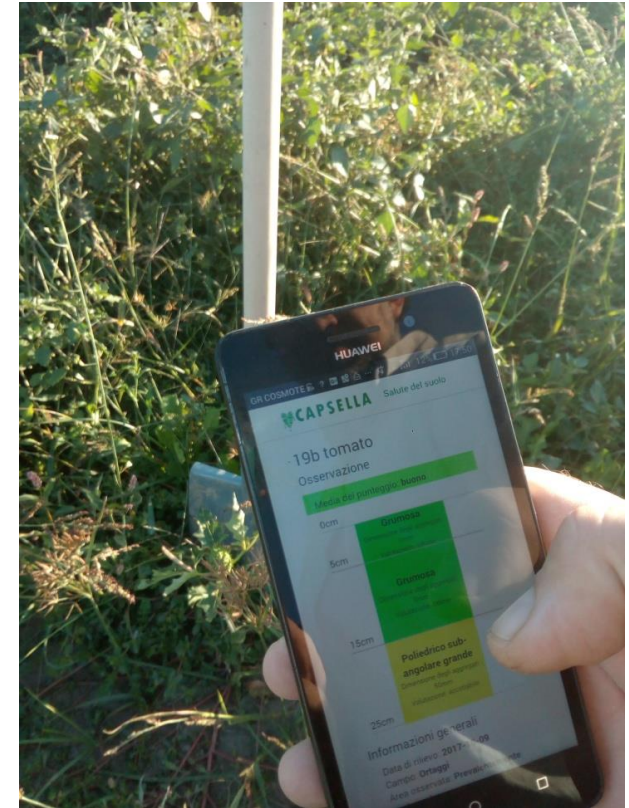
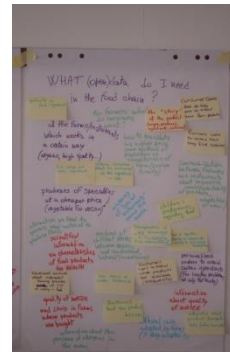
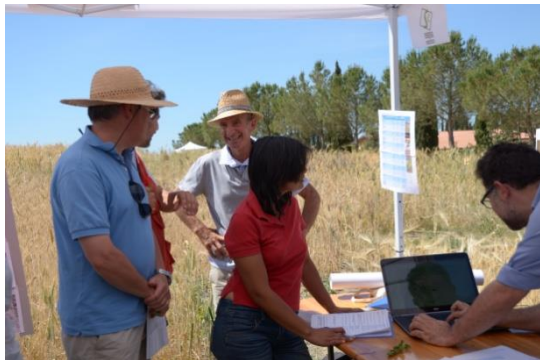


