

# WOOD: an invaluable raw material

How the Forst Brandenburg state forestry service  
maintains, preserves and protects the forests



## Hubertus Kraut

- born in 1963
- comes from a family of foresters in Altdöbern (Lausitz)
- married, father of three children
- studied at the TU Dresden forest sciences department in Tharandt
- graduated in 1989 as a certified forestry engineer
- started his career as a forestry protection worker in Cottbus
- various jobs at the forestry office in Doberlug-Kirchhain
- Director of the Forst Brandenburg state forestry service since 2003

## Forests in the state of Brandenburg

Size of the forested area:  
1.09 million hectares  
= 37 % of the state



The weather couldn't have been more fitting for a January day: it was pouring rain when we met with Hubertus Kraut, Director of the Forst Brandenburg state forestry service. "Our forest needs every drop of water," the forestry expert shouts over to us. We meet up in a small town called Kunsterspring surrounded by an incredibly picturesque landscape. Ancient beech trees and Brandenburg pines stand on the gently rolling hills left behind by the last ice age in Ruppin Switzerland 10,000 years ago. The Kunster river springs up here and winds its way through the valley. In terms of species, the forest in this area is a veritable text book of diversity.

Right in the middle of this idyll is the Forst Brandenburg state forestry service's forestry school. Foresters have been trained here for 70 years; a profession that is now enjoying an increase in popularity. The training center is the starting point for our excursion into the forest. We meet the first-year apprentices as they are harvesting thin pine logs. This wood is also used to produce SWISS KRONO flooring. The wood processing company is one of Forst Brandenburg's biggest customers. The native, certified wood is processed at the SWISS KRONO plant in Heiligengrabe immediately after being harvested.

The pine is the most common tree  
in the state of Brandenburg.  
Why is that?

**Hubertus Kraut:** Our forests have been used and devastated on a huge scale since the Middle Ages, but especially at the start of the industrial revolution in the 18th and 19th centuries. Massive quantities of wood were needed for construction, for fires and for charcoal. These decimated areas were then reforested at great expense. The pine tree was the first choice for the dry, badly-treated, and poor-quality, sandy soil in Brandenburg. It coped well with these conditions, grew well, and the wood was in high demand. And that is how this type of forestry became established here.

However, the pine tree has always been a native species in our region. It spread as quickly as the birch after the last ice age, but was largely displaced by more demanding species, such as the oak or beech tree, during ongoing natural development in all the prime locations. It's not just environmental conditions that have changed significantly during the past 40 years. Brandenburg is one of the driest regions in Germany. Social demands on the forest are also increasing. The forest has protective functions in particular and is increasingly used for recreational purposes. That means that a change in thinking is needed about the use of forests.



There were extensive forest fires in Brandenburg in recent summers. Is that a consequence of the changing climate?

Pure pine stocks, as are found in many places here, are always vulnerable to insect pests, storms and fires. Dry pine needles on the ground are also a major accelerant for fire. Within Germany, we are at the greatest risk of forest fires here. The rise in temperatures caused by climate change is providing pests with much better conditions to develop. The trees' defense mechanisms have also been weakened by the dry summers. If the forests aren't actively restructured, they will become increasingly unstable in the long term. But it's not just the pine trees that are suffering because of climate change. Our research shows that oak and beech trees are also increasingly being damaged.

The large areas of pine forest in Brandenburg are therefore harboring problems. Would the situation be better if the forests had a different composition? Or, put more simply, are there better or worse trees to have in terms of the climate?

Nature doesn't make those distinctions. The trees that are most suited to the location and are superior to their competitors will prevail. As foresters, we can control these processes through our choice of plants and our forest management, so that we

"raise" forests and trees that offer maximum benefits for people. The best model for this is nature itself. 'Ask the trees how they want to be raised, they will teach you better than books will.' This insightful quote comes from Wilhelm Pfeil, who founded the Eberswalde University of Forestry in 1830. To come back to your question: the pine tree provides wonderful timber that is in great demand. So, everything points towards having more stable mixed stocks in the Brandenburg forest, where the pine tree will continue to play a key role.

Wood as a "raw material": how valuable is it? Prices have increased massively in recent months!

Wood is actually invaluable. It is a climate-friendly, mostly local, and renewable raw material that can be used in numerous ways: from house and furniture construction to chemical applications, e.g. for bioplastics. Wood is a product full of character and warmth and it is produced in the most environmentally-friendly factory possible: in the forest! Wood stores CO<sub>2</sub>, both in the forest and in the product. This makes it an extremely important factor in achieving climate targets.

Wood is in greater demand than ever before. Can we keep increasing the use of wood and make greater use of our forests?

