



SPOW06

The Right Tree in The Right Place





Why trees?

Santi Sabaté,

University of Barcelona



Life Terra App

**Aroa Gregori,
Stichting Life Terra**



The background of the slide is a photograph of a dry, hilly landscape under a cloudy sky. In the foreground, a group of people, some wearing green vests, are working on a hillside, likely planting. A yellow flag is visible on the left. The text is overlaid in a white box with a dark blue border.

Planting event in your class

Sabine Lieb & Aroa Gregori, Stichting Life Terra



A group of children are sitting around a wooden table, engaged in a craft project. They are using various types of leaves, some green and some brown, and applying white glue to them. The table is covered with a brown paper surface. In the background, there are boxes, including one labeled 'Sterilite'. A yellow plastic chair is also visible. The children are wearing casual clothing, including a red shirt, a blue shirt, and a black dress with white polka dots. The overall scene is a hands-on learning activity focused on sustainability.

Create your own sustainability project

Sustainability project: Identifying a topic



- ☐ Investigate students' personal links
- ☐ Look for geographical or ecological context
- ☐ Share concerns and questions
- ☐ Find links to academic curriculum



Sustainability project: Possible class activities

- ☐ Literature research
- ☐ Developing a video
- ☐ Presenting
- ☐ Lab experiment
- ☐ STEM activities
- ☐ Use of data related to environmental issues
- ☐ Working with films and documentaries
- ☐ Inviting a speaker (in person or virtually)





EUN Partnership aisbl • 7m

What activities can you implement in your classroom?

Take a moment to reflect on what activities could benefit your students' understanding of sustainability topics. Feel free to elaborate on format and materials.

Link in the chat!



HOMework



Life Terra

LET'S PLANT TOGETHER

Project template

The right tree in the right place

Target age group: *{{to be completed}}*

Identifying sustainability topics for a project

What topics related to sustainability are interesting for you/curriculum/school/local area?

Class activities



Next Session
22 APRIL
17:00 – 19:00 CET



Life Terra

LET'S PLANT TOGETHER



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SPOW06

The Right Tree in The Right Place





Activity: Tag your tree

Aroa Gregori Montaner
Stichting Life Terra



A close-up photograph of a small, young plant with several green leaves and a thin stem, growing out of a patch of brown soil. The plant is surrounded by several light-colored, smooth, rounded stones. The background is slightly blurred, showing more of the ground and some distant greenery.

**How to track
your adopted
tree
with the
Life Terra app.**

<https://app.lifeterra.eu/en/events/29591>



Let's tag your tree!

Link in the chat!
(use your smartphone)

<https://app.lifeterra.eu/en/events/29591>

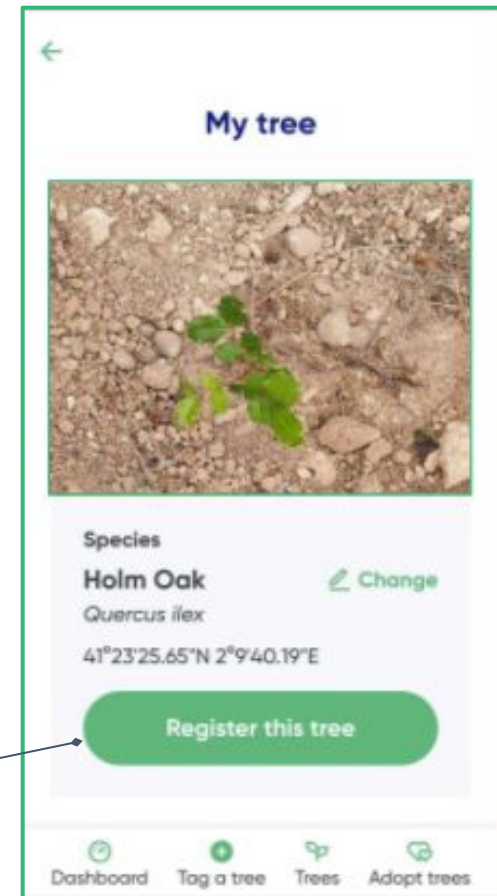


First of all...

Available languages:
ENG, ES, DE



- In order to tag a tree, you need to **use a Smartphone** and provide the following info:
 - Name
 - Surname
 - Email
 - Password
- Requirements to use the Life terra App:
 - Activate your GPS
 - Allow access to your camera
- Life Terra created a **tagging link** specifically for this workshop, SPOW06: *The Right Tree in The Right Place*, as part of the STEM Discovery Campaign 2021, organised by Scientix.
- **If you tag a tree, your current location will be shared with Life Terra (!)**
 - Life Terra will NOT use nor share this data. The tagging link, together with all info collected in today's activity (GPS coordinates) **will be immediately DELETED.**
 - If you are not comfortable with this, please DO NOT tag a tree.
 - You can still use our App and STOP / **DO NOT click on the "Register this tree" step**)



Tag your tree

[A tagging link is sent prior to each specific planting event]

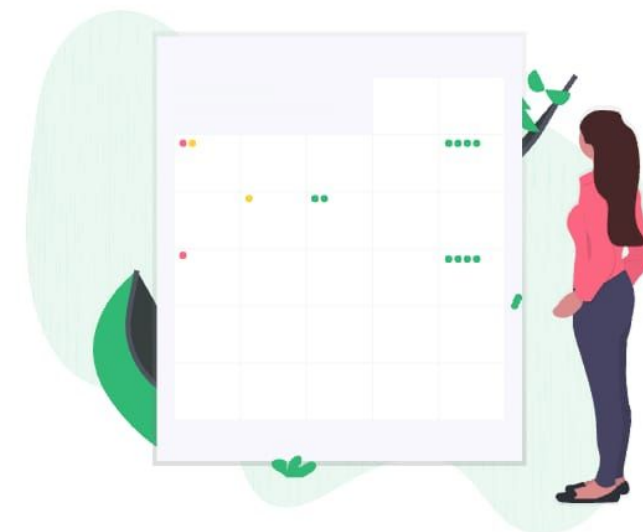
1. Paste the link into your browser:

<https://app.lifeterra.eu/en/events/29591>

- a. Opt: use the LT App - clicking on it with your smartphone

Event loaded!

The details of planting event **Test event** were loaded on your device. You are set to go.



Tag a tree

[Sign up](#) or [log in](#) with your Life Terra

Tag your tree

[A tagging link is sent prior to each specific planting event]

1. Paste the link into your browser:

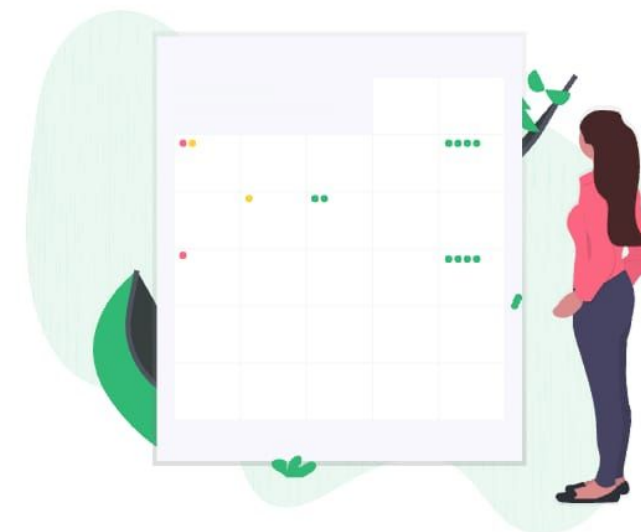
<https://app.lifeterra.eu/en/events/29591>

a. Opt: use the LT App - clicking on it with your smartphone

2. Sign up OR log in

Event loaded!

The details of planting event Test event were loaded on your device. You are set to go.



Tag a tree

[Sign up](#) or [log in](#) with your Life Terra

Tag your tree

[A tagging link is sent prior to each specific planting event]

1. Paste the link into your browser:

<https://app.lifeterra.eu/en/events/29591>

a. Opt: use the LT App - clicking on it with your smartphone

2. Sign up OR log in

- a. Create an account providing:
 - i. First name, last name, email, and password
- b. Agree with Terms of Use & Privacy Policy

Create account

First name

Your first name

Last name

Your last name

Email

myemail@here.com

Password

1 capital letter, 1 lowercase letter, 1 number.
Minimal 8 characters

☐

I agree to Life Terra [Terms of Use](#) and [Privacy Policy](#).

Tag your tree

[A tagging link is sent prior to each specific planting event]

1. Paste the link into your browser:

<https://app.lifeterra.eu/en/events/29591>

a. Opt: use the LT App - clicking on it with your smartphone

2. Sign up

a. Create an account providing:

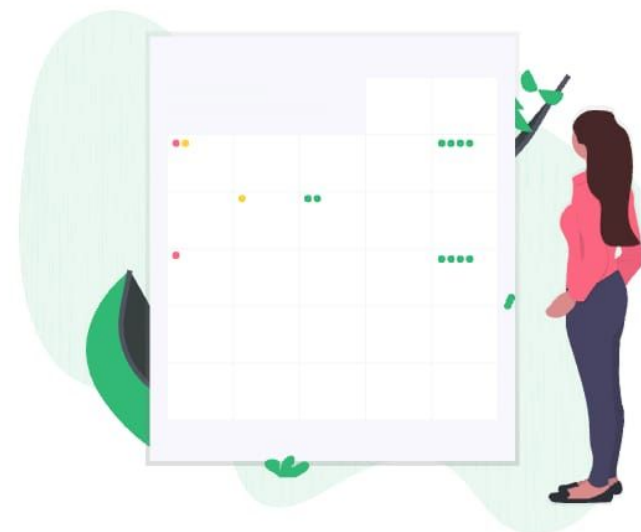
i. First name, last name, email, and password

b. Agree with Terms of Use & Privacy Policy

3. Start tagging

Event loaded!

The details of planting event Test event were loaded on your device. You are set to go.



Tag a tree

[Sign up](#) or [log in](#) with your Life Terra

Tag your tree

[A tagging link is sent prior to each specific planting event]

1. Paste the link into your browser:

<https://app.lifeterra.eu/en/events/29591>

a. Opt: use the LT App - clicking on it with your smartphone

2. Sign up

a. Create an account providing:

i. First name, last name, email, and password

b. Agree with Terms of Use & Privacy Policy

3. Start tagging

a. How it works

i. instructions on how to plant & tag your tree



How it works



Plant your tree



Take a snapshot of your tree



Identify your tree species



Register your tree



I got it. Don't show these instructions again

Okay let's start



Please tell me more



Dashboard



Tag a tree



Trees



Adopt trees

Tag your tree

 Please tell me more

Okay let's start

How it works

Plant your tree

Start digging

Dig a hole that easily fits the root ball of the tree. Carefully, put the tree in the hole. Keep the tree up straight and fill the hole up with the leftover soil. Gently press the soil around the tree to compact the soil a bit. Lastly, give your tree some water to help it get used to its new environment.



   
Dashboard Tag a tree Trees Adopt trees

Take a snapshot of your tree

Camera ready?

It's important to take a photo of your tree directly from above. This helps us track your tree better and makes it easier to recognize the tree species.



   
Dashboard Tag a tree Trees Adopt trees

Identify your tree species

Pub Quiz

Next, we would like you to help us identify your tree species. The app shows a list of the species that are used in your event. Please select the tree that looks most like the one you planted. For more info about the species, click on the photo of each species. Still need help identifying the trees? Don't hesitate to ask your Terra Leader.

Register your tree

Finish up

If you are connected to the internet, registering your tree is just a simple press of the button. After clicking the button "Register this tree", you get to see a confirmation and can continue tagging another tree. If there is no internet connection available at your event, one step is added to upload the trees. After getting back home (or in any other place with an internet connection), please re-open the app to upload the trees.

   
Dashboard Tag a tree Trees Adopt trees



Tag your tree

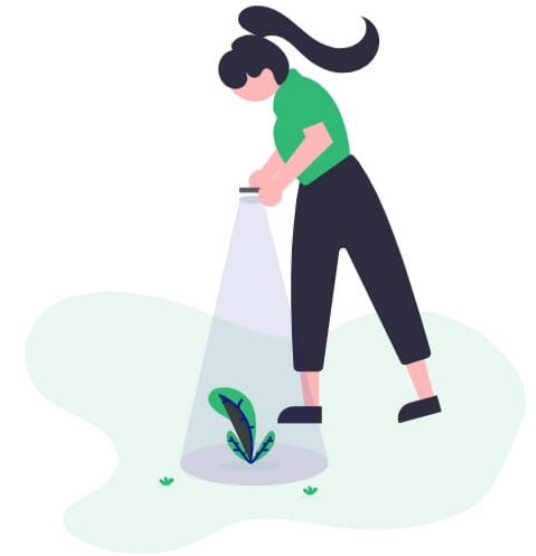
Okay let's start

4. Take a picture of your tree

- a. Before you take the picture (!)
 - i. Activate your GPS
 - ii. Allow access to your camera



How to take the right picture



It's important to take a photo of your tree **directly from above**. This helps us track your tree better.

