

# Engineer project report

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## Study and comparison of multi-criteria evaluation methods for agricultural operations for the EUfarms network of organic agroecological farms

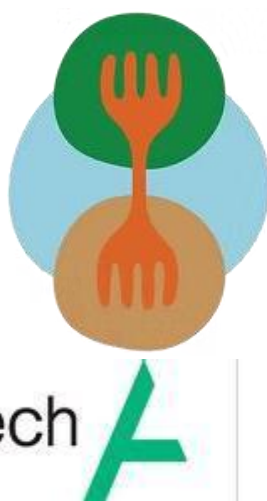
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# Abstract

This project is proposed by EUfarms, a network of organic agro-ecological farms. The aim of EUfarms is to report on the capacity of the network's farms to be economically viable and pioneers in environmental issues, while at the same time being part of social and territorial dynamics. To achieve this, network farms need to be assessed using multi-criteria evaluation methods. Given the multitude and diversity of these methods, it is necessary to compare them and select the one best suited to the needs and characteristics of the network's farms. To this end, a series of method selections was made from a large initial pool, in preparation for applying the methods on a test farm in the network. Five methods (IDEA 4, OASIS, TAPE, Diagnostic durabilité, Open Compass) emerged from the selection, and four of them were applied in the field. After analyzing the results and comparing the methods against criteria of importance to EUfarms, recommendations were made as to which methods should be preferred. The OASIS and IDEA 4 methods offer many advantages for the association's work. However, there are two opposing visions. OASIS is more focused on the farmer's progress in the agroecological transition of his practices, while IDEA takes a highly technical approach to sustainability, using quantitative indicators and focusing on impacts rather than practices.

# 1 Introduction

## 1.1. Structure presentation

---

EUfarms is a European network of certified organic agroecological farms, created in 2023. This association combines the creation of an international network of farms, an action research program, and the provision of a space for peer-to-peer sharing.

The network has three main objectives:

- To raise the profile of pioneering organic agroecology farms;
- To provide support through a network of peer-learning farms;
- Transmit and support the agroecological transition.

The network now consists of more than 320 farms and spans five countries in the European Union. Ultimately, the association's goal is to establish a network of organic agroecological farms across the European Union to demonstrate that there is an ecological and social alternative to the dominant production model in Europe. EUfarms defines agroecology as follows: "Agroecology is based on organic farming and aims to enrich it in a spirit of regenerating agroecosystems by drawing inspiration from nature. Agroecology also means including our farms in local economies, promoting social equity." Thus, there are a number of criteria, corresponding to this conception of agroecology, for joining the network:

- The farm must be certified organic or hold another even more demanding label (Demeter, Nature et Progrès, BioCohérence, ROC, etc.);
- Its surface area must be greater than 30 hectares (although smaller farms that are part of a regional cooperation initiative may be included);
- The farm must have at least two production workshops and one processing unit.

## 1.2. Presentation of the engineering project

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The project between EUfarms and AgroParisTech is part of the aforementioned objective of "raising awareness." EUfarms' goal is to demonstrate the network's farms' ability to be economically viable and pioneers in environmental issues while integrating into social and territorial dynamics. To achieve this, the association plans to carry out a multi-criteria sustainability assessment of 20 test farms in the network, before eventually extending this assessment to all farms. The results of these assessments will then be formalized in communication materials using the FarmID format or farm identity card.

However, given the multitude of existing multi-criteria assessment methods for farms, it is necessary to compare them, test their use, and understand the extent to which they meet the needs and characteristics of farms in the EUfarms network.

The objective of the engineering project is therefore to compare existing evaluation methods in order to test them on test farms and make recommendations on the methods best suited to the defined context.

