



FORESTS' FUTURE 2021

FORRISK: Transboundary forestry risk management

Statement to

„Cross-border forest risk management – Economic and Forest Policy“

24 03 2021

Eduard Hochbichler (BOKU), Thomas Resl (BAB*); Dalibor Safarik (MENDELU)

* Federal Institute of Agricultural Economics, Rural and Mountain Research (BAB)

FORRISK: Transboundary forestry risk management



NUTS III – regions

The damage situation in the forests of the border region, which has persisted for years poses major problems and challenges for forest owners, authorities and stakeholders at the cross-border region Austria and Czech Republic.

In the FORRISK project, operational and administrative procedures for dealing with the bark beetle crisis situation are identified.

FORRISK: Transboundary forestry risk management

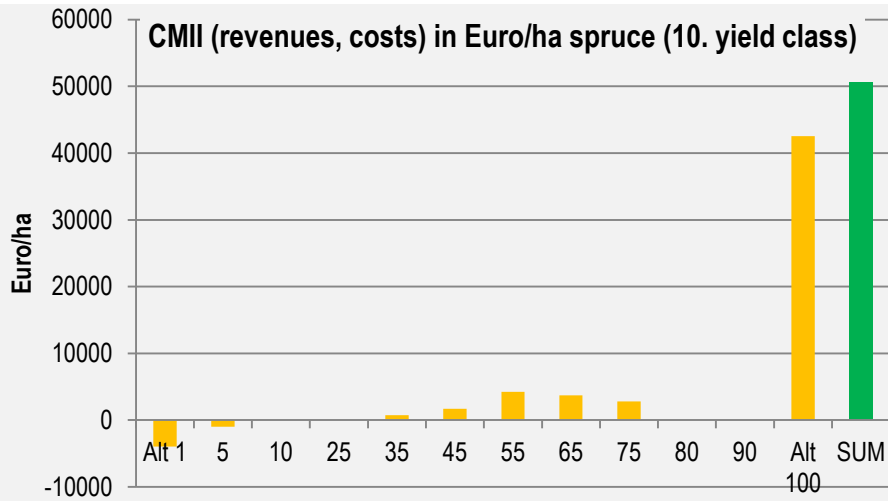
Start of the project: January 2021

special focus:

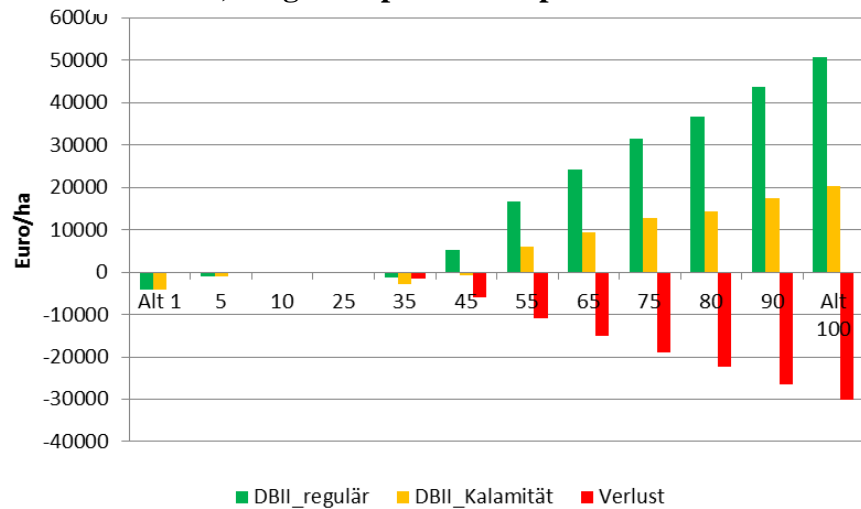
identification of current and potential risks according to type and cause of risk with regard to the risk

- forest production,
- income (forest enterprise)
- market
- advisory activities (state subsidies)
 - regional and enterprise level
 - strategic and operational management