Not indefinitely. However, the smart use of forests can be increased. We should use wood for products that will last a long time, firstly to absorb carbon for longer to protect the climate, but also to protect our forests. →



**Hubertus Kraut**  
Director of the Forst Brandenburg state forestry service

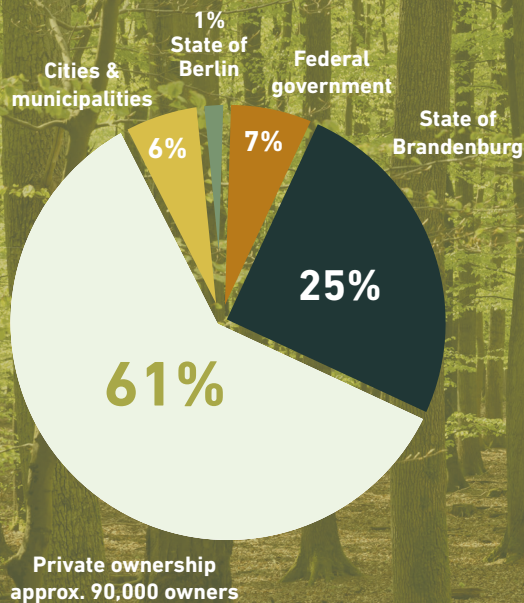
### My favorite tree?

That's easy: the Brandenburg pine, because it lets lots of light through its crown, which allows habitats to form for many other species.

### My favorite forests?

Those in my home of Lausitz. I grew up here and have a strong emotional connection to it. But I'm also fascinated by the forests in the western USA and in the Alps. Though I always catch myself analyzing a forest from a professional point of view as I walk through it. That detracts somewhat from just enjoying nature in the forest.

## Forests in the state of Brandenburg: Ownership



The Forst Brandenburg state forestry service manages 271,000 hectares of forest on behalf of the state. That is equivalent to a square with sides of 52 kilometers.

## What distinguishes sustainable forestry?

The main principle is not to use more wood than is being grown back. That applies on our own doorstep as well as on a global scale. That's why certification systems like PEFC and FSC are needed to make forestry management verifiable.

Forests also serve as recreation areas for people, so are not just used to supply wood as a raw material, but also for leisure purposes.

Both aspects need to be taken into account and given appropriate weight when considering protection of our forests.



The mark of  
responsible forestry



→ Forests have been used for as long as people have existed. However, as the population has increased, so has the pressure to use forests, both quantitatively and qualitatively. Forests now provide space for development, wind turbines, solar panels, areas for dog walking, mountain bike trails, meditation or just classic hiking.

However, forests should also provide clean air and water and help with soil conservation and biodiversity. In the past, the main focus was on timber production, but these diverse requirements are now coming more to the fore. Climate change is also playing its part in endangering the potential of forests. The use of wood also fits into this range of functions. As the population continues to rise, areas of forest shrink globally, and the risks of climate change continue, these wide-ranging social services provided by forests will become more scarce.

Everyone is talking about “sustainability” these days. What is the connection between forests and sustainability?

The concept of the sustainable economy originated in the wood shortage of the early 18th century that we discussed earlier. The term sustainability was first used in mining in 1713 in a paper written by

Carl von Carlowitz, Saxony’s chief mining officer. Ever since that time, at the latest, the principle of not using more wood than is being regrown has applied, so that forests are left in a good or even better state for future generations. Here at the Forst Brandenburg state forestry service, we restore twice as much as we harvest.

Sustainability is an inner mindset for foresters and responsible state and private forest owners. Detailed knowledge about the state of a forest is needed to ensure sustainable use. In large forestry businesses, this is recorded every ten years or so through inventory checks and usage monitoring. Information about the overall state of the forests in Germany is collected as part of periodic forest inventory checks at federal and state levels, plus annual forest condition surveys.

Is the use of wood fundamentally sustainable?

Yes, if the wood is sourced from sustainable and preferably local forestry, where these requirements are legally regulated and monitored, the forest owners commit to the principles independently, and wood is used intelligently and sparingly. Sustainability doesn’t just mean the amount used, but is particularly about the environmental and social aspects. I consider this to be a given in



The budding foresters are also trained to operate harvesters at the forestry school.



Germany, Central Europe and many other countries around the world. Consumers can rely here on PEFC and FSC, the two most important certifications. If they also buy durable products that won't just end up in the bin after a short time, then we'll be close to achieving good sustainability.

And what about the forest in Brandenburg specifically? What impact is use having on the health of the forest?