## 2 State of the art bibliography

### 2.1 Definition and construction of multi-criteria evaluation methods

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“An evaluation method is defined as an analytical framework based on a set of predefined rules. An evaluation is described as multi-criteria when it involves more than a simple description using several criteria and therefore proposes an analysis and interpretation of all of these criteria, which may involve phases of weighting, compensation, and aggregation of the different criteria.” (Lairez, Feschet, and Aubin 2016)

Generally, multi-criteria assessment methods for agricultural systems are constructed as a set of criteria. “Criteria are variables that break down sustainable development and serve as a basis for judgment. These may include, for example, the profitability of a farm. Indicators are used to measure or estimate the criteria. In the example of the profitability criterion, possible indicators include gross margin, net margin, and gross operating surplus.” (Lairez, Feschet, and Aubin 2016). The criteria can therefore be based on one or more indicators, which may be of different types. First, these indicators may relate to practices (e.g., tillage intensity, IFT, amount of organic matter added) or effects (e.g., frequency of occurrence of soil macrofauna, abundance of insects, organic matter content, etc.). Secondly, these indicators can be quantitative (calculation or measurement) or qualitative (yes/no, perception, semi-quantitative scale).

In addition, each method has its own hierarchical framework, i.e., it consists of categories that allow criteria to be organized. For example, a multi-criteria assessment method can be divided into three main dimensions: “Economic,” “Social,” and “Environmental,” which correspond to the pillars of sustainable development. This internal organization of methods is specific to each one, and the vocabulary used to describe the different categories can vary significantly (dimensions, values, objectives, etc.). This hierarchy of method components was presented by Mr. Guilpart during his course “Evaluating Agricultural Practices” delivered at AgroParisTech in the PISTv specialization program in October 2024, where the diversity of nomenclatures between methods was highlighted. However, it is important to understand it well in order to best characterize the method.

Finally, Mr. Guilpart emphasizes the importance of prioritizing the points that matter to the client when approaching their system using the method. It is this prioritization that makes it possible to better distinguish the methods that could be suitable for their system.

### 2.2 Overview of existing methods and their diversity

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The most recent research conducting a survey of multi-criteria assessment methods reports more than 4,523 sustainability studies concerning agriculture and 262 methods aimed at taking environmental considerations into account in the analysis (Soulé, et al. 2021). This demonstrates that there are already a significant number of multi-criteria assessment methods in existence. However, these methods are characterized by a great deal of diversity in their construction and in the content they evaluate. They are all dependent on the definition of sustainability and agroecological transition used by the creators of the method and on the context and objectives specific to their design (Darmaun 2023). There is therefore a real need to identify the prerequisites and find the method best suited to the identified needs before using a multi-criteria assessment method (Lairez, Feschet, and Aubin 2016). In addition, there is the question of the transferability of methods to

contexts other than those for which they were designed. A method may be very faithful to the values and objectives of a stakeholder wishing to use it, but may not be applicable in their context (defined climatic or geographical area, specific reference data, specific production sector, guide not translated into the user's language, etc.).

The work (Soulé, et al. 2021) is very interesting in the context of the project because it provides a comprehensive and concrete example of a comparison of multi-criteria assessment methods with the aim of covering the agroecological transition. In this work, the methods were compared using various main categories: type of literature, purpose of the method (propose, select, raise awareness), production sector (varied, cereals, livestock), aggregation method (sum of scores, no aggregation, etc.), type of assessment (ex ante or ex post).

### 3 Questions

The state of the art in the literature shows a wide variety of multi-criteria evaluation methods for farms. This diversity is characterized by a multiplicity of ways of characterizing farms and, therefore, of criteria taken into account in the evaluation. In addition, the methods respond to specific objectives defined by those who develop them and are therefore adapted to very specific evaluation contexts.

On the other hand, EUfarms has its own criteria and specific objectives to take into account when evaluating farms in its network. The evaluation must cover farms located across the European continent, with a minimum area of 30 hectares containing several production units (both crop and livestock) and a processing unit. Furthermore, given that EUfarms aims to report on the ability of its farms to produce healthy, ecosystem-friendly, and socially just food, while also being economically profitable, it is essential that the method reflects the complexity of these issues.

