Table S2. Acronyms used within the paper.

AFZ	Allgemeine Forstzeitschrift für Waldwirtschaft und Umweltvorsorge
ALOS	Advanced Land Observing Satellite
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
AVHRR	Advanced Very High Resolution Radiometer
BLE	Bundesanstalt für Landwirtschaft und Ernährung (Federal Office of Agriculture and Food)
BMBF	Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research)
BMDV	Bundesministerium für Digitales und Verkehr (Federal Ministry of Digital and Transport)
BMEL	Bundesministerium für Ernährung und Landwirtschaft (Federal Ministry of Food and Agriculture)
BMUV	Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz (Federal Ministry fort he Environment, Nature Conservation, Nuclear Safety and Consumer Protection)
BMWi	Bundesministerium für Wirtschaft und Energie (Federal Ministry of Economic Affairs and Energy
BMWK	Bundesministerium für Wirtschaft und Klimaschutz (Federal Ministry of Economic Affairs and Climate Action) – formerly BMWi
BRDF	Bidirectional Reflectance Distribution Function
BWI	Bundeswaldinventur (German forest inventory)
CCC	Canopy chlorophyll content
CNN	Convolutional neural network
CORDIS	Community Research and Development Information Service
COSMO	Constellation of small Satellites for Mediterranean basin Observation
CPU	Central processing unit
DESIS	DLR Earth Sensing Imaging Spectrometer
DFG	Deutsche Forschungsgemeinschaft (German Research Foundation)
DL	Deep learning
ECOSTRESS	ECOsystem Spaceborne Thermal Radiometer Experiment on Space Station
EFFIS	European Forest Fire Information System
EnMAP	Environmental Mapping and Analysis Program
Envisat	Environmental Satellite
EO	Earth Observation
EU	European Union
EVI	Enhanced vegetation index
FPAR	Fraction of absorbed Photosynthetic Active Radiation
GEDI	Global Ecosystem Dynamics Investigation
GEPRIS	German Project Information System
GIS	Geographic information system
GPP	Gross primary productivity
HGF	Hermann von Helmholtz-Gemeinschaft Deutscher Forschungszentren (Helmholtz Association)
ICOS	Integrated Carbon Observing System
ICESat	Ice, Cloud and Land Elevation Satellite
ICP Forests	International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests
LAI	Leaf area index
LCC	Leaf chlorophyll content

Lidar	Light Detection and Ranging
LUT	Look-up table
MERIS	Medium Resolution Imaging Spectrometer
MODIS	Moderate Resolution Imaging Spectroradiometer
NDVI	Normalized difference vegetation index
NISAR	NASA-ISRO Synthetic Aperture Radar
OCO-2	Orbiting Carbon Observatory 2
PRISMA	PRecursore IperSpettrale della Missione Applicativa
Radar	Radio detection and ranging
RGB-CIR	Red green blue-color infrared
RMSI	Root mean squared error
RWI	Ring-width indices
SAR	Synthetic Aperture Radar
SIF	Solar-induced fluorescence
SMAP	Soil Moisture Active Passive
SPOT	Satellite Pour l'Observation de la Terre
SRTM	Shuttle Radar Topography Mission
TanDEM	TerraSAR-X-Add-on for Digital Elevation Measurements
TROPOMI	TROPOspheric Monitoring Instrument
UAV	Unmanned Aerial Vehicle
UAS	Unmanned Aircraft System
UBA	Umweltbundesamt (German Environmental Agency)