

Root-Benefit Action Science Communication in Practice

Science Communication and its many forms

Ivana Martins
ITQB NOVA's communication office

Who am I?

**Institutional
Communication –**
ITQB NOVA previously
at Gulbenkian Ciência

Masters in **Cellular
and Molecular Biology**





What is science
communication?

To **inform**, raise awareness
of science-related topics,
and **get involved with a wider
audience**, including non-scientists.

Why communicate science?

i) to structure the European research community on beneficial root-associated microorganism interactions in order to favour networking, strengthen the European research capacity, and **facilitate knowledge transfer to socio-economic actors.**

ii) to evaluate the potential of various levers (described below) and propose strategies for the integration and improvement of the services provided by the beneficial root-associated microorganisms to agriculture. Several barriers currently hamper the **implementation of beneficial root-associated microorganisms in more sustainable agricultural practices.**

Why communicate science?



Increase **public understanding of science**



Encourage **informed decision-making**



Foster a **science-literate society**



Let citizens know **how public money is spent**

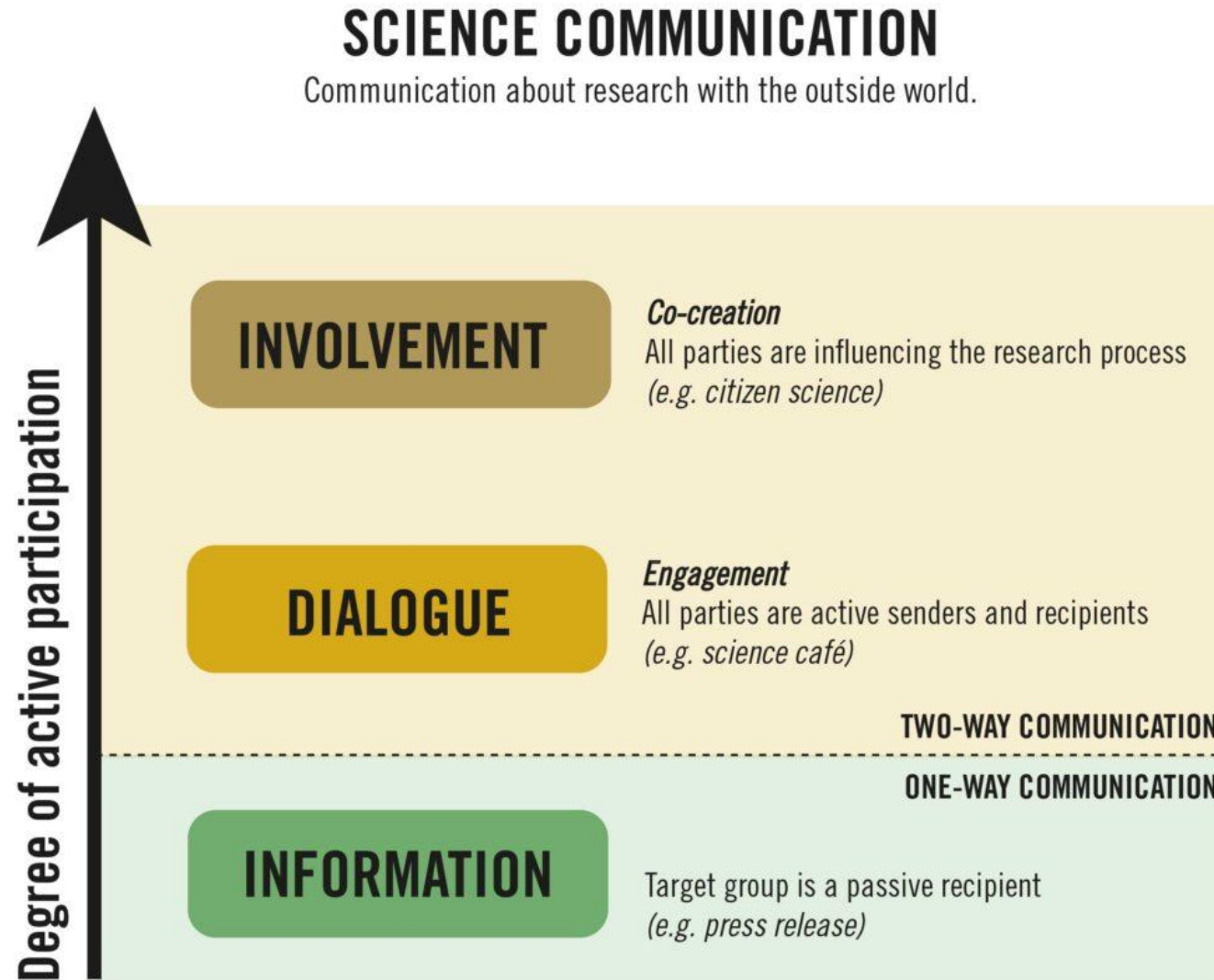


Trigger **new collaborations & opportunities**



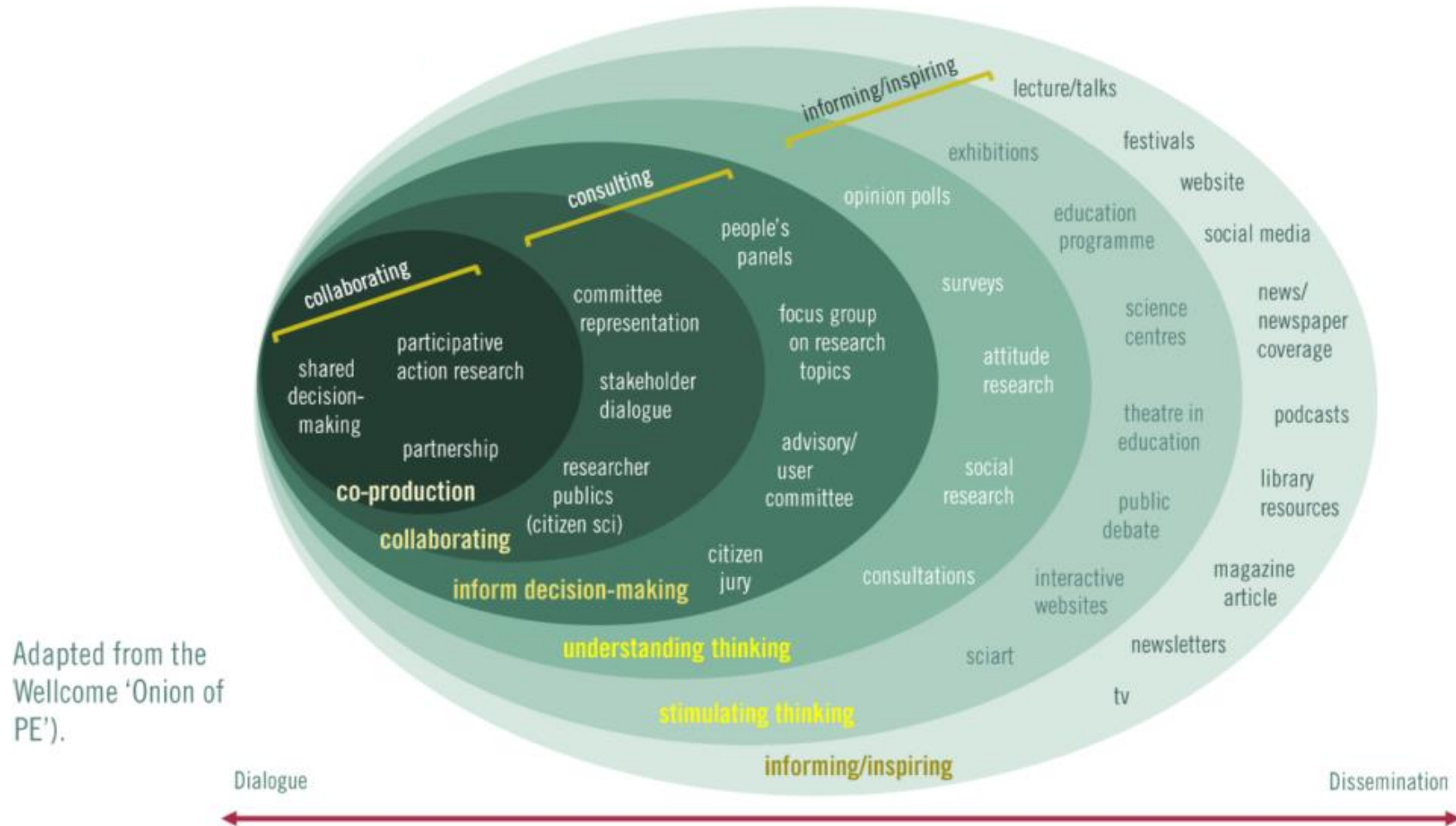
Reach **good scores in scientific assessments**

How?