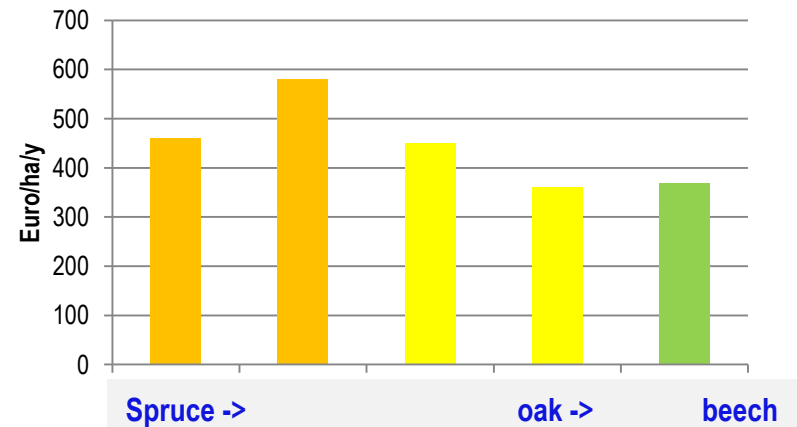
starting position - > **Production risk** - spruce : past- future



CM II (revenues, costs) in euro/ha spruce (yield class 10.) - age and production period

