



# ECOTREE

Boost the growth of trees and facilitate forests to  
regreen again



# About



- EcoTree is an ecological startup, that accelerates tree photosynthesis to expand green areas and regreen areas that used to be green for municipalities and individuals by applying both catalyst and bacterias. Irrigation the roots of trees with a biohybrid photocatalyst via automatic drones saves not only time but also cost for a customer. Moreover, customers will be able to track the tree growth from a mobile app in the future.



**COST AND TIME ARE MAIN ASPECTS OF ITS  
EFFECTIVENESS**

# PROBLEM



## Problem 1

When cutting of the trees is fast, we are lack of trees



## Problem 2

A government is not able to track tree growth

# SOLUTION



## **Solution 1**

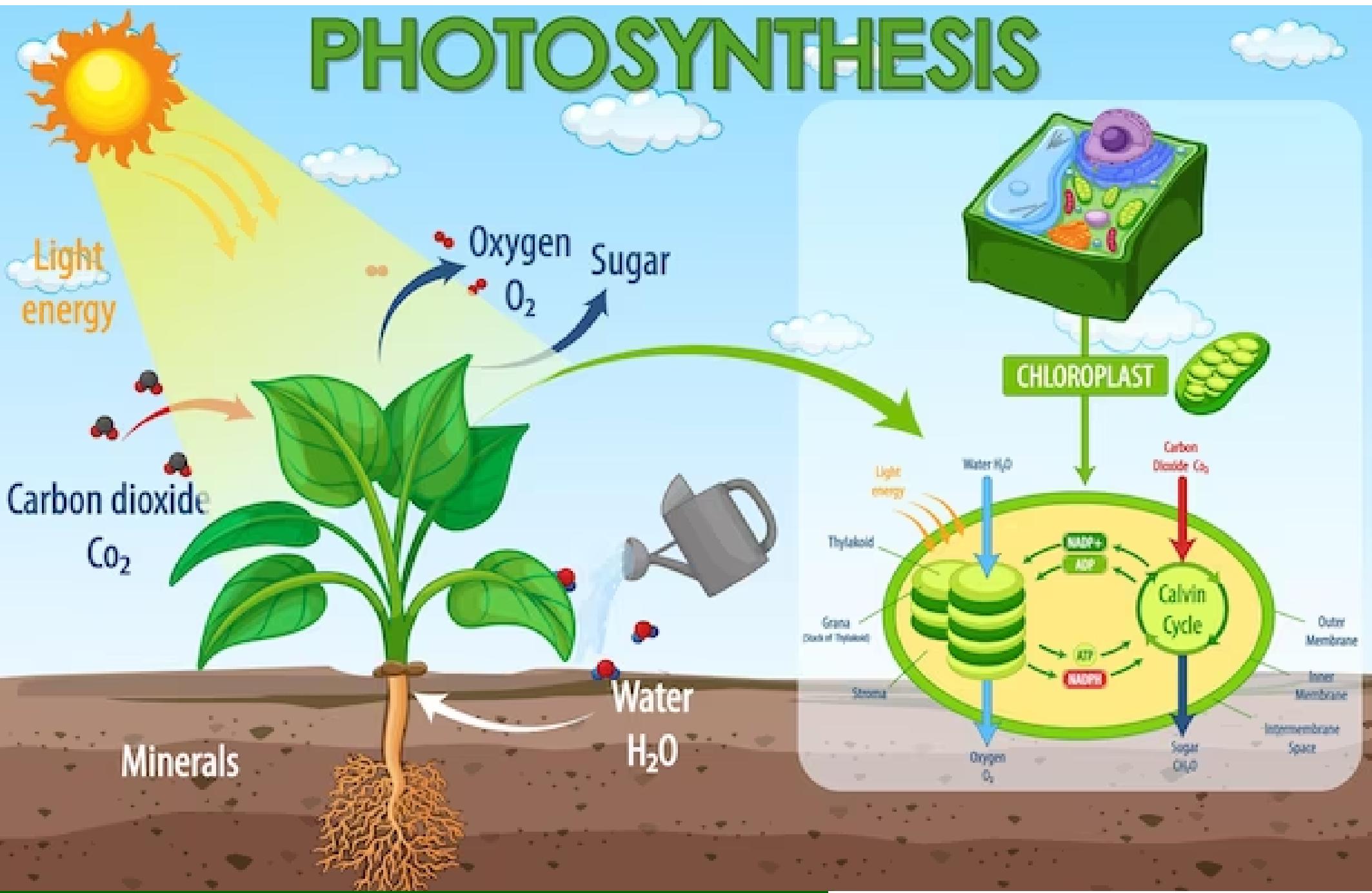
Feeding the roots of trees with a catalyst solution