Science communication: Degree of active participation and public engagement. Vetenskap & Allmänhet.

What is science communication?



What is science communication?

**Specialized
communication**

**Educational
communication**

Journalism

Institutional

Outreach

Participatory

Public communication

What can you do?

Journalism

- **Newspaper articles**
- **Media reports**
- **TV or radio features**
- **Commentaries**



9 segundos
de ciência

EXCLUSIVO PODCAST MAIS LENTO DO QUE A LUZ

Cecília Arraiano e os Nobel do ARN

A geneticista Cecília Arraiano explica o que é o ARN, numa conversa sobre os dois prémios Nobel e investigações acerca do ARN e sobre as tecnologias médicas que deles já resultaram.

David Marçal, Carlos Fiolhais e Nuno A. Coelho

16 de Dezembro de 2024, 22:50



EXCLUSIVO Gostaria de Ouvir? [Assine já](#)

00:00

01:22

A nossa convidada é a bióloga e geneticista Cecília Arraiano, especialista em ARN,



What can you do?

Institutional

- **Press releases**
- **Website**
- **Social media**
- **Mailing**
- **Newsletters**

Press releases



*"Whole-genome
polymorphisms and
relatedness of rice varieties
circulating in the
Mediterranean market"*

What rice varieties are we eating? The answer is in the genes.

An ITQB NOVA study reveals new tools for distinguishing rice varieties and combating food fraud.

Press releases



"The study significantly expands the available genomic information for commercially important rice varieties in the Mediterranean region."

What rice varieties are we eating? The answer is in the genes.

An ITQB NOVA study reveals new tools for distinguishing rice varieties and combating food fraud.

Is the rice that ends up on our plates always what the label claims it to be? A new study led by researchers at ITQB NOVA – Instituto de Tecnologia Química e Biológica António Xavier da Universidade NOVA de Lisboa – takes a closer look at this question by digging deeper into the genetics of the rice we buy.

Rice is a dietary staple for nearly half of the world's population. **The Portuguese, in particular, are the biggest rice eaters in Europe.** Yet much of the rice we consume does not come from within the continent. As exotic and aromatic varieties such as basmati grow in popularity, and as production declines due to climate change, **the risk of misleading claims about origin and variety is on the rise, a concern already flagged by the European Food Safety Authority.** At the end of the day, such fraud means **consumers may be paying more for products that are not what they promise to be, while honest producers lose out.**

Press releases



"This study specifically provided for the first time the whole-genome sequences and detailed Single Nucleotide Polymorphism (SNP) data for 20 high-value Mediterranean rice varieties, thus fulfilling a crucial regional data gap."

To tackle this issue, researchers from the [Plant Functional Genomics Laboratory](#) at ITQB NOVA, led by **Margarida Oliveira**, sequenced the genomes of several rice varieties circulating on the European market, often sold at higher prices. They focused on **tiny DNA differences known as Single Nucleotide Polymorphisms (SNPs)**.

The study, published in [Scientific Reports](#), from Nature portfolio, revealed **two major genetic groups among the rice samples analysed and identified several DNA "signatures" that can be used for certification purposes**. "We identified **five small genomic variations** that, taken together, have the **potential to distinguish all 22 varieties** we studied", explains **Maria Beatriz Vieira**, a PhD student at ITQB NOVA and co-first author of the study. "This could be a more cost-effective way of identifying varieties compared to broader, and therefore more expensive, genetic panels," she adds.

The researchers analyzed 22 varieties of rice, considered to be of high value by producers and industrials. **Among these, twenty varieties had their genome sequenced for the first time in this study.**

The team also found that the **Portuguese variety Maçarico is genetically closer to basmati rice than any of the other varieties analysed**, a finding of particular interest for **promoting national rice and for breeding strategies**. **Hugo Rodrigues**, also a PhD student at ITQB NOVA and co-first author, notes: "By gaining a better understanding of the genetic relationships between these varieties and the signatures that set them apart, we can not only detect food fraud, but also develop rice better suited to Mediterranean conditions."

