

# La forêt face aux changements globaux

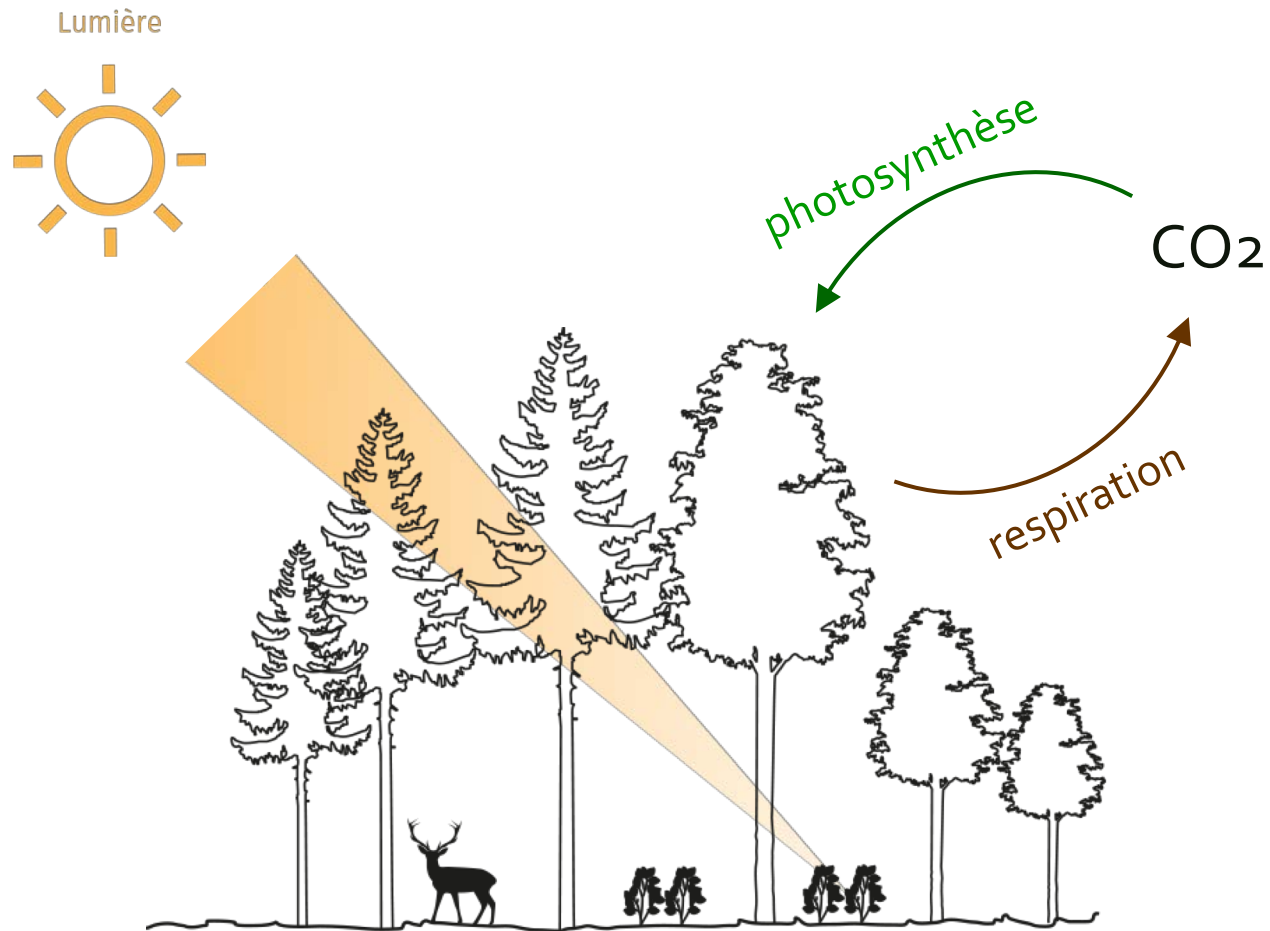
Mathieu Jonard



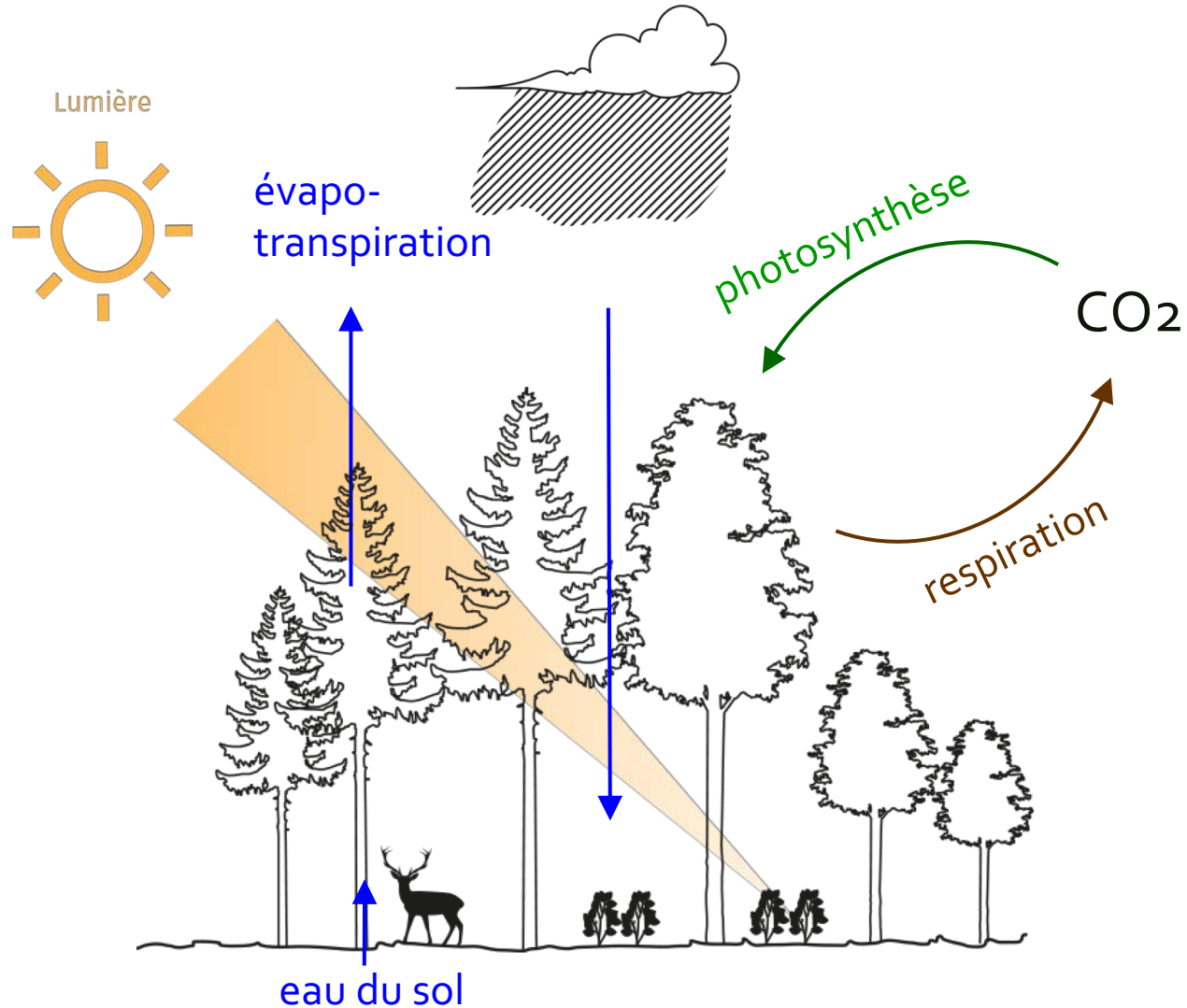
- I. Comprendre le fonctionnement de la forêt
- II. Modéliser l'écosystème forestier