# Co-creating innovation: the CAPSELLA approach

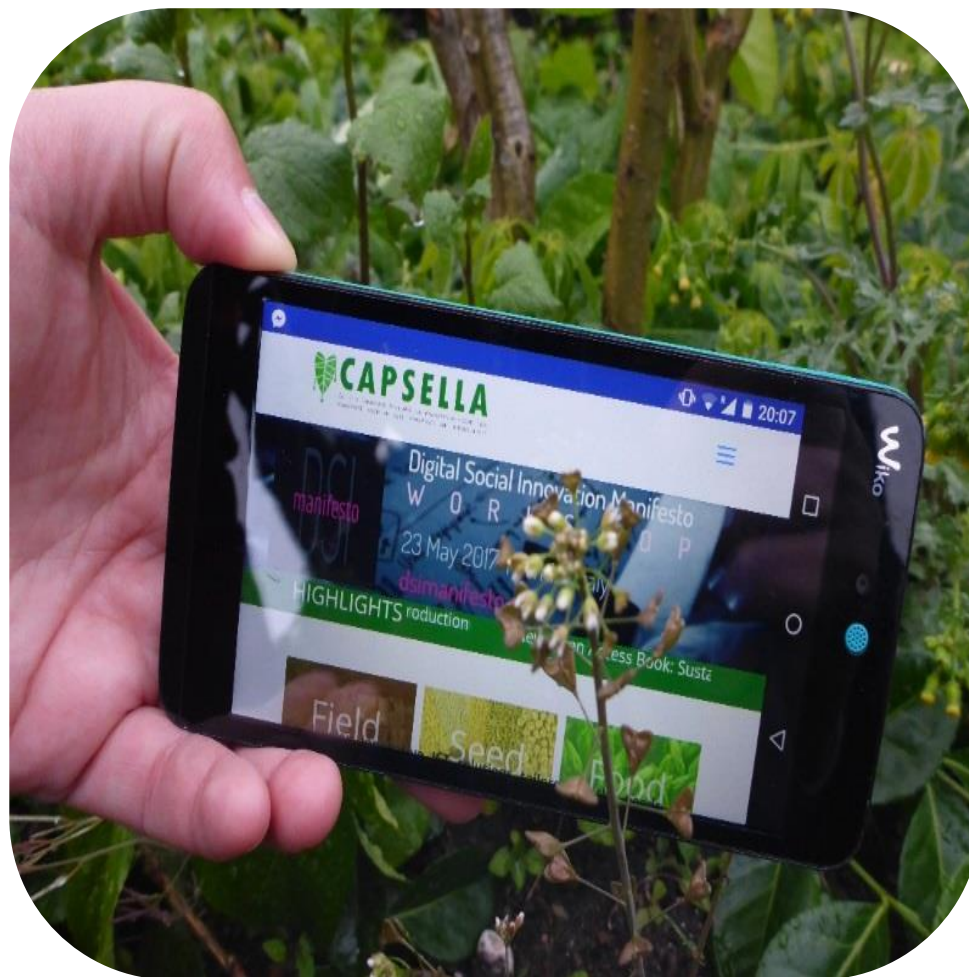


**Paolo Bàrberi**

Group of Agroecology, Institute of Life Sciences, Scuola Superiore Sant'Anna, Pisa, Italy

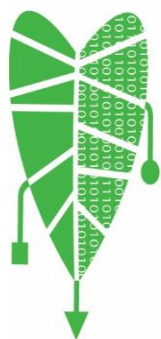
[paolo.barberi@santannapisa.it](mailto:paolo.barberi@santannapisa.it) – [www.researchgate.net/profile/Paolo\\_Barberi2](http://www.researchgate.net/profile/Paolo_Barberi2)





# What are 'CAPS' in CAPSELLA?





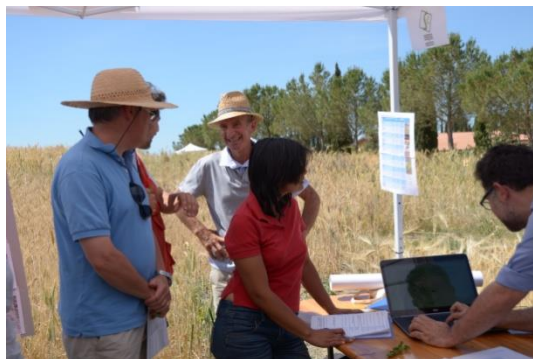
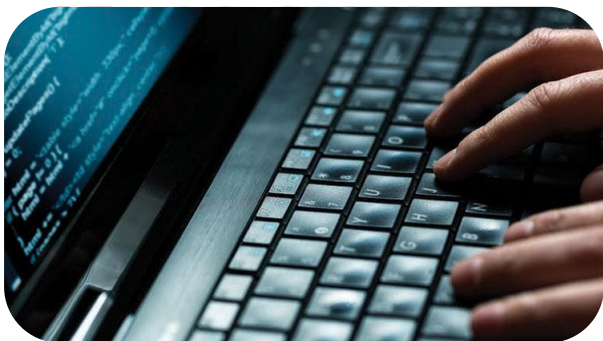
# CAPSELLA

COLLECTIVE AWARENESS PLATFORMS FOR ENVIRONMENTALLY-SOUND LAND  
MANAGEMENT BASED ON DATA TECHNOLOGIES AND AGROBIODIVERSITY

## Collective Awareness Platforms for Sustainability and Social Innovation (CAPS)

New models to create awareness of emerging sustainability challenges  
Empower each and every one through **collective action**

CAPS aims at **designing and piloting online platforms** to create awareness on sustainability problems and putting in place collective solutions.  
It fosters **collaborative solutions** based on **networks** (of people, of ideas, of sensors), enabling new forms of **digital social innovation**.