Estudo do ITQB NOVA sequenciou genomas de 22 variedades de arroz e identificou assinaturas de DNA que protegem consumidores e apoiam melhoramento genético



CIÊNCIA & SAÚDE

Fraude no arroz: estudo português revela novas ferramentas

ZAP. ZAP · 6 JANEIRO, 2026 ·



Ranveig / Wikimedia



 AGROPORTAL

 SUGERIDAS

NOTÍCIAS ▾

OPINIÃO ▾

EVENTOS

DOSSIERS ▾

SERVIÇOS ▾

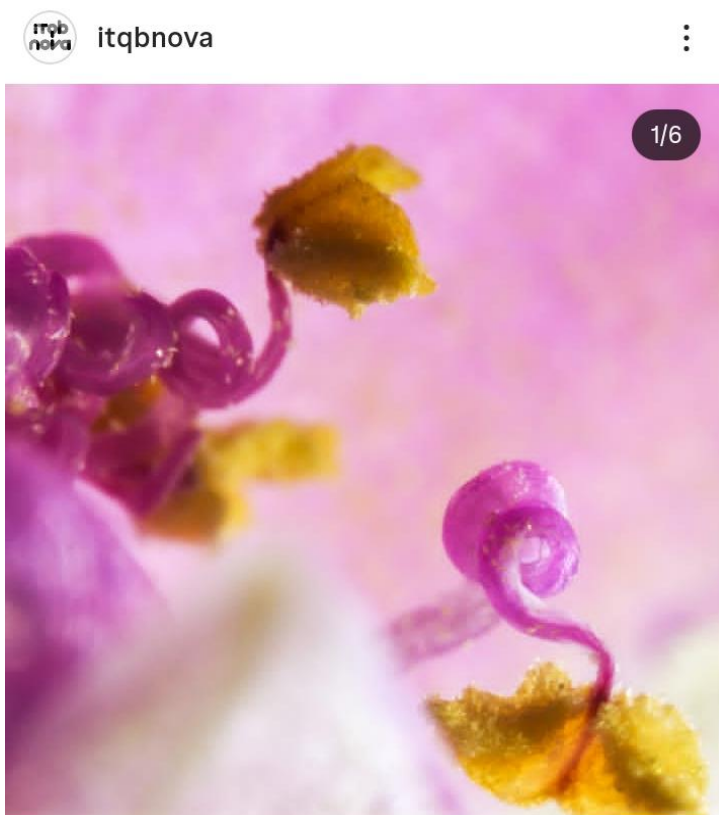
Que variedades de arroz estamos a consumir? A resposta está nos genes

por **Agroportal** — 06-01-2026 | 15:45 em Últimas, Comunicados, Sugeridas Tempo De Leitura: 3 mins