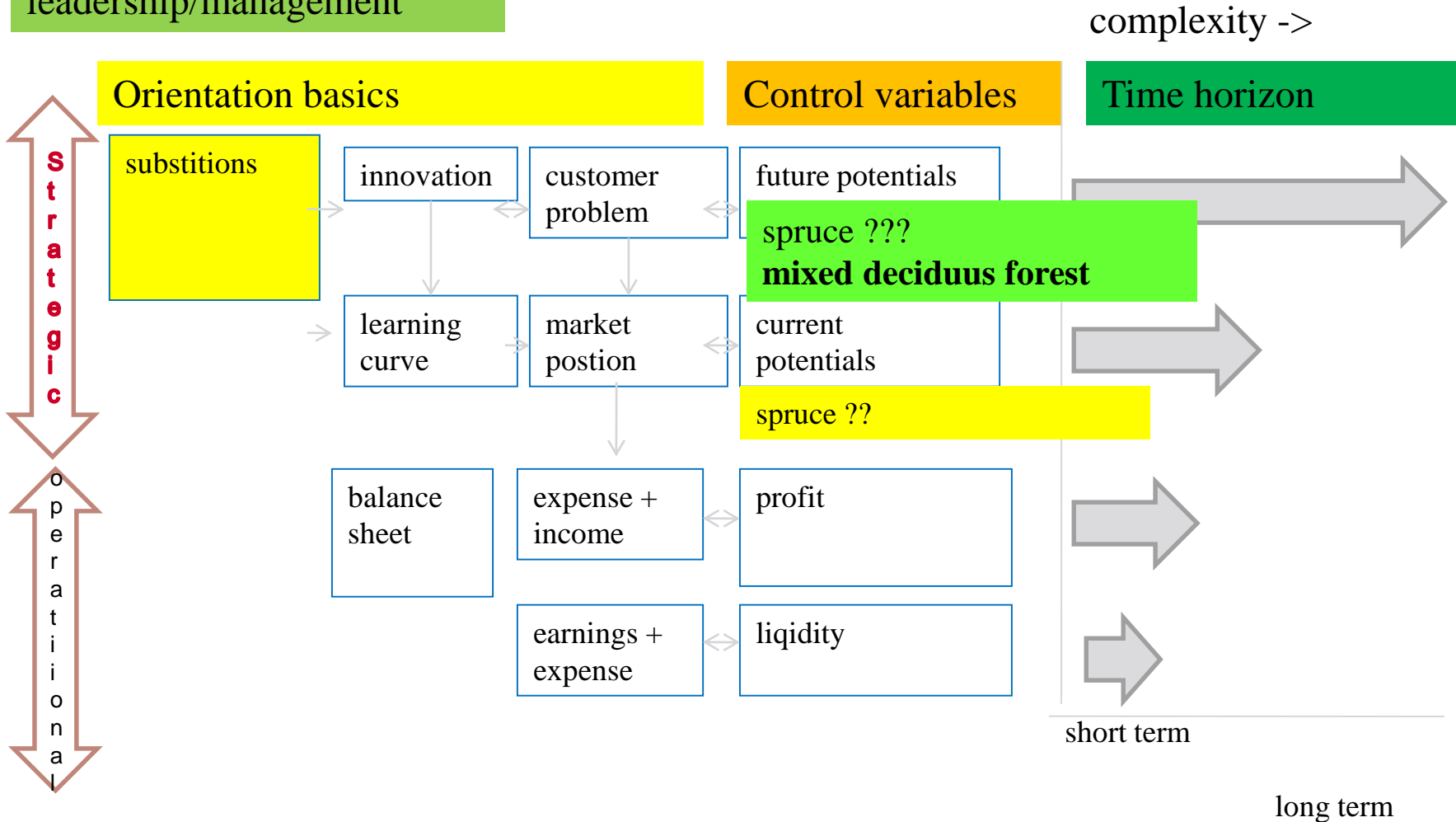


MT: CM II - Comparison



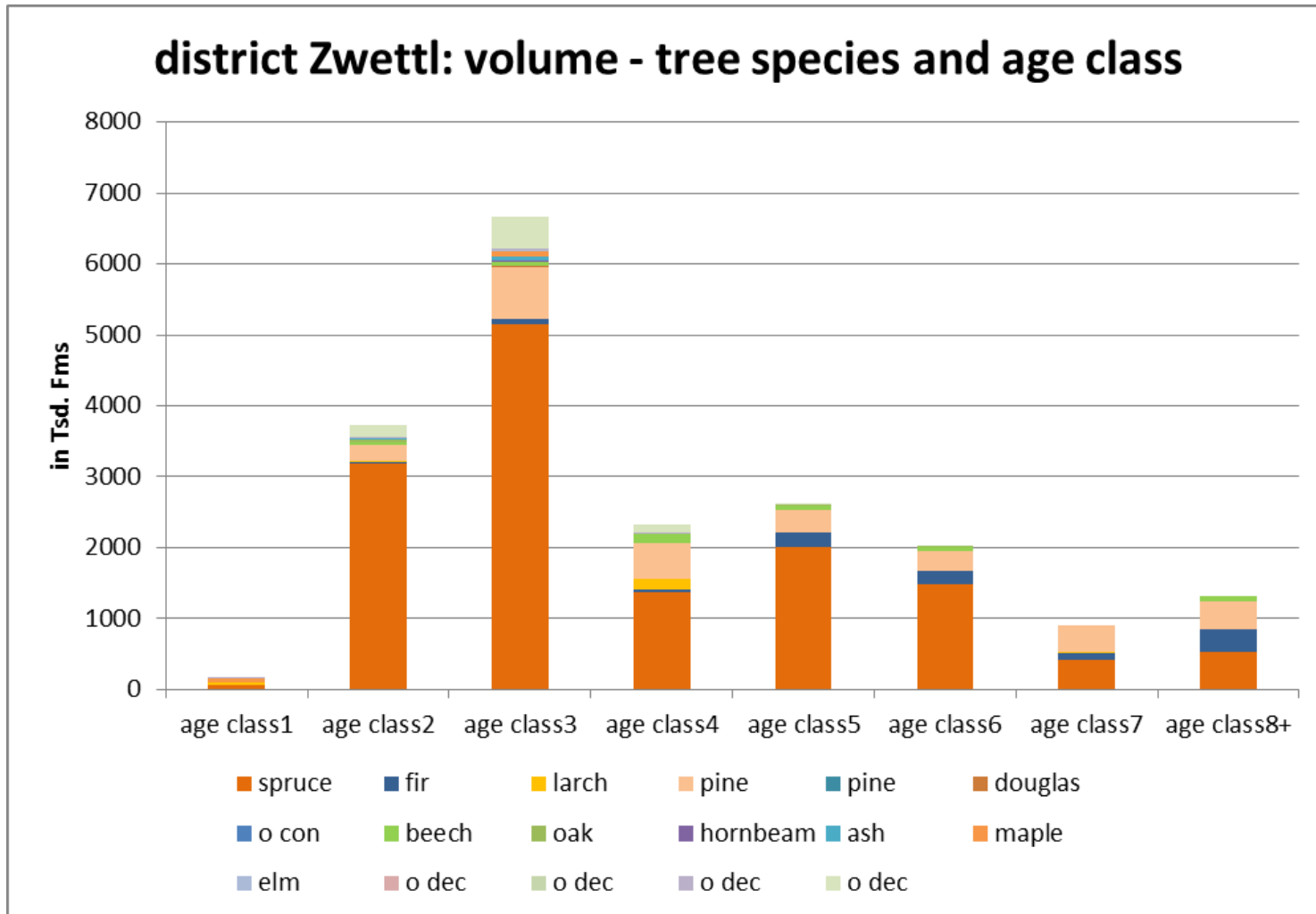
Potential of success for forest management