- III. Valider le modèle
- IV. Explorer les évolutions possibles de la forêt
- V. Adapter la gestion



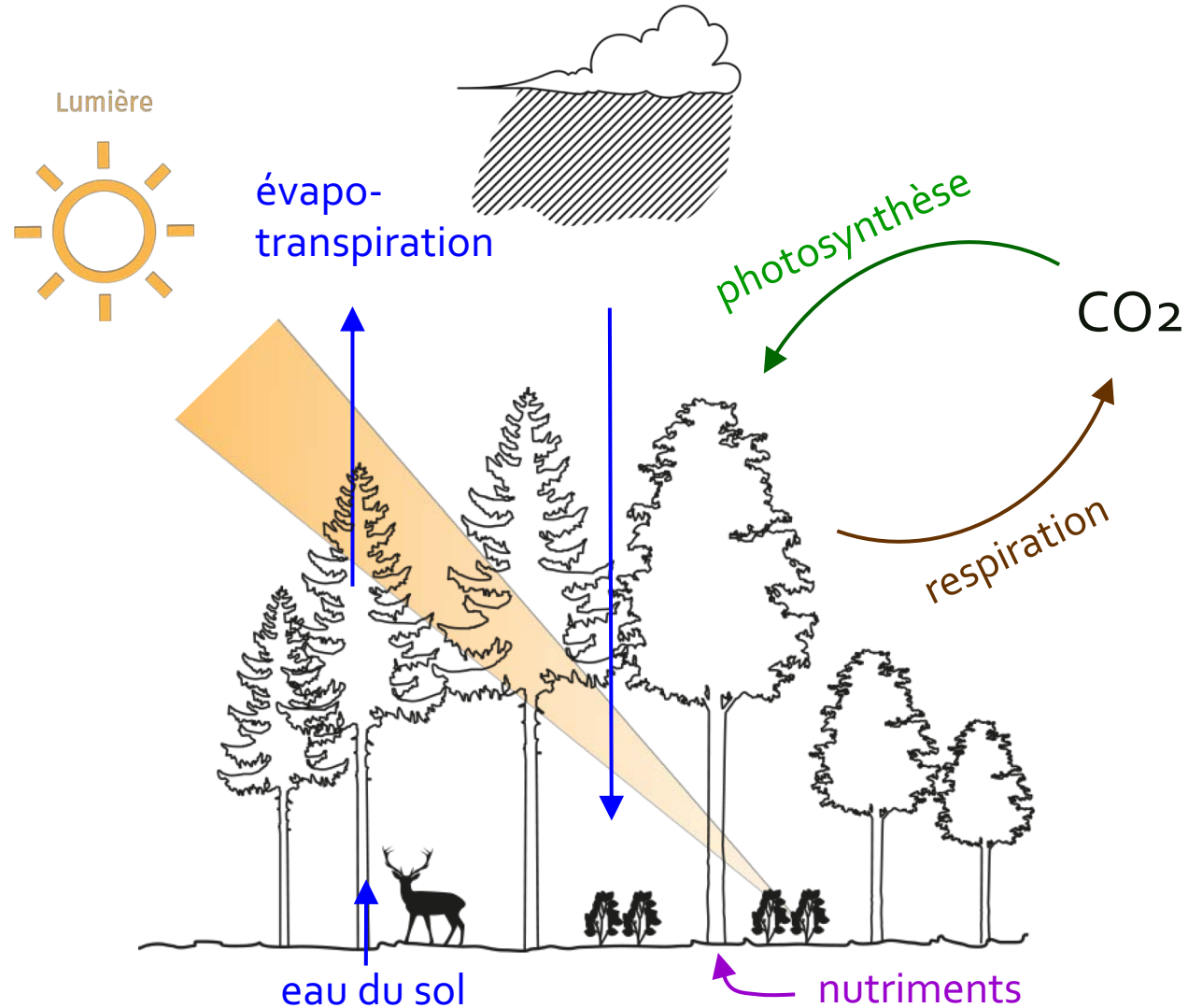
# I. Comprendre de fonctionnement de la forêt



