Quelle: BWI³

Results of the federal forest inventory-No.3 (2012) in Germany

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BUNDESWALDINVENTUR

HOLZ

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Legal basis

- Federal forest law
- 3rd federal forest inventory – regulation
- General administrative regulations for federal forest inventory No. 3

Where are the results of BWI³ useful?

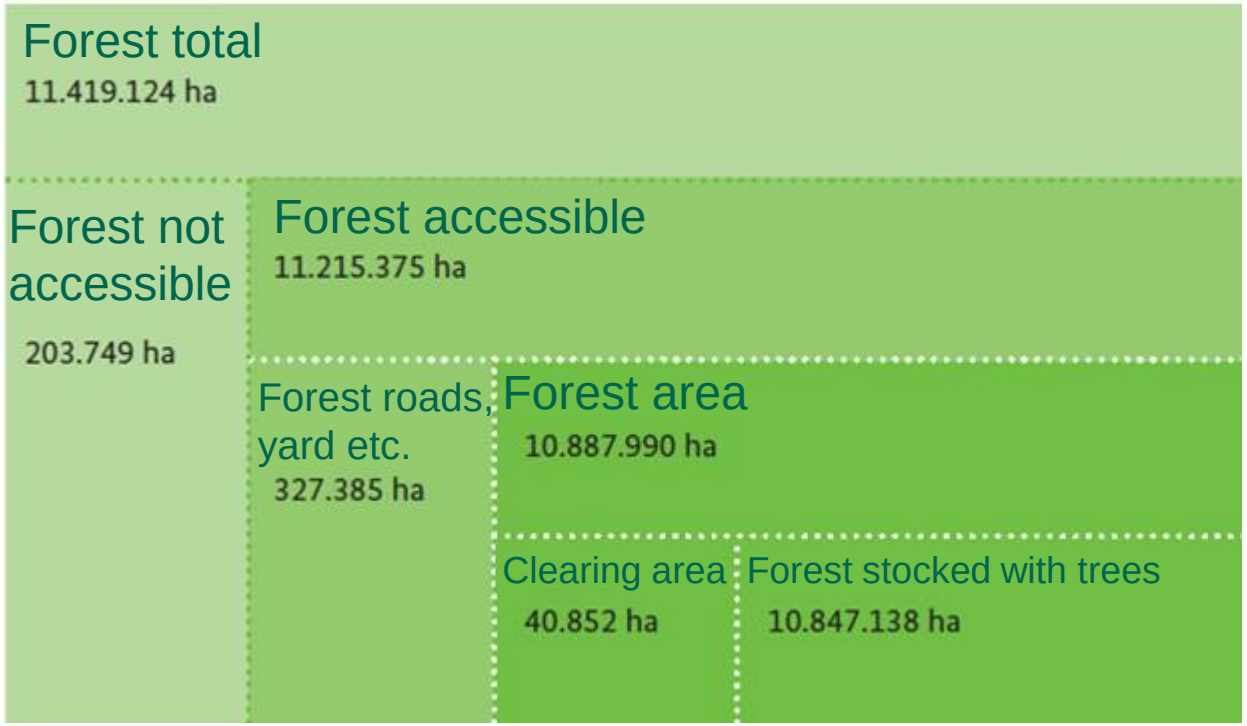
- Commercial basis for forest and environmental policy decissions for sustainable use and protection of forests
- Reporting obligation for international climate protection
- Planning basis for international and national economics

Goals

- Collection and presentation of current and statistically confirmed information about the large-scale forest conditions
- Especially forest production potential of the German forest