Got it. Activate my camera



Dashboard



Tag a tree



Trees



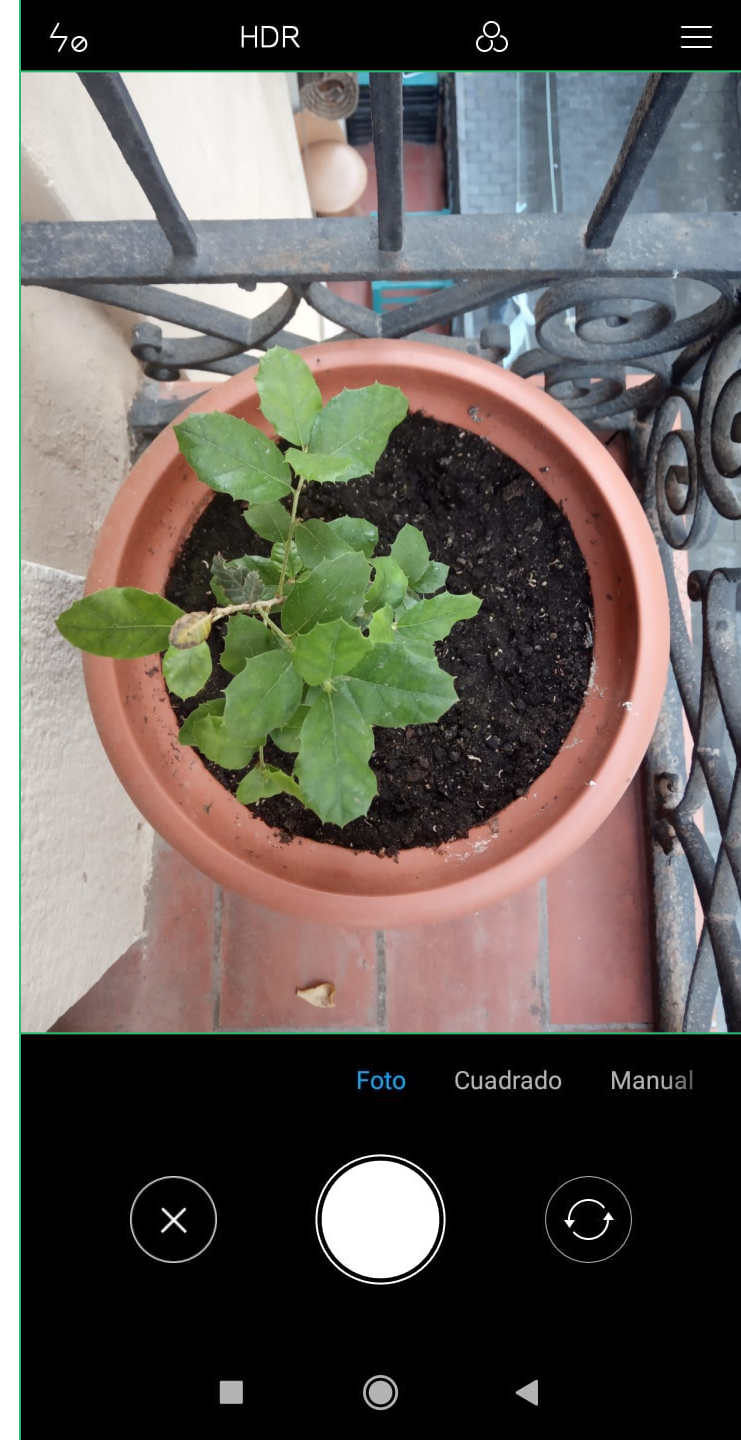
Adopt trees

Tag your tree

Okay let's start

4. Take a picture of your tree

- a. Before you take the picture
 - i. Activate your GPS
 - ii. Allow access to your camera
- b. From above
 - i. Alternative*
*depending on each tree



Tag your tree

Okay let's start

4. Take a picture of your tree

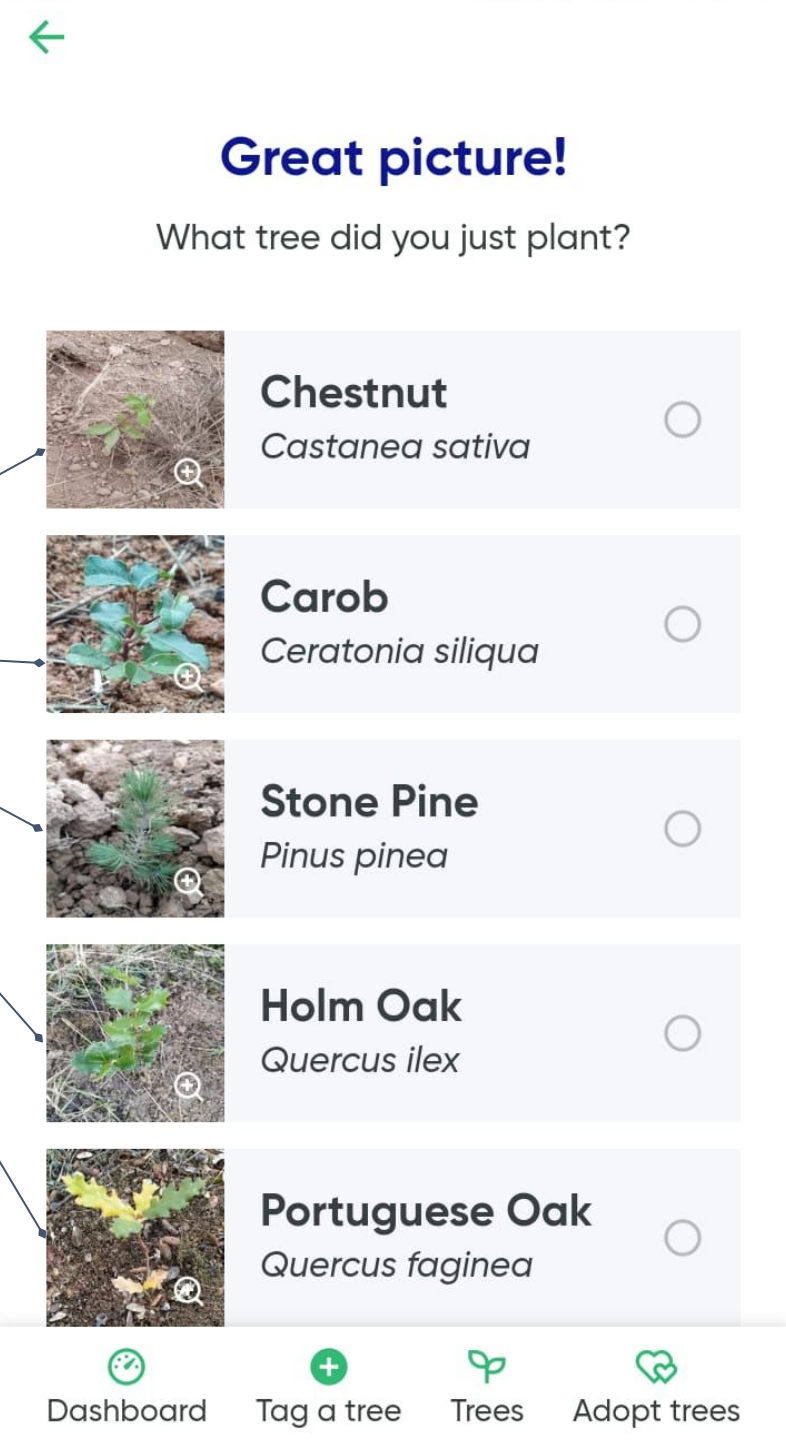
- a. Before you take the picture...
 - i. Activate your GPS
 - ii. Allow access to your camera
- b. From above
 - i. Alternative*
*depending on each tree
- c. After you take the picture...
 - i. Is it good? _____
 - ii. Not so good?
 - 1. take another one! _____



Tag your tree

5. Choose the species

- List of species planted in each event
- Click on the picture for more info & images of the species



Tag your tree

5. Choose the species

- List of species planted in each event
- Click on the picture for more info & images of the species

Holm Oak
Quercus ilex



 Dashboard  Tag a tree  Trees  Adopt trees

Description


The holm oak is the most representative tree of the Iberian Peninsula. It is a tree that is used for everything, as is the case with the gall oak (*Quercus faginea*). Its wood is a good fuel and its acorns have such a high nutritional value for the pigs that they give the sausages that special flavour that makes them so valuable. The holm oak is an evergreen tree. They are green on top and whitish and velvety underneath. Its leaves are thick and usually oval or rounded with a pointed edge. It is a tree capable of growing in all types of soil, except cold and poorly drained soils. It prefers moist soils and areas with little or no shade, and can tolerate coastal environments.




Tag your tree

5. Choose the species


- List of species planted in each event
- Click on the picture for more info & images of the species
- If leading an event...**
 - check info about tree species (previously received)
 - you will be able to add a new species (V2)
- Ask your Terra Leader (if any)




Castanea sativa




Carob
Ceratonia siliqua



Stone Pine
Pinus pinea



Holm Oak
Quercus ilex





Portuguese Oak
Quercus faginea


?


Is your tree not in the list?
Ask your Terra Leader for help

Save tree

 Dashboard

 Tag a tree

 Trees


 Adopt trees


Tag your tree


5. Choose the species


- List of species planted in each event
- Click on the picture for more info & images of the species
- If leading an event...**
 - check info about tree species (previously received)
 - you will be able to add a new species (V2)
- Ask your Terra Leader (if any)


6. Save your tree


**Castanea sativa**

**Carob**
Ceratonia siliqua


**Stone Pine**
Pinus pinea


**Holm Oak**
Quercus ilex


**Portuguese Oak**
Quercus faginea


**Is your tree not in the list?**
Ask your Terra Leader for help

Save tree

Dashboard

Tag a tree

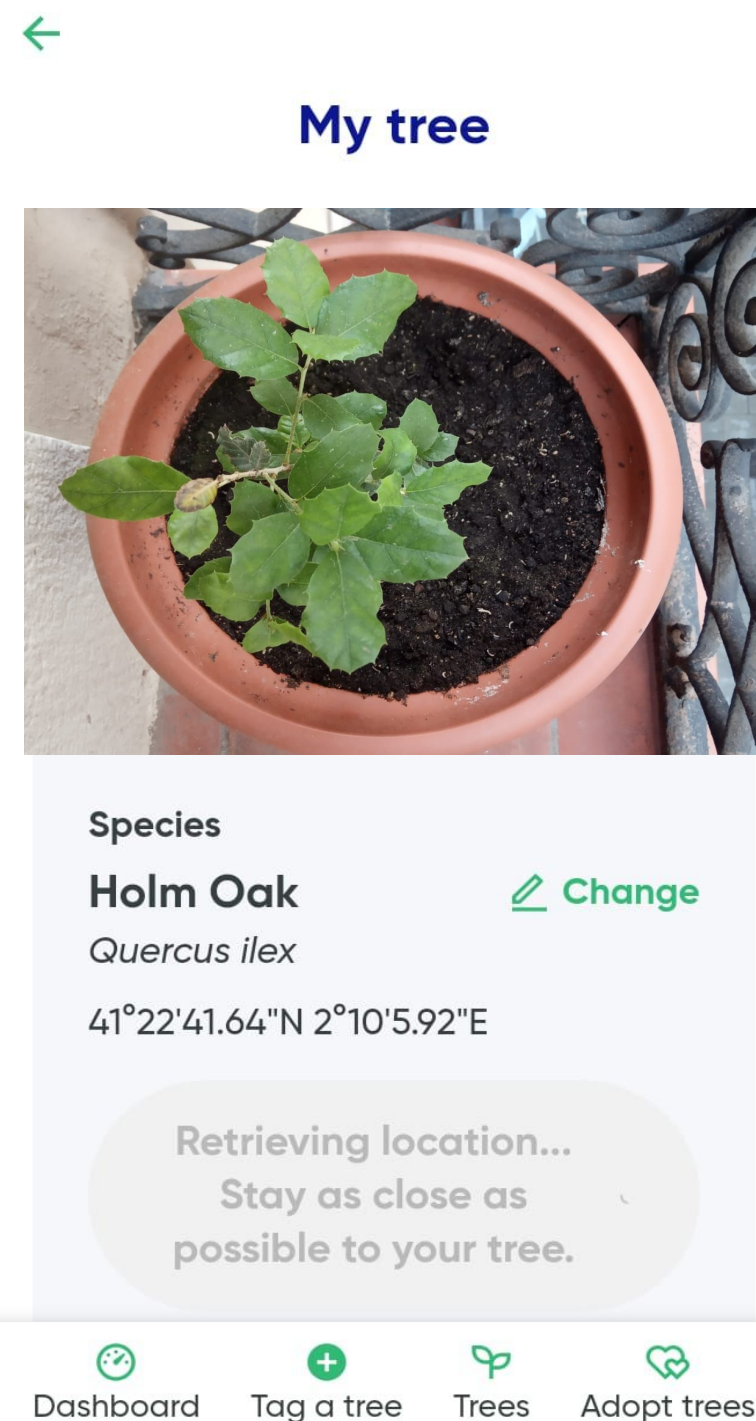
Trees

Adopt trees

Tag your tree

7. Register your tree

- a. Our App will retrieve your location
 - i. Stay as close as possible to your tree
- b. Be patient... it takes few seconds
- c. Location is approximate!
 - i. depends on the place, GPS accuracy...



Tag your tree

7. Register your tree

- a. Our App will retrieve your location
 - i. Stay as close as possible to your tree
- b. Be patient... it takes few seconds
- c. Location is approximate!
 - i. depends on the place, GPS accuracy...

d. Register this tree



My tree



Species

Holm Oak

[Change](#)

Quercus ilex

41°22'41.64"N 2°10'5.92"E

Register this tree



Dashboard



Tag a tree



Trees



Adopt trees

Tag your tree

7. Register your tree

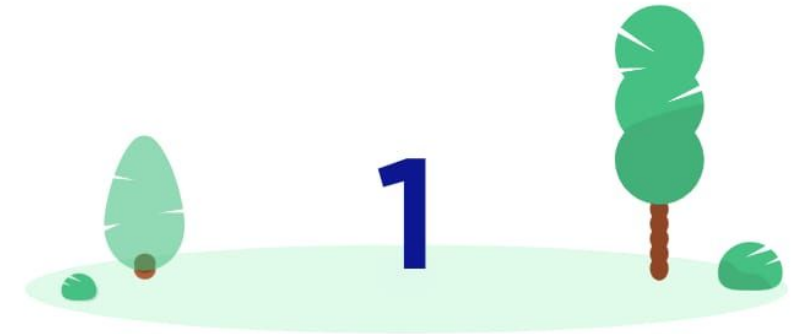
- a. Our App will retrieve your location
 - i. Stay as close as possible to your tree
- b. Be patient... it takes few seconds
- c. Location is approximate!
 - i. depends on the place, GPS accuracy...
- d. **Register this tree**

8. Congratulations!

**You just have registered a tree in the
Life Terra App!**



**Congrats! Your tree is
registered**



Well done. You've registered your tree
successfully.