AA



Social media

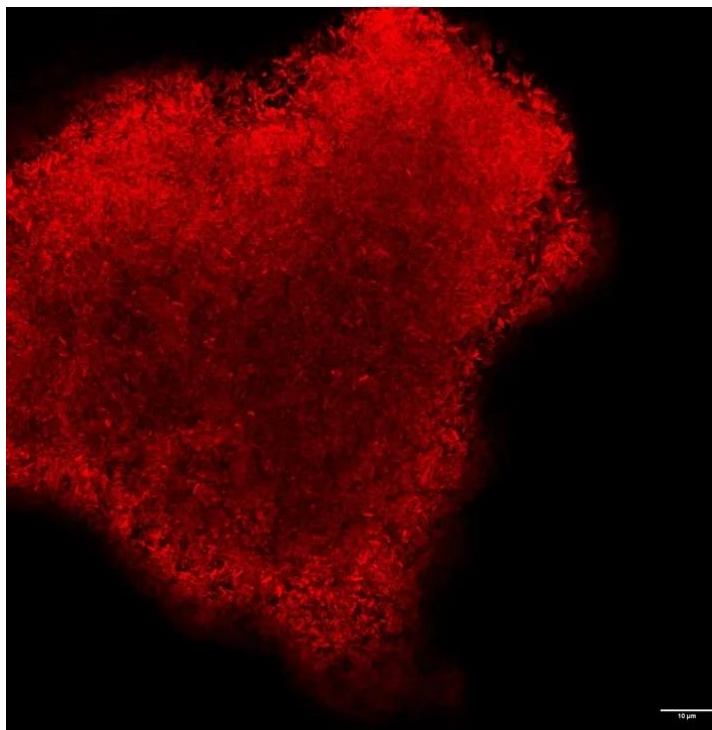


Gostos: outtafocusjoel e outras pessoas

itqbnova This [#WorldEnvironmentDay](#), we give you a closer peek at the tiny grains that seed the next generation of trees and plants. 🌱🌻



itqbnova e bic_itqb

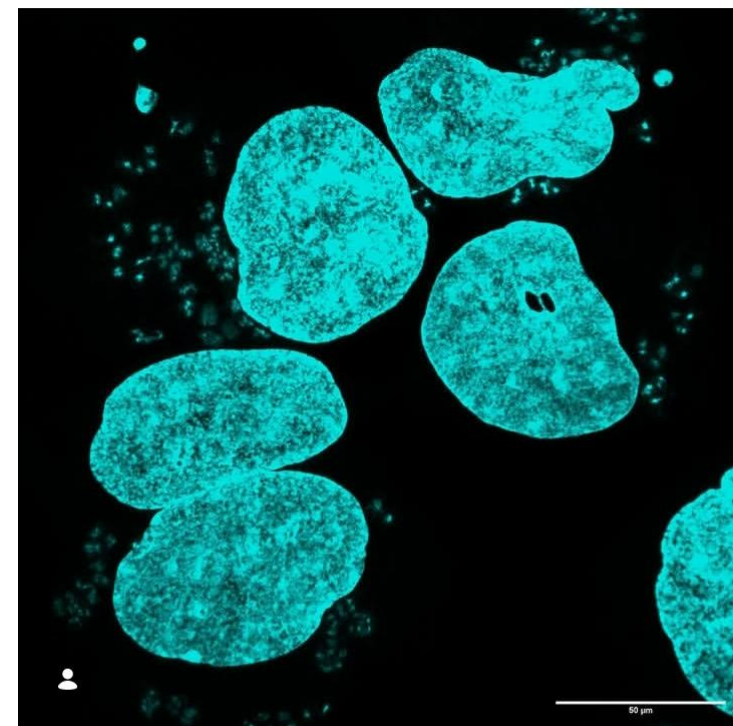


Gostos: outtafocusjoel e outras pessoas
itqbnova Happy [#ValentinesDay](#)! 💕

These are biofilms of bacteria that produce energy. ⚡



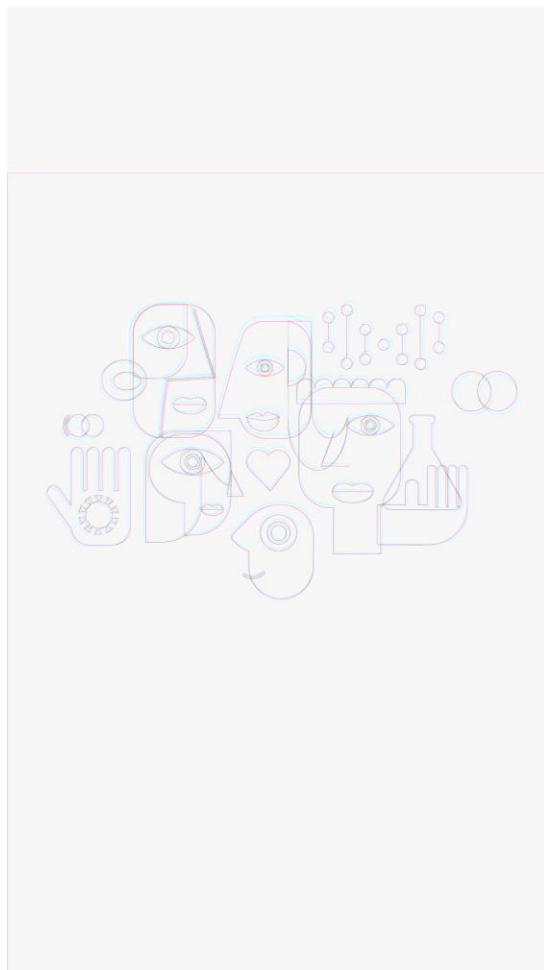
itqbnova e bic_itqb



Gostos: outtafocusjoel e outras pessoas

bic_itqb 🧛 Captured during an expansion microscopy experiment, this cell is giving off some serious Halloween vibes! 🎃👻 Uncovering the hidden “spooky” side of biology! 🔬 [#expansionmicroscopy](#) [#spookyscience](#) [#halloweencells](#) [#zeiss](#) [#zeissmicroscopy](#) [#ism880](#) [#ppbi](#) [#bioimaging](#) menos