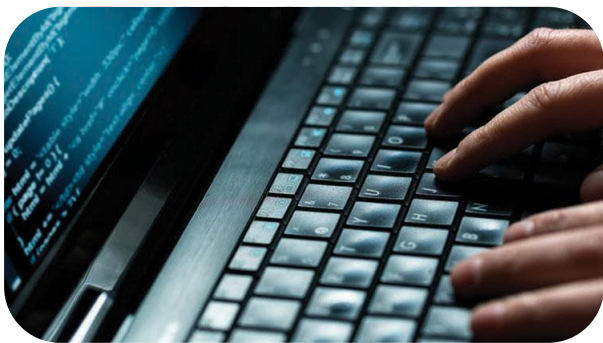




# CAPSELLA

COLLECTIVE AWARENESS PLATFORMS FOR ENVIRONMENTALLY-SOUND LAND  
MANAGEMENT BASED ON DATA TECHNOLOGIES AND AGROBIODIVERSITY

- **AGROBIODIVERSITY**
- **PARTICIPATION**
- **CO-INNOVATION**
- **ICT**
- **OPEN DATA**



‘When it comes to realising the full potential for open data, it is important to **start with real world problems** and to engage with problem owners, not simply focus on the data.’



Conventional  
agricultural  
systems

Industrialised  
mainstream  
food  
production

High use of  
external  
inputs

Food waste

Undernourish-  
ment/obesity

Shrinking  
farmers  
incomes

# Why?

*The challenge*

**Major sustainability challenge**

Environmental threats

Economic threats

Social threats



# AGROECOLOGY



**To have long-term sustainability and resilience in food systems we need ...**



FIELD



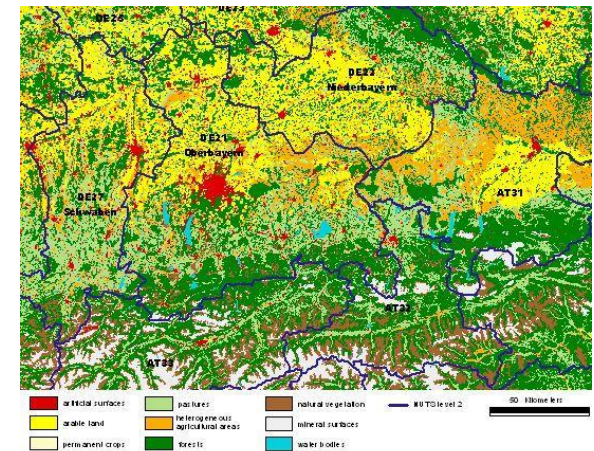
## FARM

# DIVERSITY

## TERRITORY

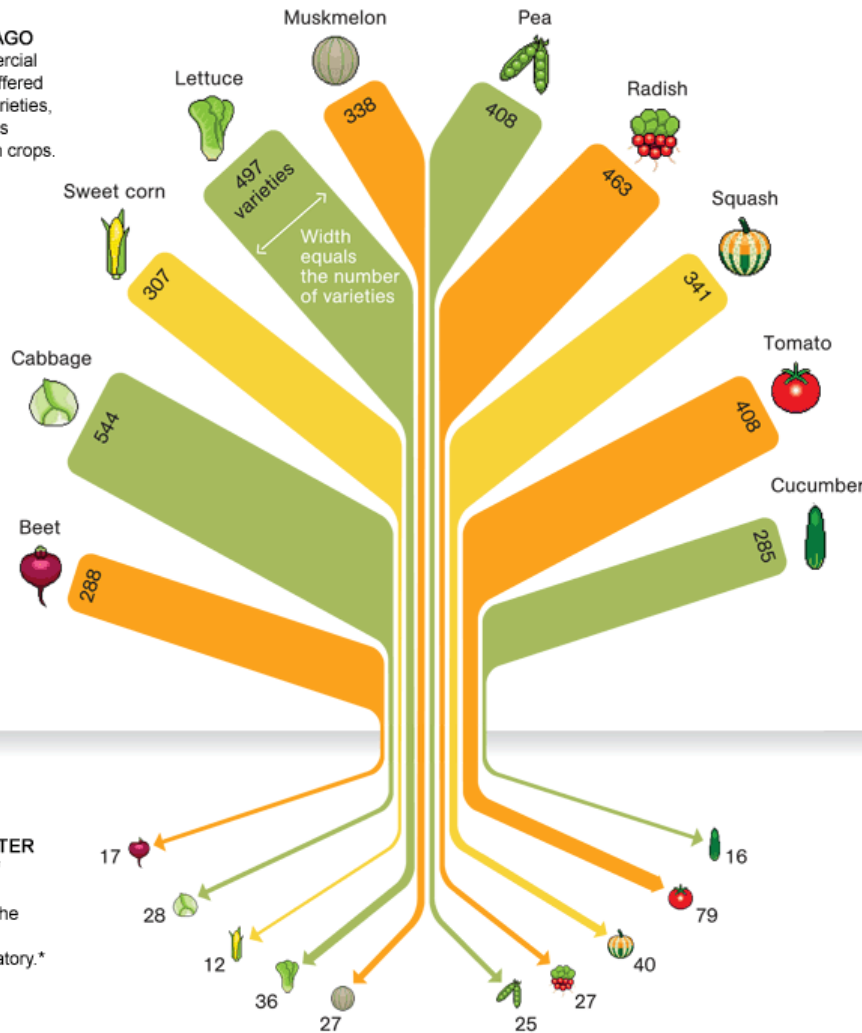


## LANDSCAPE



# We are losing our diversity!

**A CENTURY AGO**  
In 1903 commercial seed houses offered hundreds of varieties, as shown in this sampling of ten crops.