Total forest area

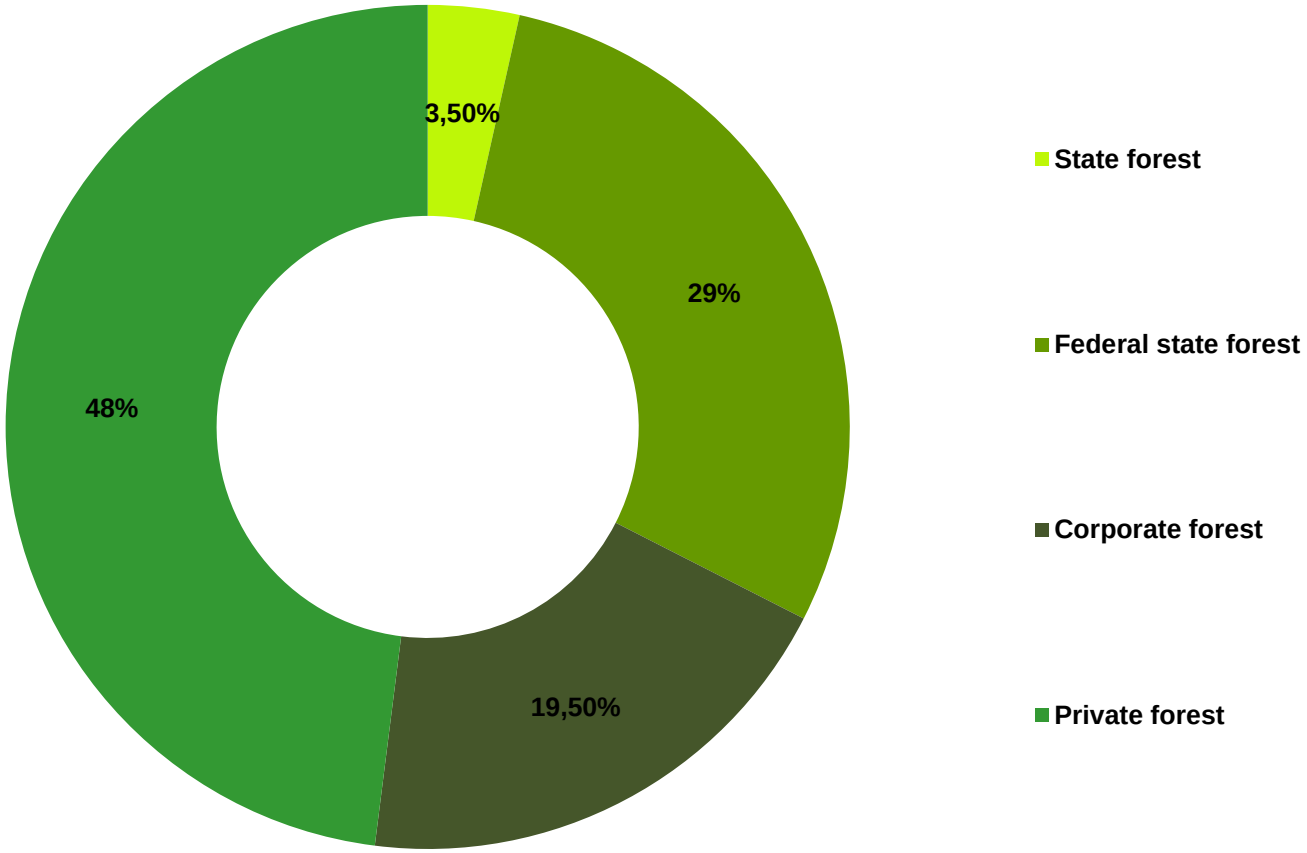
- Deadline: 1st October 2012



Source: BWI³

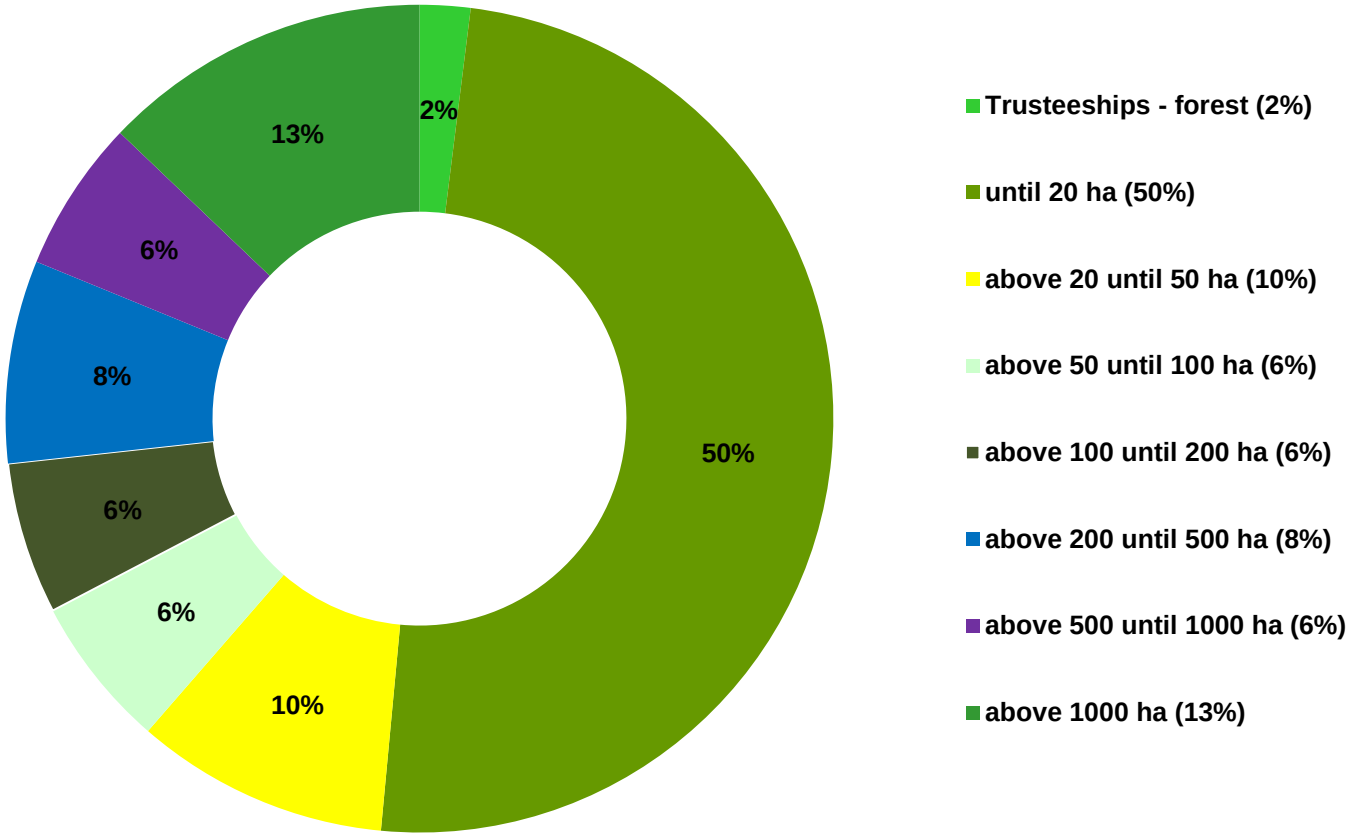
➢ Almost 1/3 of Germany is covered by forest
≈ 11,4 Mio. Hektar

Forest Ownership



Source: BWI[3]

Private forest



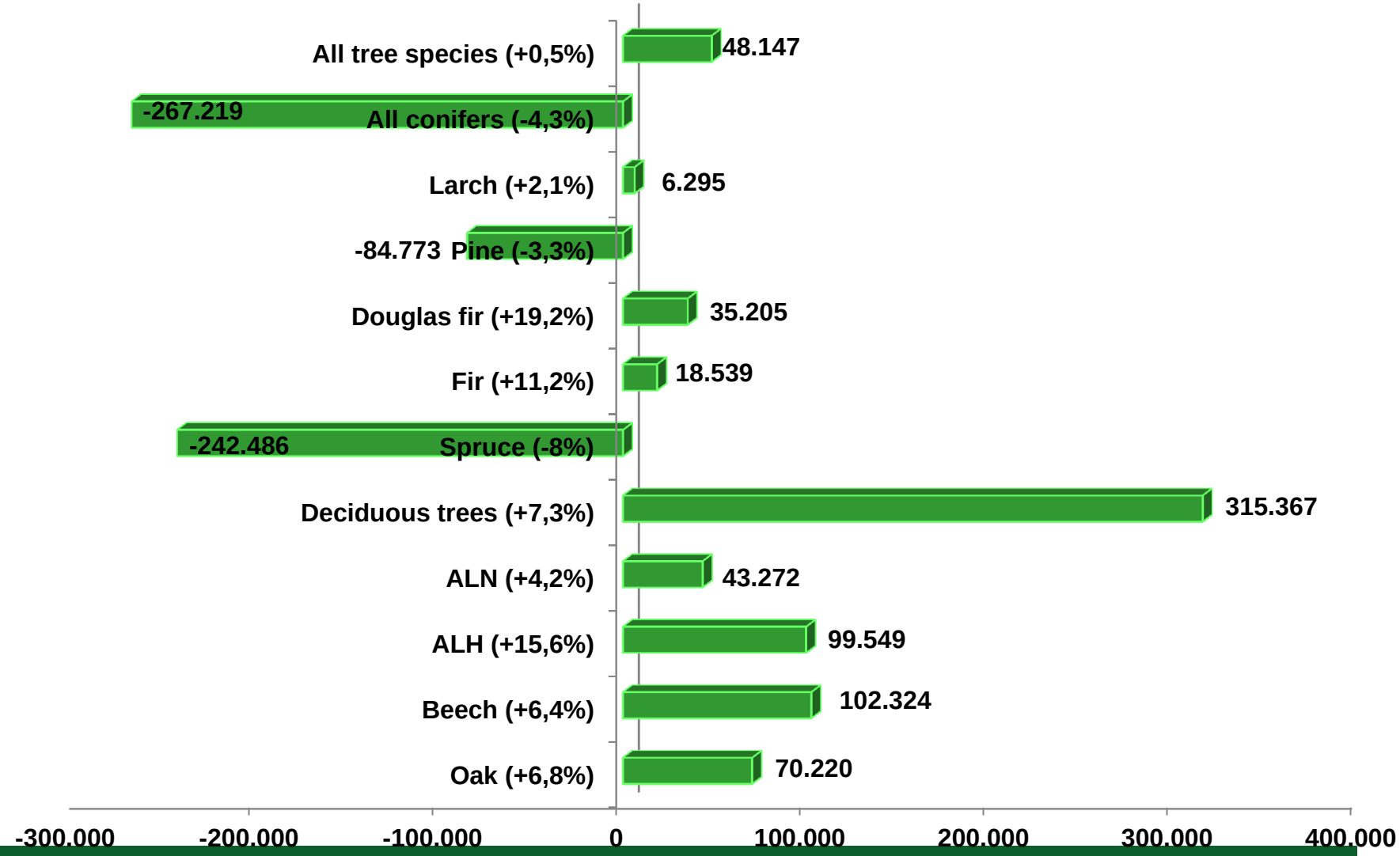
Source: BWI[3]

Forest Ownership

- Approximately 48 % of the total forest area in Germany are in private property !
- Most of them are small-structured

- Company size > 1000 ha ≈ 13 %
- Company size < 20 ha ≈ 50 %

Change of forest area by tree species (ha and %) - (2002-2012)



Shares of tree species

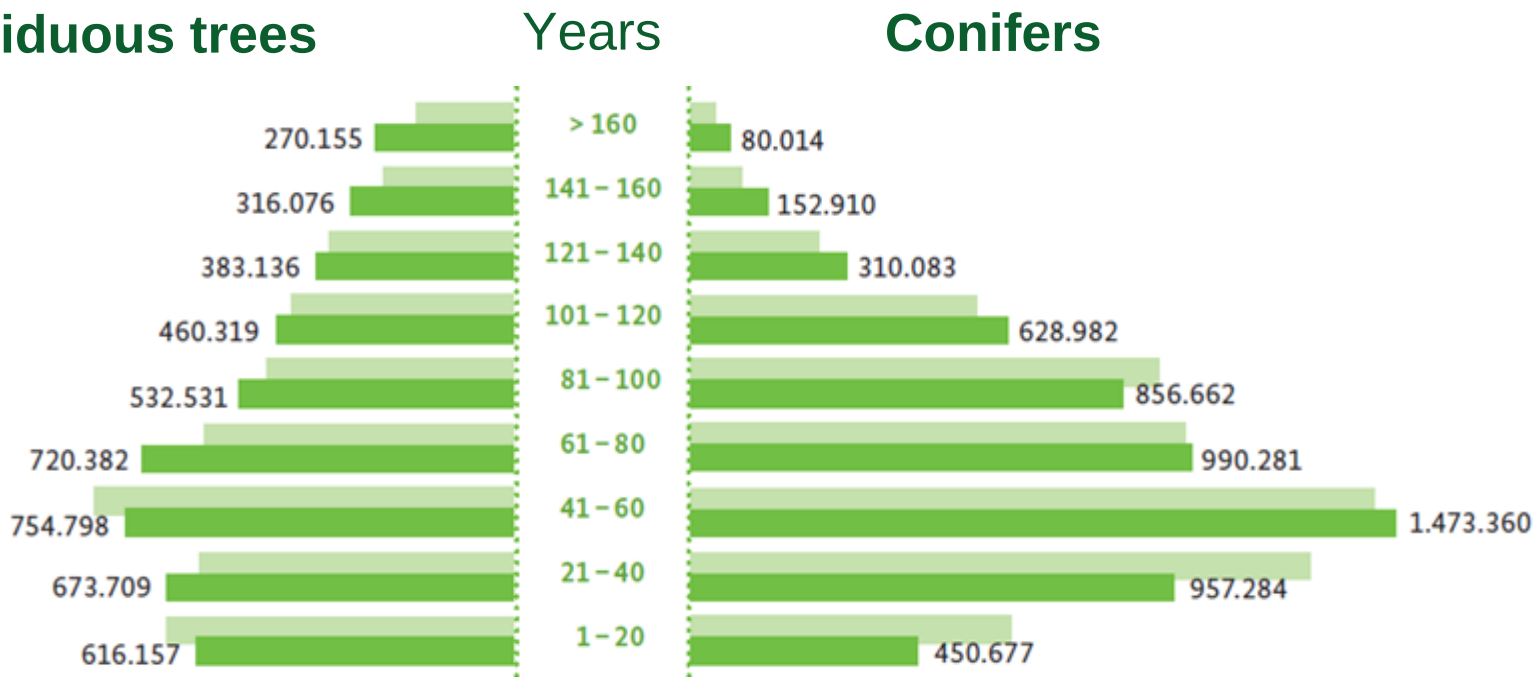
Conifers : 54,2 %

- **Spruce : 25,4 %**
- **Pine: 22,3 %**
- **Larch: 2,8 %**
- **Douglas-fir: 2,0 %**
- **Fir: 1,7 %**