Tag another tree

See all my trees



Dashboard



Tag a tree



Trees

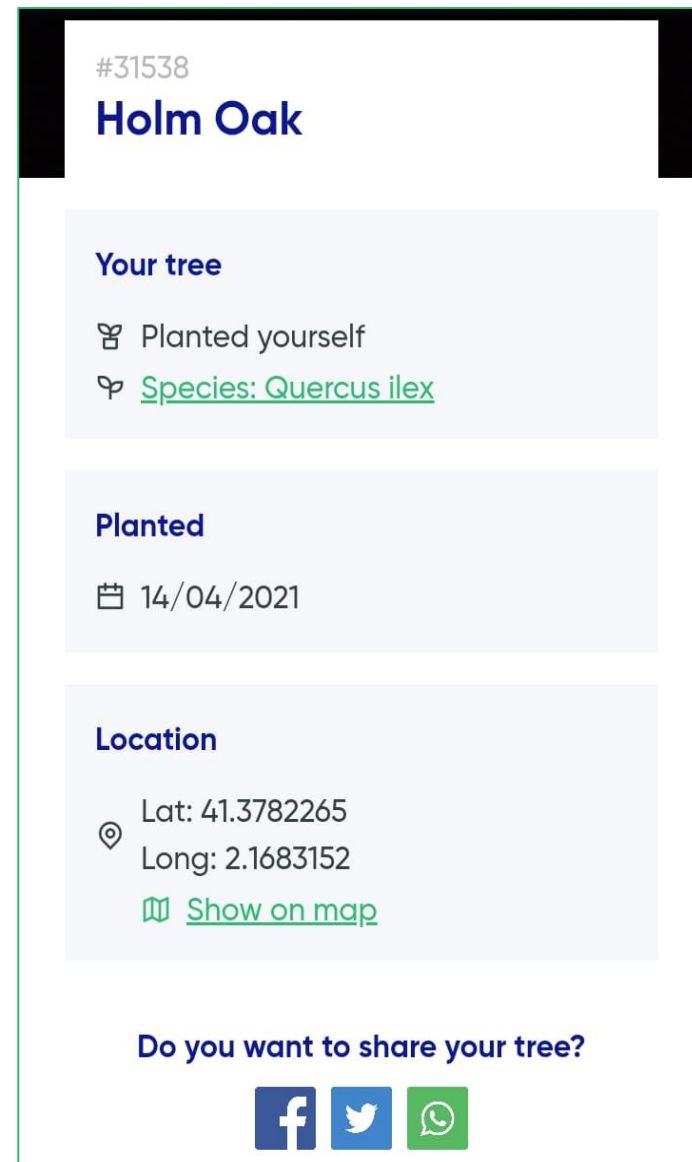
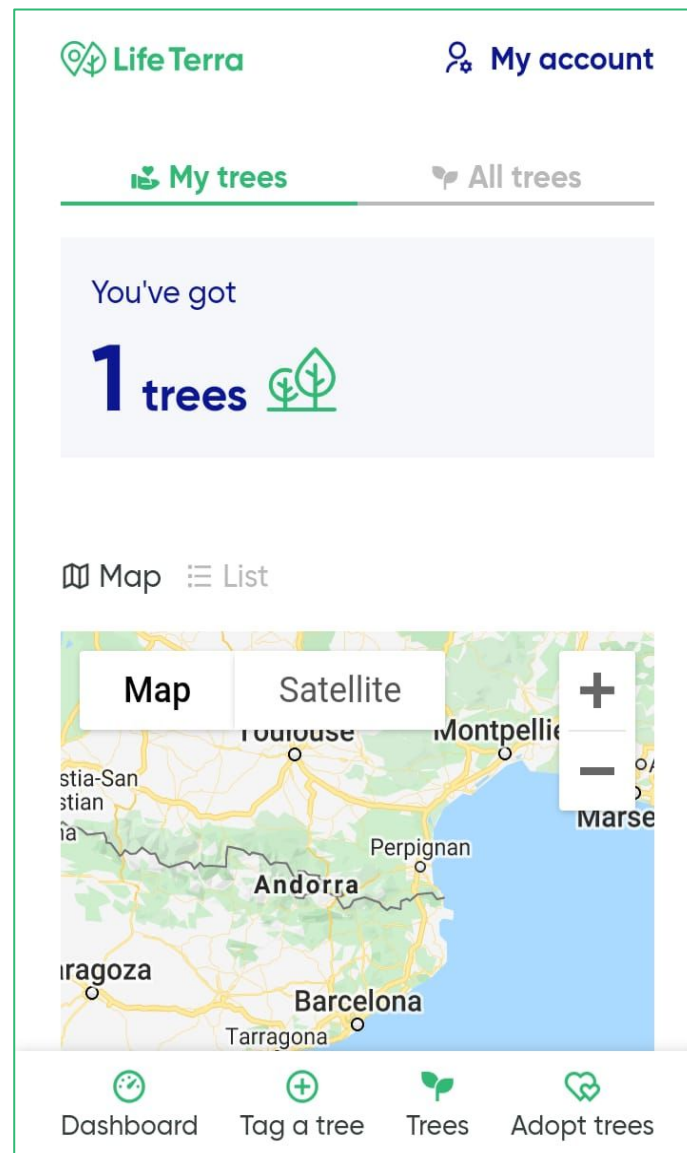
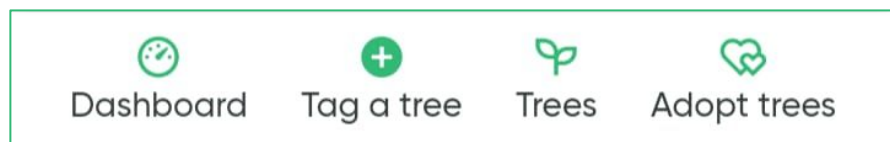


Adopt trees

Tag your tree

Now what?

1. **Tag** more trees
2. **See** your trees in your Dashboard
3. **Spot** all trees planted with Life Terra
4. **Adopt** trees
5. **Share** your tree!



Thanks for your attention!

Join us

Please contact:

education@lifeterra.eu

Join in

Any questions?





Life Terra

LET'S PLANT TOGETHER

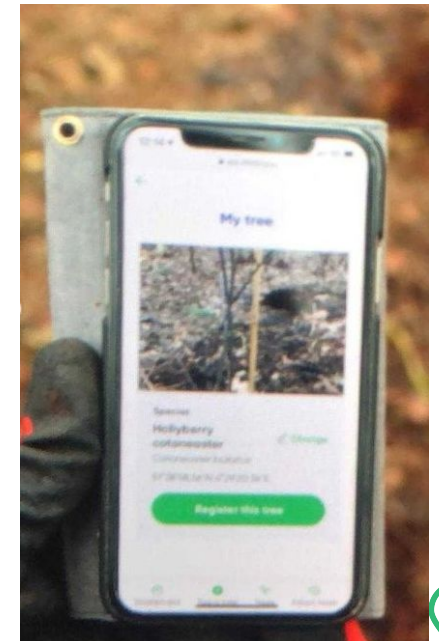


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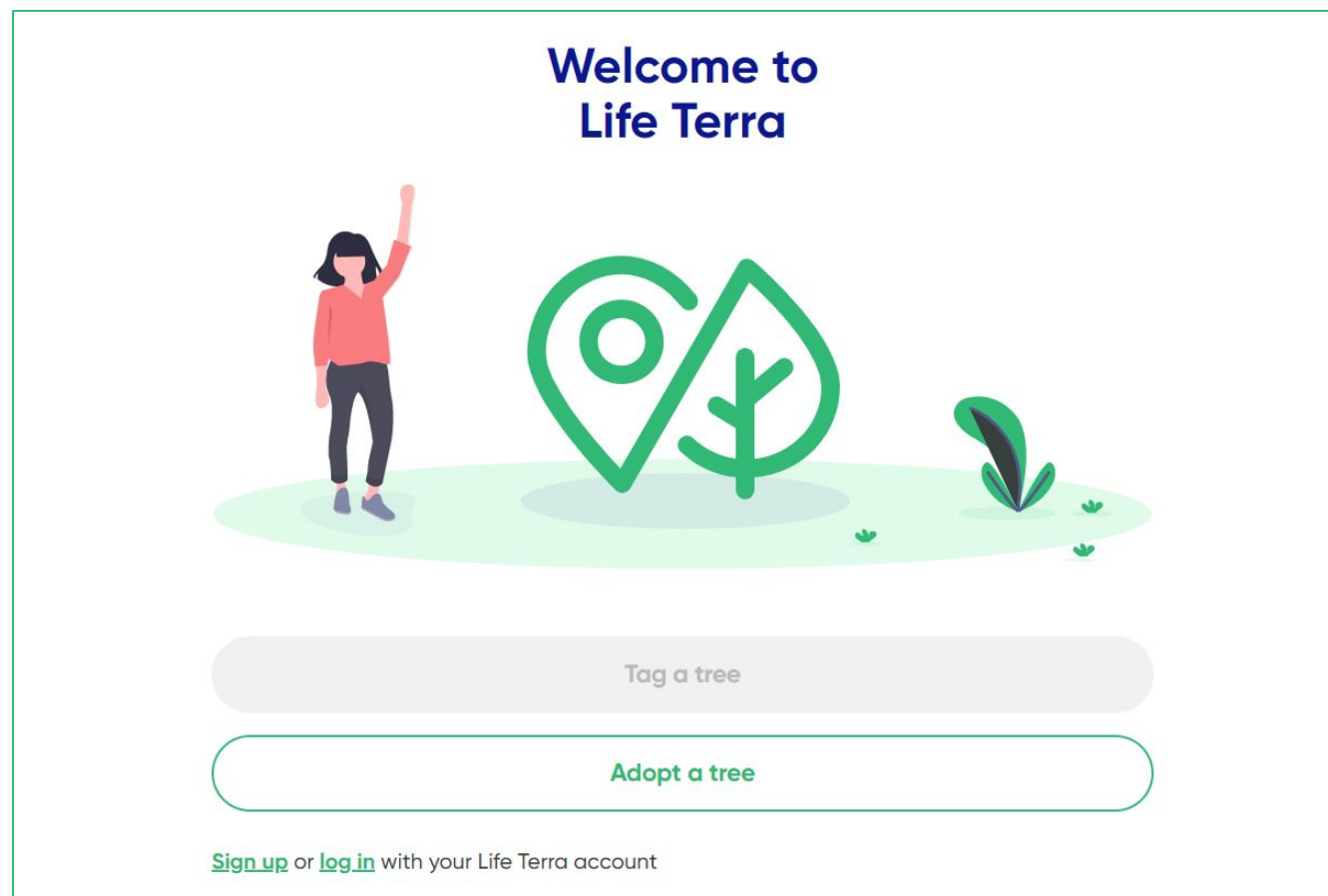
More info...



—

What our App can offer

(1st version: **ENG**, **ES**, **DE**)





Your personal Dashboard

The screenshot shows the LifeTerra app interface. At the top is the LifeTerra logo. Below it is a 'Menu' section with options: Dashboard (highlighted), Trees, Adopt trees, Account, My Account, and Sign out. The main content area is titled 'My overview' and shows 'You've got 79 trees' and 'Together we've planted 7103 trees'. Below this is a 'My trees' section with a map of Europe showing the location of the trees. At the bottom are three cards: 'Grow your forest' (with an 'Adopt a tree' button), 'Join a planting event' (with a 'See all events' button), and 'Give a tree' (with a 'Learn more' button). Callout boxes point to various elements: 'Adopt or Gift trees' points to the 'Adopt trees' menu item; 'Check our upcoming events' points to the 'Join a planting event' card; 'All trees planted (Life Terra & partners)' points to the '7103 trees' statistic; 'Your trees (planted, adopted or received)' points to the '79 trees' statistic; and 'Location of all trees' points to the map.

LifeTerra

Menu

- Dashboard
- Trees
- Adopt trees
- Account
- My Account
- Sign out

My overview

You've got **79 trees**

Together we've planted **7103 trees**

My trees

Map Satellite

Grow your forest
Adopt European trees to help restore the health of our planet. Grow and monitor your forest with us.

Join a planting event
Check the event calendar on our website for upcoming planting events in your region.

Give a tree
Surprise your friends, family, colleagues, clients or neighbours by giving a tree as a personal or company gift.

Adopt a tree

See all events

Learn more

Adopt or Gift trees

Check our upcoming events

All trees planted
(Life Terra & partners)

Your trees
(planted, adopted or
received)

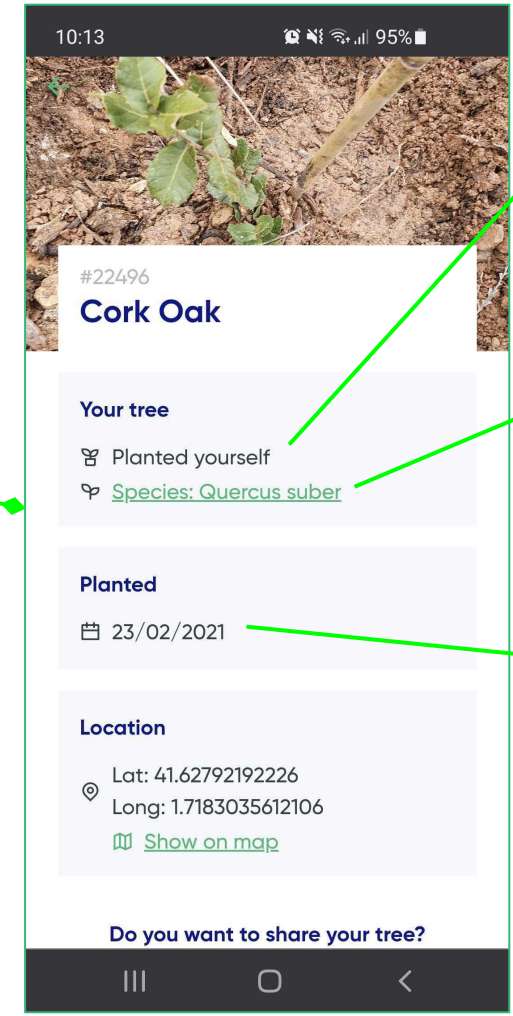
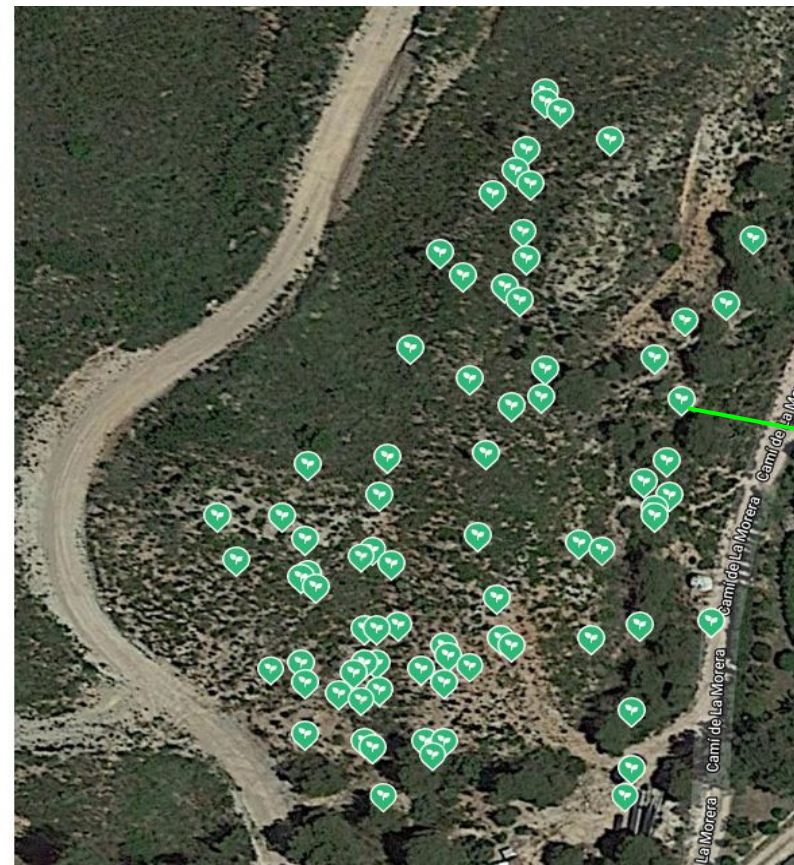
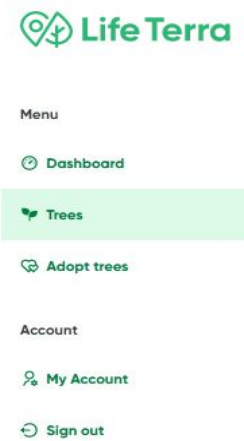
Location of all trees

<https://app.lifeterra.eu/en/events/29591>





Check more info about your trees



Planted by yourself, adopted or gifted?

