

RESILINK : INCREASING RESILIENCE OF SMALLHOLDERS WITH MULTI-PLATFORMS LINKING LOCALIZED RESOURCE SHARING



This project is part of the PRIMA
Programme supported by the
European Union



DIGITAL PLATFORMS FOR INCREASING SMALLHOLDERS' RESILIENCE: FACILITATING DIGITAL TRANSITION AND STIMULATING LOCAL INNOVATION



Prof. Yasser Dessouky
Arab Academy of Science,
Technology, and Maritime
Transport



Prof. Congduc Pham
<http://www.univ-pau.fr/~cpham>
Université de Pau, France

The INOVFARMER logo features a stylized green and orange fruit icon above the text 'INOVFARMER' and 'Better fruit from smart business'.

**CONFERENCE ON TRANSFORMING AGRI-
FOOD SUPPLY CHAIN FOR A
SUSTAINABLE FUTURE**

SAVE THE DATE

30 April 2025

Alexandria, Egypt (AASTMT)

Onsite Event

For more info: inovfarmermed@gmail.com
Grant Agreement number: 1733



PRIMA S2 2021 RESILINK

<https://prima-med.org/>

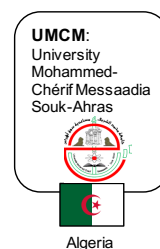
Partnership for Research and Innovation in the Mediterranean Area

Call: Section 2 Multitopic 2021

Thematic Area 3-Agrofood chain

Topic 2.3.1 Increasing the resilience of small-scale farms to global challenges and COVID-like crisis by using adapted technologies, smart agri-food supply chain and crisis management tools

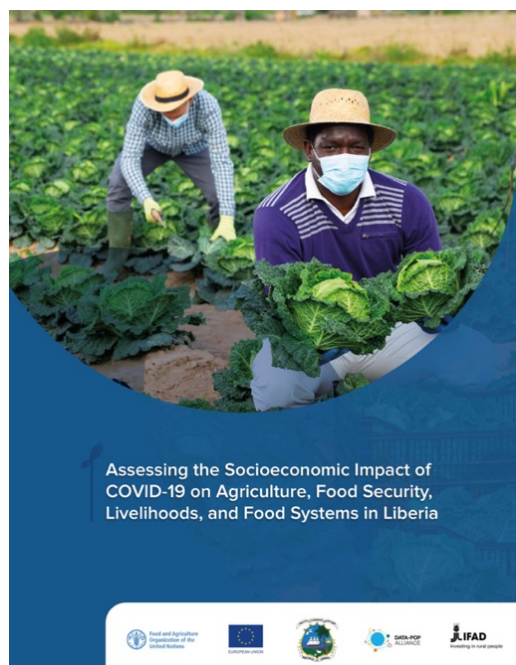
Implementation: June 1st, 2022 → May 31st, 2026 (4 years)





Increase smallholder's resilience?

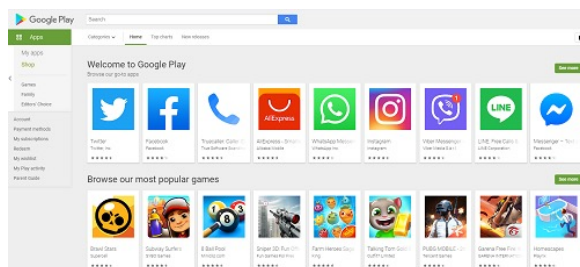
- RESILINK will increase smallholder's resilience by providing continuity of access to both resources and markets in crisis situations
- Digital platforms to promote localized usage of resources





Going digital: digital transformation

- ④ Create innovative & adapted digital services



- ④ Digital platforms are a key element of digital transformation for smallholders and the whole agri-food value chain
- ④ BUT, smallholder farmers have less digital technologies experience
- ④ For the smallholder communities, it is important to make digital technologies attractive & accessible → digital transition



