Supplementary material

Table S1. List of tree species, summarized under the general term "others".

Species List					
Picea abies	Norway spruce	*Ulmus glabra*	Mountain elm	*Alnus viridis*	green alder
Abies alba	Silver fir	*Ulmus minor*	Field elm	*Populus nigra*	black poplar
Larix decidua	European larch	*Sorbus terminalis*	Wild service tree	*Populus tremula*	aspen
Quercus rubra	Red oak	*Prunus avium*	Cherry tree	*Salix spec.*	willow
Sorbus domestica	Spearling	*Sorbus aucuparia*	Mountain ash	*Acer pseudoplatanus*	Sycamore maple
Fraxinus excelsior	Common ash	*Alnus spec.*	Alder	*Acer platanoides*	Norway maple
Betula spec.	birch	*Alnus glutinosa*	red alder	*Acer campestre*	Field maple
Tilia spec.	lime	*Alnus incana*	white alder	*Taxus baccata*	yew

Table S2. Variance inflation factors (VIF) for the linear mixed effects models (eq. 8–11).

model 1 (eq. 8)		model 2 (eq. 9)		model 3 (eq. 10)		model 4 (eq. 11)	
Predictor	**VIF**	**Predictor**	**VIF**	**Predictor**	**VIF**	**Predictor**	**VIF**
ln(V)	3.68	**ln(V)**	3.61	**ln(Age)**	3.96	**Age**	2.56
ln(SDI)	2.32	**ln(SI)**	1.44	**rel_d**	3.38	**MT**	1.41
Age	2.27	**Age**	2.49	**MT**	1.96	**ln(SDI)**	2.70
MT	1.39	**ln(SDI)**	4.56	**cvh**	5.79	**Age x MT**	3.49
Year	4.32	**MT**	1.41	**ln(SDI)**	3.14	**Age x ln(SDI)**	1.71
MT x Year	3.21	**Lay**	1.14	**ln(Age) x rel_d**	1.35	**MT x ln(SDI)**	2.31
		Age x ln(SDI)	1.54	**ln(Age) x MT**	4.53		
		ln(SDI) x MT	2.38	**ln(Age) x cvh**	2.30		
		ln(SDI) x Lay	1.79	**ln(Age) x ln(SDI)**	1.44		
				rel_d x MT	4.21		
				rel_d x cvh	1.68		
				rel_d x ln(SDI)	1.36		
				MT x h	3.80		
				MT x ln(SDI)	3.20		
				cvh x MT	2.37		

Table S3. Results of the linear mixed effects model for species-specific Growth Dominance Coefficients. *** <0.001.

	est	se	p-value	sig.	random effects	sd
	0.0661	0.0118	0.000	***	b_j	0.02
Age	−0.0004	0.0001	0.000	***	b_{jt}	0.02
oak [mix]	0.0130	0.0160	0.416	ns	ε_{ijt}	0.08
beech	0.0321	0.0182	0.078	.		
hornbeam	−0.0351	0.0245	0.153	ns	**n obs**	1612
pine	0.0428	0.0503	0.396	ns	**pseudo-R² (m/c)**	0.12/0.24
others	0.0284	0.0269	0.291	ns	**RMSE**	0.07
Age x oak [mix]	−0.0001	0.0001	0.654	ns		
Age x beech	−0.0006	0.0002	0.000	***		
Age x hornbeam	0.0004	0.0002	0.098	ns		
Age x pine	−0.0002	0.0004	0.649	ns		
Age x others	0.0001	0.0003	0.722	ns		

Table S4. Results of the generalized additive mixed model (GAMM) to represent stand productivity as a function of tree species proportions of oak and beech. *** <0.001.

	est	se	p-value	sig.			
	0.705	0.14	0.000	***	**n obs**	480
ln(V)	0.700	0.02	0.000	***	**R²**	0.69
ln(A)	−0.560	0.04	0.000	***	**RMSE**	0.28
	Edf		**p-Wert**	**sig**		
f(Prop$_{Oak}$ x Prop$_{Beech}$)	4.700		0.000	***		