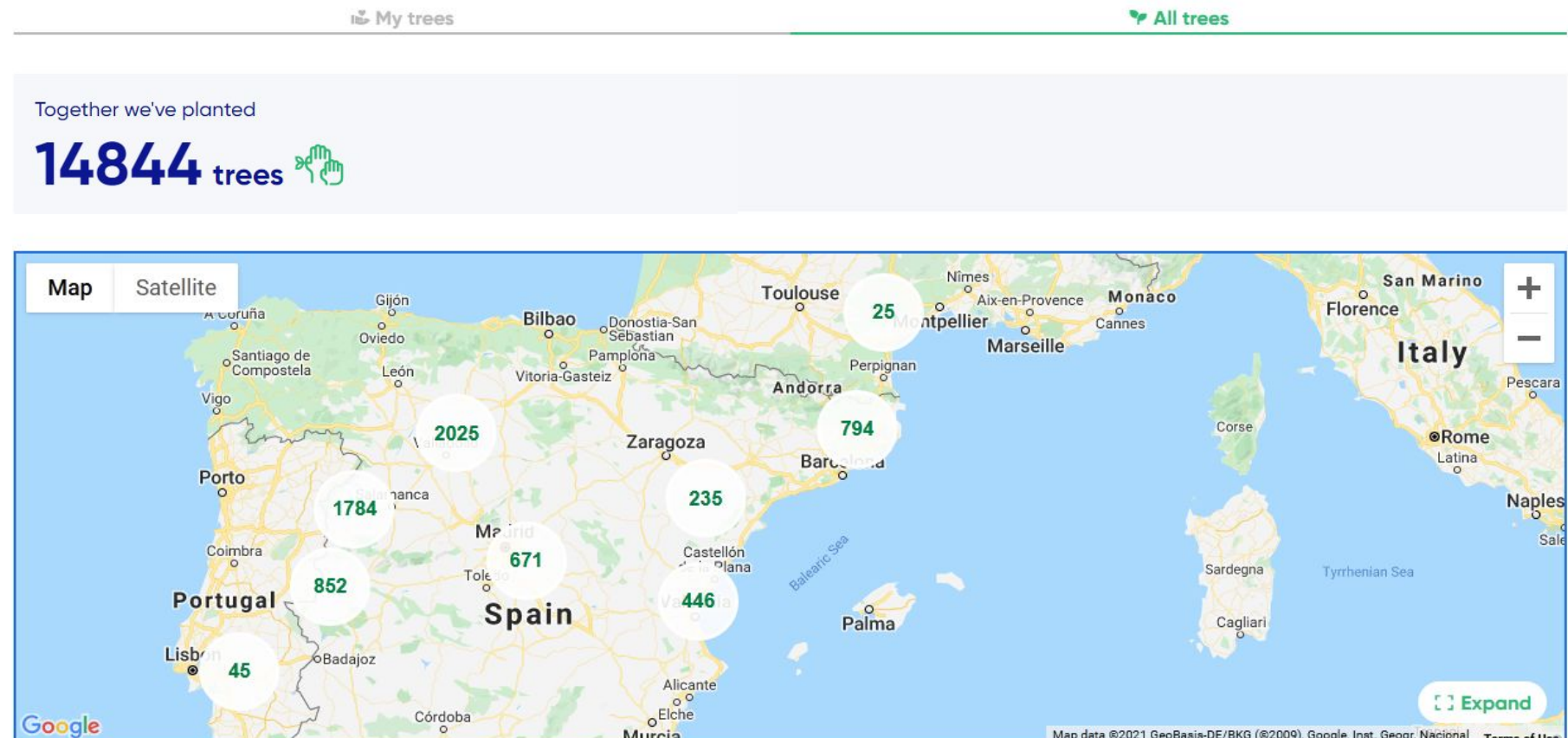
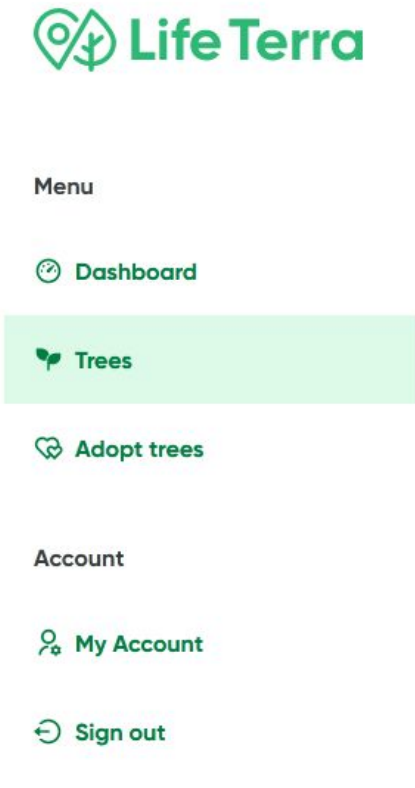
Info about tree species

Check when your tree was planted



Life Terra is fully transparent

Any user can check
where all our trees
are at any time



How to Adopt / Gift trees

LifeTerra My account

For whom are you adopting?

For myself

It's a gift

Dashboard Tag a tree Trees Adopt trees

Tell us if you are adopting a tree for yourself or you would like to gift trees to someone

Adoption options

How many trees do you want to adopt?

€25 / 5 trees

Sometimes trees need time.
Sometimes all planted trees are adopted already. But don't worry. You can still adopt trees and we will plant them for your as soon as the planting season starts. You will get notified by email once they're planted.

Start adoption

Dashboard Tag a tree Trees Adopt trees

Indicate how many trees you want

LifeTerra My account

Your order summary

Tree x5 €5

Total: €25

☒ I agree to the [Terms of Use](#), the [Refund, Delivery](#) and [Privacy policy](#).

How do you want to pay?

☒ iDEAL

Test Issuer 5

Continue to Test Issuer 5

Dashboard Tag a tree Trees Adopt trees

Select your preferred payment method

LifeTerra My account

Congrats! Your trees are adopted

5

You've adopted 5 trees today

Go to my trees

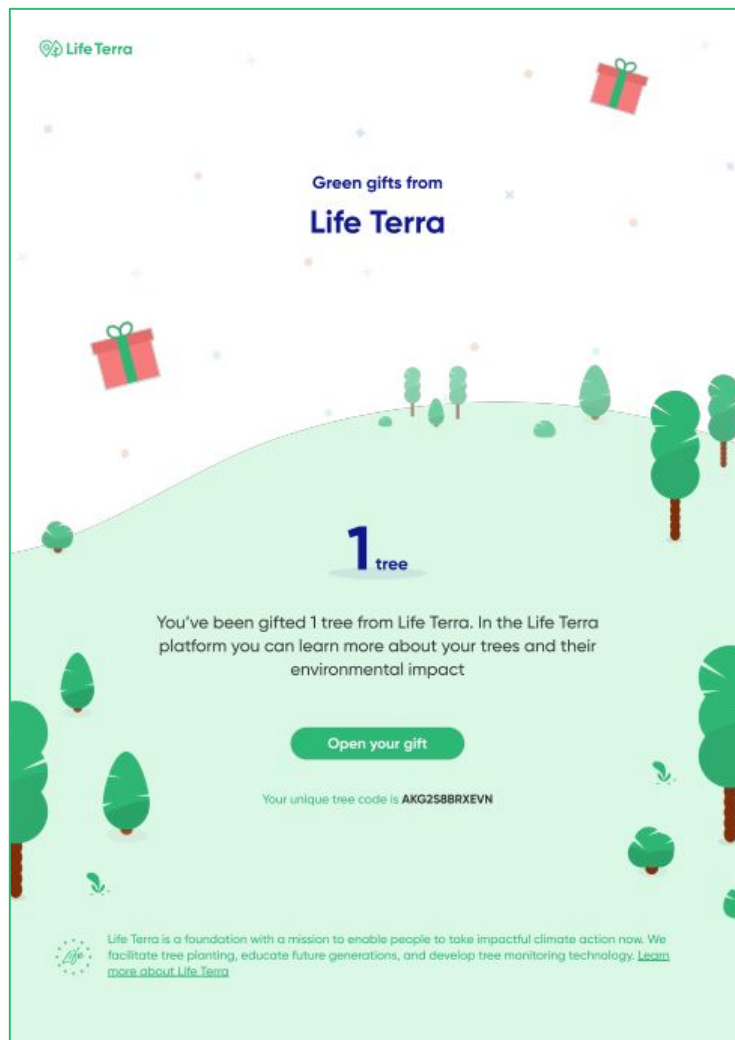
Dashboard Tag a tree Trees Adopt trees

That's it! Check your newly adopted trees in your dashboard



If gifting

In order to comply with all **privacy and data protection** rules, we are not allowed to send the Voucher directly to the giftee. Therefore, we will send you an email with the voucher attached in which you can send to the person you want to gift the trees.



Claim your trees



Your unique tree code

AKG2S8BRXEVN

Claim gifted trees

About the project

Life Terra is a foundation with a mission to enable people to take impactful climate action now. We facilitate tree planting, educate future generations, and develop tree monitoring technology.

Learn more about Life Terra

By clicking on the button "Open your gift" in the voucher the gift receiver can redeem their tree(s)





Life Terra

LET'S PLANT TOGETHER



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LET'S PLANT TOGETHER



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Plant Trees. Grow
Forest. Restore Earth.

#climateactionnow



Climate Change: the greatest challenge of this century

- Action is needed on many fronts, but reality is showing that industry and some governments are slow to act
- If we don't take immediate action, the consequences will be disastrous for ecological and industrial systems alike



About Life Terra: 500 million trees by 2025

Life Terra is a foundation with a **mission** to restore our connection with the Earth and to enable people to take impactful climate action now.

We facilitate tree planting, educate future generations, and develop tree monitoring technology.



Our goals for 2025

We are ambitious because we know that the world needs massive
#climateactionnow



500

Million trees planted



3.536.423

Tons CO2 captured



1.350.000

Citizens involved



14.000

Classrooms participating



What makes us unique



Plant the right tree in the right place, share knowledge and expertise



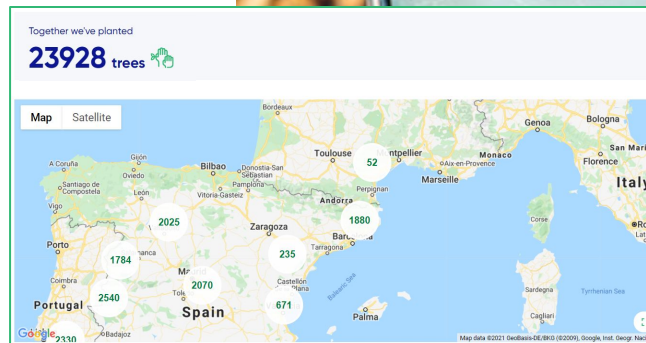
Monitor each tree planted, with our unique tracking system



Educate future generations, about sustainability and climate change



Build communities, because planting trees impacts society at large



Strong pact



We are proud to work with a consortium of 16 partners from 8 EU countries that bring together expertise, knowledge and network in implementation, technology, education and communication. Our project is approved and supported by the European Commission through the LIFE programme.



Our Education strategy





Education

Life Terra is developing a STEM-based course to educate children aged 8-14 on sustainability.

Pupils will...

- learn about climate change
- explore their creativity to find CC solutions
- know how to take Climate Action
- share their knowledge
- plant trees
- participate in an EU exchange programme

Gynzy

**European
Schoolnet**



UNIVERSITAT DE
BARCELONA



The Life Terra Course



Climate change

Theme 1 - Ages 11-14



The Life Terra Course



■ What our course can offer

- Sustainability (8) thematic blocks
 - Independent but **interlinked**
- Based on scientific knowledge (UB)
- Proactive approach
 - *Problems*
 - *Existing solutions*
 - *What can I do myself?*
- For children ages **8-10** & **11-14**

- 
1. Climate change
 2. Energy transition
 3. Waste
 4. Circular economy
 5. Water
 6. Agriculture
 7. Air quality
 8. Trees

- In 7 languages: **ENG**, **NL**, **DE**, **ES**, **IT**, **PT**, **GR**... and more to follow!



The Life Terra Course



■ What our course can offer

- Interactive, online contents
 - In the classroom OR
 - Remote teaching
- Outdoor activities
- Diploma of completion
- Create your “**Class Project**”
 - *A solution to an environmental issue*
 - National and EU-level contests
- The EU Green Week
- EU eTwinning exchange

1. Climate change
 2. Energy transition
 3. Waste
 4. Circular economy
 5. Water
 6. Agriculture
 7. Air quality
 8. Trees
- + Introductory session
- + Closing: **planting trees!**



The Life Terra Course



■ An opportunity for teachers across Europe & around the world

- Guidance for teachers:
 - Teacher manual
 - Worksheets + Answer keys
 - Instructions to use the IDW
- We measure our impact
 - Student questionnaires (pre/post)
- We apply your feedback
 - Teacher surveys (pre/post)
- Tailored & continuously upgraded
 - Add/remove content
 - Add a new language



The Life Terra Course

Work in progress...

- **50+ teachers** from 24 countries are trialling our course - pilot version
- Feedback is being collected from participating teachers (EUN)
- Contents are being finalised (Gynzy) & revised by experts (UB)
- Partnerships with educational organisations are being arranged
- The **Final version of the Life Terra Course** will be ready:
 - **ENG & NL** - by summer 2021
 - Other languages - by the end of the year

If interested...



Thanks for your attention!

Any questions?