The RESILINK digital platform

- Will enable **real-time exchange of information** on territorial resources and supplies & demands; **connecting smallholders to new supply**, sharing **opportunities and distribution channels**

1

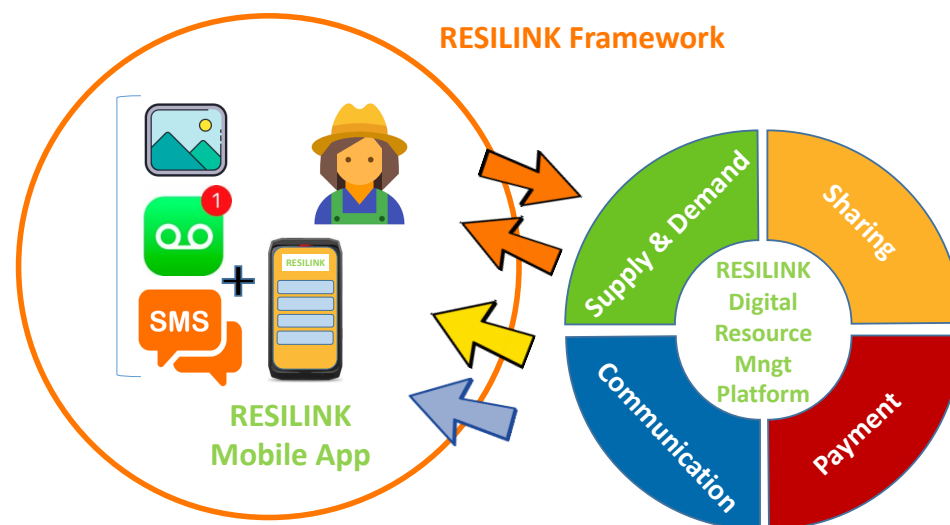
Improve the agri-food value chain by optimizing usage of local resources, generalizing local resource sharing approach and facilitating territorial markets

2

Develop distributed digital resource management platform for real-time exchange of information on territorial resources and supplies & demands; connecting smallholders to new supply, sharing opportunities and distribution channels

3

Use cutting-edge digital technologies to connect fields and farms resources, automatize and add intelligence in the agri-food value chain to provide simple application interfaces adapted to smallholders





The RESILINK mobile application

- ⦿ The RESILINK mobile application connects to the RESILINK digital platform to **publish & search for resources**
- ⦿ It **connects smallholders to new supply, sharing opportunities & distribution channels**, keeping them informed about **risks/ regulations** from governments

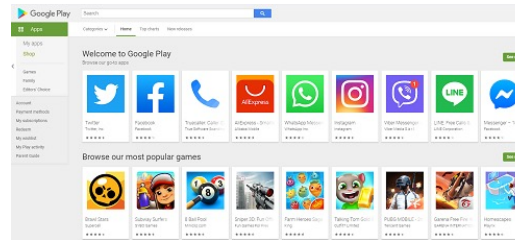
OK – WHAT'S NEW?





Are we going the right way?

- There are already a lot of digital platforms, they are already **key element of the digital transformation**



- BUT, usually, **each new digital platform or solutions will try to create its own community!**
- Sharing between communities is usually not proposed in traditional platforms. Rather, the main objective is competition and isolation to other communities



No "one app fits all"