There is therefore a real tension between the large number and diversity of multi-criteria assessment methods and EUfarms' need to find a method that best meets its expectations and objectives. It is therefore essential to identify the criteria that are important to EUfarms, take stock of existing methods, and then compare and select methods before applying them. This work is all the more necessary given that the farms in the EUfarms network have specific characteristics that differ from most of the farms on which assessment methods are often based, particularly with regard to the diversification of activities and the presence of on-farm processing.

It is therefore legitimate to ask:

How can we compare the many existing multi-criteria assessment methods? How can we select one that is suited to EUfarms' needs and objectives so that it can be applied to the farms in the network?

### 4 General approach and initial selection results

This section discusses not only the approach that guided the project, but also the *preliminary* selection results. That is, the selection results obtained from filters or selection grids prior to field application. In addition to their intrinsic value, these results provide insight into the approach outlined and the choices made throughout the project.



## 4.1 Getting to grips with the subject: pools of methods and development of the approach

First, the focus was on understanding the subject of multi-criteria assessment of farms.

### EUfarms pool

To this end, a bibliographic corpus was provided by EUfarms at the start of the project. This corpus included theses and study reports, as well as technical and methodological documents relating to different multi-criteria assessment methods. In Figure 1, the methods corresponding to this corpus are represented by "Pool EUfarms."

### Pool Soulé et al.

Research additional were carried out. (Soulé, et al. 2021) provides a pool of 262 methods in its Appendix D (see Figure 1, "Pool Soulé et al."). Beyond the keys to analyzing methods, familiarizing oneself with the content of methods (by looking in detail at the proposed indicators, the implementation of the method, and also the results) makes it possible to better design the future strategy for selecting methods.

### Additional sources

In light of Nicolas Guilpart's course (see 2.1), we also understand that it is important to fully understand the needs of the client who wants to

an assessment of its system. This involves back-and-forth discussions to prioritize the points that are important to the sponsor in terms of its approach to its system, thereby making it easier to identify the methods that could be suitable for its system. Through discussions with EUfarms, we have prioritized the points that will be essential for us in selecting one or more methods of interest:

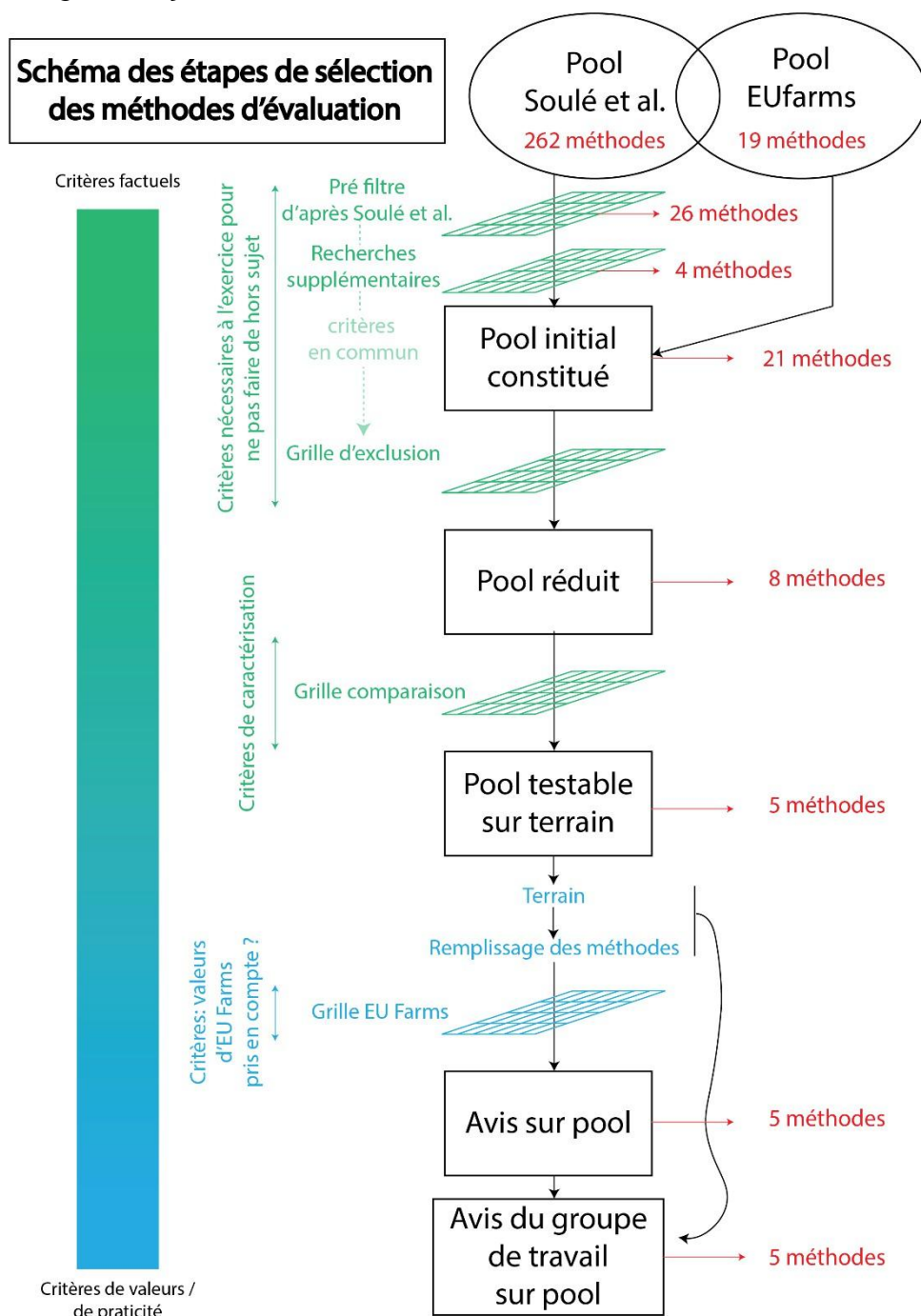


Figure 1 - Diagram of the steps involved in selecting evaluation methods

- The essential criteria for EUfarms' objectives. If the method does not take these criteria into account, the final assessment will be irrelevant. This is the case, for example, with a multi-criteria assessment method that is only suitable for tropical climates.
- The content of the criteria and indicators taken into account in the assessment and the way in which they reflect EUfarms' definition of agroecology.
- The practicality of applying the method in the field (real-time questioning, understanding of its elements, obtaining results and understanding them).

With this external assistance, the selection process can be refined:

- Filter the pool of 262 methods (Soulé, et al. 2021) to obtain a few methods to add to the initial pool sent by EUfarms (see Figure 1, "Pre-filter");
- Apply the criteria essential for considering the method according to EUfarms to this pool: creation of an exclusion grid (see Figure 1, "Exclusion grid");
- Using the methods validated by the exclusion grid, characterize the methods and then compare them in order to select a limited number to test in the field: creation of a comparison grid (see Figure 1, "Comparison grid");
- After field testing, the criteria expected by EUfarms will be studied for each of the methods, making it possible to see which one or ones are most suitable (see Figure 1, "EUfarms grid").

## 4.2 Method sorting phase

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Now that the phase of gathering all the methods has been completed, it is time to move on to the actual sorting of methods with the aim of testing the selected methods in the field during the evaluation of a farm (Sorans-lès-Breuray, Franche-Comté).

### 4.2.1 Pre-filtering of the pool of methods from the study by Soulé et al.

The work of Soulé et al. presents a pool of 262 methods (Soulé, et al. 2021). In the appendices to their work, it is possible to find the table characterizing the methods (Table D).

The aim is to build on the work of (Soulé, et al. 2021), which provided a state-of-the-art review of most existing assessment methods, and to select those that meet certain essential criteria for the methods sought by EUfarms. This selection will be added to the pool of methods provided by EUfarms, accompanied by documents on each of them (see Figure 1: "Pool according to Soulé et al." to "Initial pool").