Social media



ITQB NOVA
14,661 followers
1mo •

Fancy some chickpeas? 🌱

This legume is rich in protein and packed with valuable nutrients. Yet, heat, drought and tough soils keep yields low in Portugal, so we rely on imports.

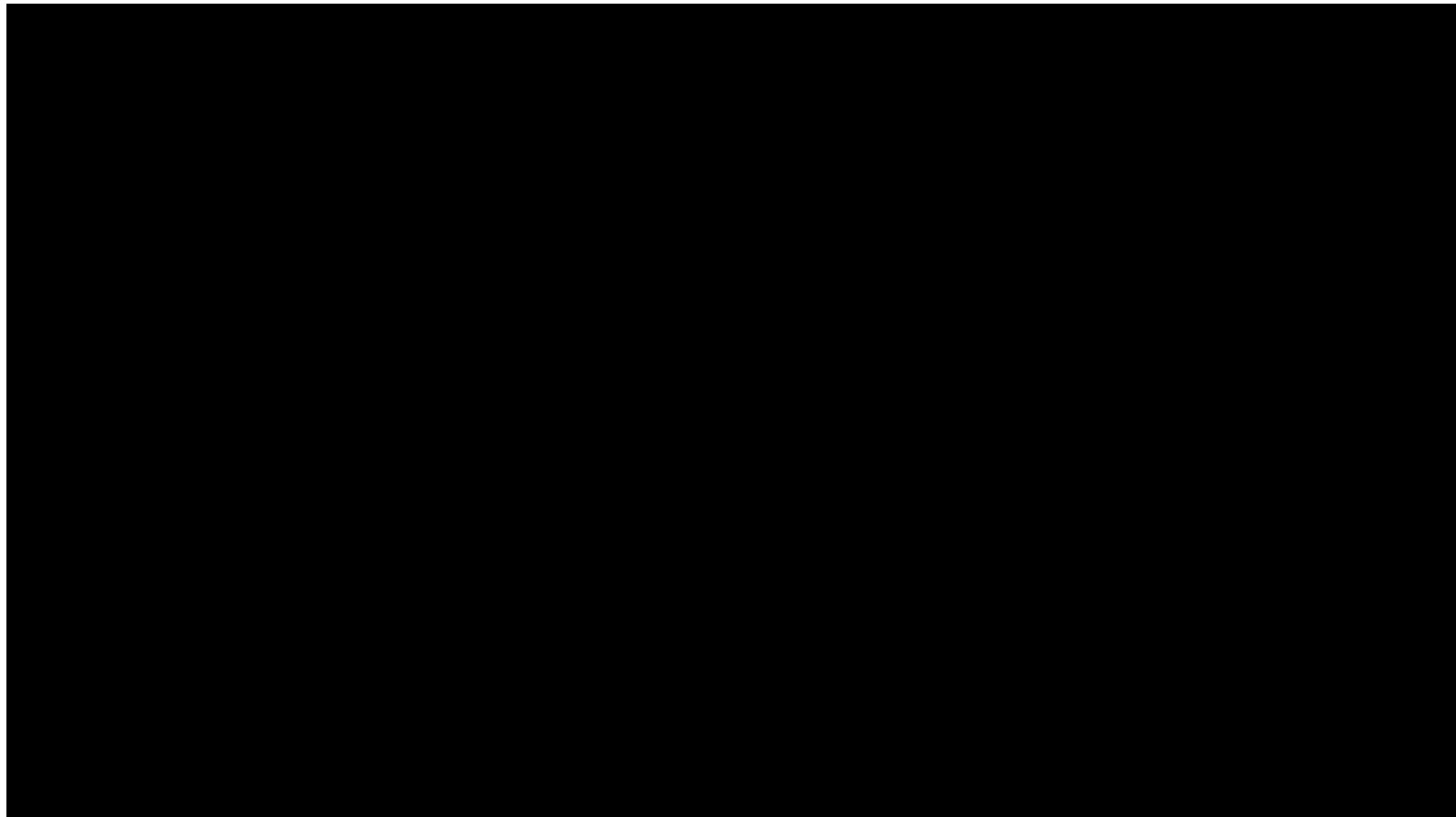
A new project bringing together ITQB NOVA, [Faculdade de Ciências da Universidade do Porto | FCUP](#) and [Instituto Nacional de Investigação Agrária e Veterinária, IP \(INIAV, IP\)](#) is going to explore strategies to improve chickpea production using bacteria.