- Competition → isolation → fragmented ecosystems



LinkedIn



Facebook



AirBnB



Instagram



WhatsApp



YouTube

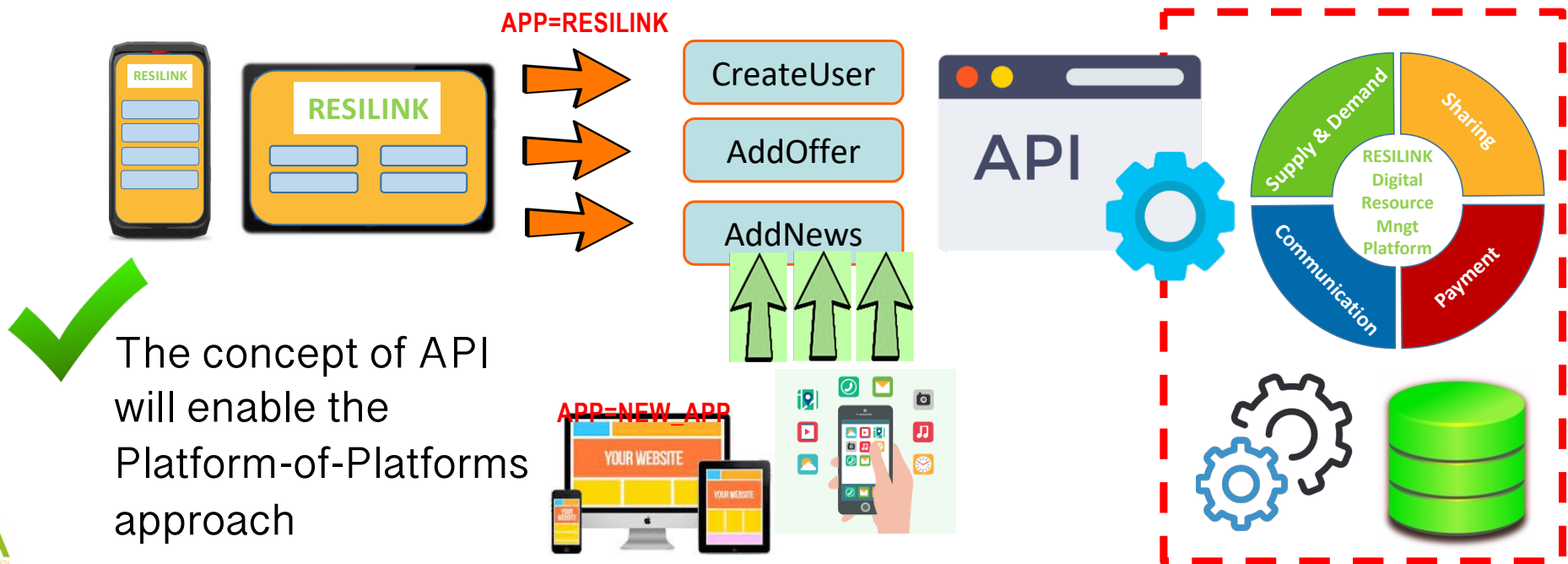


- Platform-of-Platforms!
- Enabling a platform-of-platforms approach will promote a much wider and appealing ecosystem
- Specialized platforms to better manage specific agricultural sectors
- Discover resources/services from other platforms → no isolation



API: key to large adoption!