In the table by (Soulé, et al. 2021), methods are characterized according to various criteria such as: climate zone, production system, sustainability dimensions, etc. A filter is applied to the criteria of interest. Thus, based on the expectations expressed by EUfarms, the following criteria can be used to filter the methods in the pool:

- Degree\_genericity: some methods are only applicable in a single zone, which is not relevant for EUfarms, given its international nature and the search for a method that can be adapted to the associated countries.
- Climate\_zone: some methods only apply to tropical climates. EUfarms focuses on European countries, which have a temperate climate.

- Production\_sector: in the criteria for inclusion of farms in the EUfarms association, diversification of production workshops is mandatory and must therefore be taken into account in the methods chosen
- Sustainability\_dimensions: EUfarms defines sustainability as comprising three dimensions: economic, environmental, and social. The method must therefore address these three dimensions
- Spatial\_resolution: EUfarms wishes to focus its assessment at the farm level.

The filters applied to the criteria presented above are as follows:

| Degree_genericity   | Climate_zone  | Production_sector   | Sustainability_dimensions  | Spatial_resolution   |
|---|---|---|--|--|
| <input checked="" type="checkbox"/> Dedicated method<br><input checked="" type="checkbox"/> Methodological framework<br><input type="checkbox"/> Case study | <input checked="" type="checkbox"/> Temperate<br><input checked="" type="checkbox"/> Undefined<br><input type="checkbox"/> Tropical | <input checked="" type="checkbox"/> Mixed farming<br><input checked="" type="checkbox"/> Various<br><input type="checkbox"/> Agroforestry<br><input type="checkbox"/> Arboriculture | <input checked="" type="checkbox"/> All three<br><input type="checkbox"/> Additional dimension<br><input type="checkbox"/> Environment<br><input type="checkbox"/> Environment and economic<br><input type="checkbox"/> Environment and social | <input checked="" type="checkbox"/> Farm<br><input type="checkbox"/> Field<br><input type="checkbox"/> Territory |

Table 1 - Filters applied to the criteria found in Table D of the appendices of Soulé et al. (a red circle indicates that the methods are not taken into account if the criterion mentioned is found)

After applying these filters, the pool of methods is reduced to 26 methods (see Figure 1, "pre-filter according to Soulé et al."). This number is still too high: these methods must be added to those provided by EUfarms before going through selection stages that involve more in-depth research on the methods. As these research stages are quite time-consuming, it was decided to limit the initial pool of methods to be selected by including in this pool methods that best meet EUfarms' expectations.

By quickly reviewing the 26 methods remaining after filtering, new selection criteria emerge and a second filter is applied (see Figure 1, "Additional searches"):

- The method is not selected when there is insufficient documentation available or when it is not accessible (foreign language);
- If the method costs money: the objective is to have a method that is easy to access and does not incur any (or only minimal) costs;
- Even if several workshops are taken into account, if the method is too focused on one of them, it is not relevant (as in the case of DURABEEF, which is very focused on livestock farming).

Following this second stage of selecting methods from the pool provided by Soulé et al., it appears that only four methods meet all the criteria of the pre-filter and additional research.

| 1    | 2                                | 3           | 4  |
|------|----------------------------------|-------------|--|
| IDEA | Diagnosis of small-scale farming | DiagAgroEco | Sustainability assessment of the Sustainable Agriculture Network |

Table 2 - Methods from the Soulé et al. pool that were ultimately selected

It should be noted that (2) and (4) (see Table 2) also belong to the EUfarms pool and that (1) appears there in association with a second method (CARE). IDEA 4 without CARE is therefore added as a separate method in the study, along with DiagAgroEco.

The pool of methods used in our study therefore consists of 21 methods (see Figure 1, "Initial pool"): 19 methods from the EUfarms pool and 4 methods from the pool of (Soulé, et al. 2021). Two methods are present in both pools.

#### 4.2.2 Exclusion grid

After the initial pool was established, an initial grid known as the "exclusion grid" (see Appendix 4) was created in order to exclude methods that did not meet the essential criteria for evaluating EUfarms operations. These criteria simply serve to avoid irrelevant methods, i.e., methods that are unsuitable for the farms targeted by EUfarms. It should be noted that some criteria overlap with the pre-filters discussed above. Nevertheless, they must appear in the exclusion grid so that the methods specific to the "EUfarms Pool" are properly submitted (Figure 1).