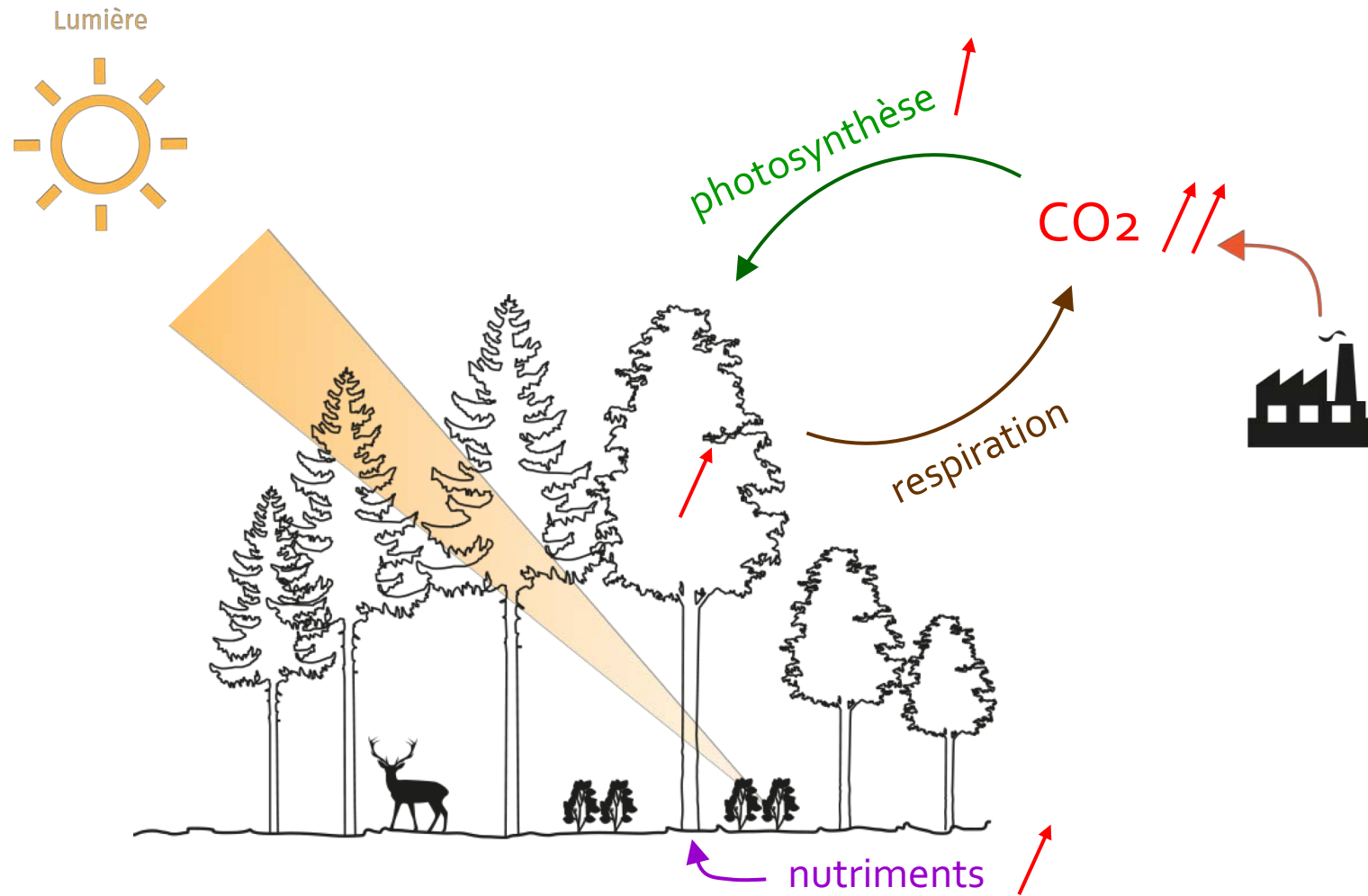
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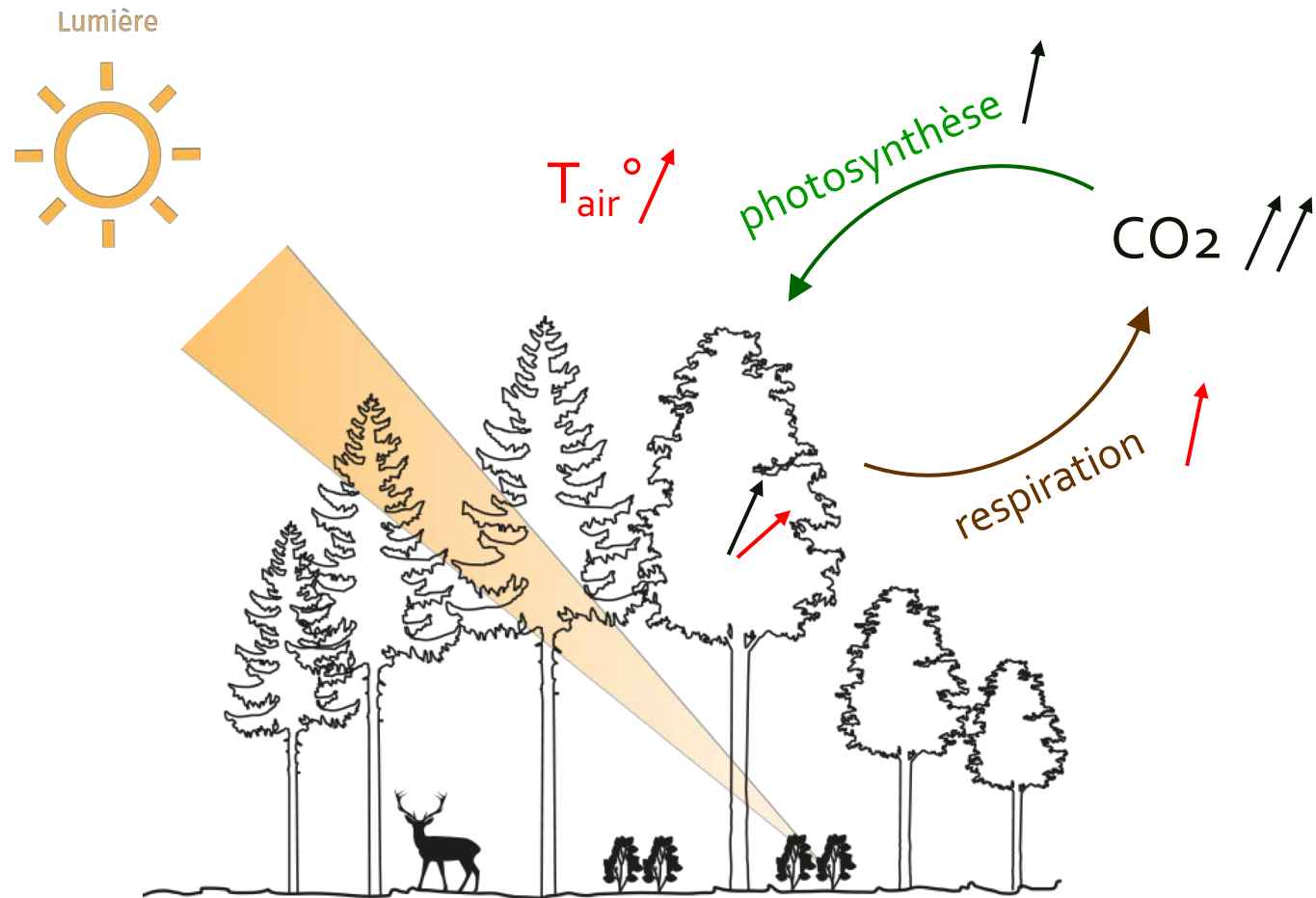