Deciduous trees : 43,3 %

- **Beech: 15,5 %**
- **ADtL: 10,5 %**
- **Oak: 10,3 %**
- **ADtH: 7,0 %**

Distribution of forest area by tree age classes (ha)



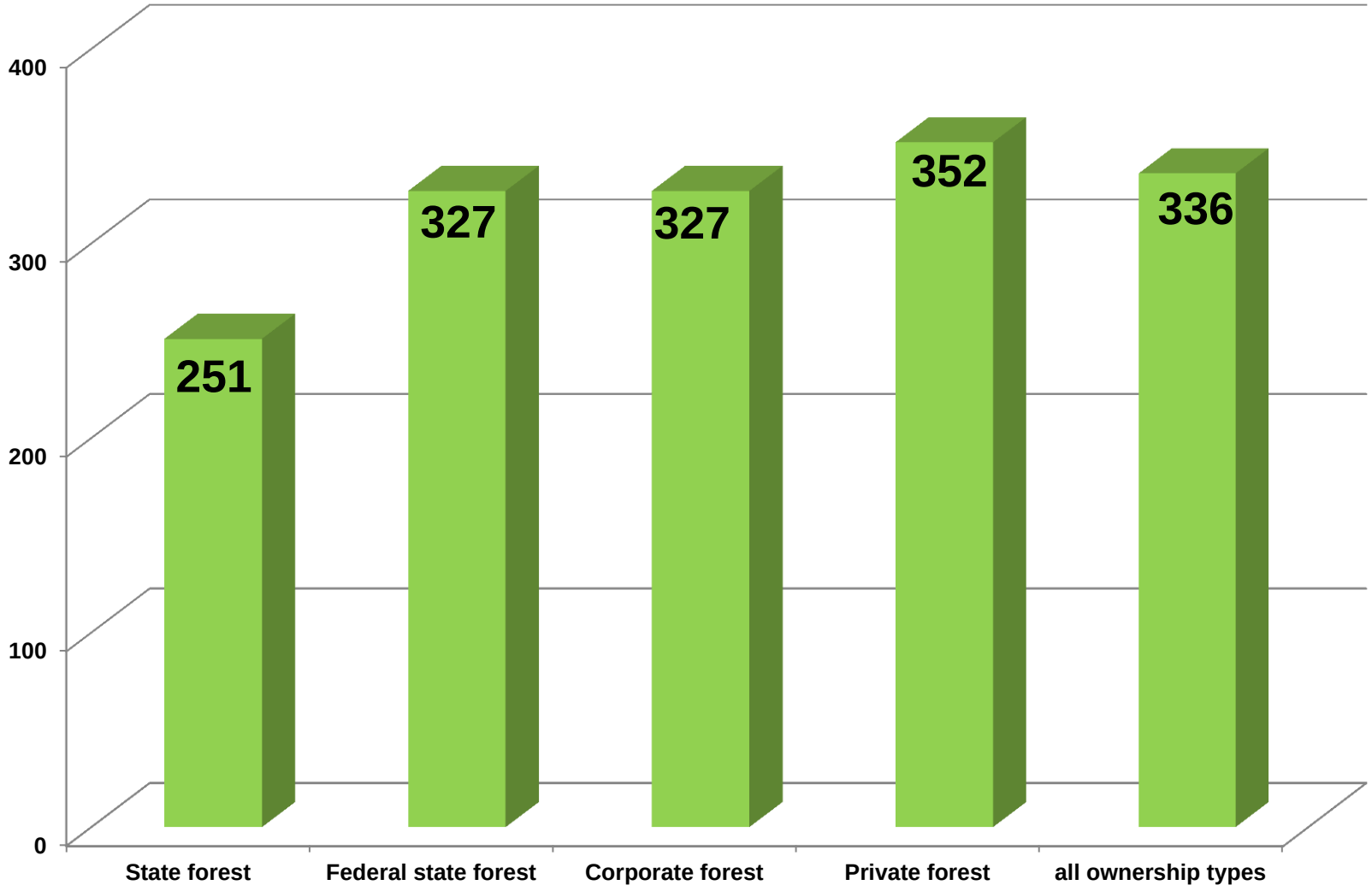
Source: BWI[3]

- Large forest area within the 3rd age class as a result of reforestation after the 2nd World War (mostly conifers)

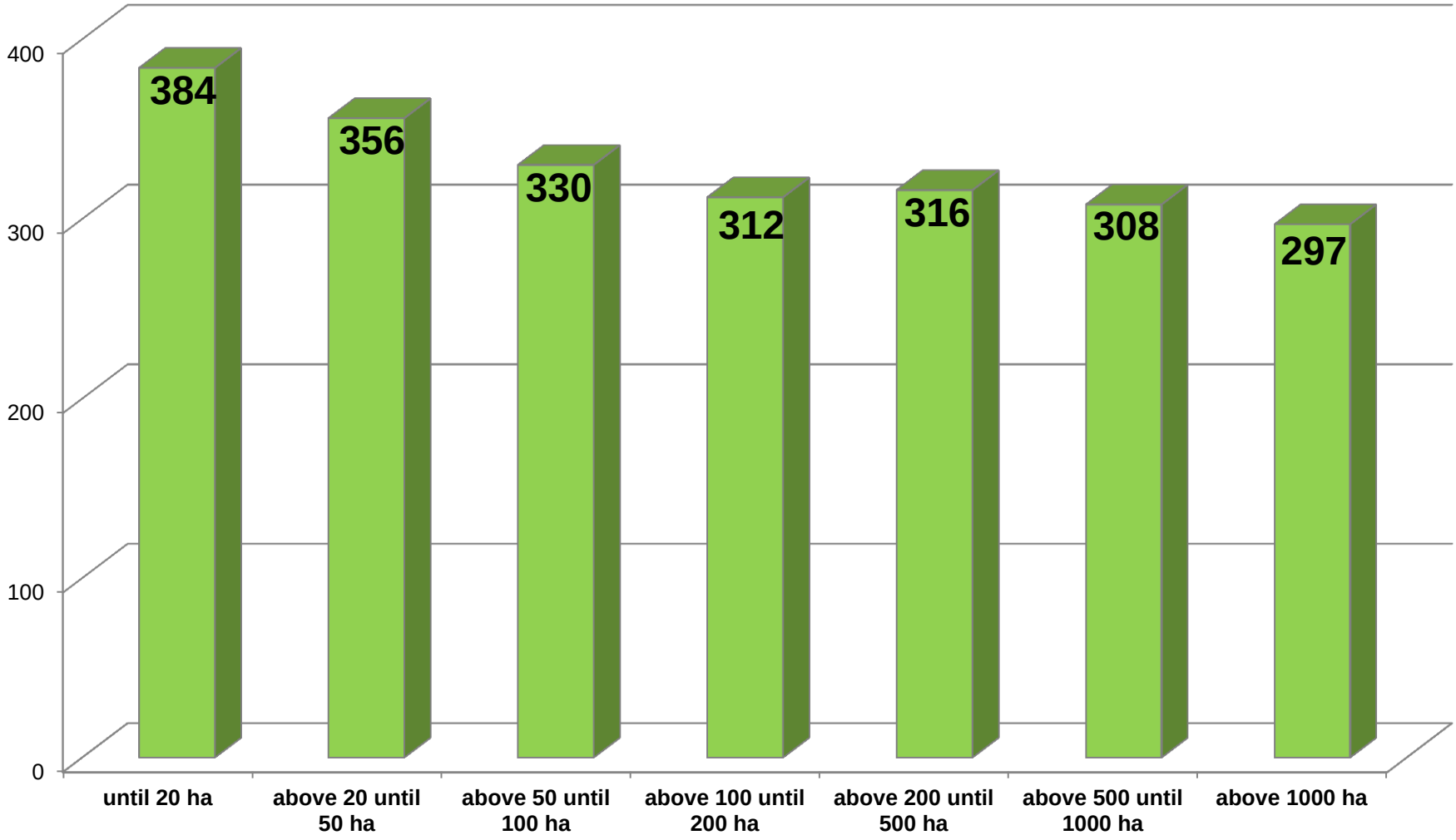
Timber Stock (m³ / ha)