## **Solution 2**

Recording with a database and statistics of the growth of each tree

Important to  
note



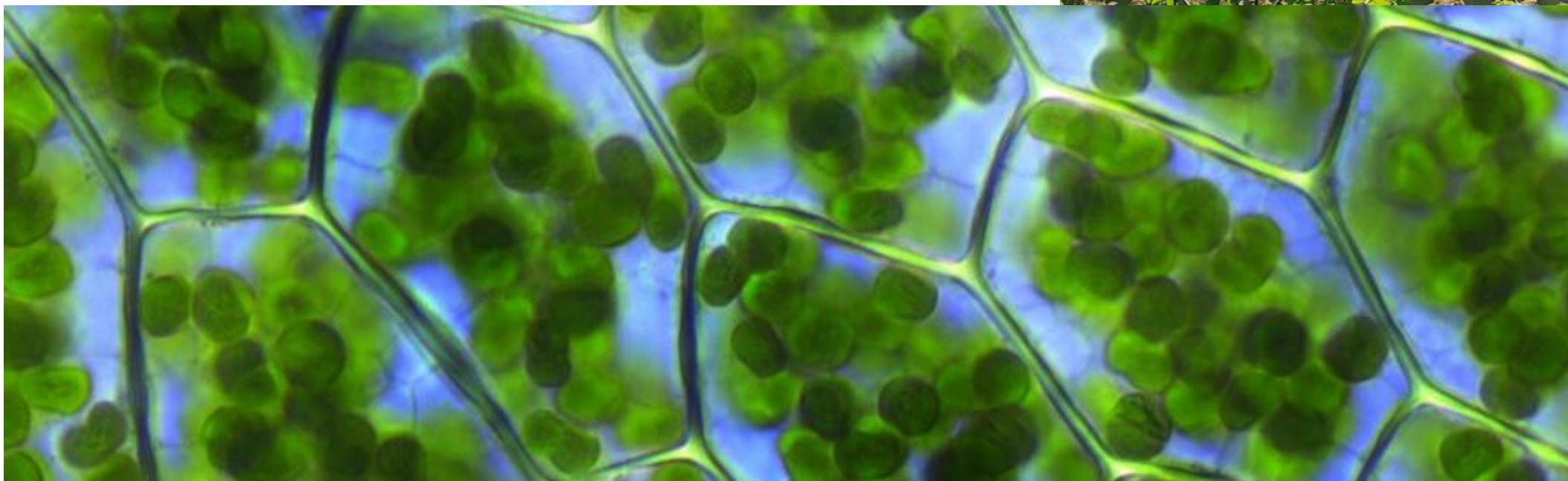
# Photosynthesis

Photosynthesis, the process by which green plants and certain other organisms transform light energy into chemical energy. During photosynthesis in green plants, light energy is captured and used to convert water, carbon dioxide, and minerals into oxygen and energy-rich organic compounds.

**Important to  
note**

# Chlorophyll

Chlorophyll is a pigment that gives plants their green color, and it helps plants create their own food through photosynthesis.



