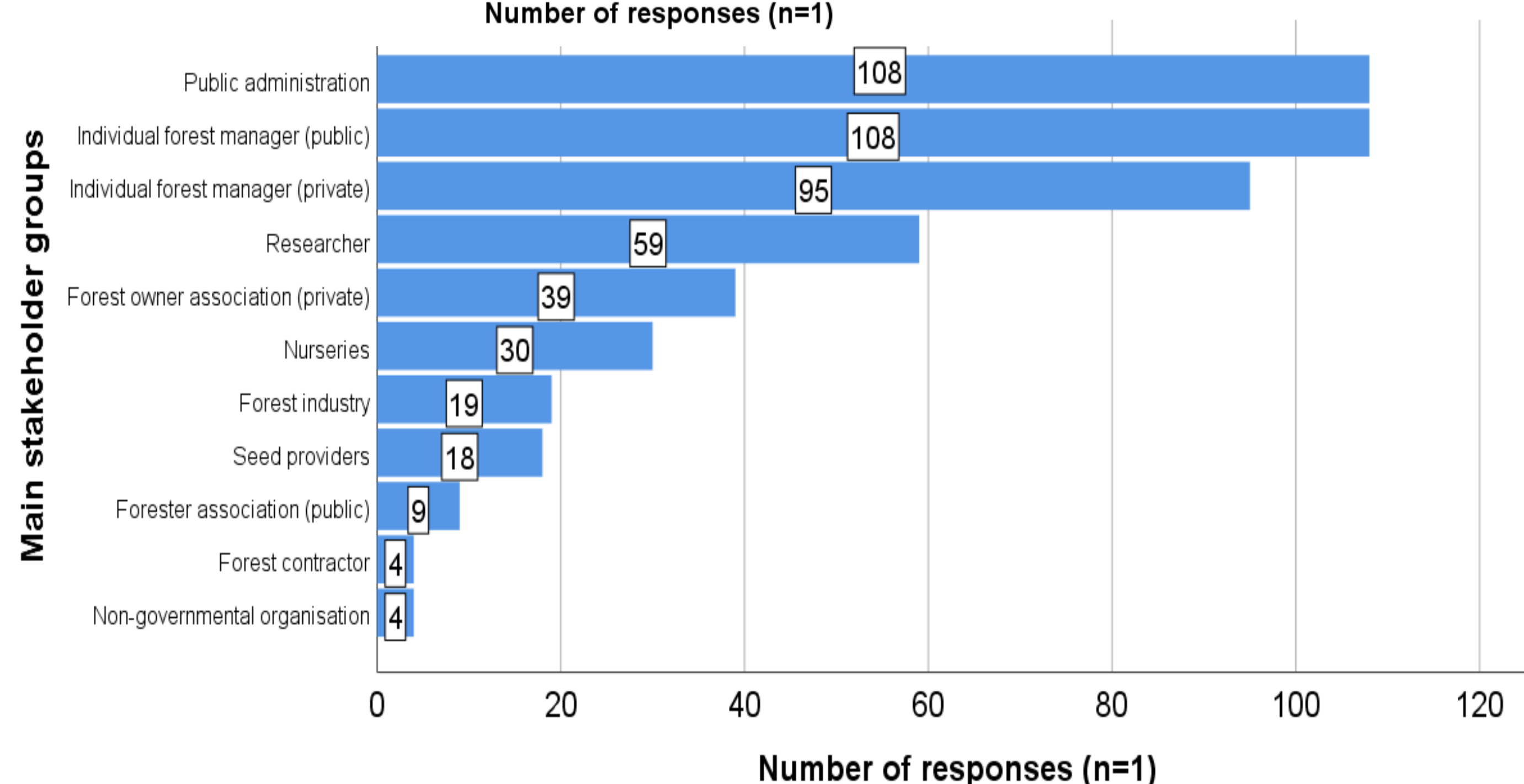
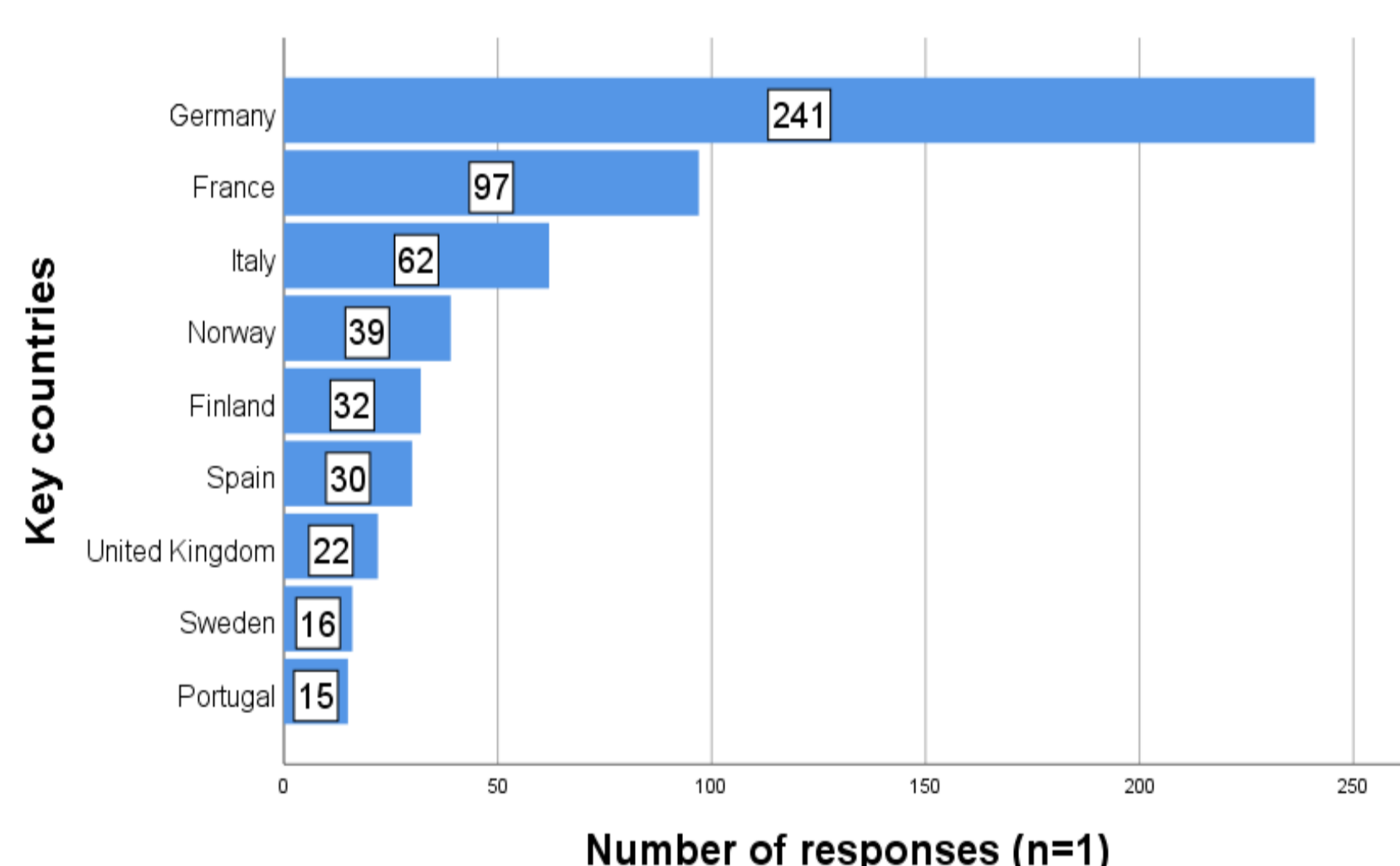
Target group mainly forest managers and owners