leadership/management



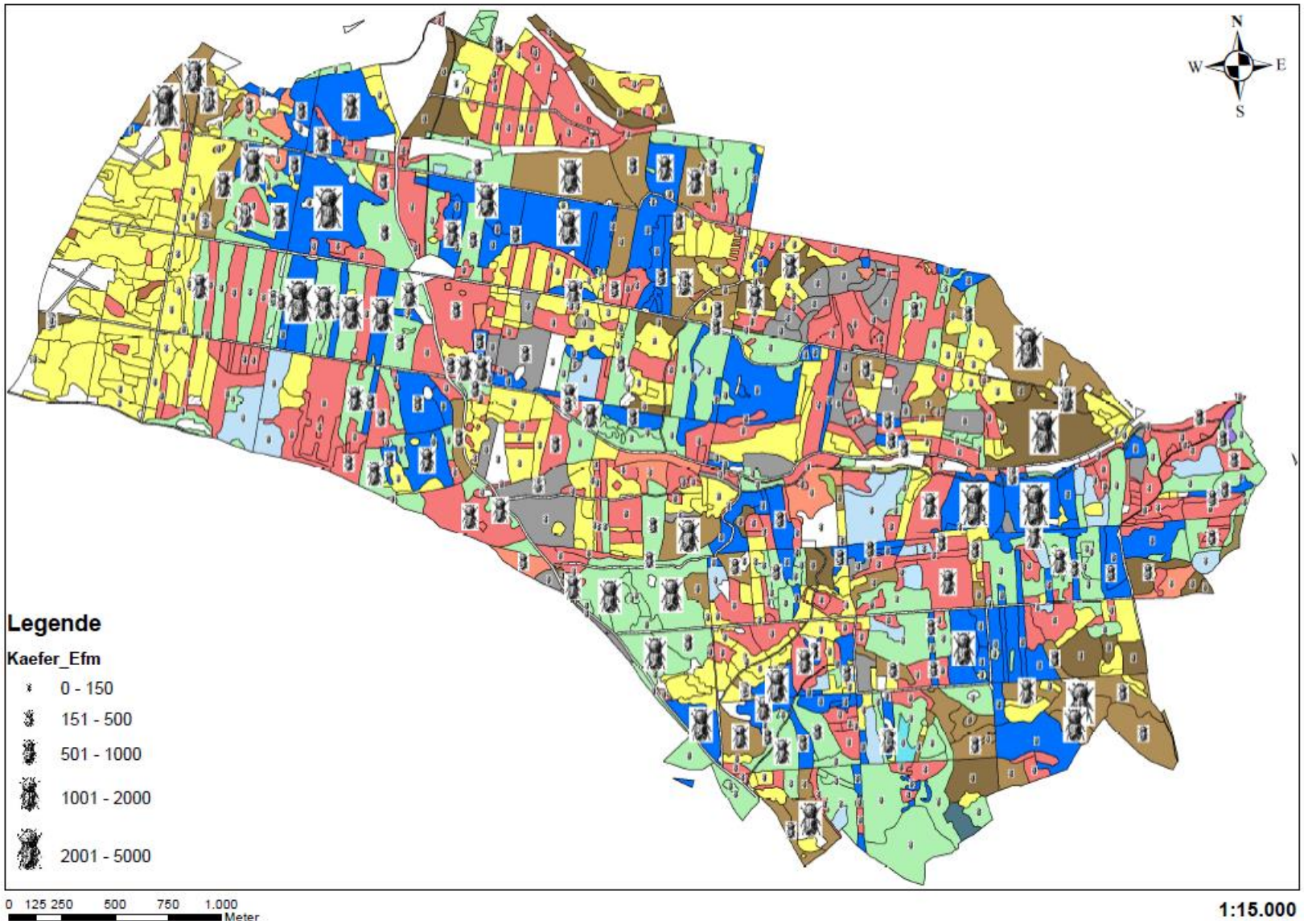
(Gälweiler 2005)