**80 YEARS LATER**  
By 1983 few of those varieties were found in the National Seed Storage Laboratory.\*

\* CHANGED ITS NAME IN 2001 TO THE NATIONAL CENTER FOR GENETIC RESOURCES PRESERVATION

JOHN TOMANIO, NGM STAFF. FOOD ICONS: QUICKHONEY  
SOURCE: RURAL ADVANCEMENT FOUNDATION INTERNATIONAL

N° TOTAL VARIETIES

1903: 3879

1983: 307

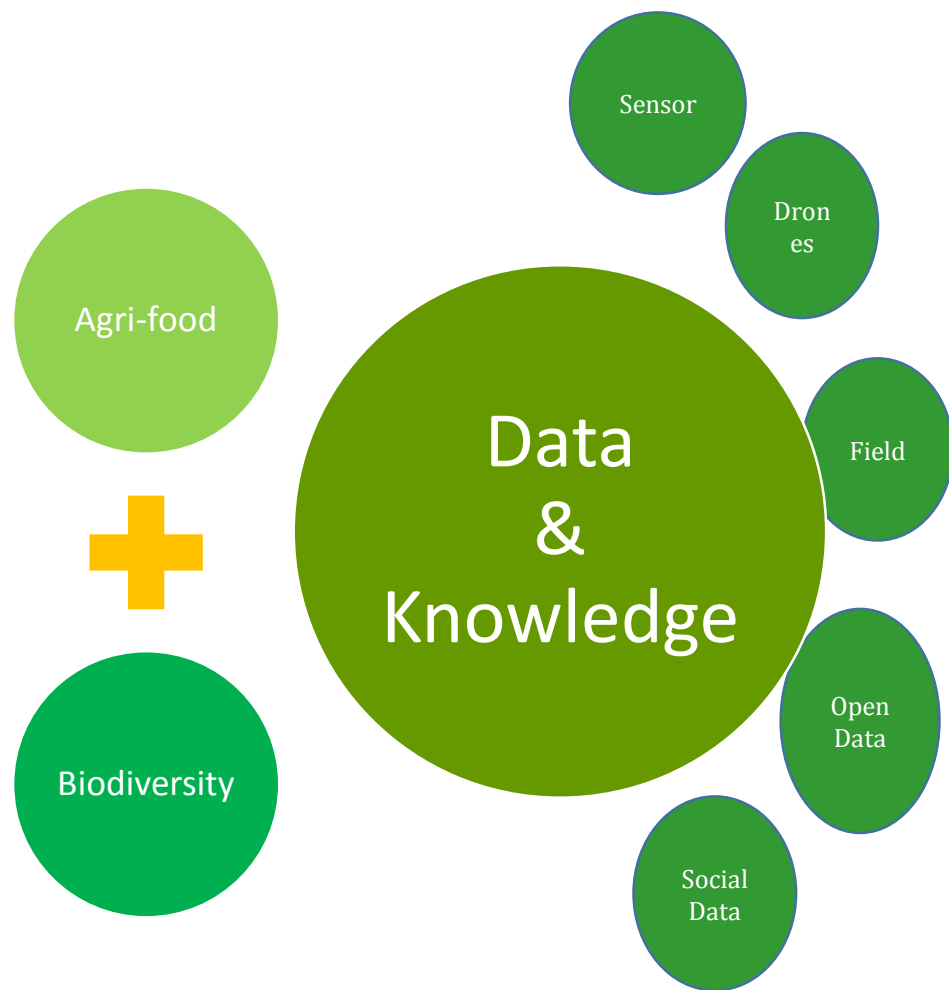
**-92.1%**





# What?

## *The solutions*



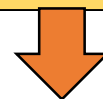
Develop a number of **community-driven** data powered ICT solutions