Join us

Please contact:

education@lifeterra.eu

Join in

Videos by Life Terra

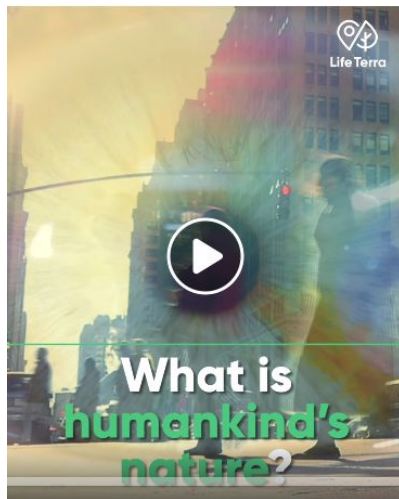
About Life Terra



Upcycle Face Masks



Biodiversity



7 Reasons why



[Facebook](#)
[Twitter](#)
[Instagram](#)
[LinkedIn](#)



Support the UN Sustainable Development Goals

4 QUALITY
EDUCATION



8 DECENT WORK AND
ECONOMIC GROWTH



11 SUSTAINABLE CITIES
AND COMMUNITIES



13 CLIMATE
ACTION



15 LIFE
ON LAND



17 PARTNERSHIPS
FOR THE GOALS





Life Terra

LET'S PLANT TOGETHER



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SPOW06

The Right Tree in The Right Place





Activity: how to organise a planting event with your class

Sabine Lieb & Aroa Gregori
Stichting Life Terra





BEFORE the event

Land

- Finding available land by leveraging our extended network!
- Connection, proximity, access → sentiment of ownership
- Suitability analysis (“The Right Tree in The Right Place”)
- Land preparation (landowner)



Knowledge

- Previously completed Life Terra Course
- Connecting tree planting experience with theoretical knowledge
- Discussing and sharing the list of possible species (familiarity)
- Pointing out specific features of each species for distinction
- Becoming familiar with “how to plant a tree”



BEFORE the event

Participants

- Children of a minimum age of 8 years
- Authorization (signatures) from parents
- Involve parents, e.g. a follow-up Family Planting Event

Entertainment / fun games

- The 'tree dance' to remember species
- Naming one's tree
- "Which tree would I be?"
- Brainstorming "what does a tree need to grow"
- Quiz / challenge / competition



BEFORE the event - Checklist

Send to event leader

- List of participants & information about special needs
- Authorization from the parents, both participation & photos

Receive from event leader

- Location & meeting point
- List of tree species
- Instructions “how to plant a tree”
- Short checklist of what to bring (water!, food, appropriate attire)

Other

- Organising transport for the class
- Forwarding invitation & checklist



DURING the event



Equipment provided:

- Planting material: trees, gloves, tools, etc.
- First aid kit, disinfectant hand gel, extra masks, etc.
- Bags for rubbish/recycling



DURING the event



Tasks:

- General support to event leader (division into smaller groups, accompanying the process)
- Leading the games
- Surveilling and correcting the planting
- Checking that children keep their belongings
- Keeping the land free from waste
- Taking pictures / videos; ending with a group photo!
- Possibility to try out the tree tagging app





AFTER the event

- Feedback & evaluation
- Sharing pictures / videos with permission from participants and parents
- Keeping children engaged:
 - E.g. Follow-up Tree Caring Events (check planted trees, water them, remove protectors...)
 - Create your own Class Project



Which challenges do you see?

Use “raise hand”-icon



Challenges - Foreseen

- Timing:
 - a) planting season/school holidays!
 - b) lesson times?, weekdays or weekends?
- Location: distance between school & planting site
- Strengthening long-term engagement
- Expectation management (tree survival rate)
- Safety measures & Covid-Protocol



Thanks for your attention!

Join us

Please contact:
education@lifeterra.eu

Join in

Any question?



Life Terra

LET'S PLANT TOGETHER



LIFETERRA.EU







SPOW06

The Right Tree in The Right Place



Life Terra



LIFE 19 CCM/NL/1200



Planting 500 million trees by 2025 in Europe & 10 billion globally by 2030

Why trees and which tree



Santi Sabaté

University of Barcelona and CREAF

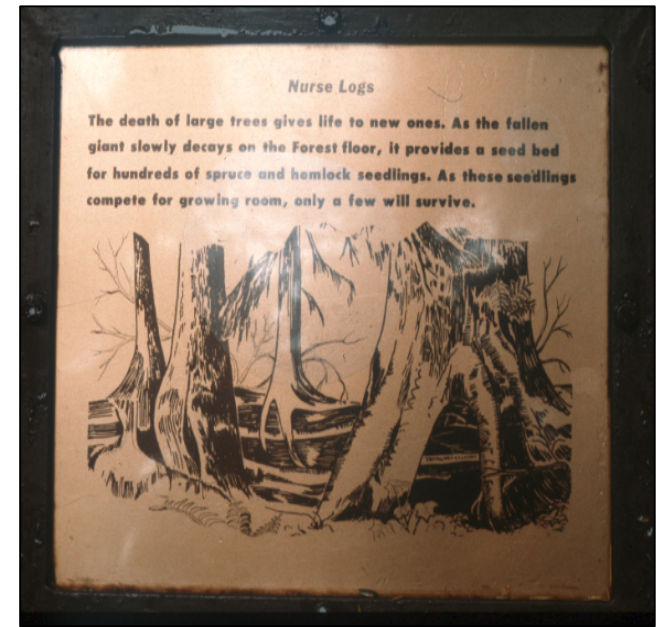


STEM Discovery Campaign 2021 - SPOW06 Life Terra Workshop (8, 15, 22 April 2021)

STEM: science, technology, engineering and mathematics.

SPOW: Science Projects Online Workshops

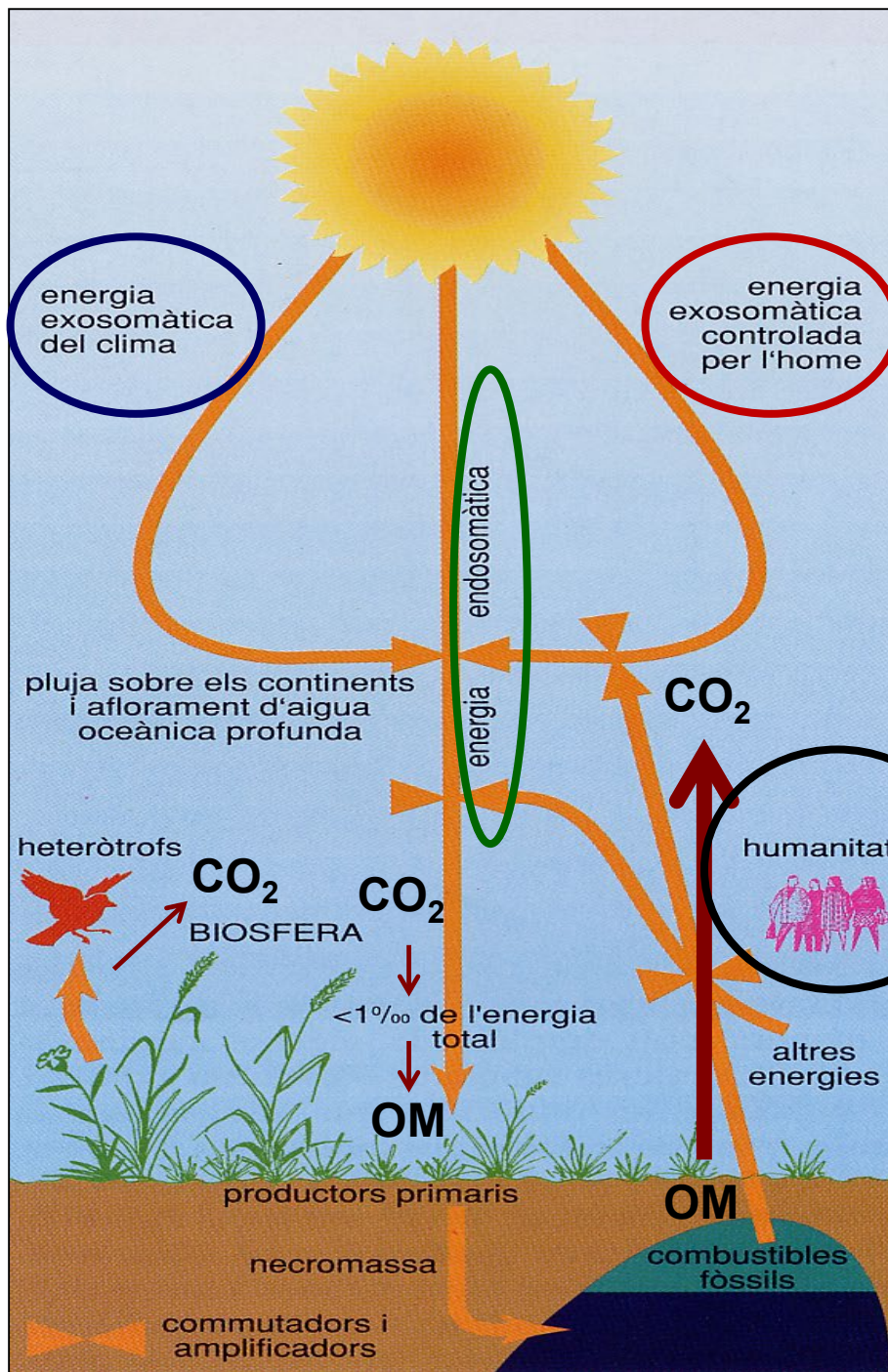
No just trees but ecosystems, ecosystems' processes,
but at a long term goal



Why trees and which tree

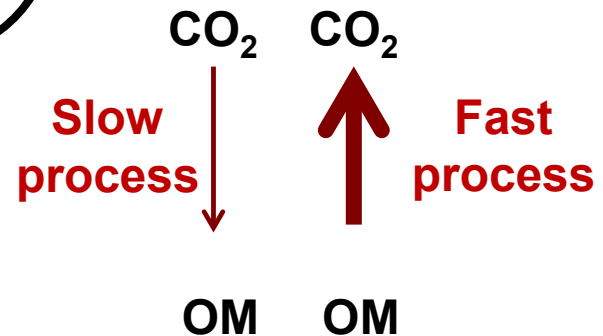


- **Climate change benefits from trees and forests** (why we want to plant trees?)
- **Which species to choose to plant trees in the EU** (in different countries: which criteria to follow, where to find information, trees to plant and trees to avoid etc.)
- **Why we must monitor planted trees** and why we must keep for 40 years at least. (also from CC point of view)



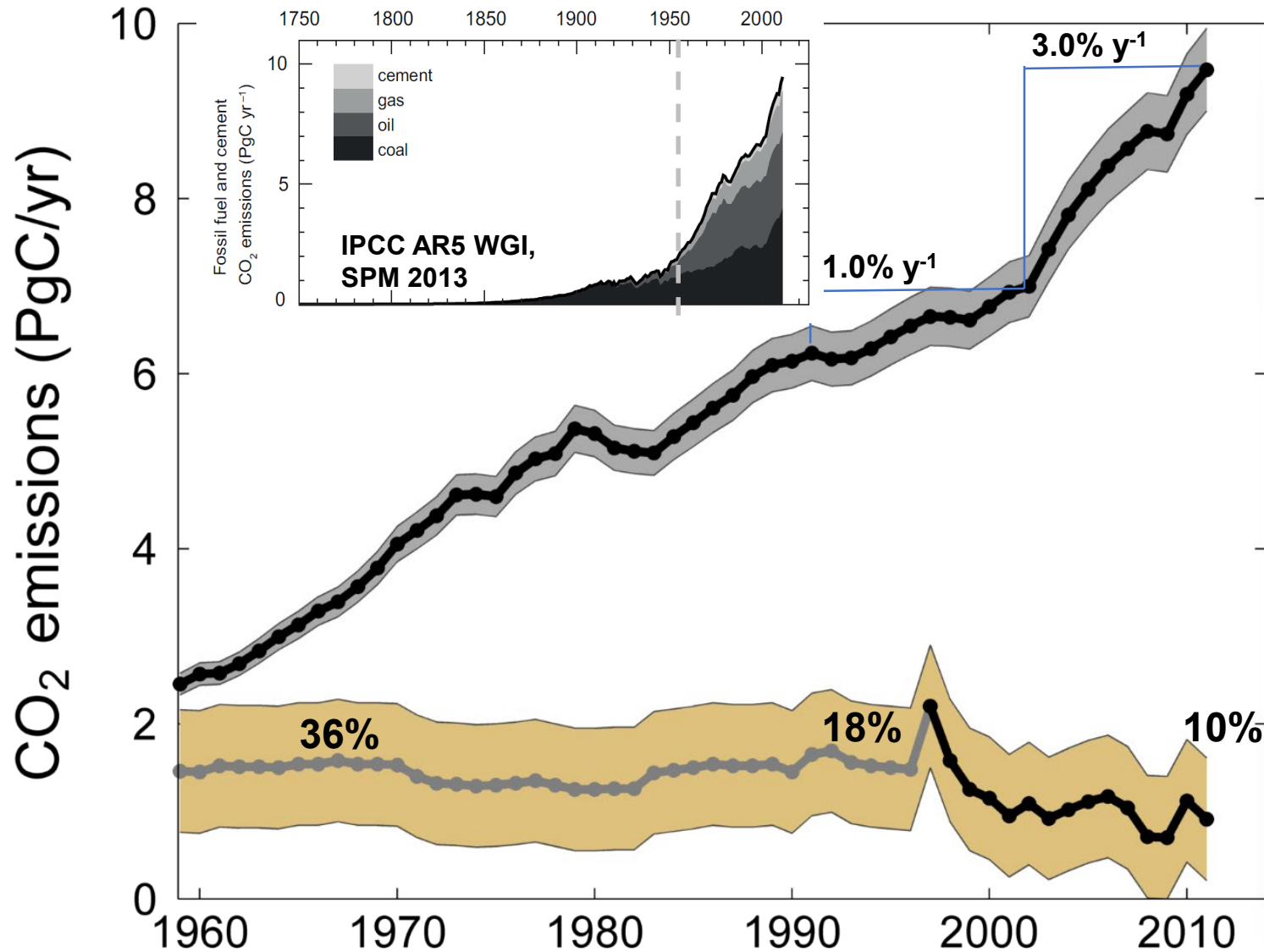
Getting into the picture

**What has happened?
and
What is happening?**



(Modificat/Adaptat de Margalef a "La Biosfera" Vol 1, Enciclopedia Catalana)