Challenges at regional level



distribution of spruce volume according to age classes

Challenges at enterprise level (ÖBf AG)



- Staatswälder der Tschechischen Republik
 - Regionaldirektionen in Südmähren,
 - Mittelböhmen (Forstverwaltung Znojmo, Český Rudolec, Židlochovice und Telč)
- Gemeindewälder von Volary und Dačice

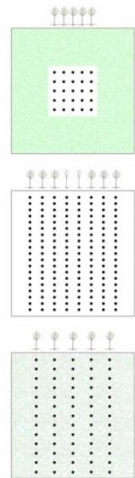
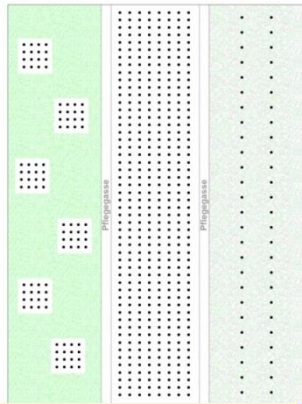
- Forstbetrieb Stift Altenburg
- Czernin-Kinsky Forstgut Rosenhof
- Forstverwaltung des Prämonstratenser-Chorherrenstiftes Schlägl
- Österreichische Bundesforste AG
- Land- und forstwirtschaftliche Kleinbetriebe

Case studies – f.e. farm business

income risks (short and long term) – > state aid

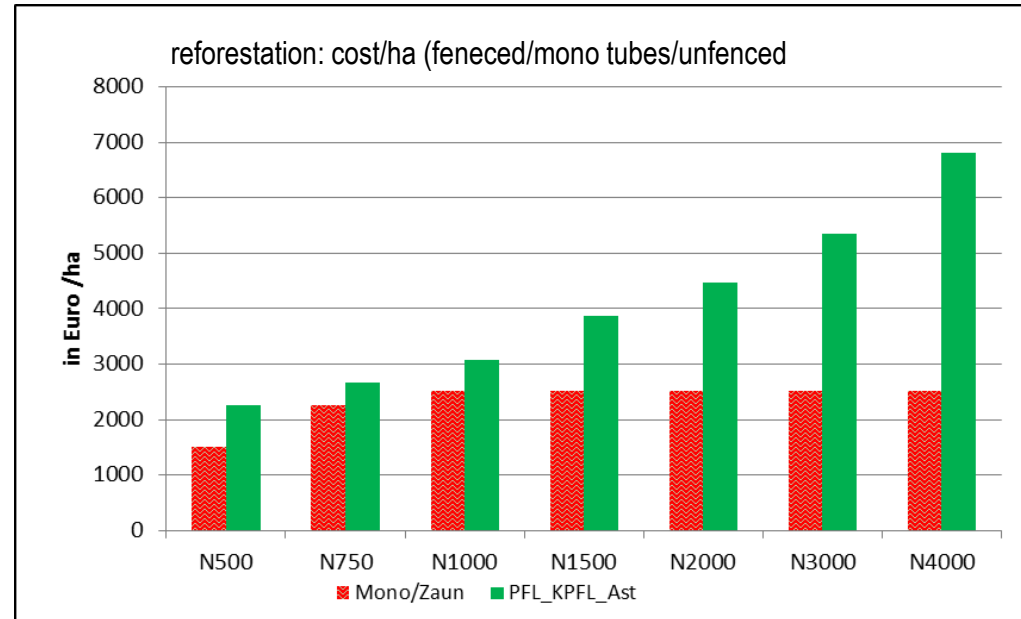
farm business	A	B
size (ha)	80	128
forest area (ha)	35	48
damaged area since 2016	19	10,5
spruce in ha	18	6,5
pine in ha	1	3,5
fir in ha		0,5
damaged volume since 2016	6000	1600
reforestation (ha) - total	4	3,7
subsidised by state	2	2
tree species for reforestation	douglas, oak, maple, red oak, fir	oak, douglas, spruce
non subsidised	2	1,7
tree species for reforestation	spruce, larch, pine	douglas, maple, spruce
mortality (n/ha)	3000	0
mixed forest - less damages		35
remarks	The long-term economic situation of the company was negatively influenced by the bark beetle calamity	