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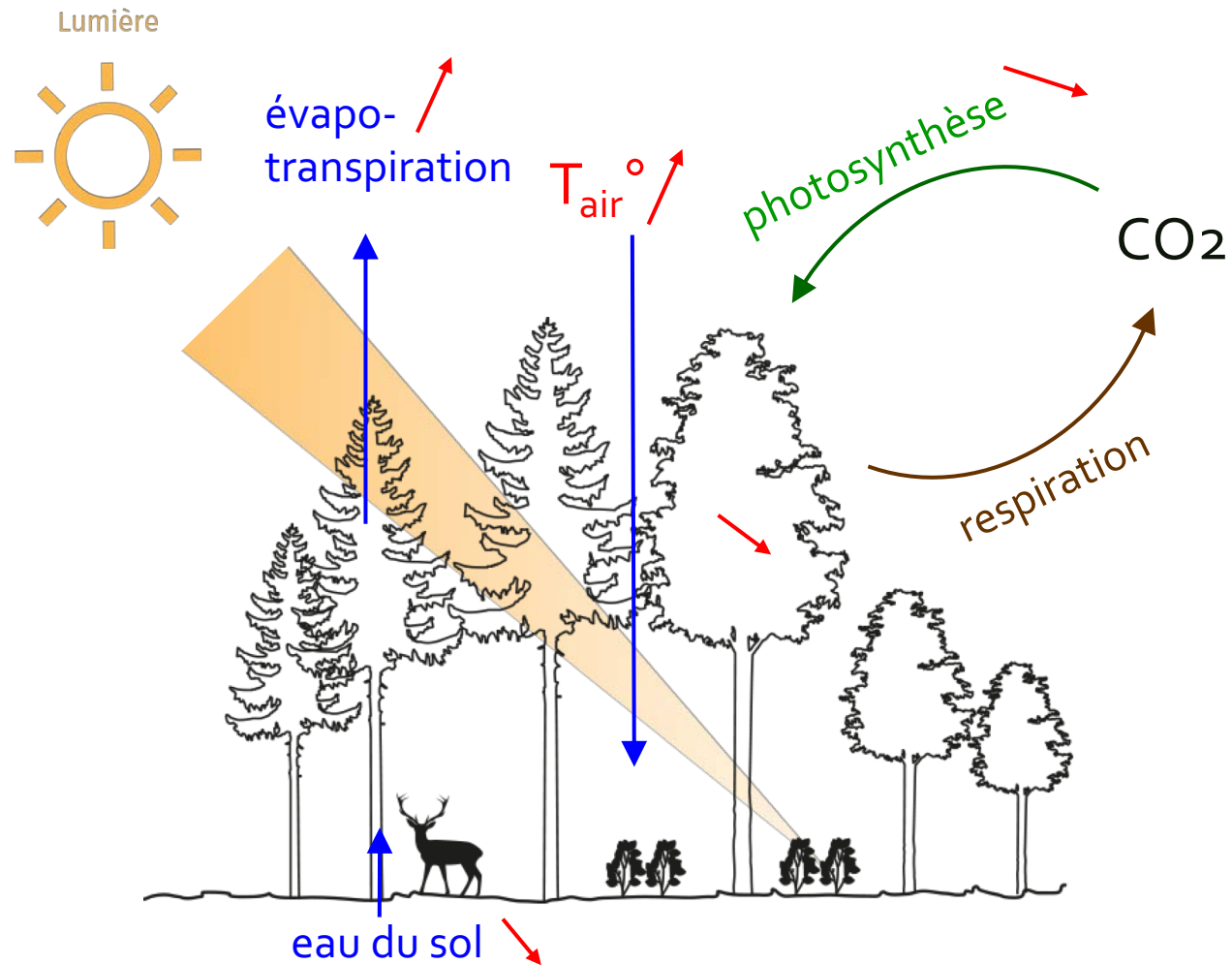
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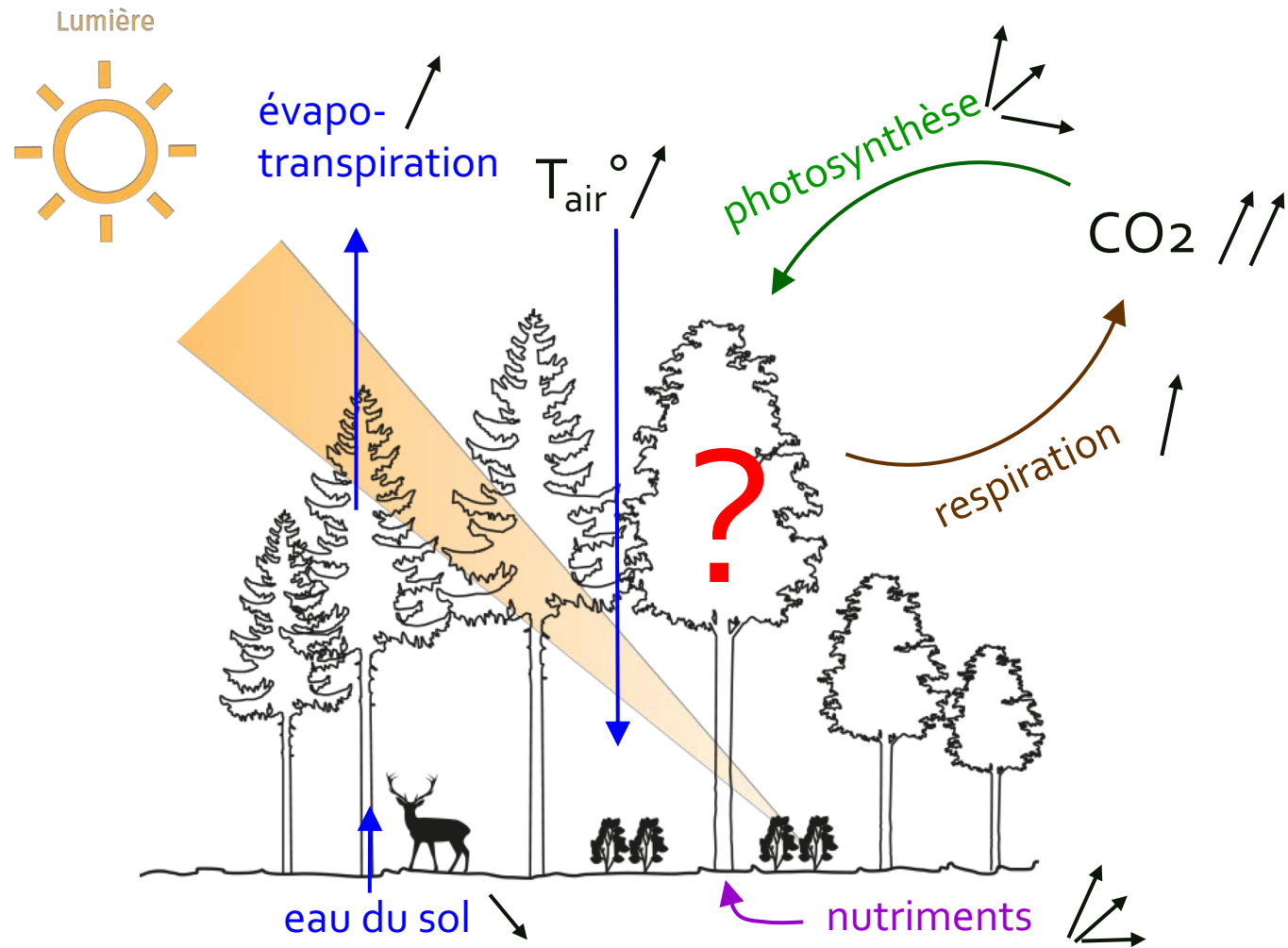
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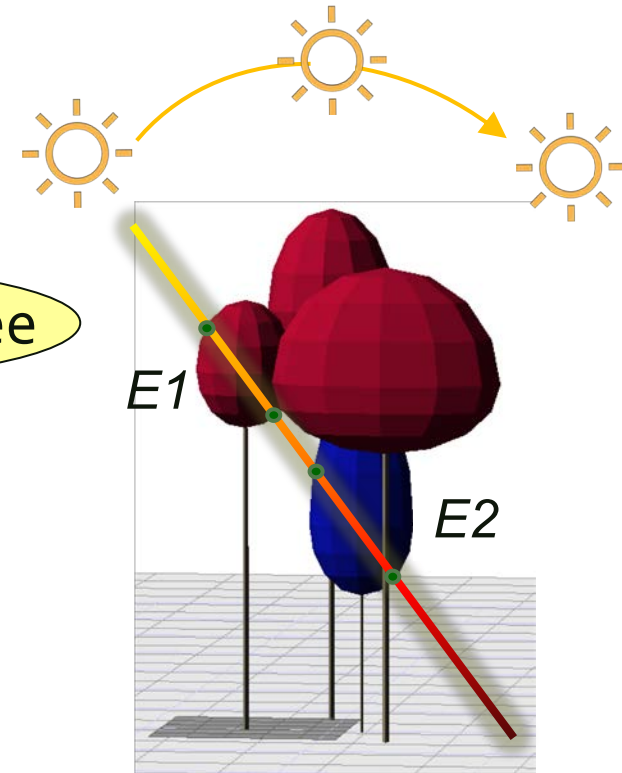
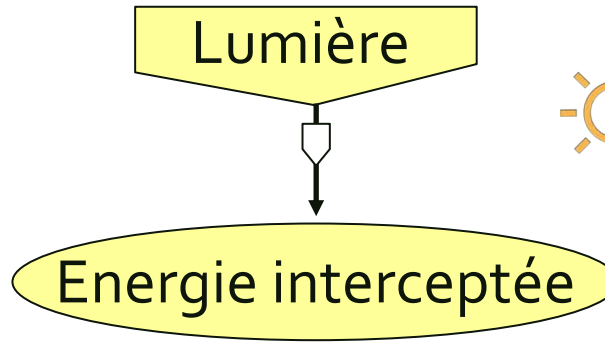