Emissions Antropogèniques de CO₂



9.7±0.5 PgC



0.9±0.5 PgC



Charles D. Keeling curve

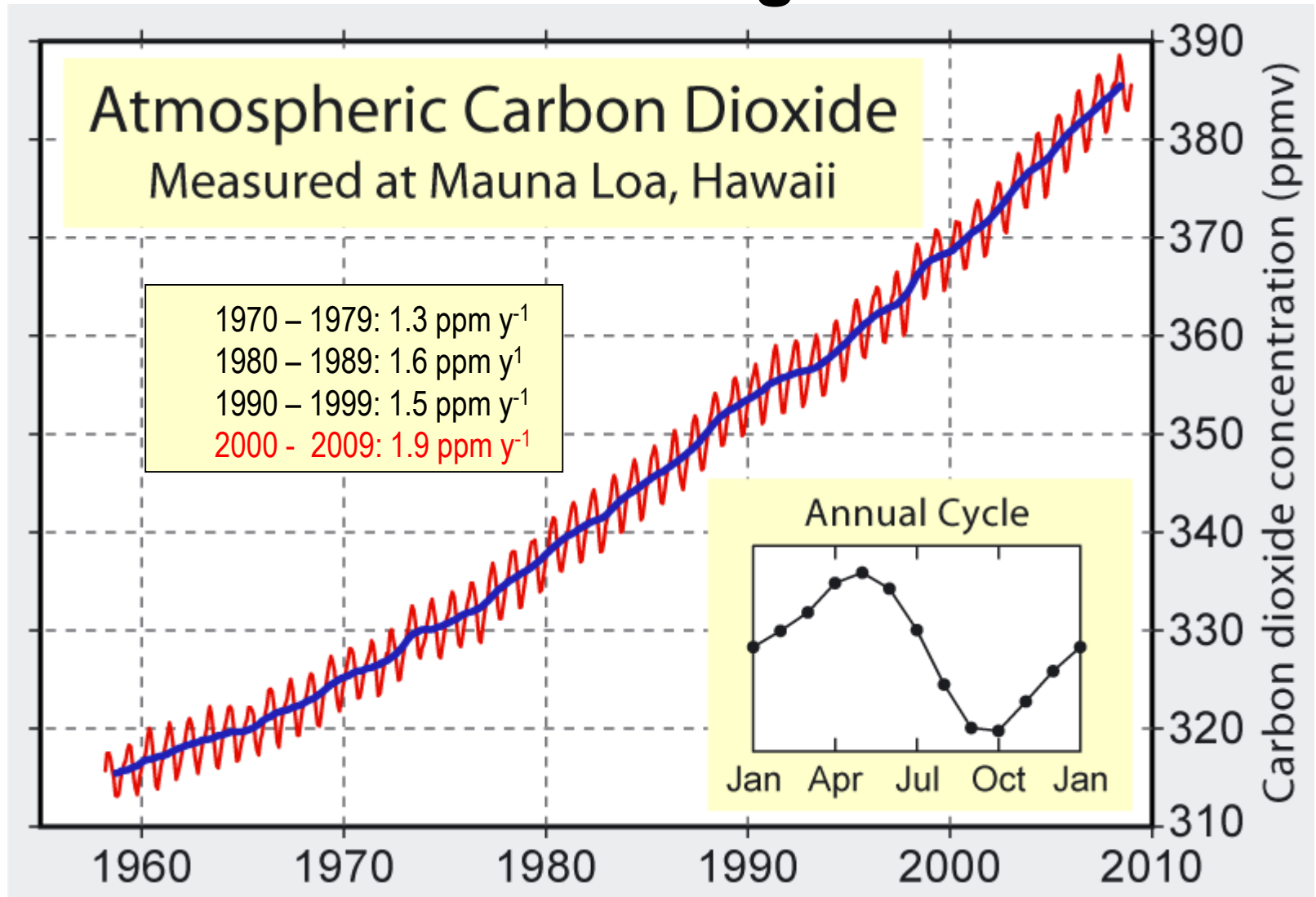


Figure created by Robert A. Rohde from published data.

Fate of Anthropogenic CO₂ Emissions (2002-2011 average)

8.3±0.4 PgC/yr 90%



1.0±0.5 PgC/yr 10%



4.3±0.1 PgC/yr
46%



2.6±0.8 PgC/yr
28%

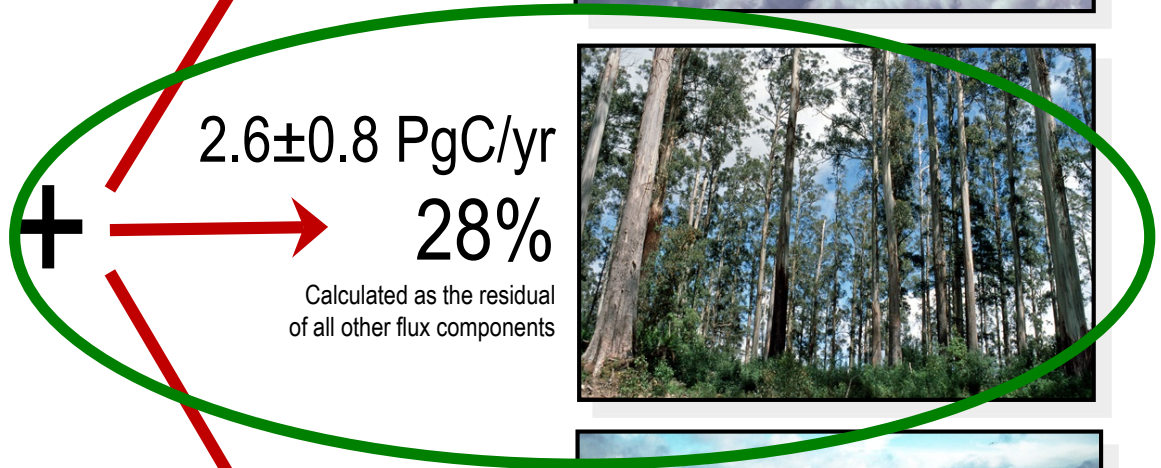
Calculated as the residual
of all other flux components



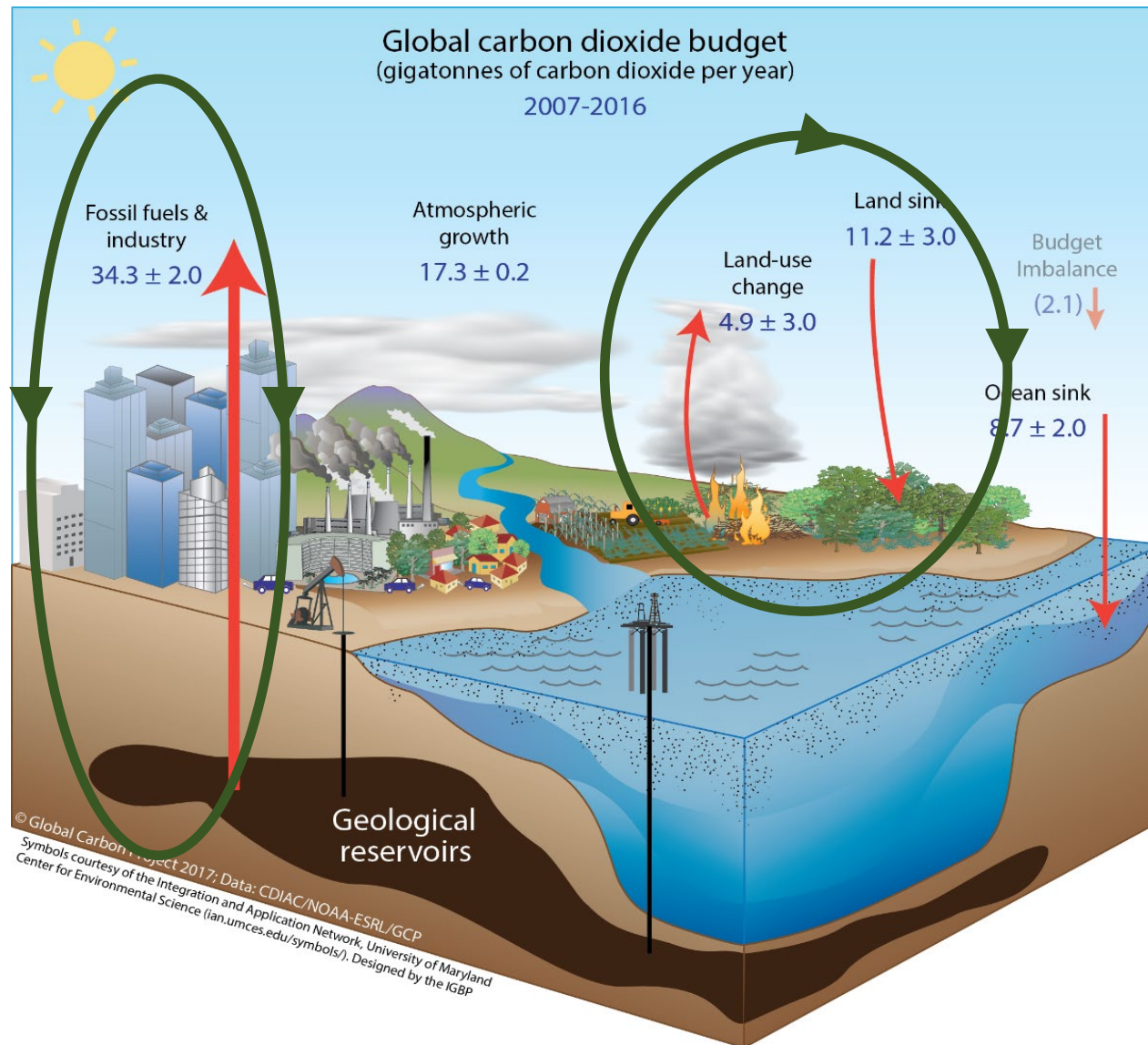
2.5±0.5 PgC/yr
26%



+



Anthropogenic perturbation of the global carbon cycle

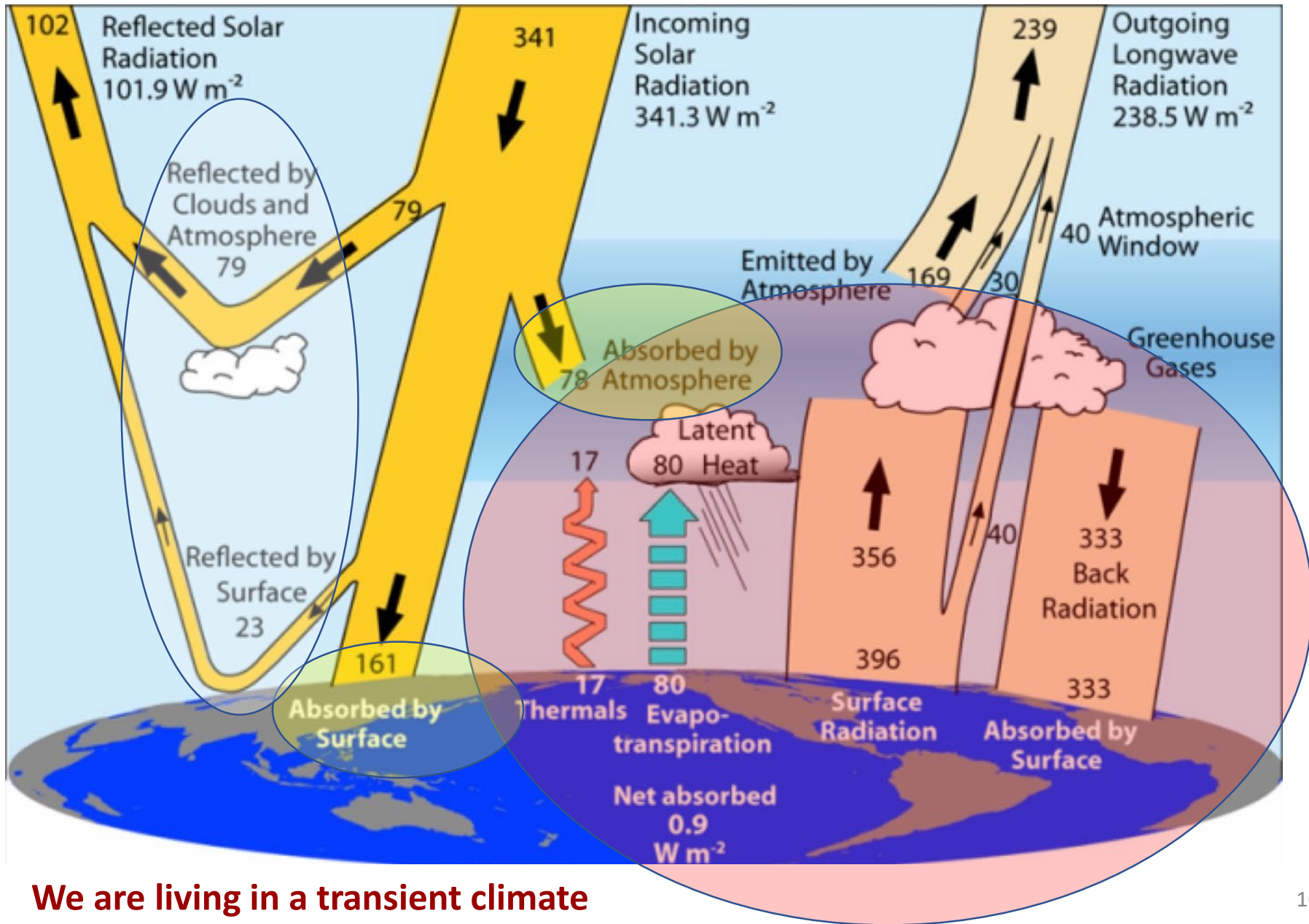


Perturbation of the global carbon cycle caused by anthropogenic activities, averaged globally for the decade 2007–2016 (GtCO₂/yr)

The budget imbalance is the difference between the estimated emissions and sinks.