Dissemination by email, professional journals, websites, ...

MAIN RESULTS

Most of the 565 answers focused on Douglas fir, Norway spruce, scots pine and maritime pine cases.

	Douglas fir	Norway spruce	Scots pine	Maritime pine	Poplar	Common ash	Eucalyptus	Stone pine
Biophysical criteria for selection	Biotic disturbances	Biotic disturbances	Biotic disturbances	Biotic disturbances	Biotic disturbances	Survival rate	Abiotic disturbances	Non-timber products
Socio-economic criteria for selection	Forest managers	Forest managers	Forest managers	Forest managers	Industry	Forest managers	Forest managers	Forest managers
Issues preventing the use of FRM	Forest management	Availability	Forest management	Limited choice	Concerns of managers	Availability	Concerns of managers	Availability
Improved vs. non-improved FRM	6.0	6.0	6.0	7.0	7.0	6.0	7.0	6.0
Climate conditions	Drought	Drought	Drought	Drought	Windstorm	Drought	Drought and frost	Drought
Needed improvements in plant traits	Seed quality	Seed quality	Seed quality	Seed quality	-	-	-	-
Cost-benefits ratio*	4.0	5.0	4.0	5.0	-	5.0	-	-
Outlook**	6.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0



*Cost-Benefit relation of investment in improved FRM (1.0=net loss, 4.0=investment fully compensated, 7.0=net gain)

**Expected improved FRM developments in the next 20 years (1.0=will strongly decrease, 4.0=remain the same, 7=will strongly increase)

Use of appropriate FRM is considered as the second most effective measure to adapt forest to climate change

	Most important forest management strategies to adapt to climate change	Total (n=1)	AM	IQR
1	Diversification of tree species	557	5.85	2
2	Artificial regeneration with improved FRM	540	5.53	3
3	Enrichment of natural regeneration with Forest Reproductive Material (FRM) better adapted to future climate changes	545	5.35	3
4	Natural regeneration	550	4.48	3
5	Development of clonal propagation of superior genotypes to speed up adaptation	513	4.38	3
6	Continuous cover forestry with prolonged regeneration cycles	514	4.04	4
7	Shortening of rotation periods to reduce risk	542	3.99	2

CONCLUSION

Positive perception of the breeding, with high expectation for climate change and resilience

Strong heterogeneity on knowledge, understanding and expectations between groups

Deliverable available,

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Papers in preparation