Operational management - > planting design



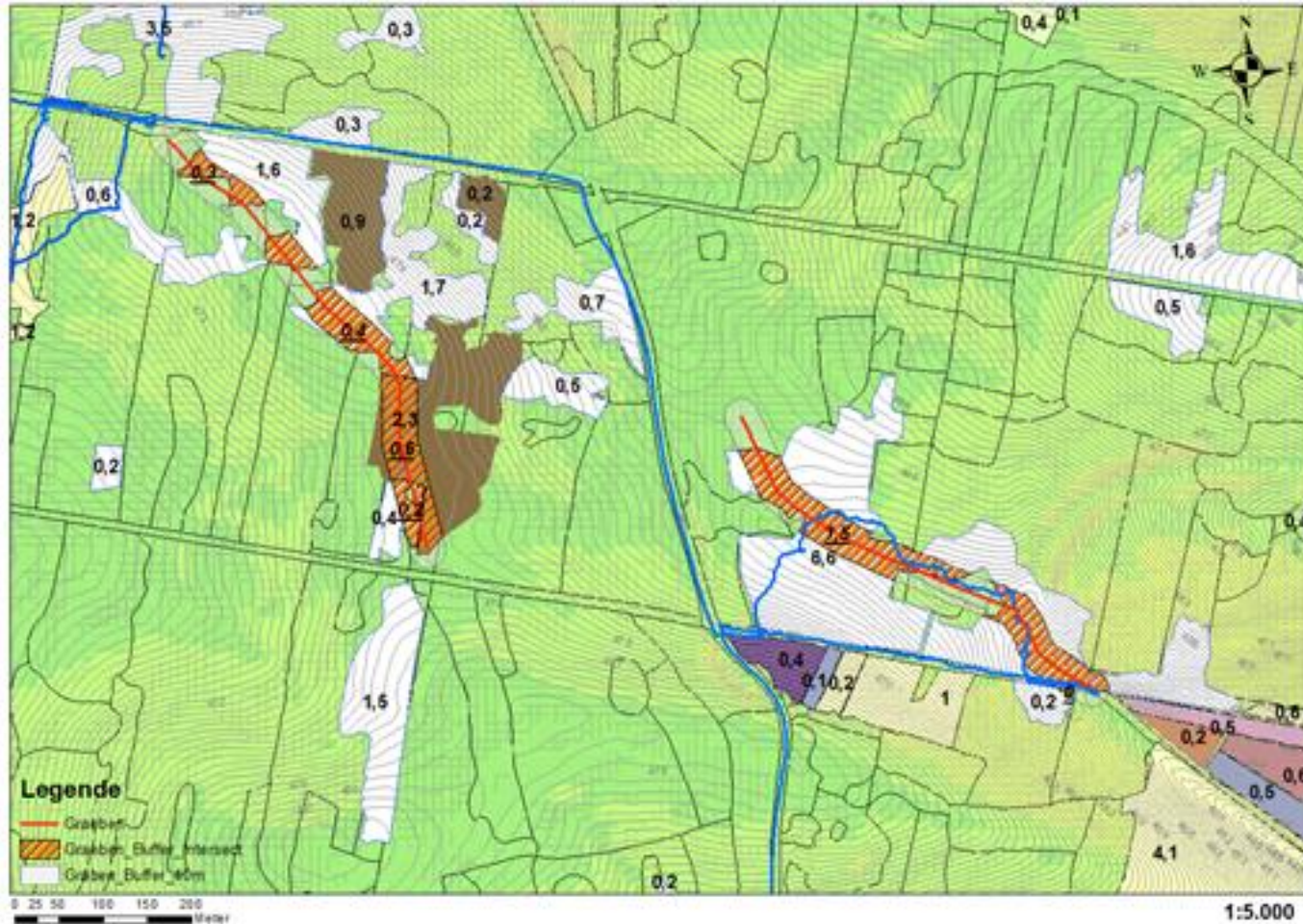
Small group/cluster planting [1*1m; normal (narrow) spacing [2*1m]