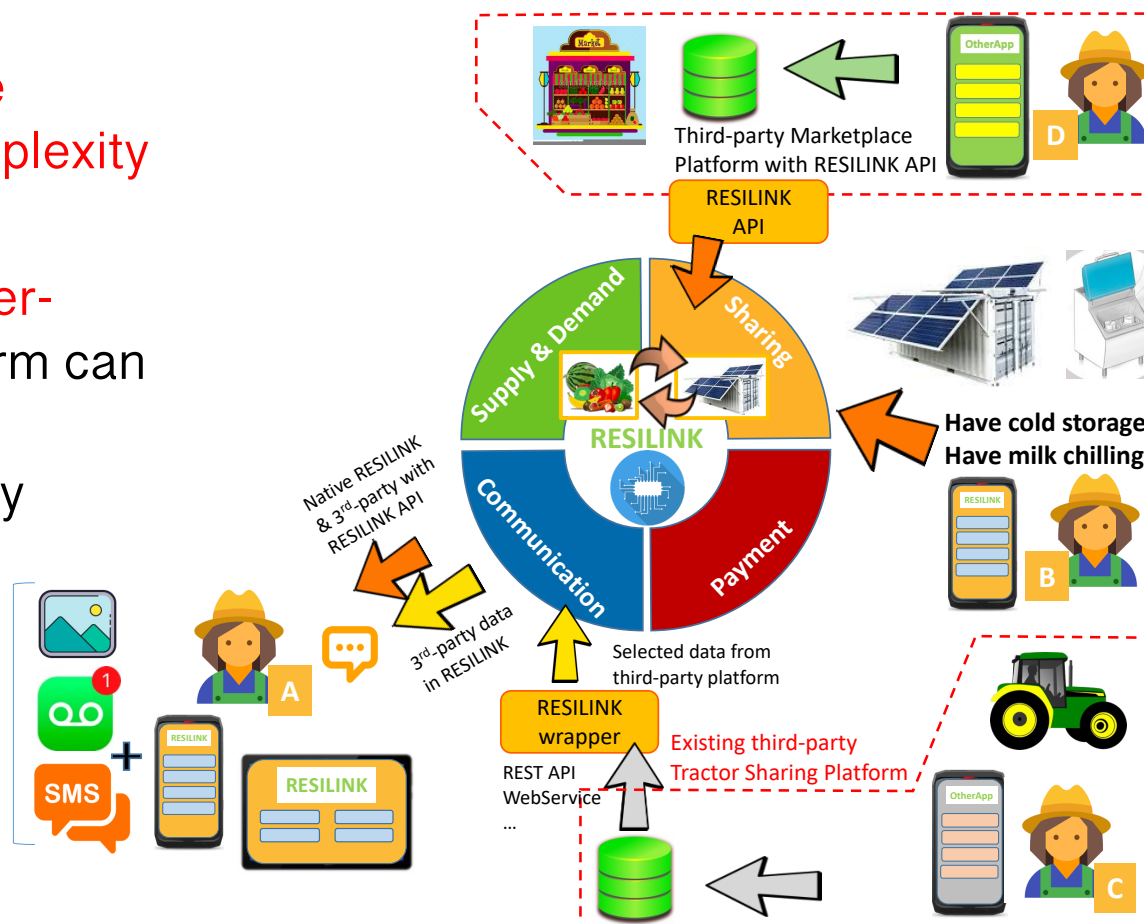
- API: **Application Programming Interface**
- Digital platforms > Applications thanks to API-oriented design
- All functionalities/actions are accessible through an API call





Stimulating local innovation?

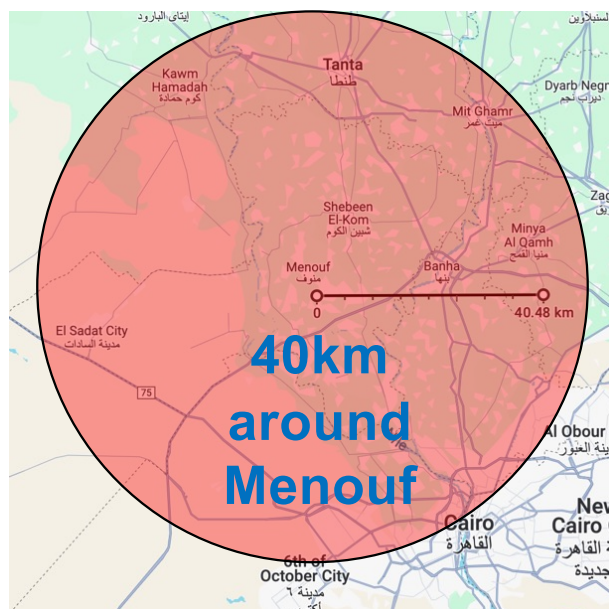
- The open API will **reduce development time & complexity** of new platforms
- All platforms **can fully inter-operate** and a new platform can benefit from all the other platforms' communities by sharing users & contents
- RESILINK develops a consistent API to **enable fast development and deployment** platforms





Now, where are local resources?