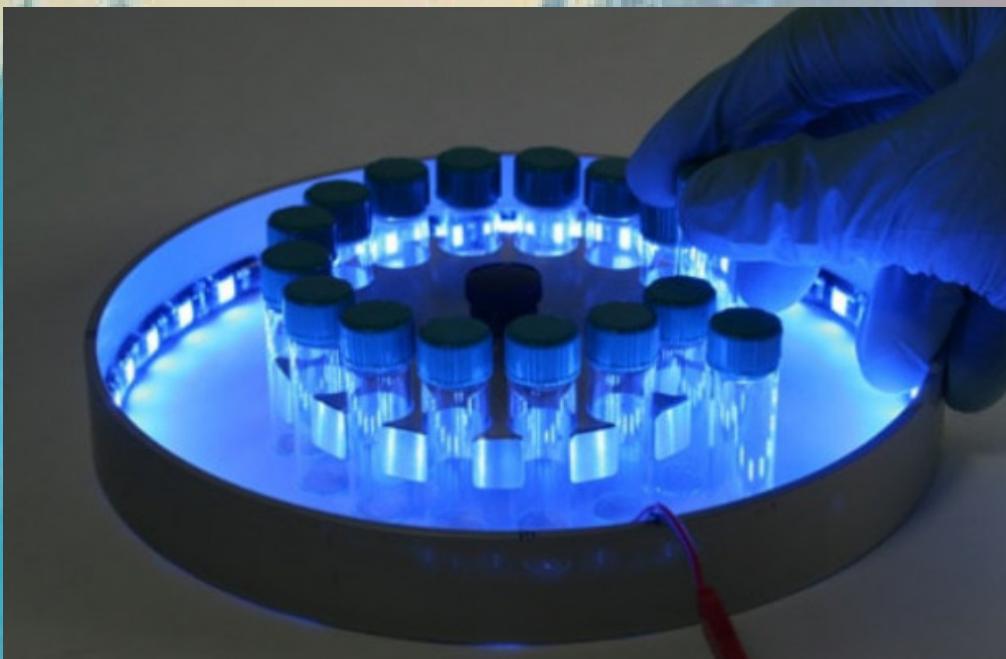
## Ecosystem Components

Chlorophyll is a key component in the process of photosynthesis, which sustains plant life and produces oxygen for the entire planet. Although microscopic in size, chloroplasts like these have a big role to play in the health of the planet.