These criteria are:

- The scale of the assessment must be that of the farm;
- The assessment must be multi-criteria and cover sociological, economic, and environmental aspects
- Its degree of application must be generic (not only applicable to a case study);
- The production taken into account may be animal or plant-based: farms in the EUfarms network have several production workshops, each of which must be taken into account;
- The method does not only have a certification objective, because in this case, the methods only return a binary result of certification attribution;
- The method's architecture contains indicators.
- The method must not be "opaque": when reading the documentation available on the method, the information must be clear and explicit.

If a criterion is not validated for a method, it is set aside and the rest of the grid is left blank. The exception to this is the opacity criterion, as this corresponds more to a personal feeling, which, if the method is selected, will be evaluated by other readers of the documentation. This made it possible to exclude certain methods without having to understand their content in detail, given that it is very time-consuming to read all the technical documentation specific to each of them.

The exclusion criteria that led to the most methods being excluded were:

- Study scale = operation: 3 methods did not meet this criterion.
- Degree of application: 3 methods were not adaptable to situations other than those described in the tool documentation.

After applying the exclusion criteria, 8 methods were selected: Care + IDEA4, IDEA4, Open Compass, TAPE, Sustainability Diagnosis, Oasis, Smallholder Farming Diagnosis, Diagagroeco (see Figure 1, "Reduced pool").

### 4.2.3 Method comparison grid

The next step in the process focuses on identifying the most relevant methods from those selected in the previous stage. To do this, the first step was to construct a comparison grid for the methods (see Figure 1, "Comparison grid"). The various elements of comparison (method characteristics) are listed in the following table:

| CONTEXTE DE L'ETUDE          |                                      |                          |                            |                   |  |          |  |
|------------------------------|--------------------------------------|--------------------------|----------------------------|-------------------|--|----------|--|
| Informations générales étude |                                      |                          |                            |                   | Objectifs / Finalités  | Livrable | Interprétation des résultats   |
| Type de production agricole  | Prise en compte de la transformation | Echelle spatiale d'étude | Echelle temporelle d'étude | Type de structure | Certification, Sensibilisation, Apport de connaissances, Diagnostic etc... | Format   | Conseil sur les pratiques ensuite ?<br>Comparaison avec des valeurs de référence ? |

| CONTEXTE DE L'ETUDE   |                                     |                      |                           |              |              |                               |                           |
|-----------------------|-------------------------------------|----------------------|---------------------------|--------------|--------------|-------------------------------|---------------------------|
| Modalité d'évaluation |                                     |                      |                           |              |              |                               |                           |
| Temps nécessaire      | Nationalité et application zonale ? | Qui a créé l'outil ? | Age et nombre de versions | Qui évalue ? | Destinataire | Moyens financiers nécessaires | Moyens humains à déployer |

| CONTEXTE DE L'ETUDE         |                   |                     |                      |                          |                       |                           |                    |             |              |
|-----------------------------|-------------------|---------------------|----------------------|--------------------------|-----------------------|---------------------------|--------------------|-------------|--------------|
| Modalité d'évaluation       |                   |                     |                      |                          |                       |                           |                    |             |              |
| Type de collecte de données | Accès à la donnée | Qualité des sources | Données de référence | Architecture des données | Modalité d'agrégation | Niveau final d'agrégation | Type d'indicateurs | Pondération | Compensation |

| INDICATEURS                                     |                         |                                      |   |                      |                      |               |            |     |            |              |                  |
|---|-------------------------|--------------------------------------|---|----------------------|----------------------|---------------|------------|-----|------------|--------------|------------------|
| Approche générale                               | Performance économique  |                                      |   | Social               |                      | Environnement |            |     |            |              | Bien-être animal |
| Quelle définition et échelle de la durabilité ? | Indicateurs économiques | Prise en compte de la transformation | Prise en compte de synergie entre productions agricoles | Bien-être au travail | Insertion territoire | Eau           | Atmosphère | Sol | Ressources | Biodiversité |                  |