Source: [CDIAC](#); [NOAA-ESRL](#); [Le Quéré et al 2017](#); [Global Carbon Budget 2017](#)

Changing Earth global energy balance (W/m^2)



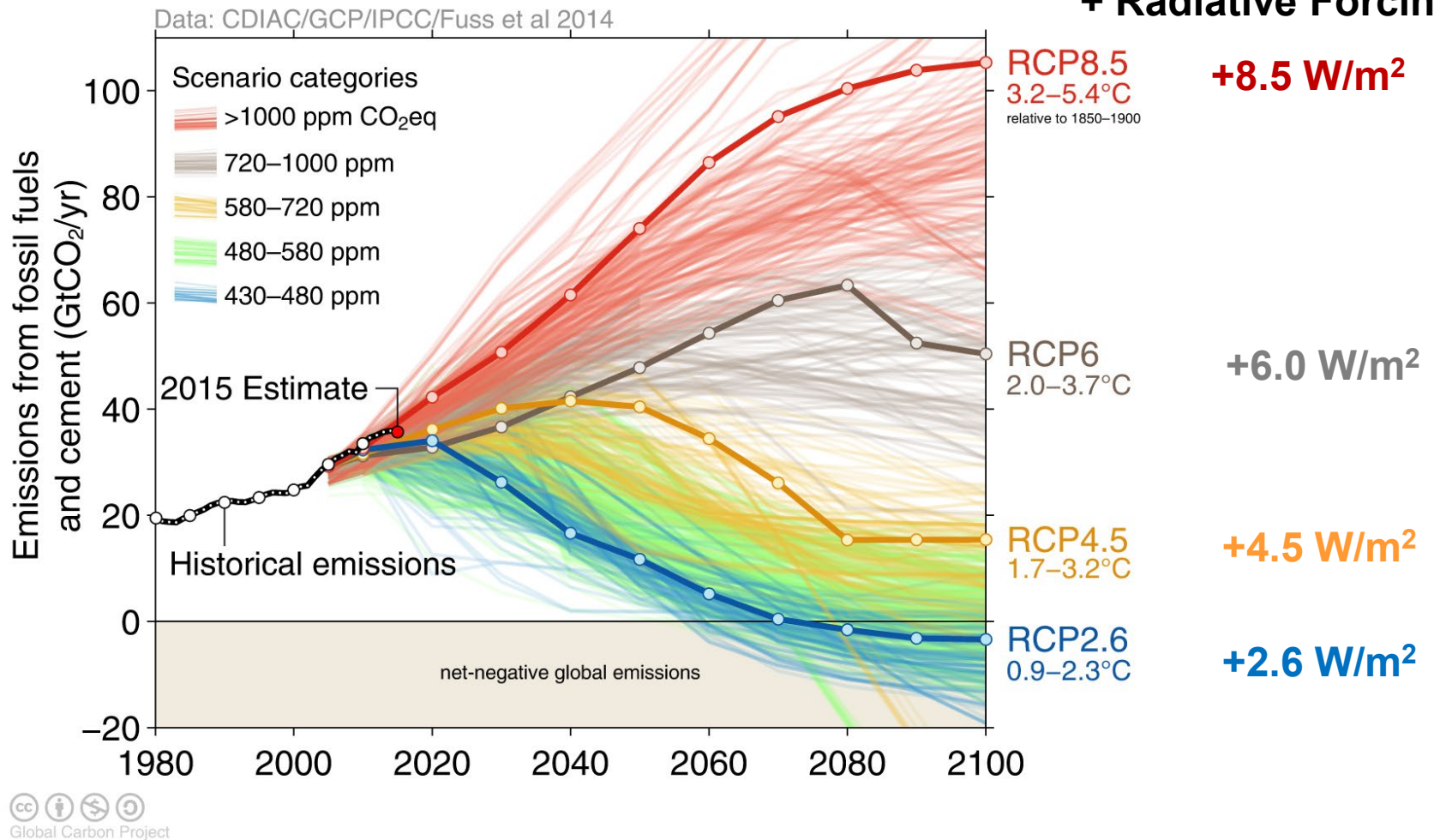
We are living in a transient climate

How much? The future is not written yet!

Thus, so much to do!



+ Radiative Forcing



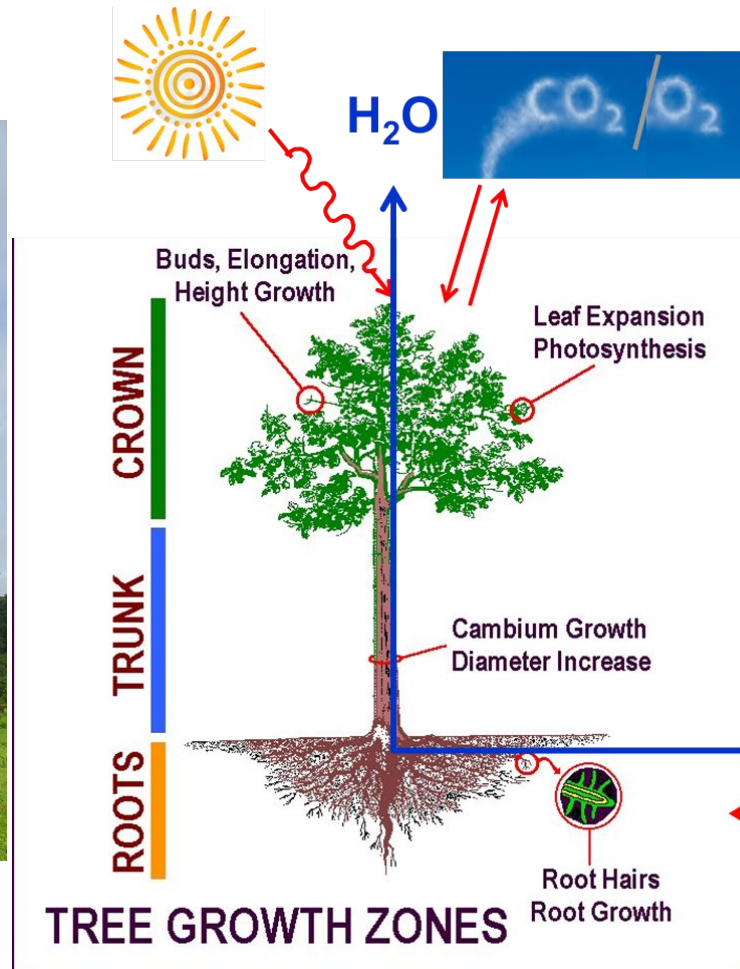
Over 1000 scenarios from the IPCC Fifth Assessment Report are shown

Source: [Fuss et al 2014](#); [CDIAC](#); [Global Carbon Budget 2015](#)

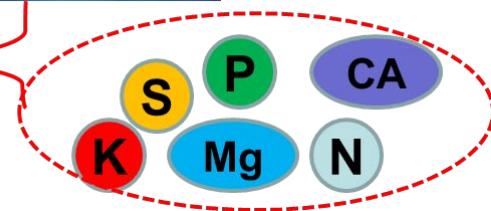
We are living in a transient climate

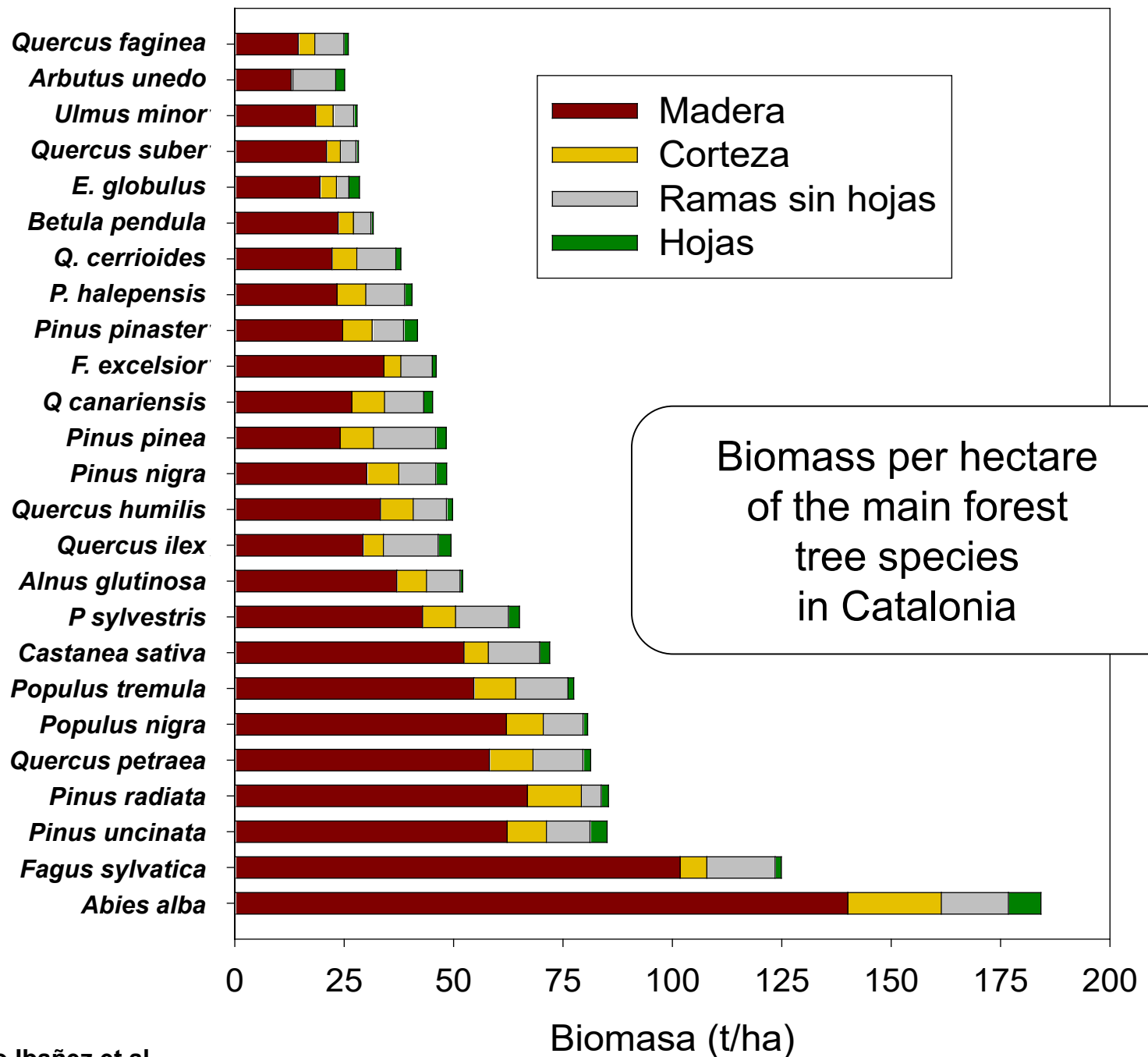
Building up Carbon stocks

But choosing appropriate species for different conditions



Different plant traits for different environmental conditions





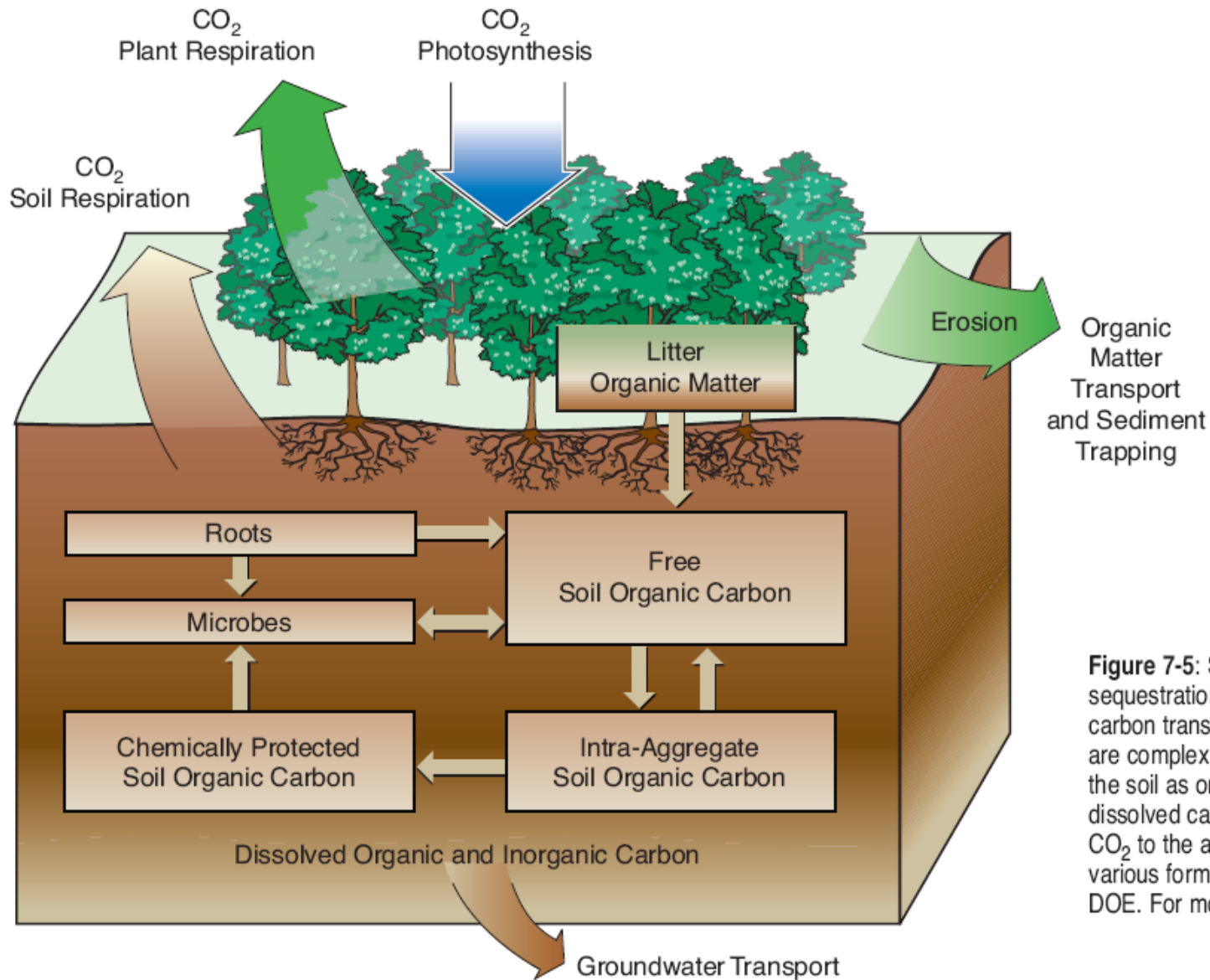
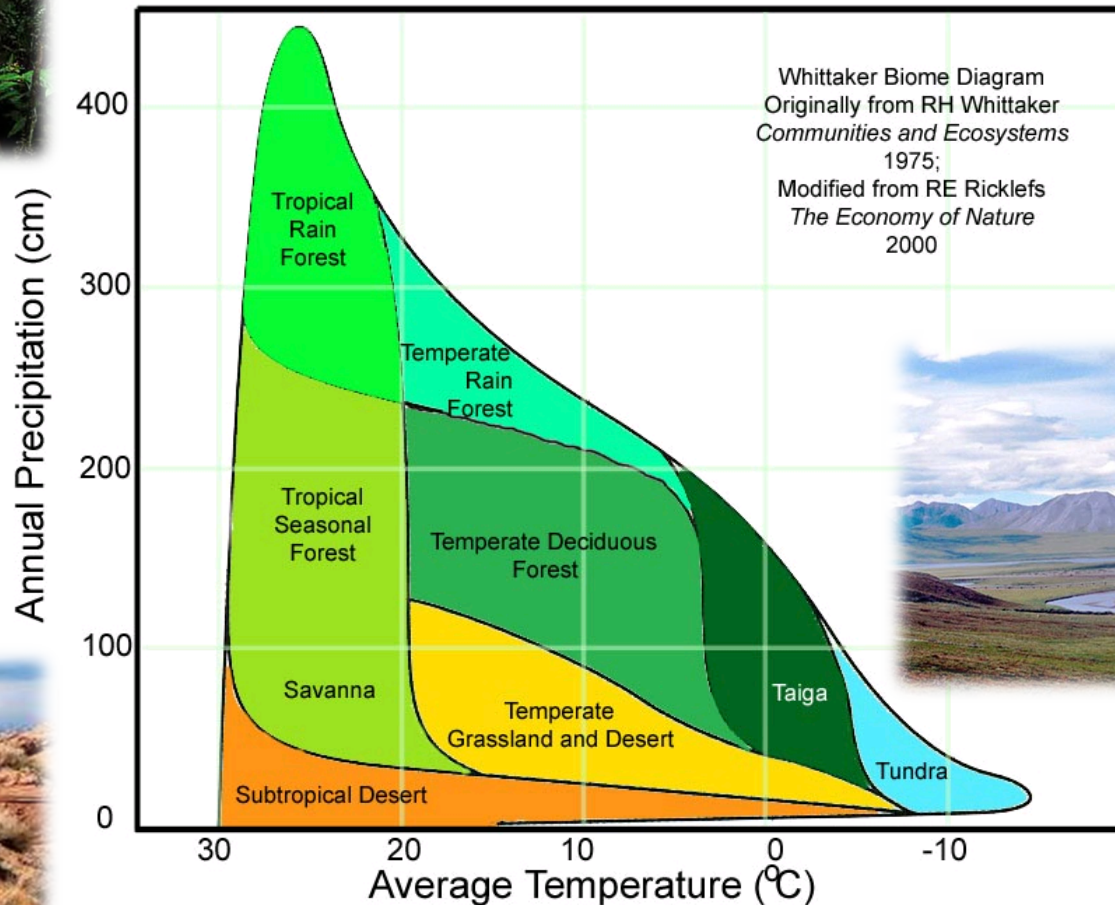