Run **pilots** with communities

**Co-innovation** with stakeholders

**3 scenarios**

Seed – Field – Food

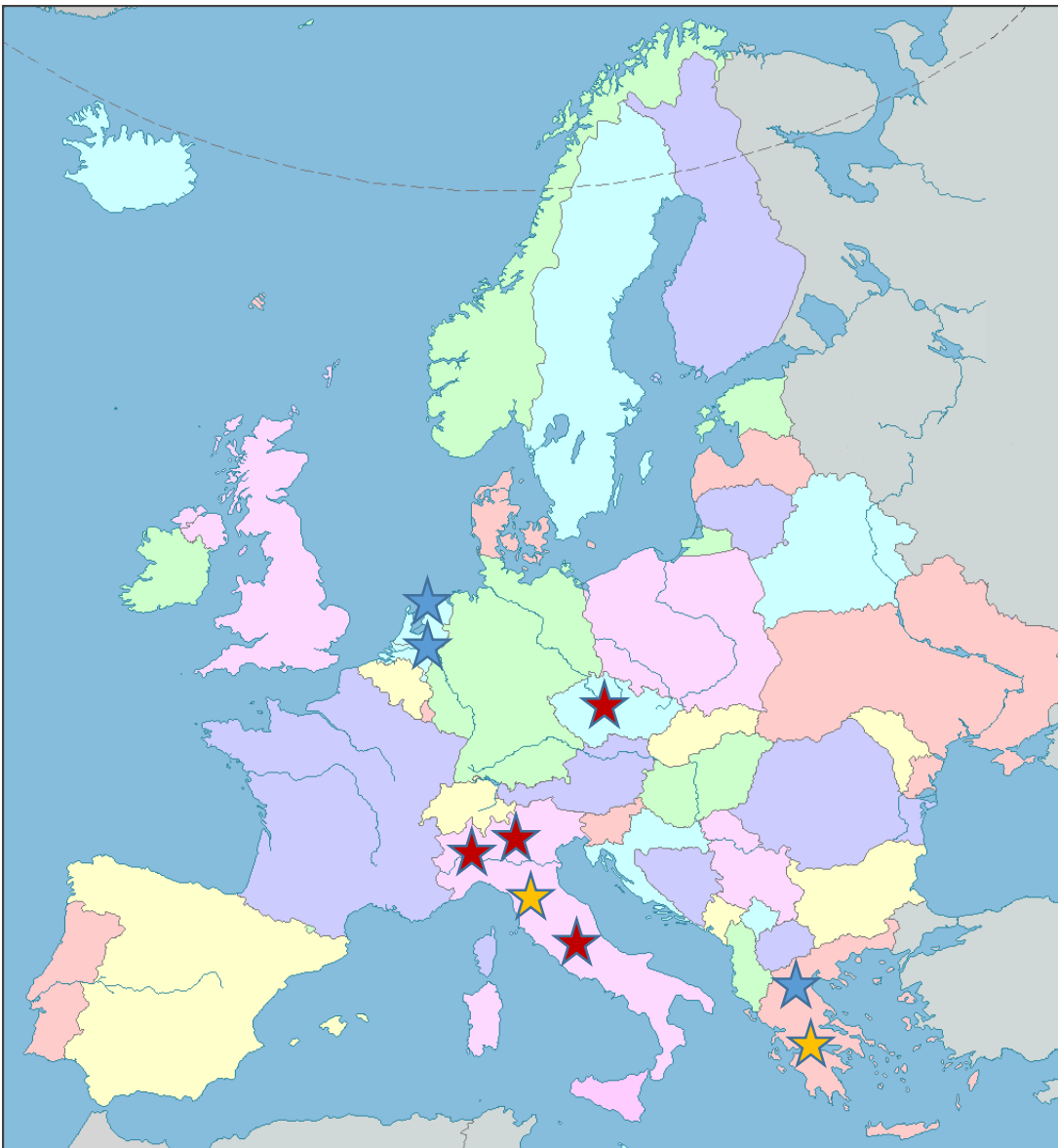


**7 pilots**



# Where?

## *The pilots*



- ★ Compost in precision agriculture (NL)
- ★ Storytelling on organic food (NL)
- ★ Stevia product data (GR)
- ★ Seed data management (IT)
- ★ Meal prediction tool (CZ)
- ★ Public food procurement (IT)
- ★ Soil health test (IT, GR)

- ★ Web app
- ★ Smartphone app
- ★ Web + smartphone app



# Who?

## *The communities*



Organic and conventional farmers

Cooperatives & food processors

Agronomists & breeders

Municipalities & civil society

Restaurants & customers

Scientists and ICT developers





# How?

*The process*

## THE CO-INNOVATION LOOP



**PILOTS**

**SCENARIOS**

**DEMONSTRATION**

# How?

*The process*

**RICH  
PICTURE**

**EMERGING  
ISSUES**

**PRIORITIES**



**Issue(s)**

**Tool(s)**

- Data
- Knowledge



# Want to know more?

Capsella | Capsella Project X

www.capsella.eu

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**CAPSELLA**  
CAPSELLA is your Innovation lab for agrobiodiversity

**SAVE THE DATE**  
**Harvesting Innovation:**  
Open & Digital Innovation for Sustainable Agriculture and Food Systems  
Acquario Civico (Milano)  
Tuesday, 8th May 2018

**HIGHLIGHTS** now available for free on Google Play and farmknowledge.org EU Food & Farming Forum in Brussels on May 29th – 30th

**CAPSELLA Project**

Capsella develops innovative ICT solutions tailored to the needs of all food, field and seed related actors engaging

**CAPSELLA Pilot Activities**

Capsella has prototyped new open data based products which enhance the processes and viability of agrobiodiversity. The pilots are initially small-scale implementations of these prototypes to test and experience the viability of the project idea. They can then scale

WHY AGROBIODIVERSITY

15:20 03/05/2018

Harvesting Innovation: Bringing Digital Innovation to Sustainable Agriculture and Food Systems  
Milano, Acquario Civico, 8 May 2018