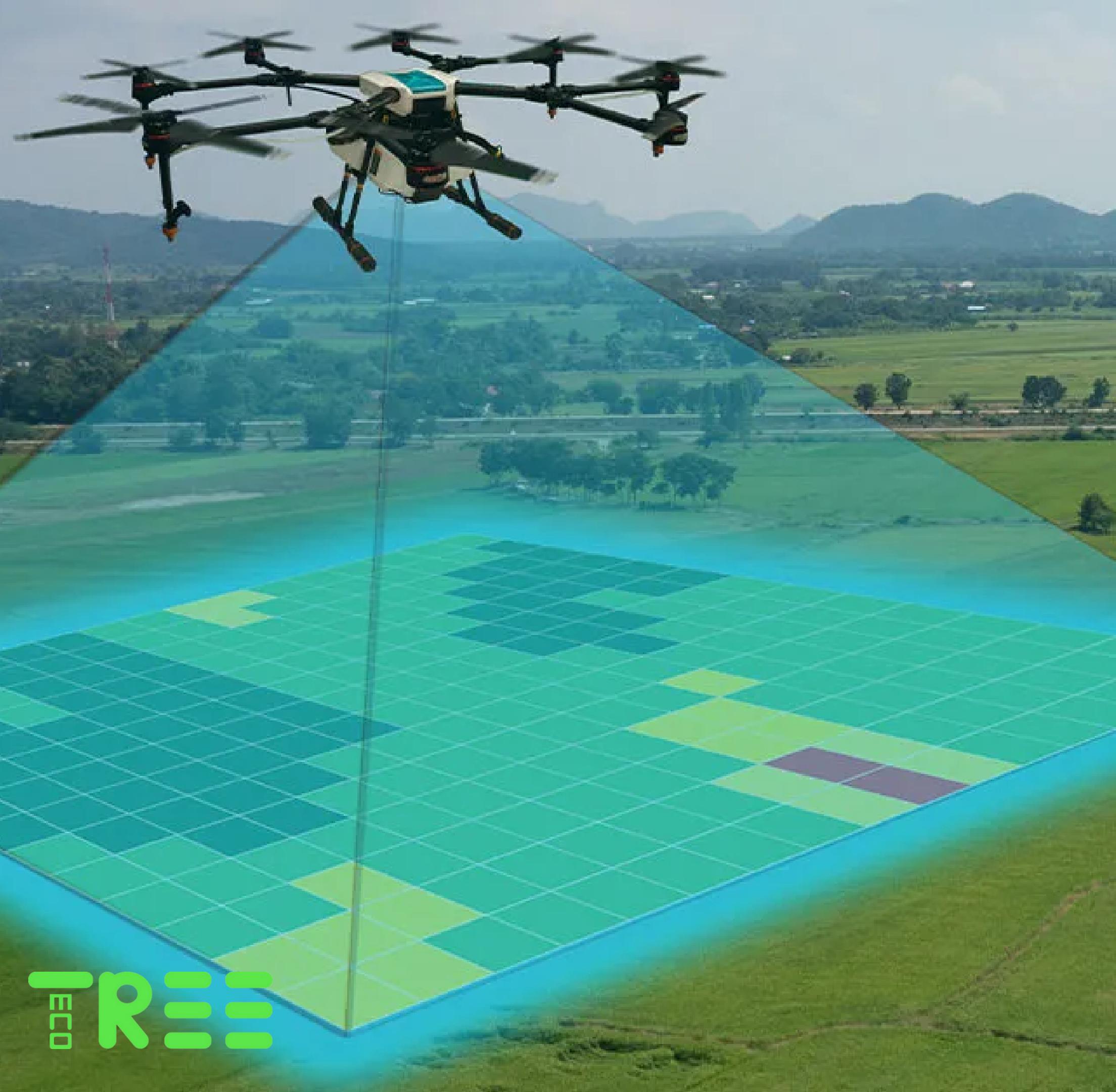
# MVP



The new type of catalyst, known as a biohybrid photocatalyst, contains a light-harvesting protein that absorbs light and transfers the energy to a metal-containing catalyst. This catalyst then uses the energy to perform reactions that could be useful for synthesizing pharmaceuticals or converting waste products into biofuels or other useful compounds.



\*Biohybrid catalysts enable a variety of new selective reactions by combining successful principles of biocatalysis with those of homogeneous chemical catalysis



# Automatic system

An automatic system enables to offer service continuously and on a regular basis

Feeding the roots of trees with a catalyst solution via drones facilitates overall process. Thus, it is time-efficient