- The BWI³ has estimated a timber stock of 3.7 billion m³ for the total forest area
- Average timber stock: 336 m³ per hectare
- Timber stock in private forests amounted to 352 m³ per hectare
- Germany has the highest growing stock in the sum and with Austria an Switzerland the highest per hectare compared with all EU - countries
- Timber stock increased by 7% since 2002

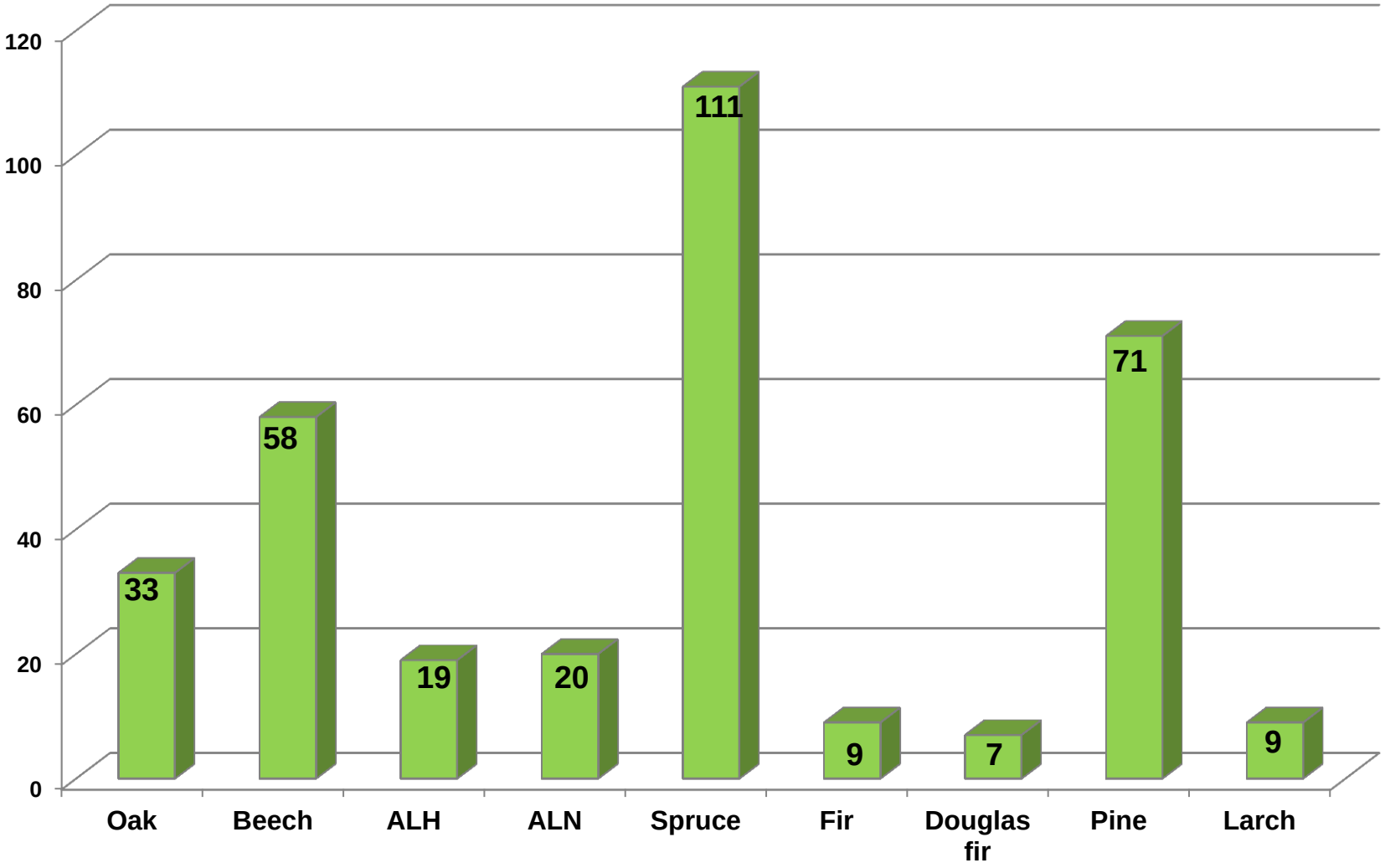
Timber stock by type of ownership (m³/ha)



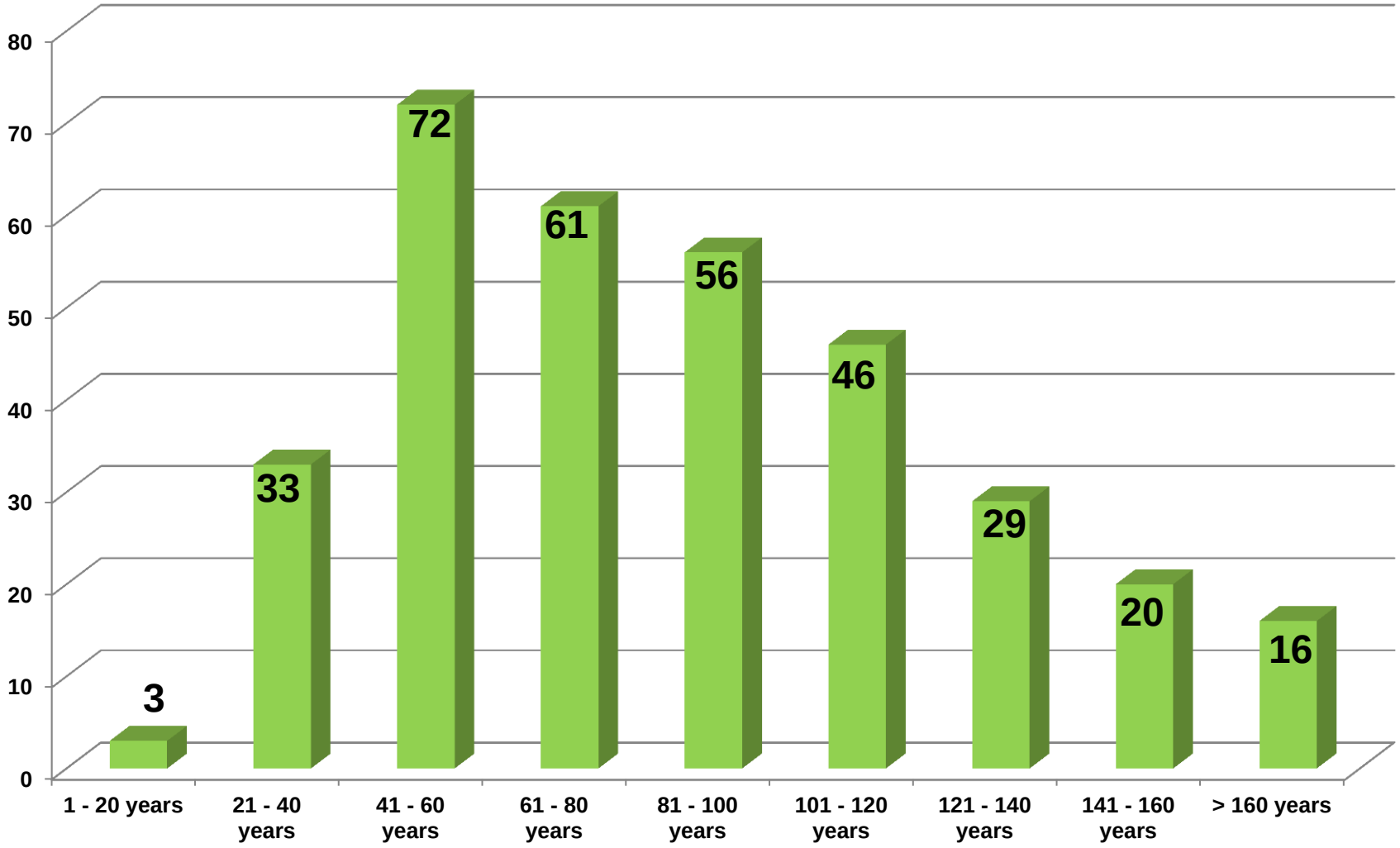
Timber stock in private forest (m³/ha)