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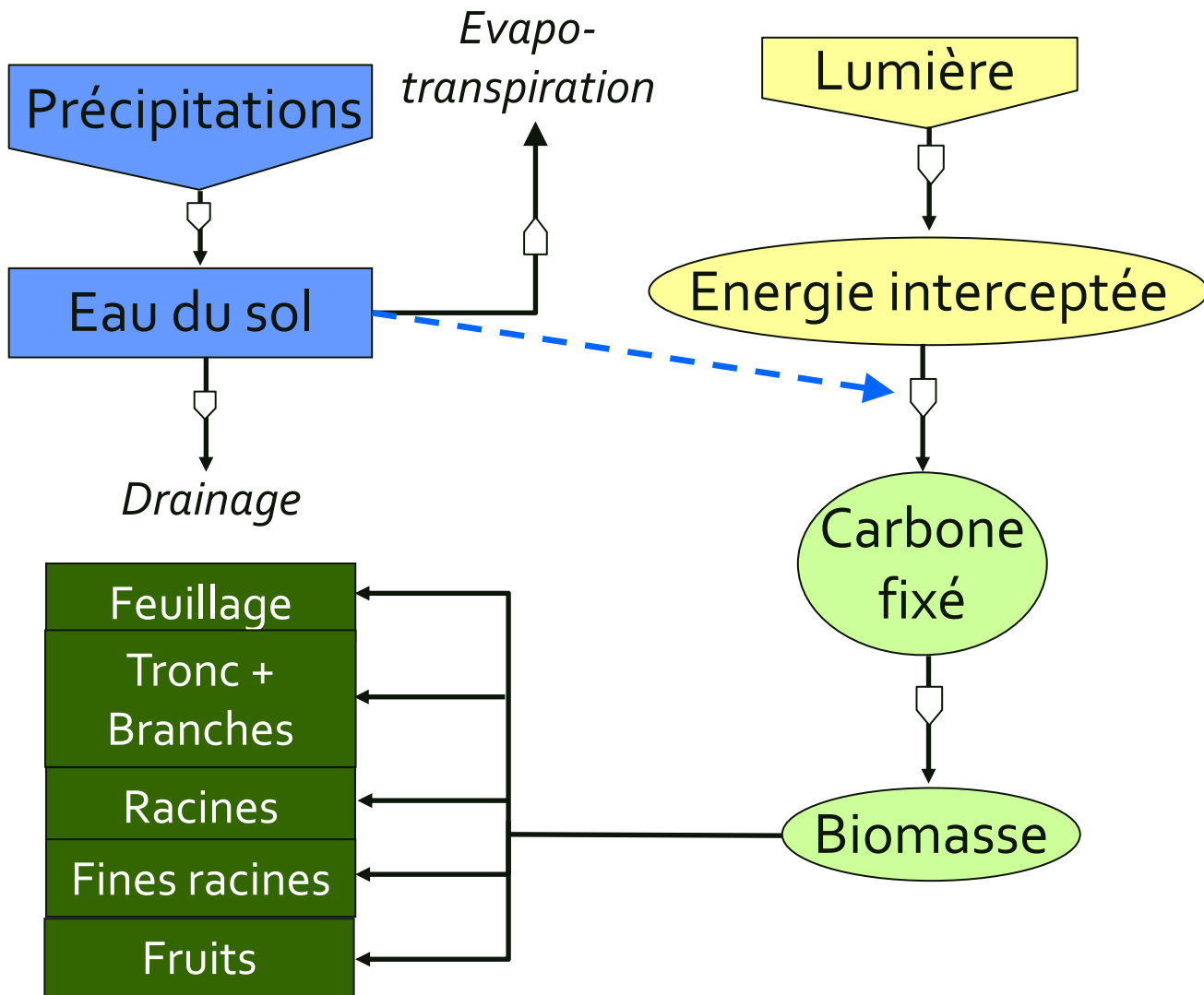




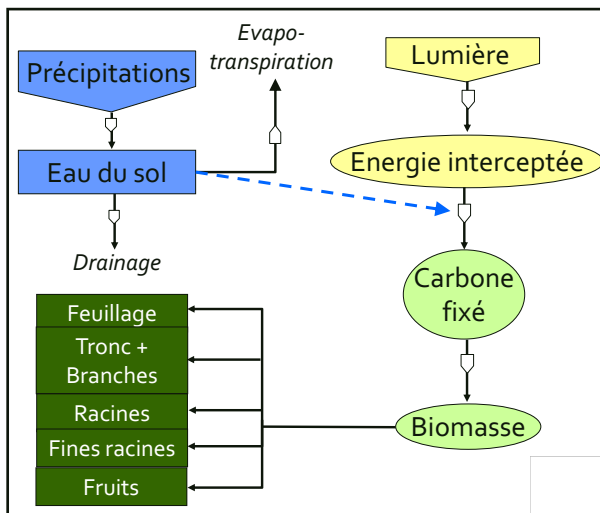
## II. Modéliser l'écosystème forestier



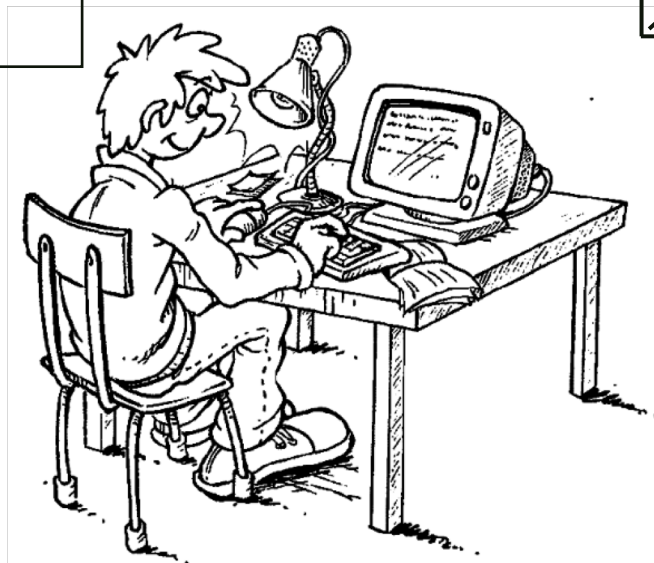
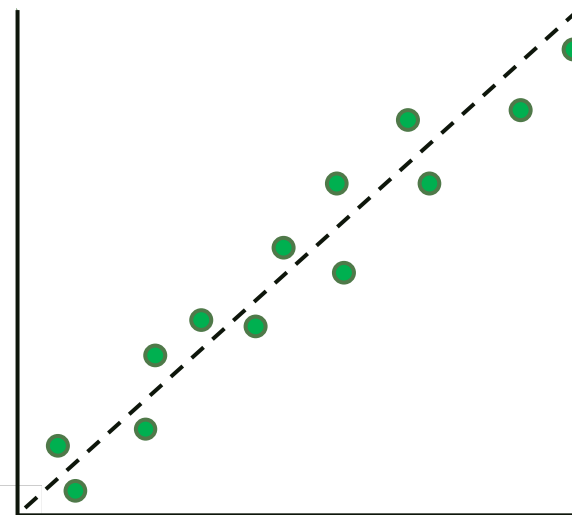
## II. Modéliser l'écosystème forestier



# III. Coder et valider le modèle



Croissance observée

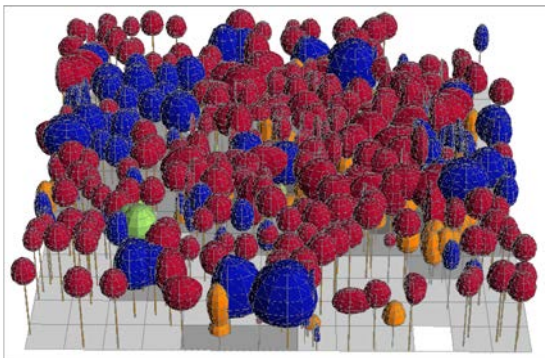


Croissance prédite



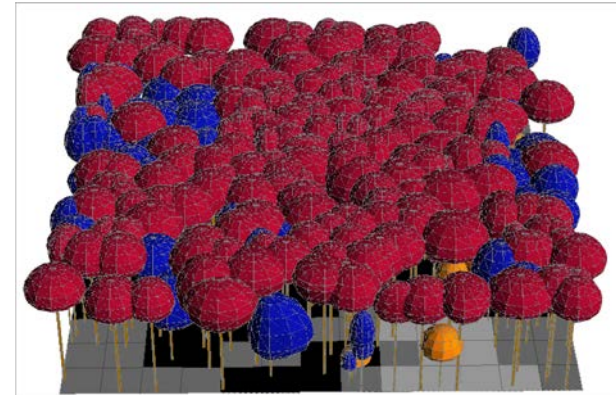
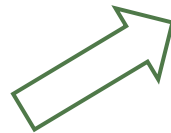
# IV. Explorer les évolutions possibles de la forêt

Chênaie - hêtraie  
2010

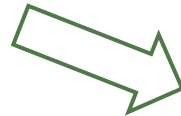


- Houppiers
- Quercus petraea
  - Fagus sylvatica
  - Carpinus betulus
  - Betulus sp.
  - Broadleaves
  - Coniferous