# Target Market

## Target Market 1

Paper factories



## Target Market 2

Countries suffering from  
global warming



## Target Market 3

Countries suffering from air  
pollution



# Size the Market **3 Trillion trees**

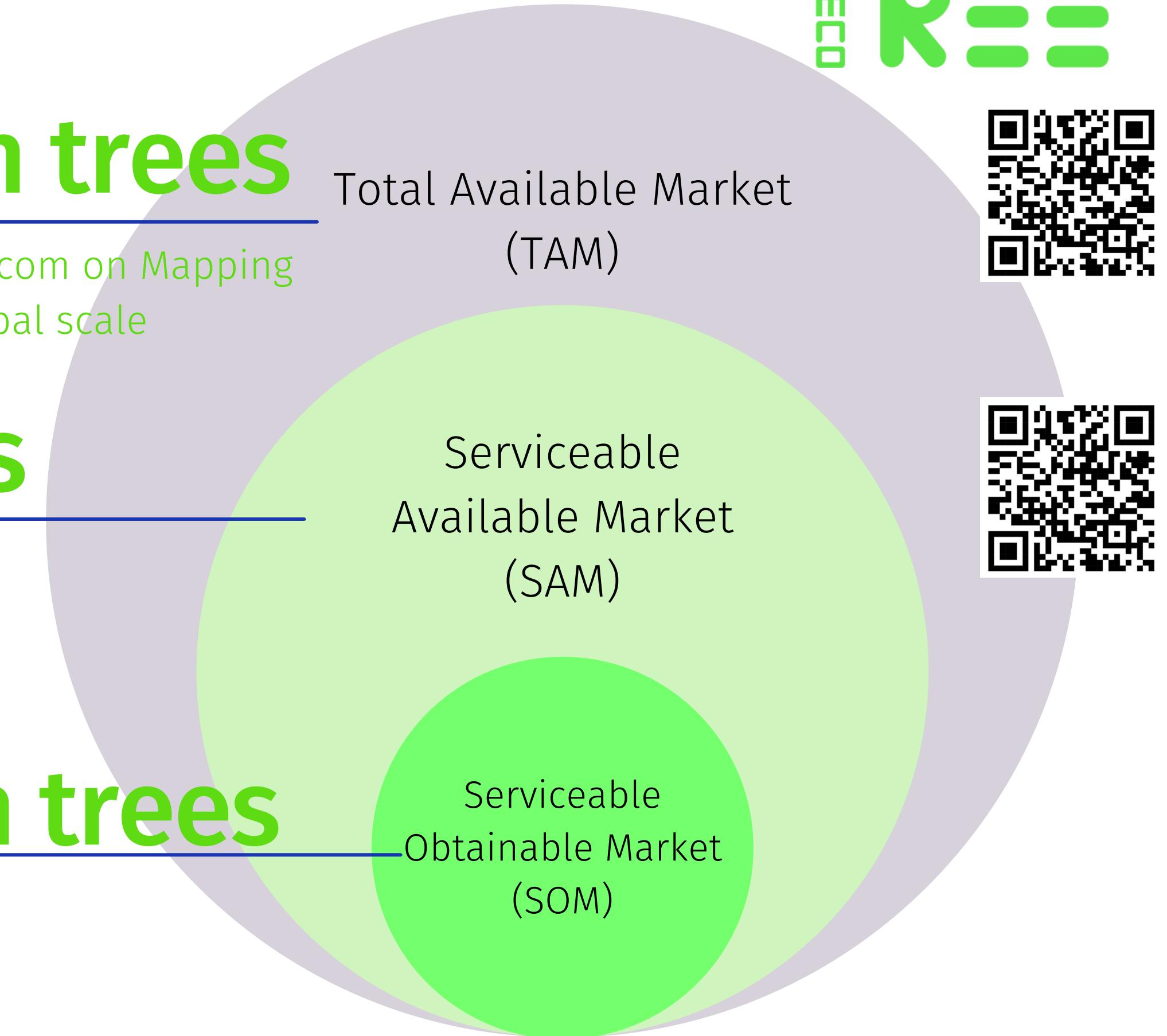
\*An article of Nature.com on Mapping tree density at a global scale

## **774 Million trees**

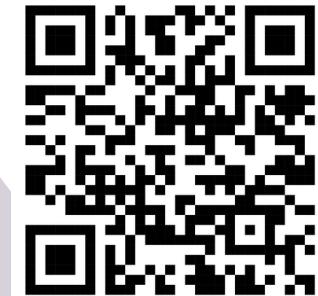
\*The research of Yale University on a number of trees in Azerbaijan

## **46 Million trees**

6% of SAM market



TREE



\*Indicates the references (articles, pdf reports, etc.) from which the data are obtained



# Business Model

## Subscriptions

Daily

For every 100 trees  
price will be:

50 €

Weekly

For every 100 trees  
price will be:

300 €

Monthly

For every 100 trees  
price will be:

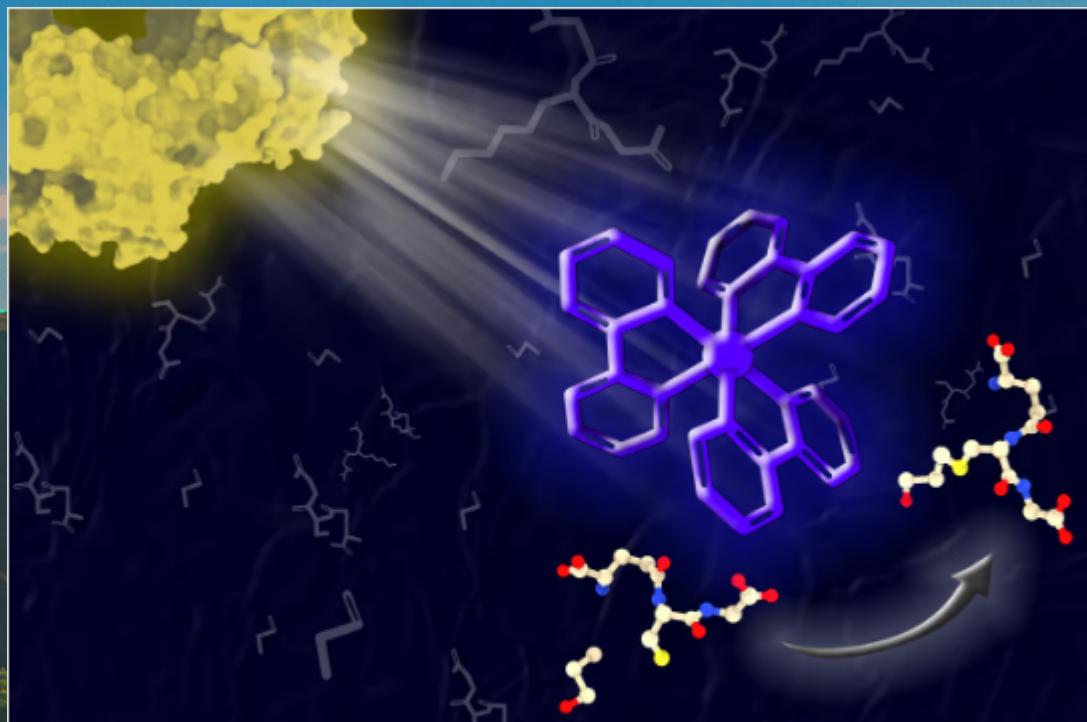
1200 €

# Competitors



- ◆ **Competitive Advantage**
  - ◆ Acceleration the growth of trees
  - ◆ Reducing the deforestation while producing the same amount of paper

# References



## This light-powered catalyst mimics photosynthesis

By mimicking photosynthesis, MIT researchers have designed a new type of photocatalyst that can absorb light and use it to help catalyze a variety of chemical reactions that would otherwise be difficult to...

MIT News

**Construction of a whole-cell biohybrid catalyst using a Cp<sup>\*</sup>Rh(III)-dithiophosphate complex as a...**

A whole-cell biohybrid catalyst where a (pentamethylcyclopentadienyl)rhodium(III) (Cp<sup>\*</sup>Rh(III)) comple...

E. sciedirect.com

**Chlorophyll**

Chlorophyll is a pigment that gives plants their green color, and it helps plants create their own food through photosynthesis.