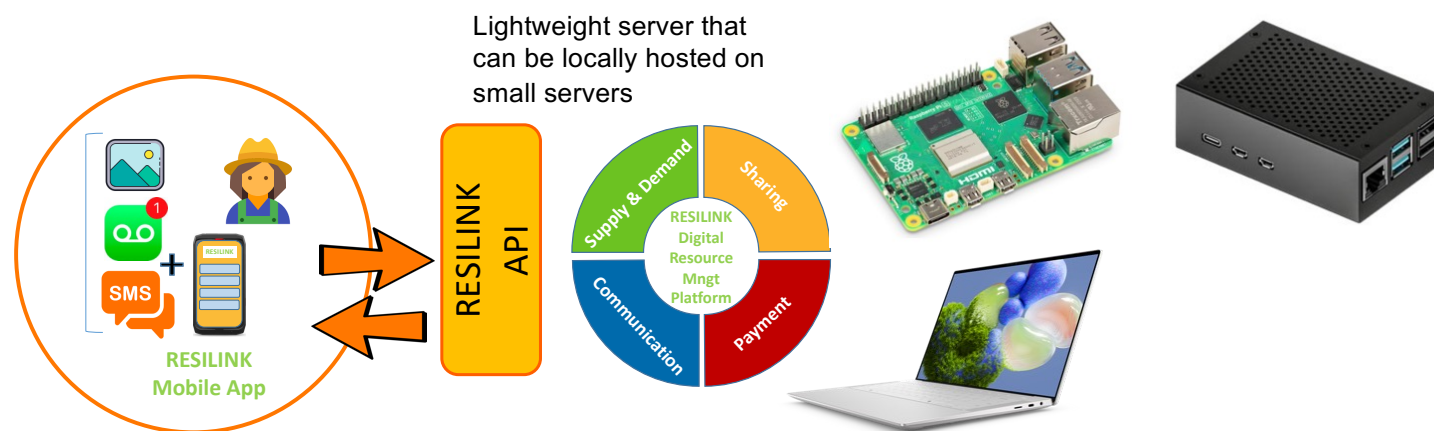
- Local resources are... **local** !
- In crisis situation, the objective is to rely & discover resources linked to a small geographical area