It's not just use that is having an impact, but also the climate. Fortunately, there was more rainfall in 2021 than in the previous three years. The proportion of significantly damaged trees therefore declined slightly. But the droughts and storms in the past four years have caused almost four million cubic meters of damaged wood. When you consider that approx. 3 million cubic meters are scheduled to be used every year in the Brandenburg forest as a whole, that is a huge amount. We need to replant these deforested areas as soon as possible.

Reforestation is done in addition to restructuring of the forest. What do experts understand this term to mean?

We understand it to mean the long-term restructuring of pure coniferous forests into mixed coniferous and deciduous forests. This means using various silvicultural methods to change the composition of the tree species, build up inventory and differentiate based on age. In 2020, just in the Brandenburg state forest alone, around 3.5 million trees were planted in areas intended for restructuring, includ-



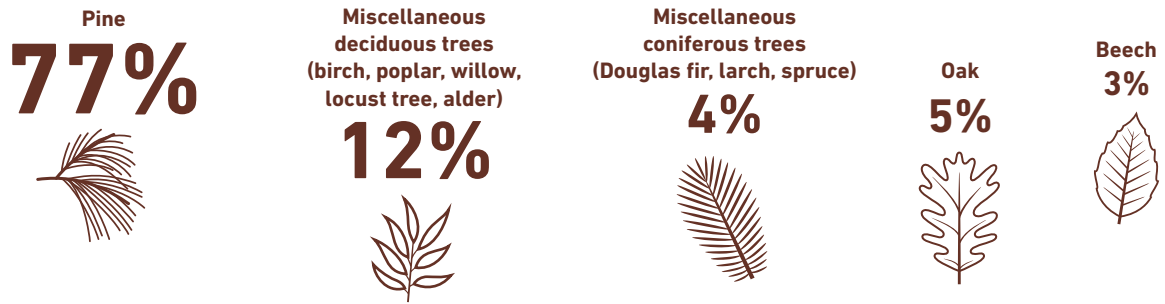
**The staff at the Forst Brandenburg state forestry service continually plant saplings in the forests.**

ing 1.3 million copper beech trees and 1.1 million sessile oaks. Since 1990, more than half of the pine woods in the state forest have been supplemented with deciduous trees.

What is the timescale for restructuring the forests?

It will take a lot of patience and staying power. That said, we do need to up the tempo everywhere. Forest restructuring is a task that will take generations, and there is growing uncertainty about the future and whether trees planted today will survive the next hundred years. Having diversity and a good mix of trees in forests is the top priority, because that will help distribute the risk of individual species dying out. Climate change is forcing us to significantly increase the speed of the restructuring. Large-scale restructuring of forests, which are under various types of ownership, to make them more climate-stable will only be possible with the inclusion of natural Rejuvenation processes are working. →

## Composition of the forests in the state of Brandenburg:



### Brandenburg – state of nature reserves

A national park, three biosphere reserves and eleven nature parks cover a third of the state's total area. On another 8%, there are 467 nature reserves. Most of them are in the forest. A special feature are Brandenburg's 27 natural forests, which make up around 4% of the state's total area. Forest research is carried out here in undisturbed ecosystems. Other forests across the state will be taken out of use in the years ahead, allowing natural, undisturbed development to take place in around 10% of the total forest area in the future.



#### Kunsterspring Pine D 3676 | DYNAMIC PLUS

Like a soft, light carpet, the decor stretches out through the room, filling it with lightness and a sense of well-being.

The Kunsterspring Pine decor shows just how closely SWISS KRONO is connected to the region around its factory. Working with local newspapers, the company asked Brandenburg residents to vote for their favorite excursion destinations in their home state. The winning locations would then be included in the names of three laminate floors. As there is also a local zoo in Kunsterspring that has attracted families for decades, this small town was one of the favorites. The decor now links Kunsterspring with the most important tree species in Brandenburg and also provides global advertising for the state.



The most important condition for them is getting the right stocks of roe, red and fallow deer. Hunting therefore plays a prominent role in the question of successful forest restructuring in Brandenburg.

How does the state forest work together with the many private forest owners when it comes to forest restructuring?

Our primary task is to provide expert advice based on our own forestry research in Eberswalde. We have over 150 years of tradition and expertise in forest management and are well-connected throughout Germany. We serve as a role model and an example. Another important aspect is financial support for private forest restructuring measures. As the state service, we are responsible for processing requests and administering funds. Private forest owners are just as conscientious as we are with regard to their important role. Because for all of us, the forest is the basis of our livelihoods.



There is a wonderful smell of earth and wood as we take our leave from Hubertus Kraut and his colleague Dr. Jan Engel by a stack of timber. Even though we are soaked through from the heavy rain on this winter day, we still envy the forestry experts their workplace. When was the last time you breathed in the air of the forest?

[forst.brandenburg.de](http://forst.brandenburg.de)