nationalgeographic.org

**INNOVATION** | **RWTHAACHEN**  
UNIVERSITY

**RWTH Innovation GmbH**

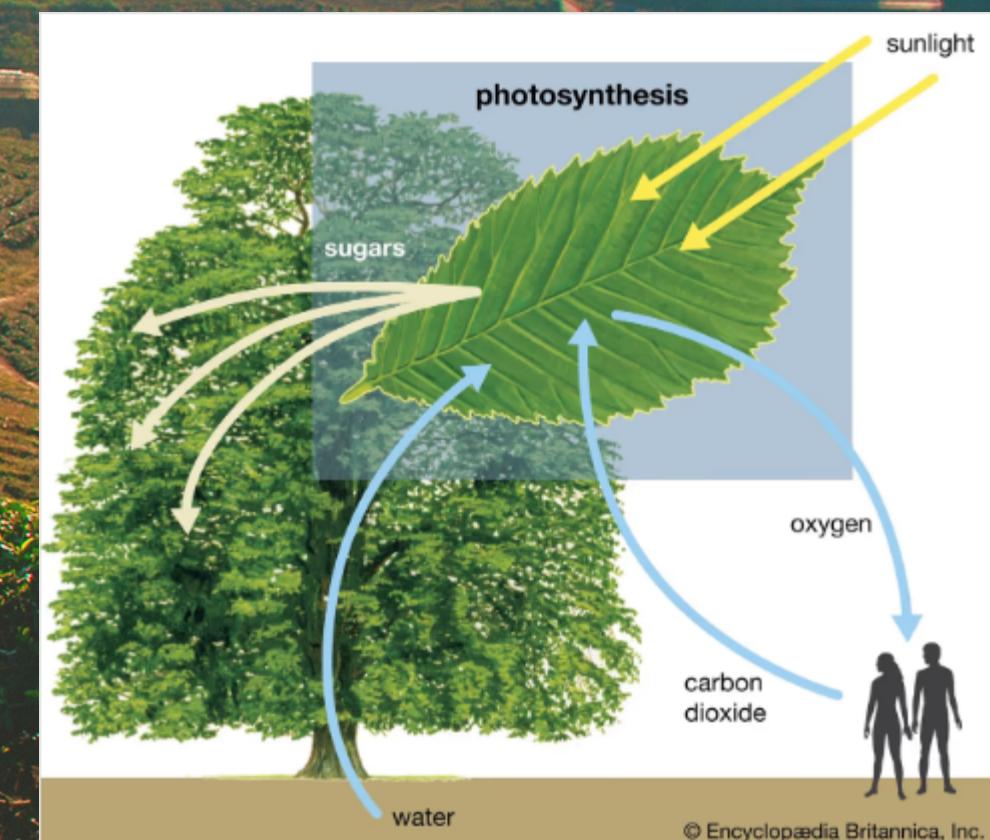
Wir beraten Forscher, Erfinder und Gründer der RWTH Aachen und unterstützen sie mit individuellen und vielfältigen Angeboten.



**F&ES Study Reveals There are Many More Trees Than Previously Believed**

A new Yale-led study estimates that there are more than 3 trillion trees on Earth, about seven and a half times more than some previous estimates. But the total number of trees has plummeted by roughly 46 percent since...

Yale School of the Environment / Sep 2, 2015



**Photosynthesis | Definition, Formula, Process, Diagram, Reactants, Products, & Facts**

Photosynthesis, the process by which green plants and certain other organisms transform light energy into chemical energy. During photosynthesis in green plants, light energy is captur...

Encyclopedia Britannica / Jul 20, 1998

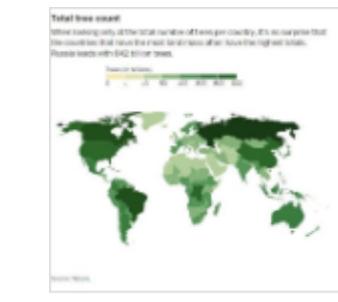
# References



## How Many Trees Are in The World? (2021 New data)

The number of trees in the world has been estimated by two studies which show 50% fewer trees than when before humans were around.

 Tree Care Blog / Sep 4



## The world's 3 trillion trees, mapped

A look at the nations of the world based on their numbers of trees.

 The Washington Post / Oct 27, 2021

# Meet our Team



**Kamran Heydarov**

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Process Automation Engineer



**Nihad Abdullayev**

Process Automation Engineer



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# THANK YOU

“Deforestation is changing our climate, harming people and the natural world. We must, and can reverse this trend.” – Jane Goodall

SCAN ME