The team will "identify which bacteria are present in the best-performing chickpea varieties" and "inoculate seeds with the most promising groups of bacteria", first in the lab, then in Alentejo fields, explains [Nacho Vilchez](#), leader of the iPlantMicro lab at ITQB NOVA.

Know more: https://lnkd.in/ec_AmneP

The project endoLEGUME was approved within the call Promove – O Futuro do Interior by [Fundación "la Caixa"](#).





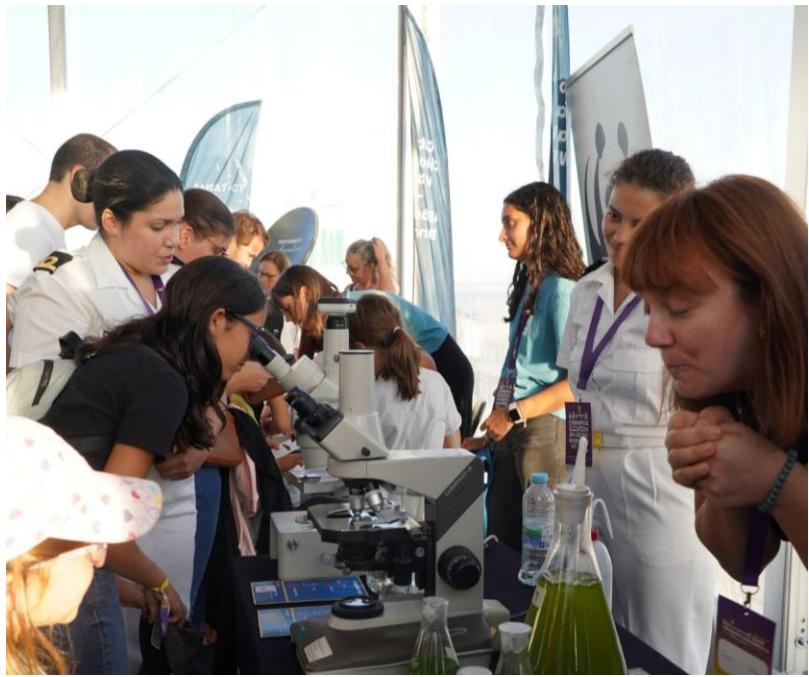
What can you do?

Outreach

- **Events in celebration of key dates:**
 - Fascination of Plants Day
 - National Scientists Day
 - European Researchers' Night
 - International Microorganism Day
- **Open days**
- **Science fairs**
- **Activities with students**

In many places and contexts...





In many formats...





What can you do?