Light-weight servers & fast deployment

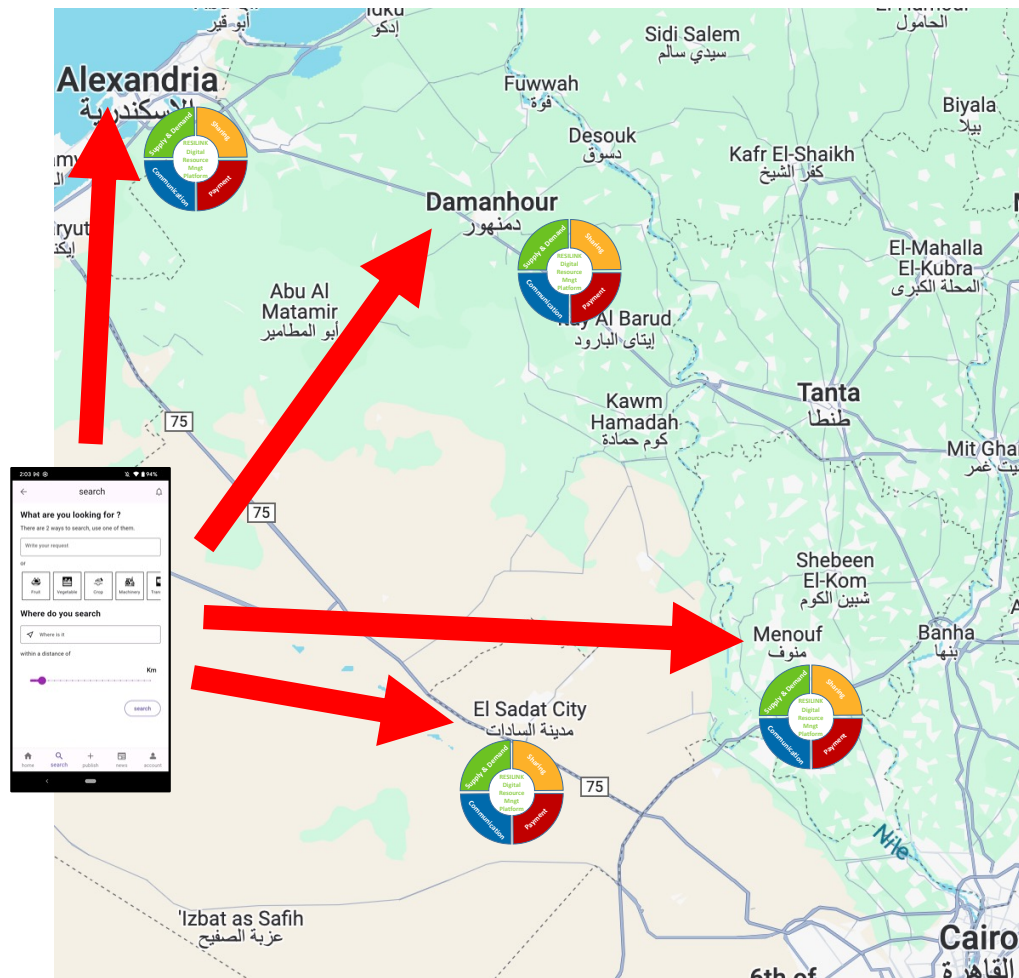
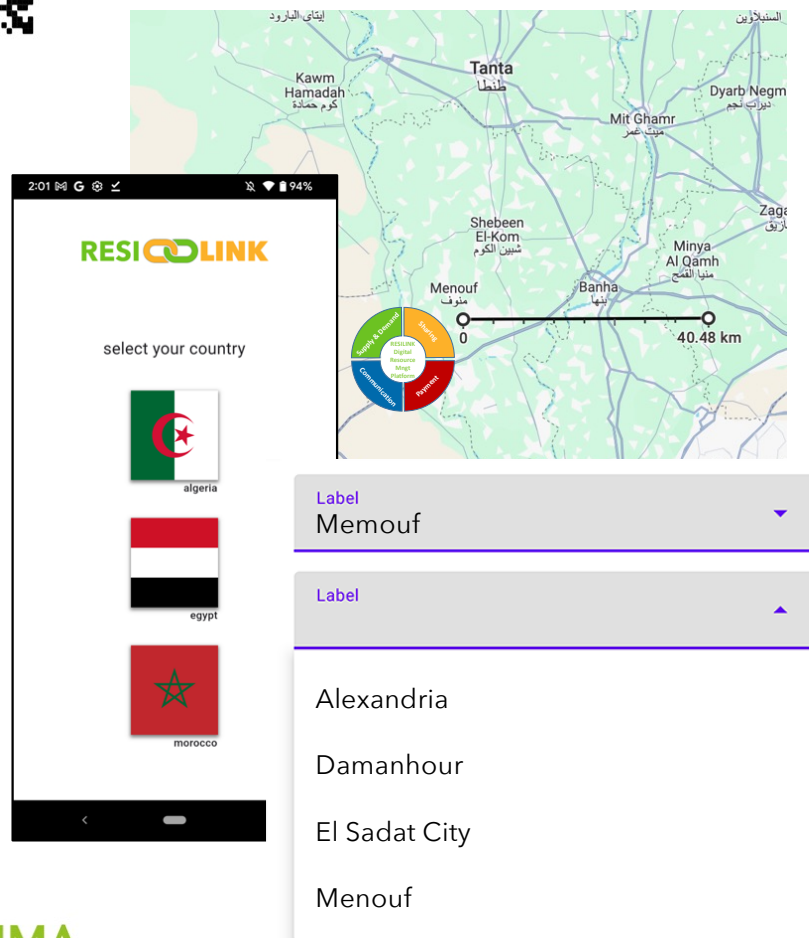
- ⦿ The RESILINK digital platform server can run on a small server, even on a small Raspberry Pi !



- ⦿ A RESILINK server can be **locally deployed** by local city government agencies, agriculture cooperatives, agriculture services, ... in 1 hour!



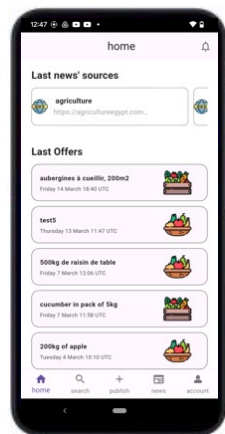
Incremental deployment





Test with a local network

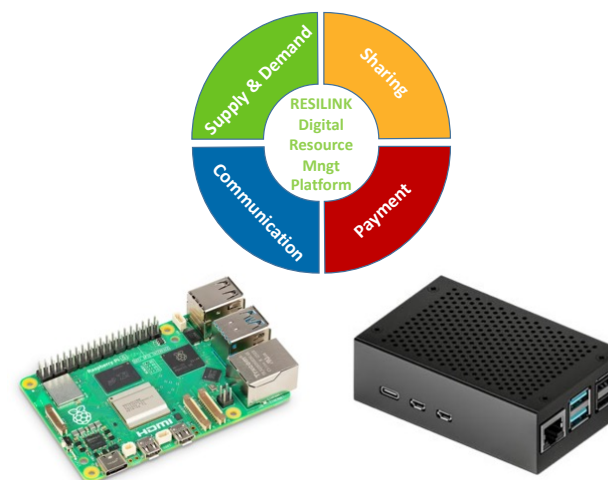
- ⦿ A test can be realized with all components on the same WiFi network



Smartphone connected to the WiFi and using the local RESILINK server



Smartphone running as WiFi access point through its 3G/4G/5G connection

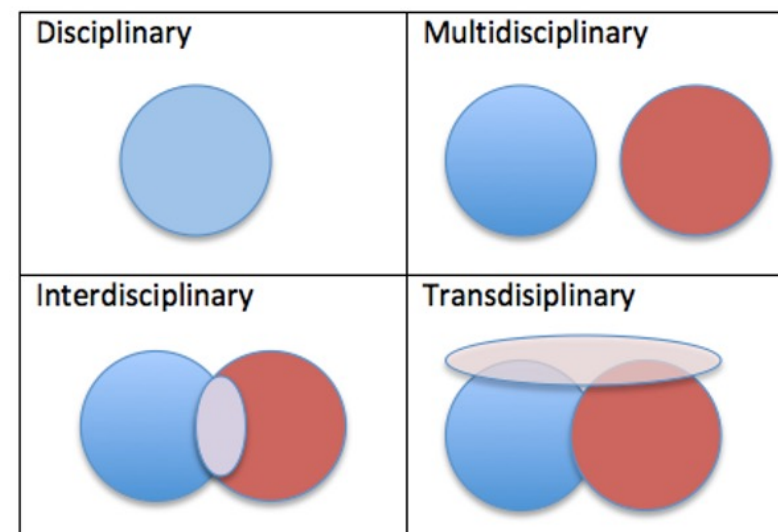


Raspberry Pi 5 connected to the WiFi and running the RESILINK server on the local network