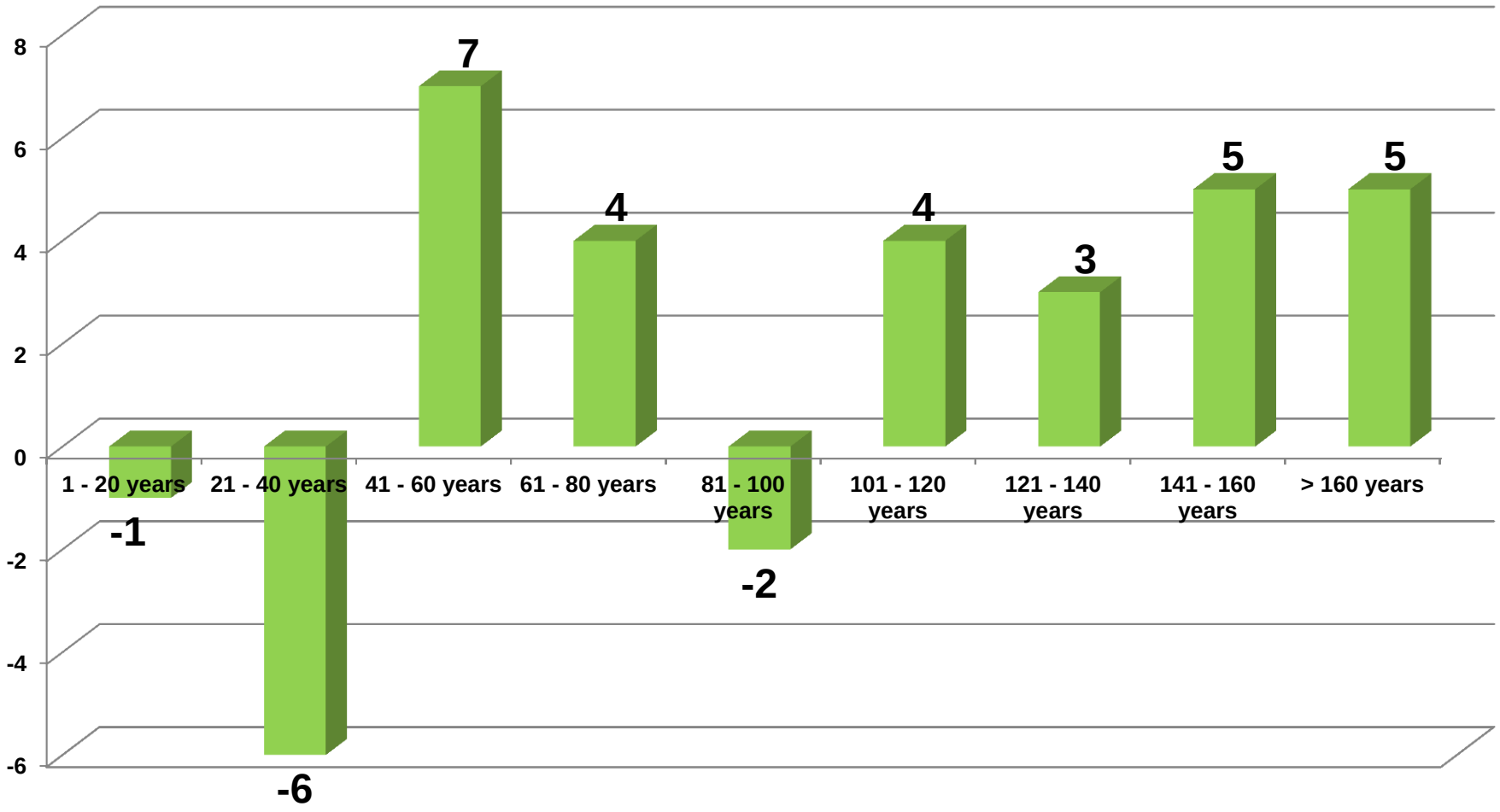
Timber stock by tree species (m³/ha)



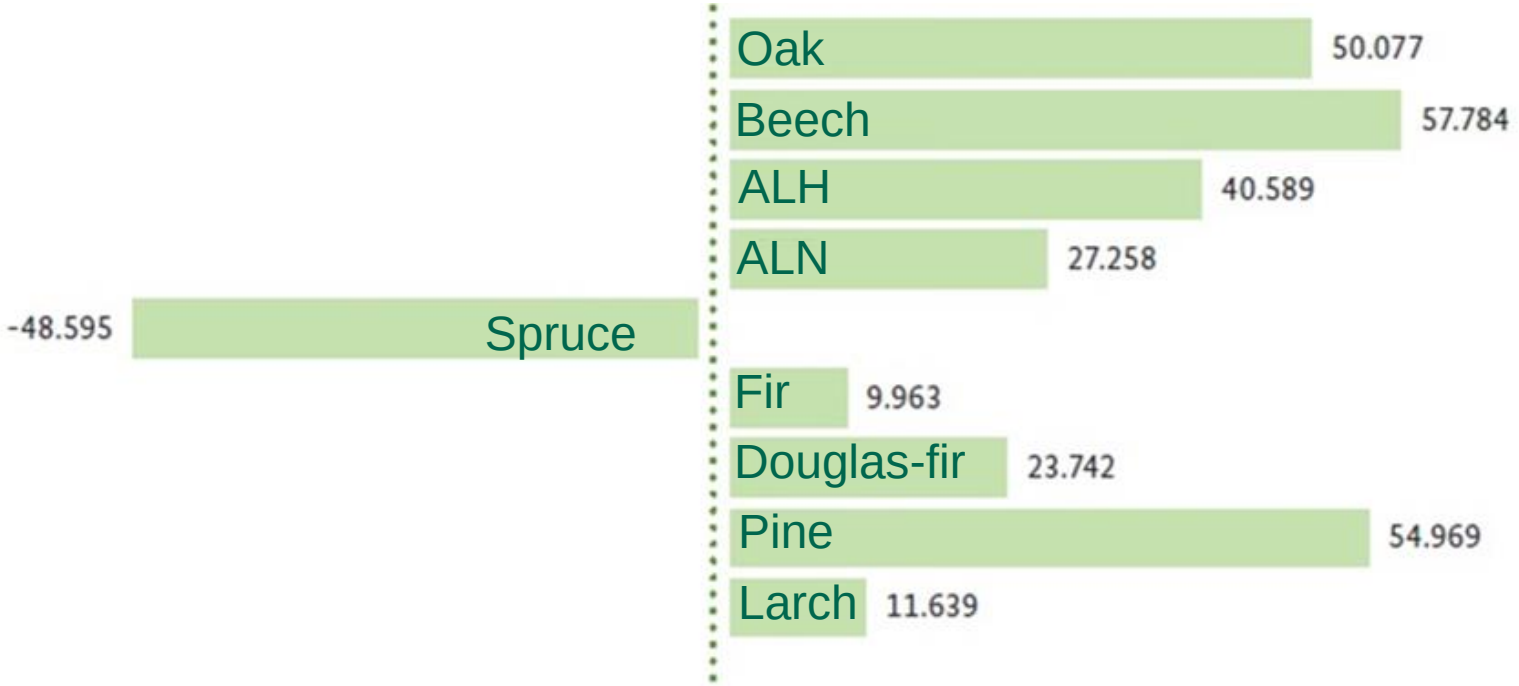
Timber stock by age classes (m³/ha)



Timber stock changes by age groups (m³/ha)



Total changes of growing stock (1000 m³)



