



The objectives of the CHAMELEON project are sustainable and digital agriculture and forestry, livestock farming and rural development with the help of technology.

Technologies such as drones, sensors, cameras and artificial intelligence are intended to help with the early detection of hazards such as storm damage or pest and disease infestation in order to reduce economic losses and enable sustainable management.

 @ChameleonHEU

 <https://chameleon-heu.eu/>

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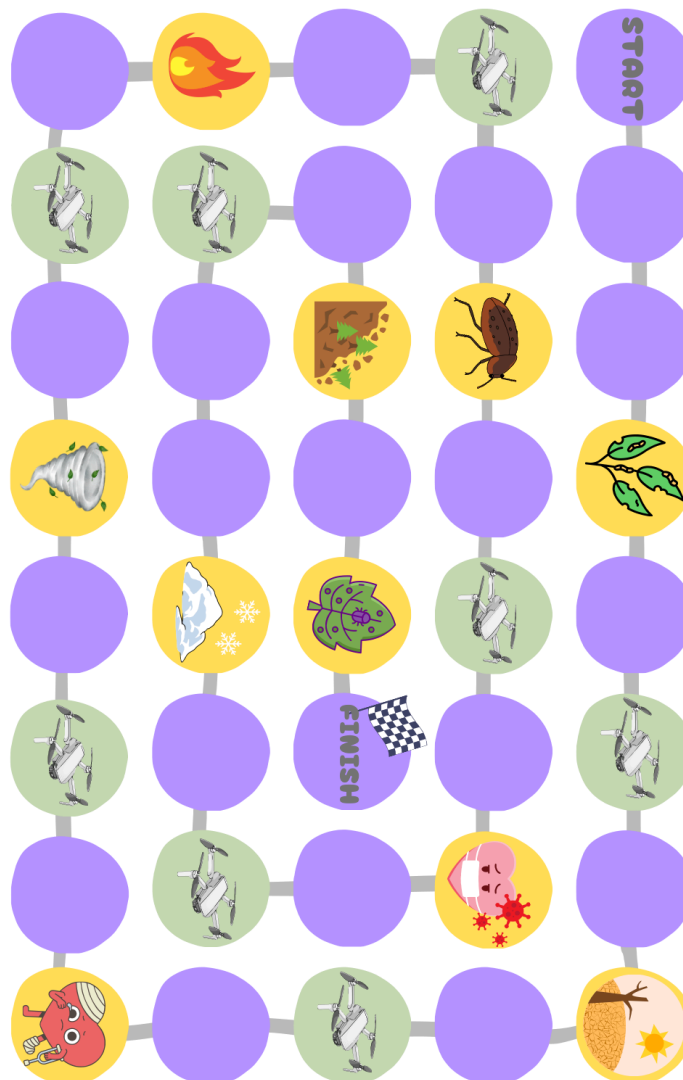
VNIVERSIDAD
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CHAMELEON - Dice Game

Take a dice and playing pieces. The die is rolled in turn and depending on the number of the die, you can move forward. If you land on a hazard space, you must jump back 3 spaces. If you land on a drone space, you can skip the next hazard and stand on the space after it. Occupied fields are skipped. The first player to reach the end wins. Have fun!



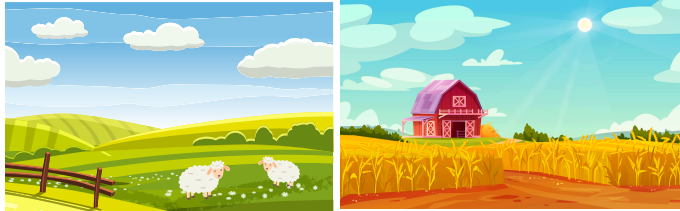
Sustainable and Digital EU
Agriculture, Forestry,
Livestock Farming and Rural
Development with the Help
of Drones and Artificial
Intelligence



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Agriculture & Livestock

In agriculture, plants are grown on large fields, e.g. vines in viticulture. Livestock farming is also part of agriculture. The animals often live on large pastures where they graze.



Agricultural products are mainly used as food. Grain is used to bake bread, grapes are used to make wine. Animals are used for meat production, for example.

Natural hazards in agriculture & livestock farming

Drought or infestation by pests can severely affect the plants and damage the harvest.

In viticulture, grapevines can be affected by vine diseases (e.g. mildew) or pests. Pests are, for example, often the caterpillars of the grape berry moth or phylloxera.

Farm animals such as sheep and cows can also be affected by diseases or injure themselves.



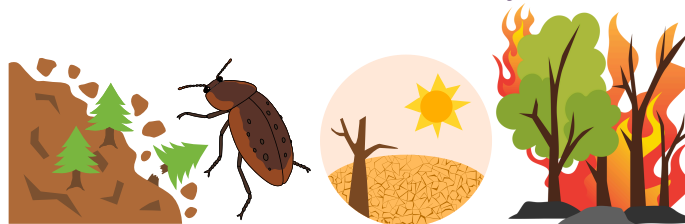
Forestry

Trees are planted and then cut down in a controlled manner many years later to produce wood. We use wood for many different things: to build houses, to make paper and furniture and for heating.

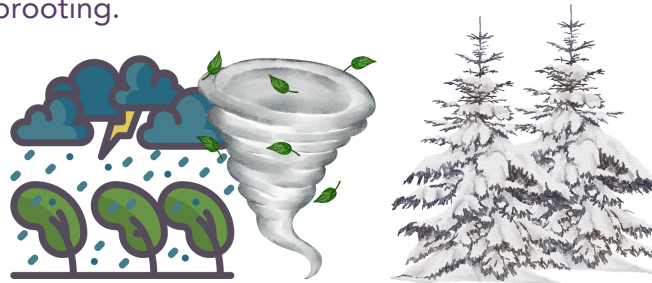


Natural Hazards in Forestry

Drought, bark beetle infestation, forest fires and landslides can reduce the tree population of a forest and are detrimental to forestry.



But storms and the weight of too much snow can also cause damage such as broken branches and uprooting.



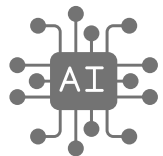
Use of Drones and Artificial Intelligence

Fields, pastures and forests are usually very large and not easy to keep track of. However, it is important to recognise diseases and damage quickly. This way, the spread can be stopped quickly. In the forest, it is also important to protect hikers from falling branches or other hazards.

The CHAMELEON project is designed to help quickly recognise problems in large areas such as forests, fields and pastures.



A drone is used to take pictures of the areas from the air. Artificial intelligence* recognises damage and dangers in the images, e.g. trees infested by the bark beetle. This enables rapid intervention and the bark beetle is stopped! Artificial intelligence can also recognise sick or lame animals in the pasture. So the animal can be helped quickly!



*Artificial intelligence (AI) is a computer programme that can learn to solve problems and make decisions in a similar way to humans.