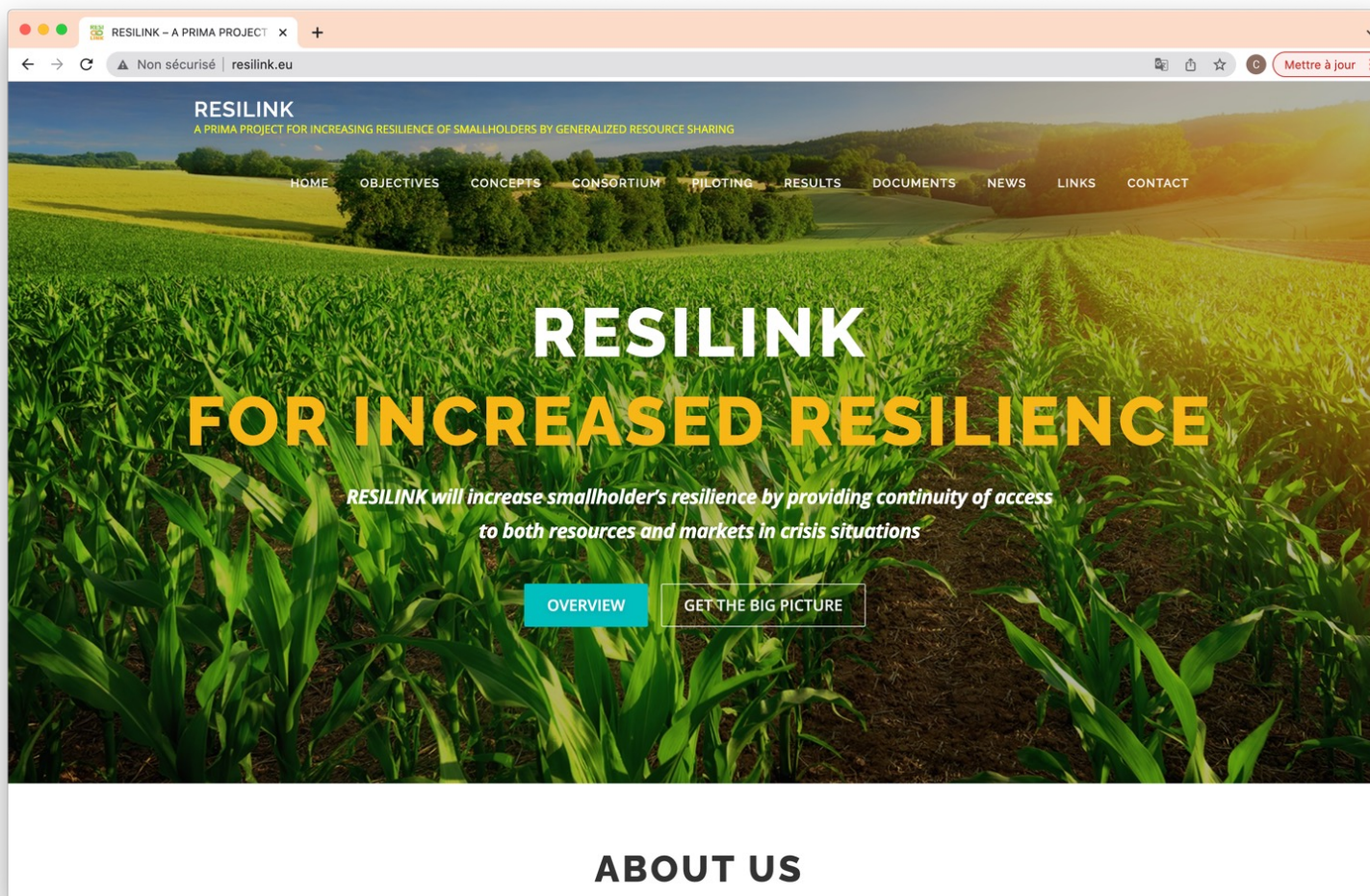
Conclusions

- ⦿ Digital platforms can contribute to the overall ambition to innovate in the whole agriculture/farming value chain
- ⦿ However, targeting smallholder communities is not simple
 - ⦿ Technology readiness & acceptability
 - ⦿ Technology cost & simplicity
- ⦿ Designing a good digital platform needs transdisciplinary research ...
- ⦿ Going to more transdisciplinary takes a lot of efforts and a lot of time!
- ⦿ But, at the end, it is very rewarding!
- ⦿ And, most importantly, you can discover new research challenges, you would not have considered!





Web site: <https://resilink.eu>



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