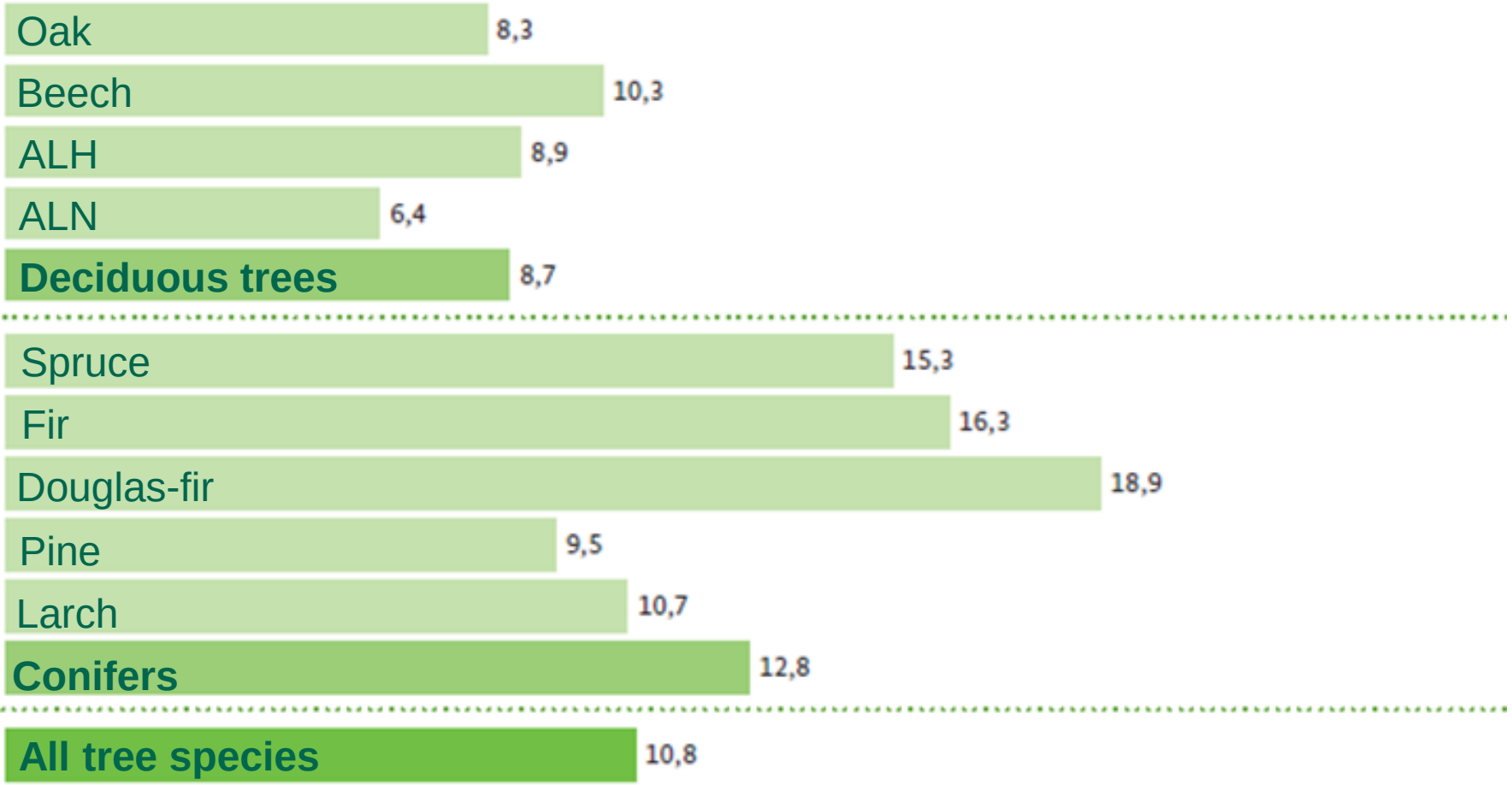
Source: BWI[3]

Average increment (m³/ha*a)

- The average timber increment is 11,2 m³/ha and per year and total 121,6 million m³ per year

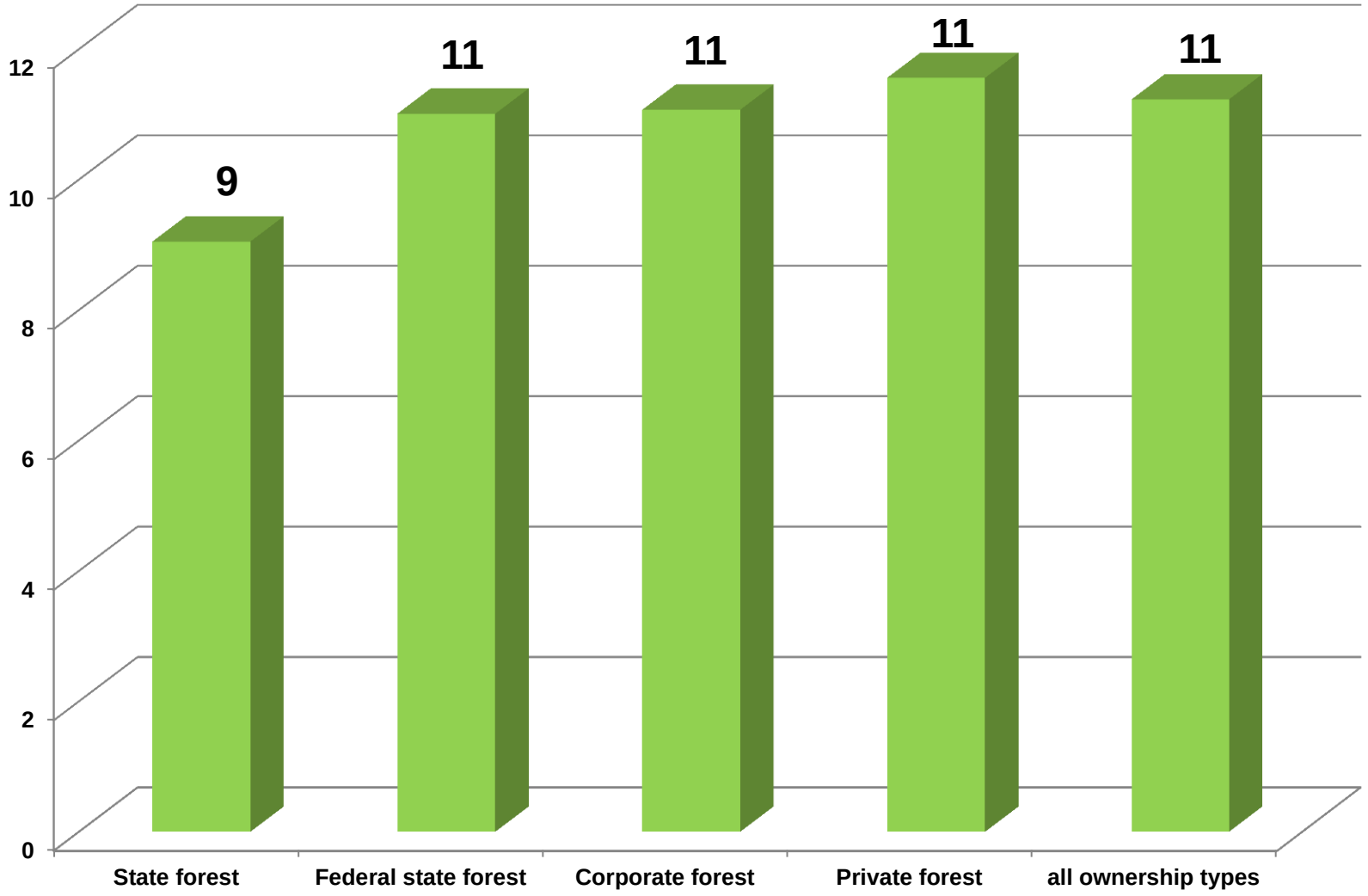
- Spruce: 15,3 m³/ha*a
- Beech: 10,3 m³/ha*a
- Douglas fir: 18,9 m³/ha*a
- Fir: 16,3 m³/ha*a

Average increment (m³/ha*a)



Source: BWI[3]

Increment by forest ownership (m³/ha*a)