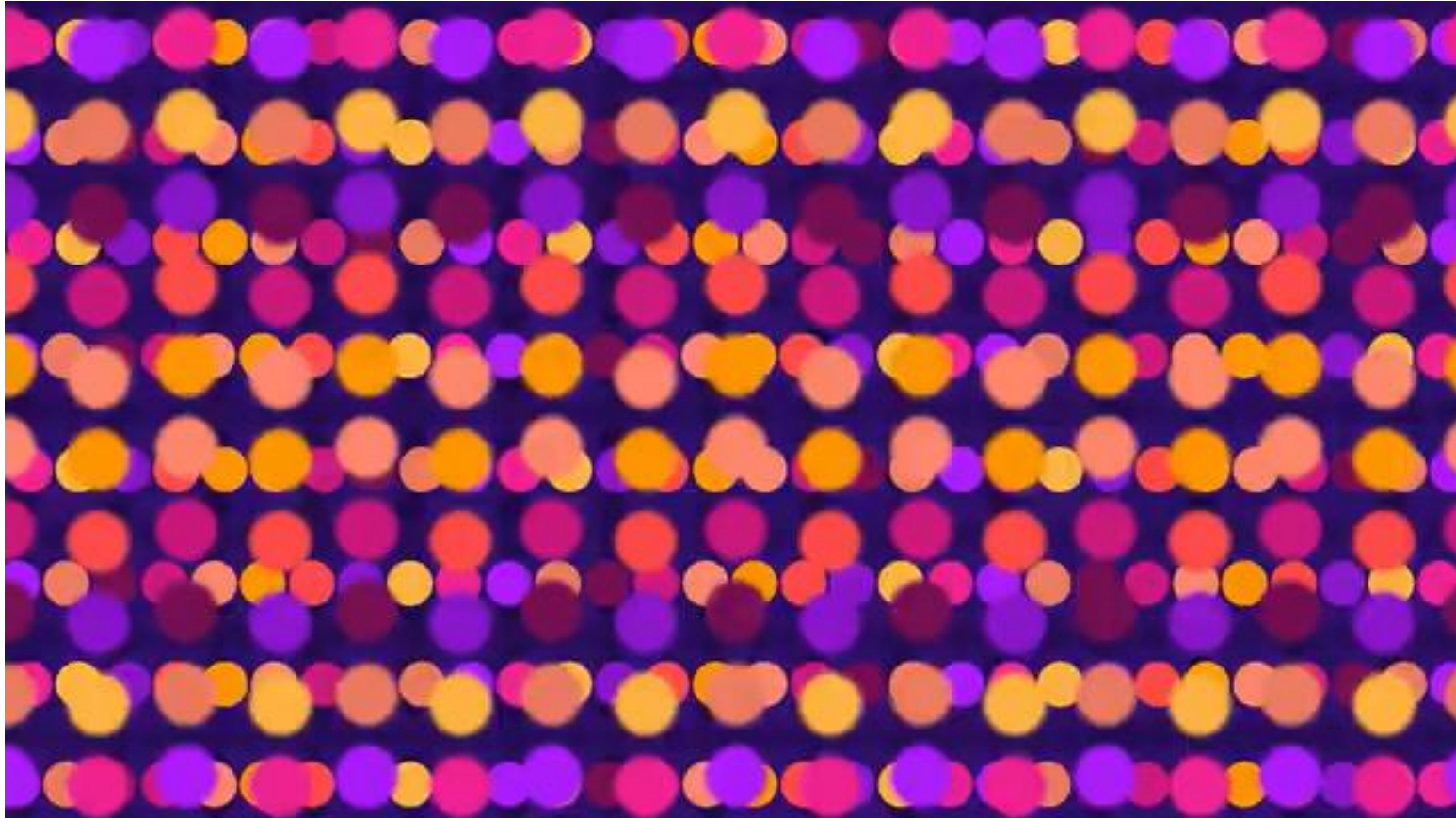
Outreach



Science books and resources

What can you do?

Outreach



Videos

What can you do?

Outreach

- Podcasts
- Exhibitions



What can you do?

Participatory

- **Citizen science**
- **Workshops**
- **Science cafes**
- **Debates**



Communication checklist

Are you planning ahead?

Adapt to format. Consult with colleagues with experience or communication officers.

Who do you want to reach?

You can't reach everyone. Know where and how to reach your audience.

What issue is your project addressing?

Think issue, not project.

What are the key messages?

Do not overload with information. Define and maintain focus.

Communication checklist

Are you framing the message so that it raises curiosity?

Link to hot topics and current events.

Are you telling stories or just delivering a list of facts or numbers?

People are interested in people more than in things or data.

Did you set out strategies to deal with skepticism or distrust?

Be prepared. Do not let confrontation overtake the key messages.

Are you using local connections?

Think global, act local.

Communication checklist

Are you building your “brand”?

Make sure the public recognizes you. Become a trusted source and voice.

Did you practice with non-experts?

Ask for support from a public that is similar. Stay in touch with your communication officers.

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Thank you!

Ivana Martins

ivana.martins@itqb.unl.pt

LinkedIn:

