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# QUALIFY CITIZEN SCIENCE PROJECTS

A NEW FRAMEWORK TAKING INTO ACCOUNT THEIR DIVERSITY

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**INRAE** conducts multidisciplinary research in fields very close to the daily political concerns of citizens: **Agriculture, Food and the Environment**. Because of this, INRAE carries out a number of citizen science projects.

Here is a sample of 6 projects illustrating the wide range of citizen science practices at INRAE, from crowdsourcing to participatory action research:



## NUTRINET

Web-based and long-term study of relationships between nutrition and health with 150,000 participants



## PL@NTNET

Image-based plant species identification and large-scale plant inventory via a participatory platform



## CITIQUE

Ecology of ticks and the diseases they transmit, via a crowdsourcing app and an open lab



## ECOVITISOL

Winegrower-participatory study of crop management impact on microbiological soil quality



## BAKERY

Co-research on diversity and interactions between wheat varieties, bakers' practices and sourdough




## MANECH

Co-design for collective management and breeding of a local dairy sheep breed

With 200+ such projects and the need to provide support to researchers with thematic training, workshops or feedbacks from other researchers and participants, we are faced with the challenge of distinguishing between the different types of projects. Existing typologies, however, are based on a single criterion and overlook the specificities of projects.

We have thus developed our own frame of reference based on 13 criteria cover 6 dimensions:

|  | ←   |  | →   |  |  |
|--|---|---|---|--|--|
| <b>OBJECTIVES AND IMPACTS OF THE PROJECT</b> | In favor of common / public good  | Manech<br>PL@ntNet  | Bakery<br>EcoVitiSol  | In favor of vested interests, especially commercial interests, for a group of actors |  |
|  | Action-oriented project   | Manech  | CiTIQUE<br>EcoVitiSol<br>PL@ntNet<br>NutriNet                     | Bakery   | Oriented towards scientific knowledge production only  |
|  | Aiming to empower participants  | Manech<br>CiTIQUE   | EcoVitiSol<br>PL@ntNet  | NutriNet<br>Bakery   | Without the aim of empowerment (even if it can be)   |
|  | Local or regional spin-offs   | Manech  | Bakery<br>EcoVitiSol<br>PL@ntNet                                  | CiTIQUE<br>NutriNet  | National or international impact   |
| <b>TYPE OF ENGAGEMENT</b>                    | Project initiated by researchers  | CiTIQUE<br>PL@ntNet<br>Bakery<br>EcoVitiSol   | Manech  |  | Project initiated by <u>non</u> -researchers   |
|  | Questions formulated only by researchers  | NutriNet<br>EcoVitiSol  | CiTIQUE<br>Bakery<br>Manech<br>PL@ntNet                           |  | Questions formulated only by participants  |
|  | Engagement only concerns data collection  | NutriNet  | EcoVitiSol<br>PL@ntNet  | Manech<br>Bakery<br>CiTIQUE  | Engagement at several stages of the research process   |
| <b>TYPE OF PARTICIPANTS</b>                  | Citizens without any particular economic or professional interest in the project    | NutriNet  | Bakery<br>PL@ntNet<br>CiTIQUE                                     | EcoVitiSol<br>Manech   | Socio-professional actors engaged because of their professional or economic activity (e.g. farmer) |
|  | 100% of the participants are pupils, students and/or teachers                       |   | CiTIQUE<br>PL@ntNet   | NutriNet<br>EcoVitiSol<br>Bakery<br>Manech   | No participants from primary or secondary school   |
|  | Homogeneous set of participants relative to the project topic                       | Manech<br>Bakery<br>EcoVitiSol  | NutriNet  | PL@ntNet<br>CiTIQUE  | Heterogeneous set of participants relative to the project topic                                    |
| <b>SUPPORT FOR SHARING</b>                   | Participation through facilitation tools (models, drawings, mind maps, games, etc.) | Bakery<br>Manech  | NutriNet<br>CiTIQUE   | EcoVitiSol<br>PL@ntNet   | Participation only through spoken word or through digital data collection tools                    |
| <b>VALORIZATION</b>                          | Project outputs adapted to societal actors  |   | CiTIQUE<br>Bakery<br>EcoVitiSol<br>NutriNet<br>Manech<br>PL@ntNet |  | Project outputs in academic format only  |
| <b>RESEARCH STANCE</b>                       | Researchers are in the position of experts  | NutriNet<br>EcoVitiSol  | CiTIQUE<br>Bakery<br>PL@ntNet                                     | Manech   | Researchers are in a position of facilitators and mediators  |

**DO YOU SEE HOW AND WHERE YOUR PROJECT MIGHT FIT IN THIS TABLE?  
IF AN IMPORTANT ASPECT OF YOUR PROJECT IS NOT HIGHLIGHTED IN THE TABLE, PLEASE LET US KNOW!**