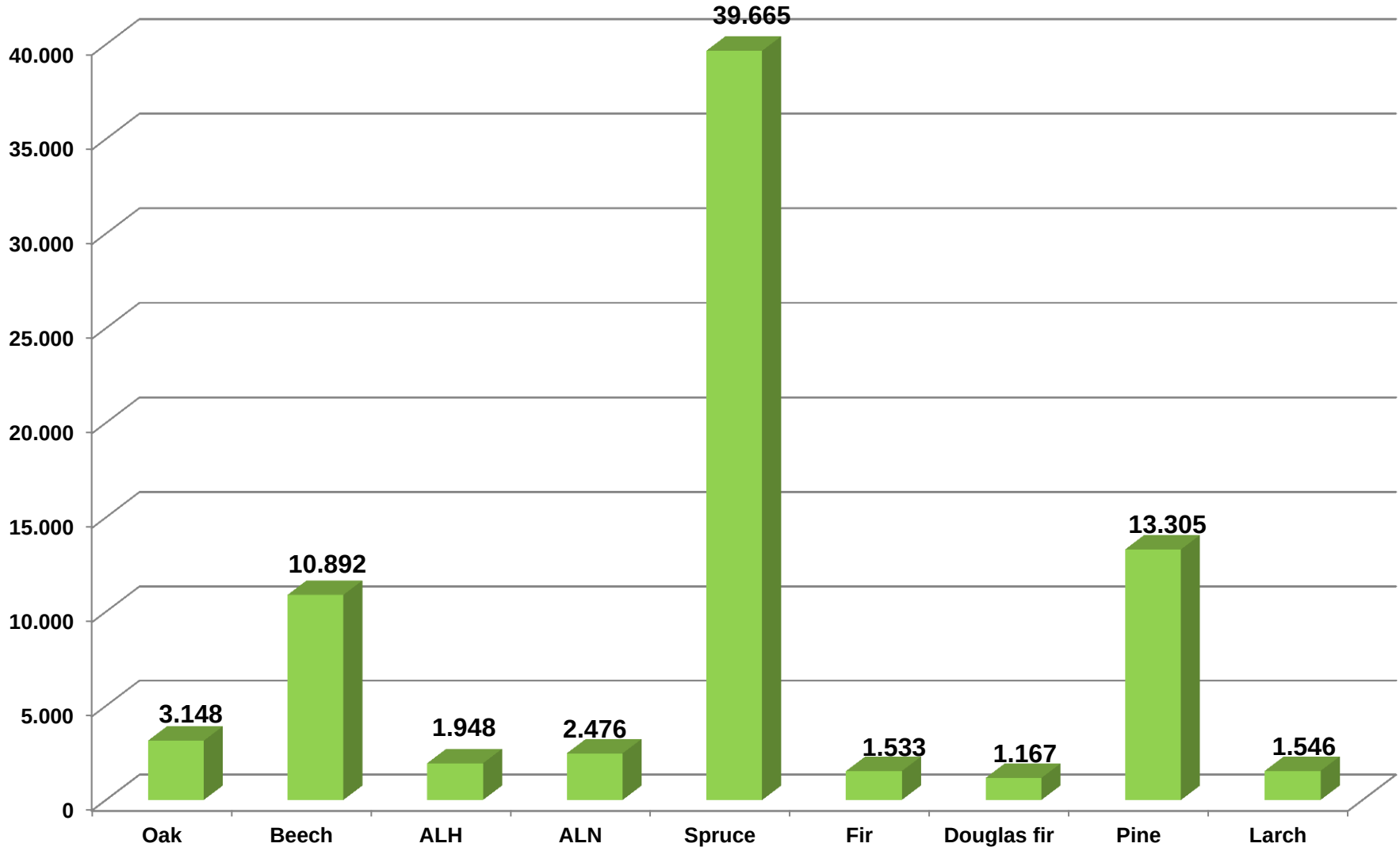


Wood utilization

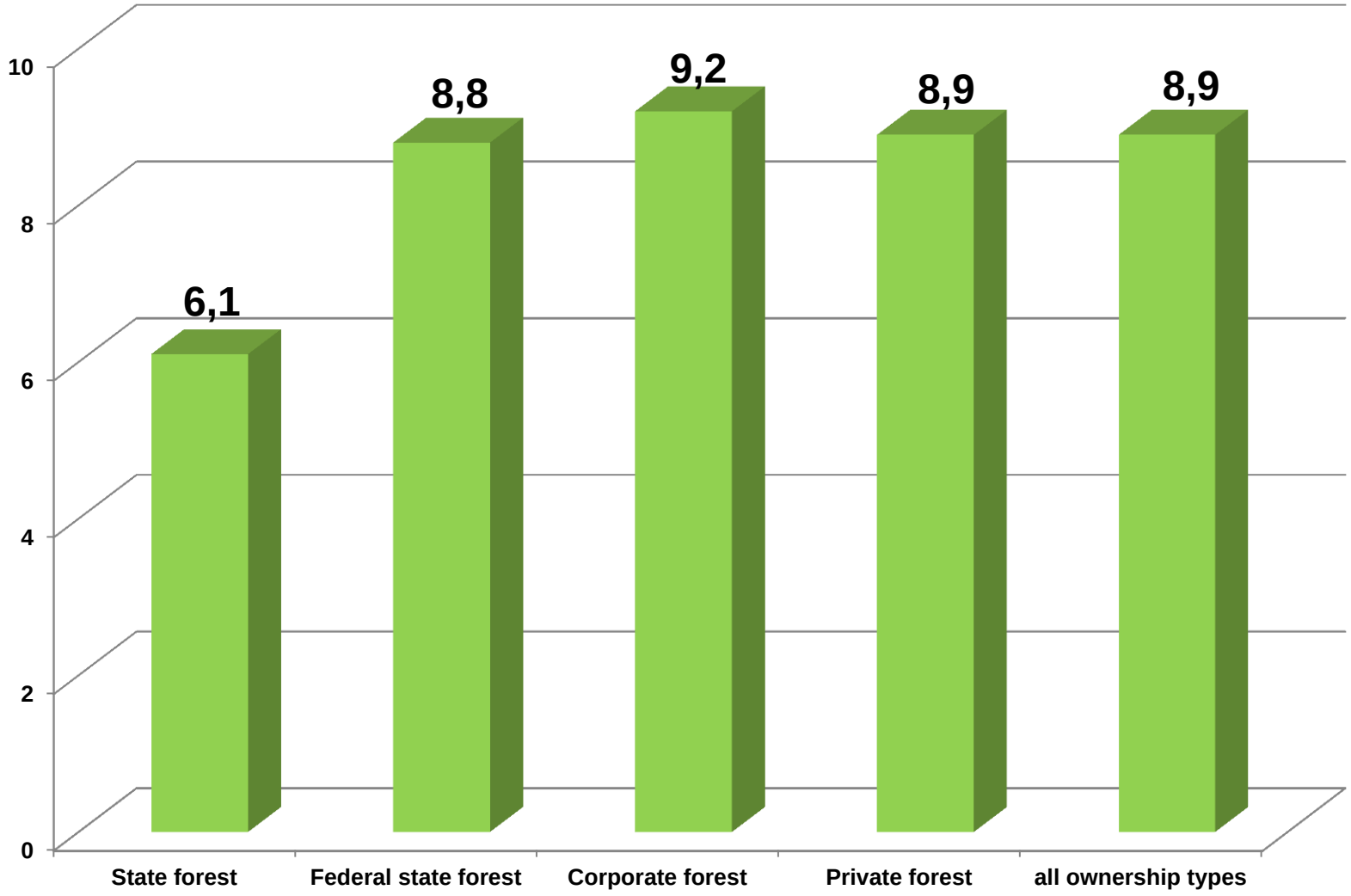
- 76 million cubic meters of timber (m^3 o.b.) were used per year (2002 – 2012)
- Logging had significantly increased by private forest owners
- Growing stock rises steadily (higher increase than use)
- Use of wood and natural death reach 87 % of the increase

  (+ 13 % increase in inventories !)

Wood utilization by tree species (1000 m³/a)



Wood utilization by forest ownership (m³/ha*a)

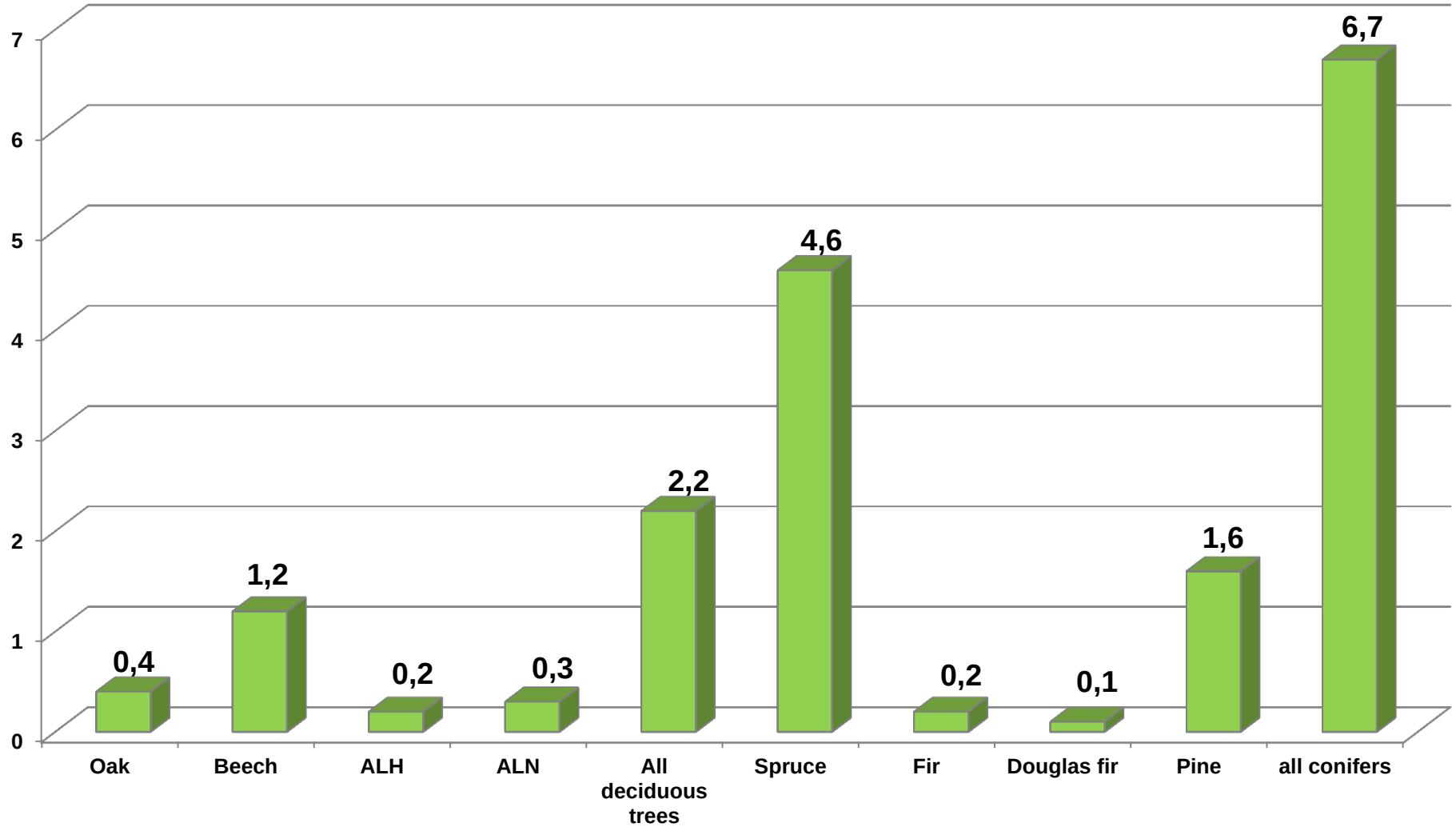


Wood utilization

- In private forests the intensity of use varies in dependence of property size

- 91 % of the total forest area is used
- to 4 % (= 450.000 ha) of the forest area is out of management