Figure 7-5: Soil processes influence carbon sequestration and transport. The dynamics of carbon transformations and transport in soil are complex and can result in sequestration in the soil as organic matter or in groundwater as dissolved carbonates, increased emissions of CO_2 to the atmosphere, or export of carbon in various forms into aquatic systems. Source: DOE. For more information, see Annex C.

Restoring Landscapes and ecosystems, not just trees

**Climate is key
(temperature + water availability)**

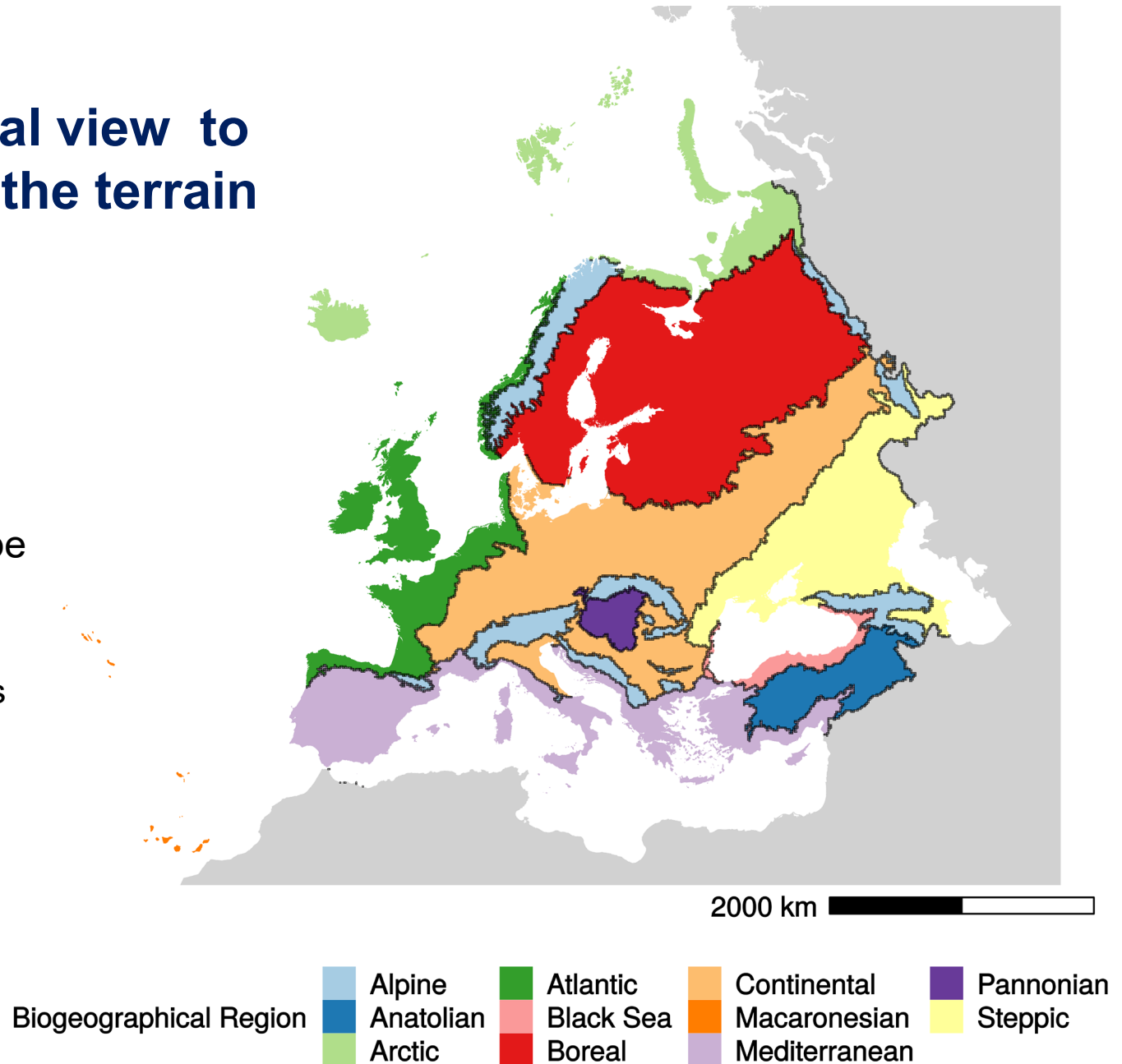


From the global view to the details on the terrain

An example for Europe

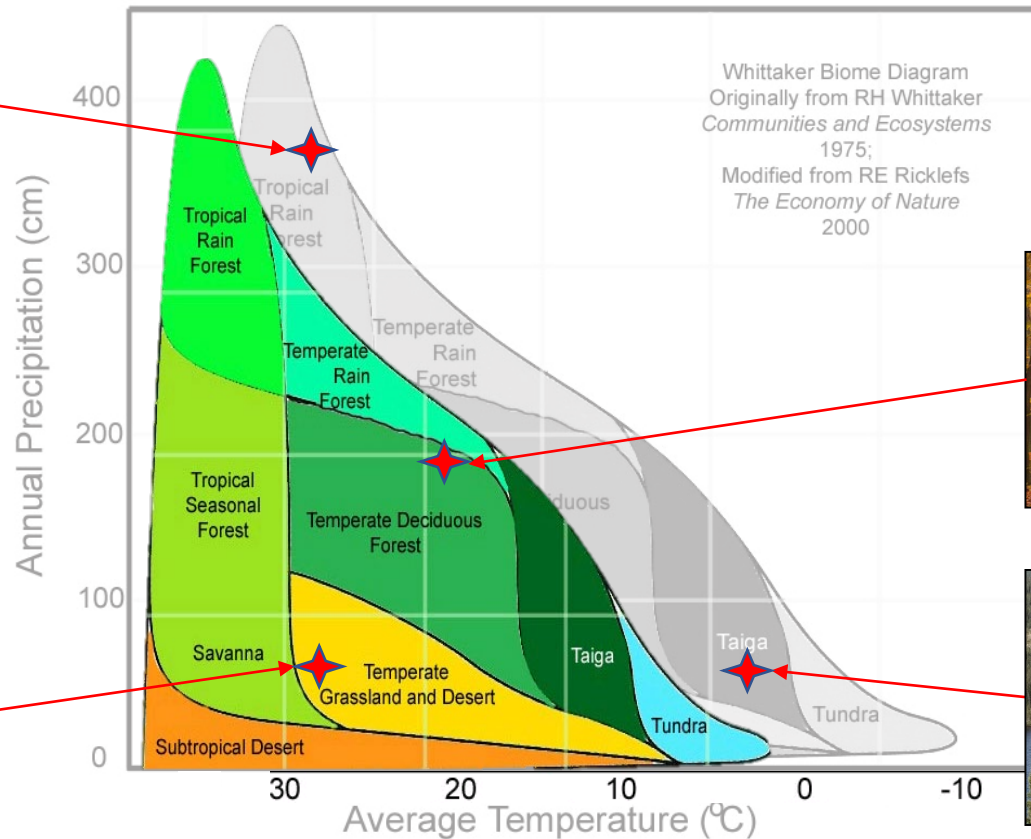
A grid-based map for the Biogeographical Regions of Europe

Cervellini et al 2020
Biodiversity Data Journal

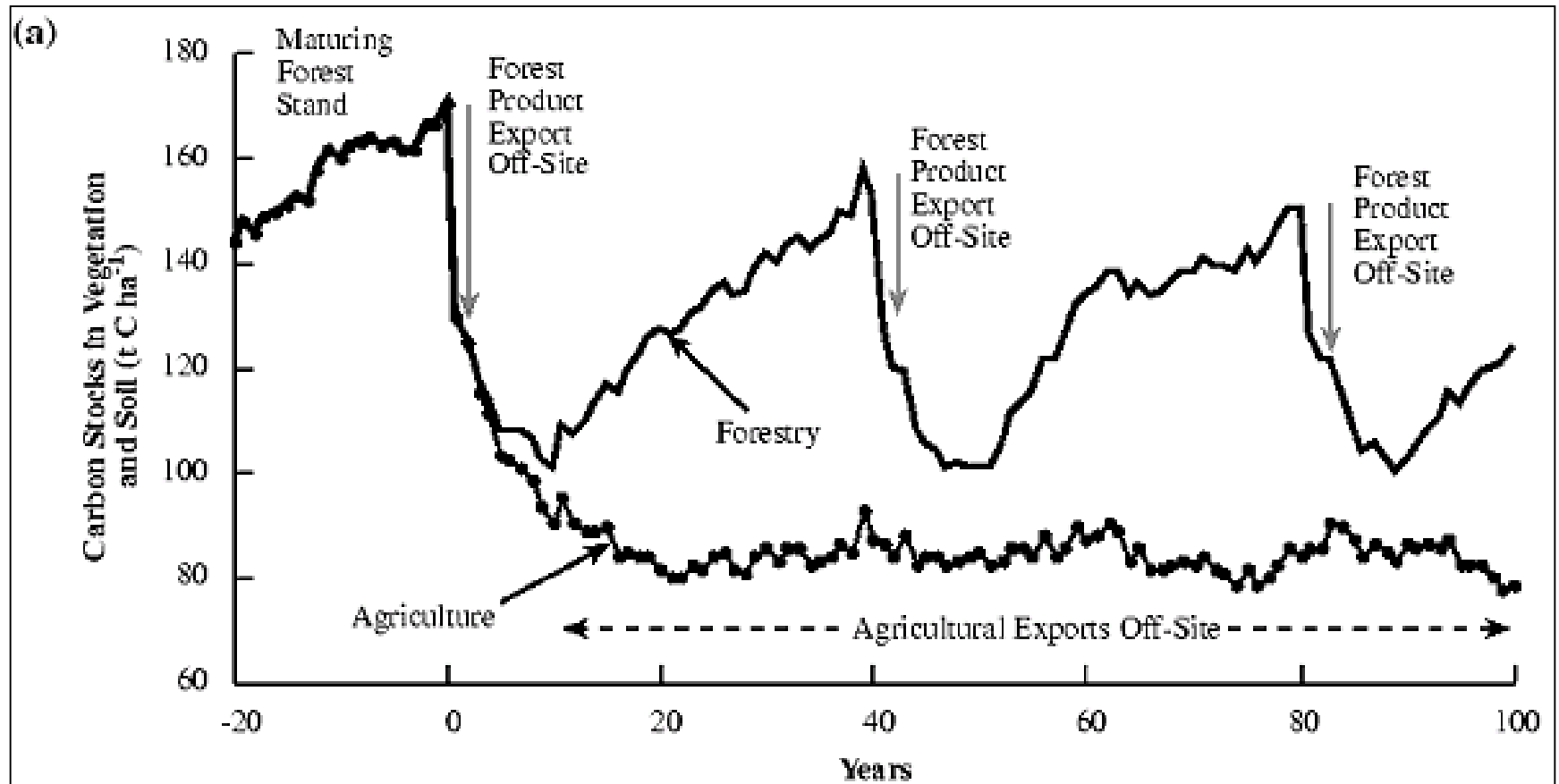


Restoring Landscapes and ecosystems, not just trees, but a challenge given the transient climate

Getting out of place!!



Keeping carbon storage Few years? Is not enough!!



Example of expected temporal evolution of mean annual carbon stocks



Challenges in many world ecosystems

Main Disturbances:

Snow & Ice

Wind

Insects

Wildfire

Drought

Pathogens





LifeTerra

To keep in mind!



UNIVERSITAT DE
BARCELONA

Our Core Principles and challenges (in short)

1. **Transparency** - Creating tools to make planting initiatives measurable and visible.
2. **Biodiversity** - Life Terra plantings will be multispecies, to ensure mixed forest stands and rich, biodiverse ecosystems. Species that are right for the area.
3. **The right tree in the right place** - an “ecosystem-based approach”. We consider all the conditions of a terrain and its surrounding area. To ensure that the restoring lands need trees.
4. **Trees are not enough** - alone cannot halt the climate crisis. We all need to take action, prioritizing sustainable agriculture, the circular economy, green energy, and biodiversity.
5. **Knowledge is power** - essential to educate the next generation providing them the knowledge and tools they need.
6. **Sustainability** - Survival tree success by working with landowners committed to maintaining their new trees over the long term to take full advantage of their carbon capture potential.
7. **Green procurement** - Our suppliers: organizations that have social and environmental goals in addition to their financial ones.