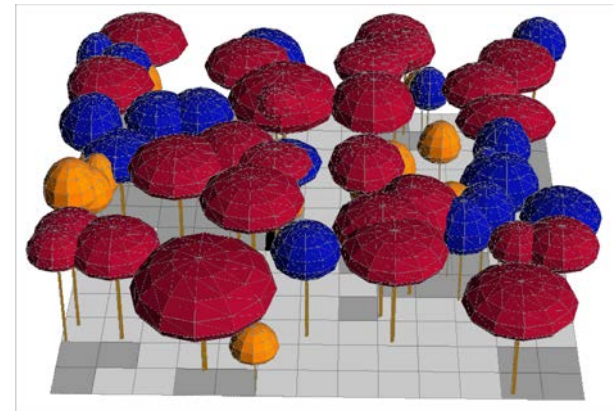
Laisser-faire



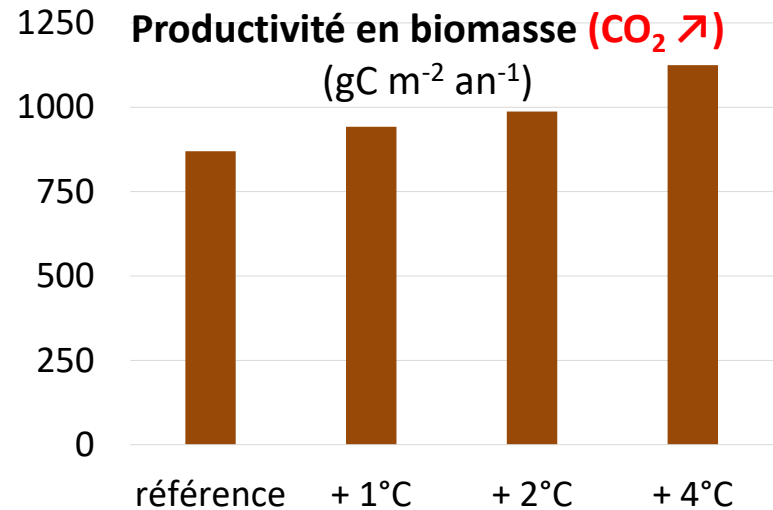
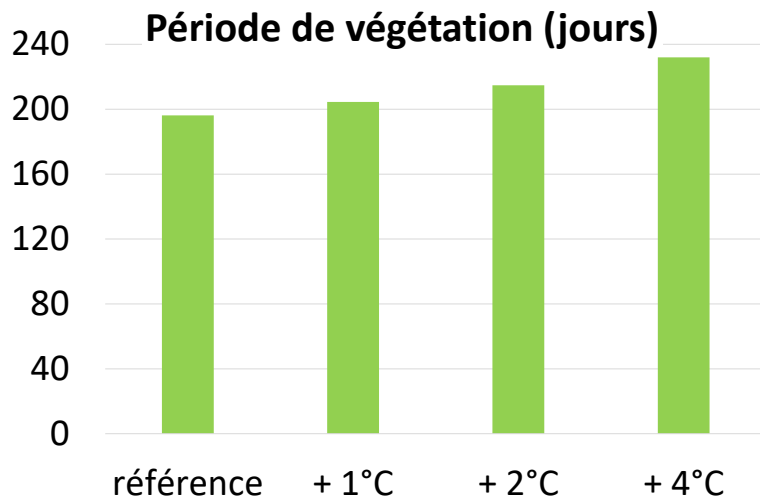
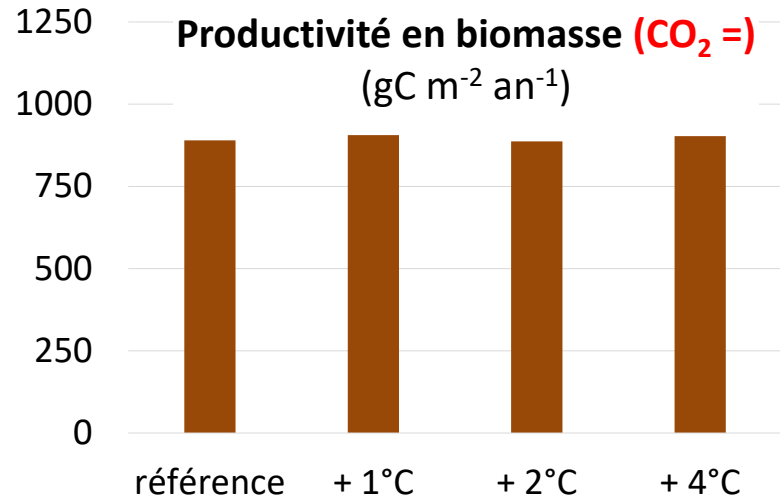
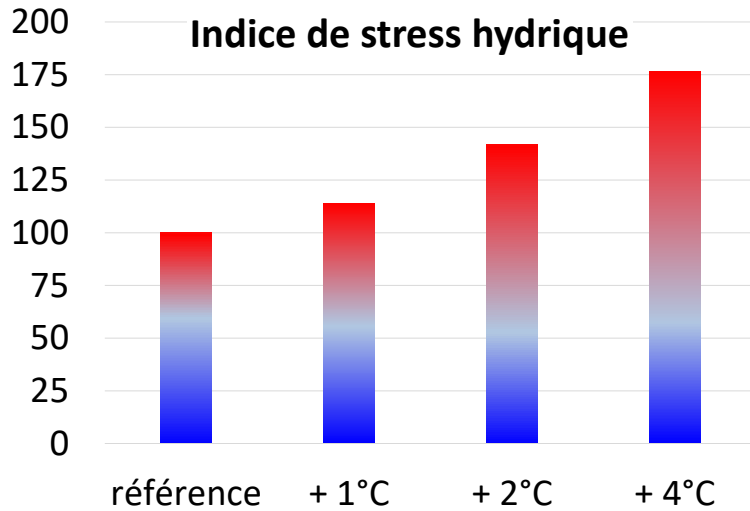
2100 **Climat + 4.0°C**



Sylviculture  
dynamique



# IV. Explorer les évolutions possibles de la forêt



# V. Adapter la gestion

## Simulations selon

- ≠ scénarios climatiques (+1°C, +2°C, +4°C)
- ≠ itinéraires sylvicoles (choix des essences, taille des trouées,..)
- ≠ intensités de perturbation (tempête, maladie, ravageur)

⇒ stratégies de gestion qui confèrent aux forêts  
la plus grande résilience