Wood utilization by tree species (m^3/ha*a)

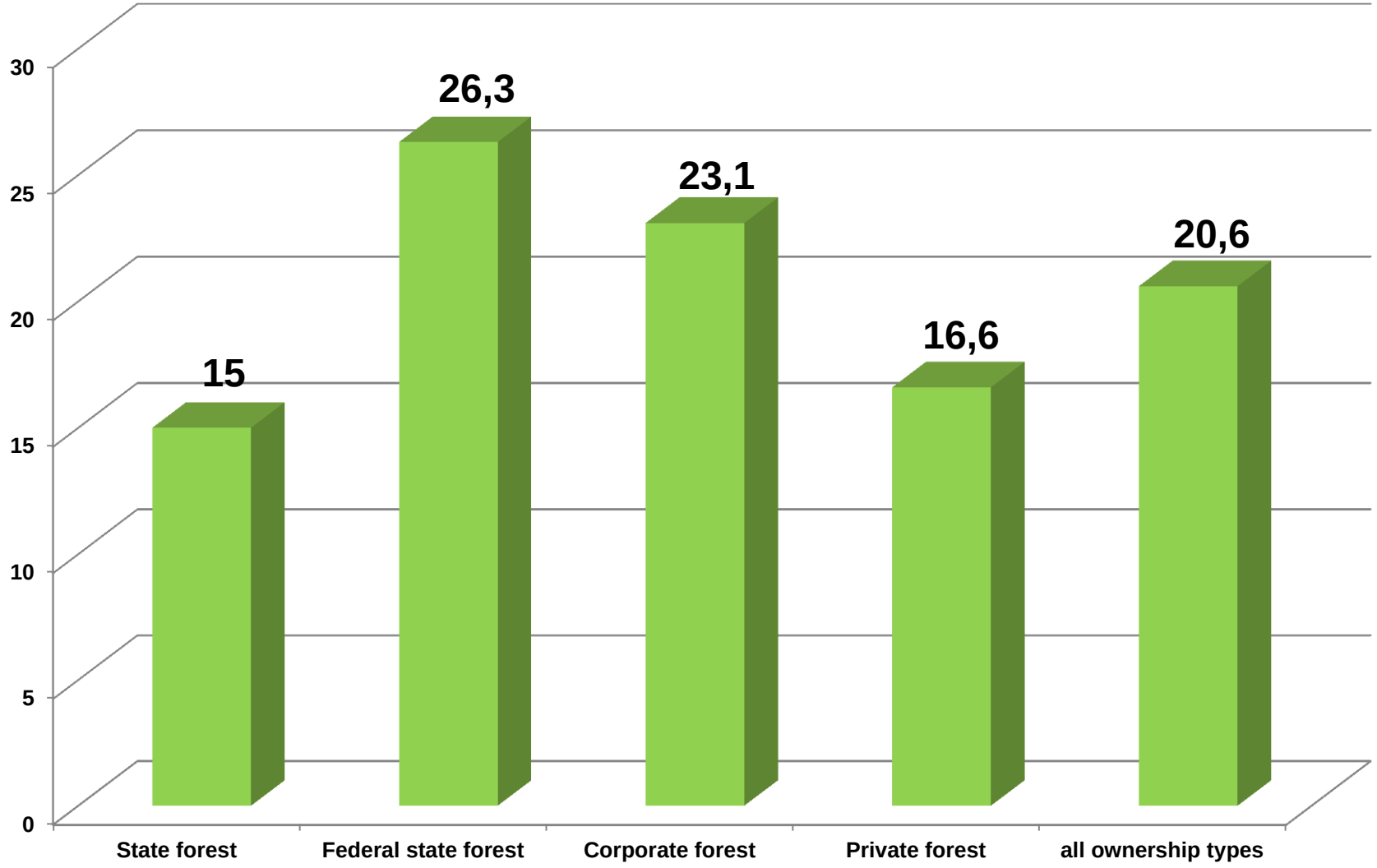


Wood utilization

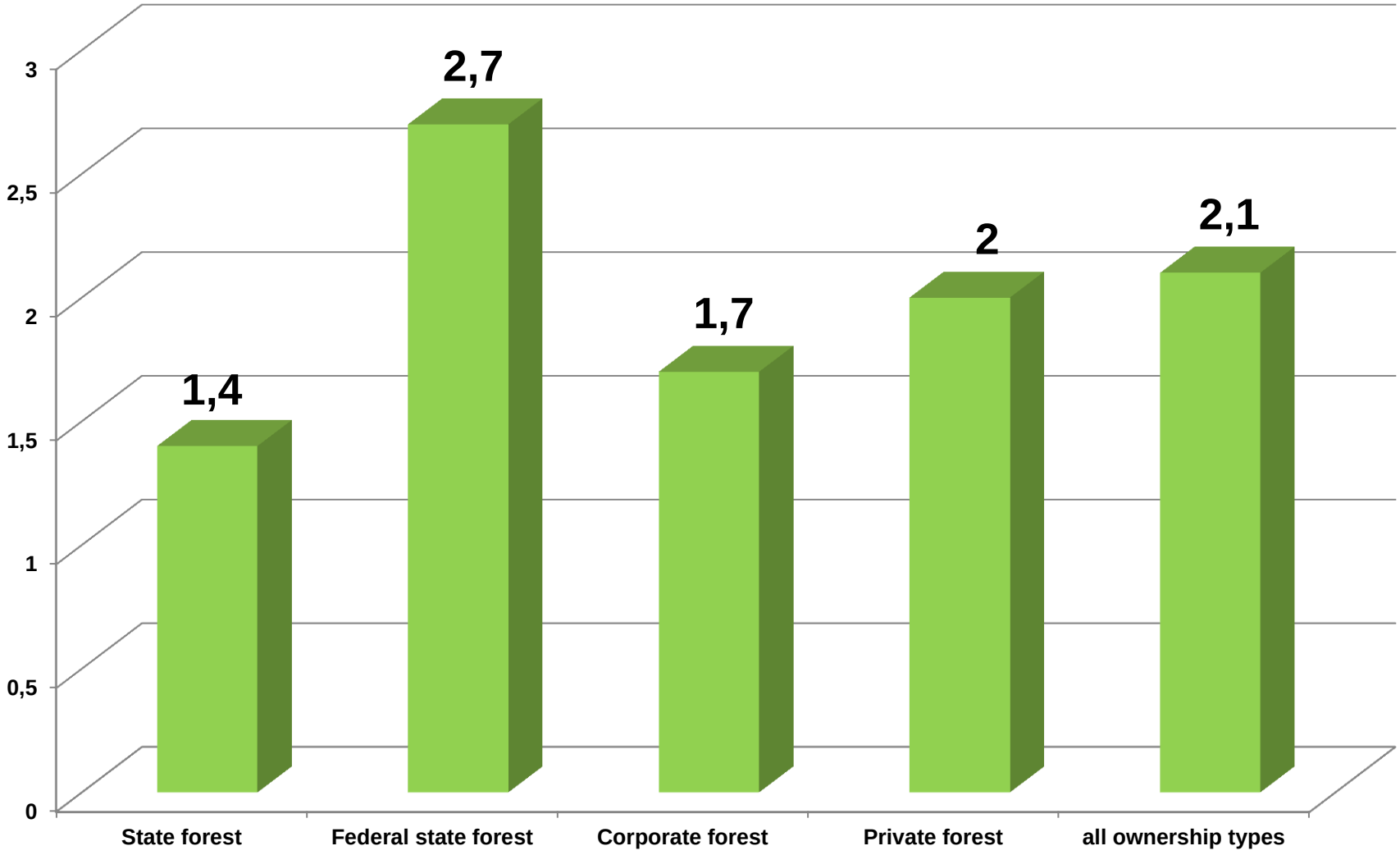
- Wood utilization conifers: 6,7 m³/ha*a
  Wood utilization deciduous trees: 2,2 m³/ha*a

- In particular, spruce and pine were widely used, due to high growth/inventories, forest conversion and forest calamities

Dead timber stock by type of ownership (m³/ha)



Increase of dead wood by type of ownership (m³/ha)



References

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