wide spacing [3*1m]



Operational management - > reforestation planning - > cost efficiency

- small streams and buffer zones
- Integration of natural succession and planting



Advisory activities (state subsidies)

	Activity	Strategic and operational management	Implementation
Forest administration	authorities activity; consultancy	preparation of guidelines/state subsidy programmes	tree species choice; treatment programmes; logistic support - storage locations
Chamber of agriculture	consultancy	advisory contribution to preparation of guidelines/state subsidy programmes	

Choice of tree species – MT- Guidelines (NOE, 2015)

9.2 Waldviertel																										
Höhenstufe natürliche Waldgesellschaften	Geologie	Relief	Exposition	Standort, Bodentyp	Wasserhaushalt	Echentyp	Flaumechentyp	Eichen-Buchentyp	Edelbaumtyp	Schwarzerlentyp	Buchentyp	Buchen-Tannentyp	Rotechentyp	Weißkiefern-Echentyp	Weißkiefer-Buchentyp	Weißkiefern-Fichtentyp	Fichten-Buchentyp (ko-sm)	Fichten-Buchentyp (tm-hm)	Lärchen-Buchentyp	Fichten-Tannentyp	Fichten-Tannen-Schwarzerlentyp	Fichten-Lärchen-Buchentyp	Fichten-Tannen-Buchentyp	Fichtentyp	Douglasientyp	
ko (200 - 300m) Traubeneichen-Hainbuchenwald	Silikat	Rücken, Oberhang	alle Lagen	flachgründig	trocken																					
		Mittelhang, Hanglagen	alle Lagen	nährstoffreichere Standorte	mäßig frisch bis frisch																					
sm (300-500m) Traubeneichen-Hainbuchenwald Weißkiefern-Eichenwald	Silikat	alle Lagen	alle Lagen	nährstoffarm, saure Standorte	trocken																					
		Ebene, Plateau	alle Lagen	Pseudogley, Gley	feucht, nass																					
		Mittelhang, Hanglagen	alle Lagen	Braunerde, nährstoffreich	mäßig frisch bis frisch																					
tm (500 - 750m) Buchenwald Buchenwald mit Eiche, Tanne, Fichte, Weißkiefernwald	Silikat	Oberhang, Rücken	alle Lagen	nährstoffarme Standorte, Podsol, podsolige Braunerde	mäßig trocken bis frisch																					
		Ebene, Plateau	alle Lagen	Pseudogley, Gley	feucht, nass																					
		Mittelhang, Hanglagen	alle Lagen	Braunerde	mäßig frisch bis frisch																					
		Ebene	alle Lagen	Gley, Anmoor	feucht, nass																					
mm (750 - 1000m) Fichten-Tannen-Buchenwald hm (1000 - 1100m) Fichten-Tannenwald Fichtenwald	Silikat	Ebene	alle Lagen	tiefgründig, Gley	feucht																					
		Mittelhang, Hanglagen	alle Lagen	mittel - tiefgründig Braunerde, pseudovergleyt	frisch																					
		Ebene	alle Lagen	Gley, Anmoor	nass																					

Thank you for your attention!