Table 3 - Method comparison criteria (simplified, complete table in Appendix 5)

For each method listed in Table 3, the characteristics of the method have been explained in as much detail as possible so that they can be compared in a nuanced way (and not just with binary criteria such as

"yes/no"). For example, for characteristics of the "indicator" type (see Table 3), opposite each evaluation criterion, the number of indicators relating to the criterion has been entered, showing which comparison criterion has been emphasized (for example, if there are 8 biodiversity indicators in IDEA4, in the IDEA4 column, for the "Biodiversity" criterion, "8" is written, showing the weight given to biodiversity in IDEA4, see Appendix 5. This grid was checked and modified with Nicolas Guilpart in order to refine the characterization of the methods. After completing the grid and discussing it with Emilie Rousselou (sponsor) and Maude Quinio (educational advisor), the results of the method selection are shown in Table 4. Five methods were retained (see Figure 1, "Field-testable pool"). **Their detailed description is provided in section 5.1.** Table 4 shows only the reasons for selecting or rejecting the methods.

Table 4 - Results of method selection based on the comparison grid

| Methods not selected          | Reasons for non-selection  |
|-------------------------------|--|
| Care + IDEA4                  | With the IDEA4 method characterized in the grid, consideration is given to adding the Care method to assess sustainability. The limitation to the use of Care that emerges is the fact that it requires an evaluator who is knowledgeable in accounting in order to translate social and environmental impacts into monetary terms.  |
| Smallholder Farming Diagnosis | To access the methodology and results of the method, you need to purchase the detailed manual, which costs €30. In addition to the cost, this means spending extra time obtaining the manual and evaluating the method. The strategy is therefore to reject it in favor of selected methods that are free and suited to EUfarms' expectations.   |
| Diagagroeco                   | It was quite difficult to find accurate information on the construction and thinking behind the tool. A user tutorial is easily found online, but it does not mention aggregation methods, the presence of weightings, or the implication of offsets in the final result. In order to obtain more information on the indicators, it seemed necessary to carry out the diagnosis, which takes time. considerable investment required for its characterization. The strategy adopted was therefore to replace it with methods for which documentation is more readily available and comprehensive.   |
| Selected methods              | Reasons for selection  |
| IDEA4                         | This method is free and open source, all information is available online, and new versions are released regularly. The time required to<br>The method involves three hours of data collection, plus the time needed to familiarize oneself with the method and analyze the documents provided by the operator to supplement the technical data. No special training is required to carry out the assessment. The three dimensions of sustainability are given equal consideration. The indicators are evenly distributed across the sustainability criteria, with a relevant emphasis on social issues. The final aggregate score is based on the lowest-performing of the three dimensions, which allows the weaknesses of a structure to be taken into account in the result. The deliverable consists of mind maps and scores.  |
| Open Compass                  | Open Compass is a free and recent method. Its accessibility is not clear in itself, but the link established between EUfarms and Farm For Good helps to clarify this. The time required to complete Open Compass is only half a day, involving an interview with the farmer. The number and distribution of indicators makes it possible to render accounts for the three dimensions of sustainability, with a focus on biodiversity. The deliverable consists of radar charts accompanied by recommendations based on comparisons of the results with thresholds calculated by Farm For Good.   |
| TAPE                          | TAPE is available free of charge online with documentation that clearly outlines the structure and components of the method. Its international nature ensures that a wide variety of systems are taken into account. The survey can be completed online by the farmer themselves in a maximum of four hours, plus the time required for analysis and feedback from advisors, followed by a group discussion with the farmer. The method works well.<br>accounts for sustainability dimensions with an emphasis on social aspects. TAPE also takes into account processing activities, which are a mandatory part of farms in the EUfarms network. There is no compensation in the results, which means that no additional weighting analysis is required in the result. The deliverable consists of radar charts as well as a more descriptive section on the farm with a 3-color rating (red, green, yellow). |

|       |  |
|-------|--|
| Oasis | Oasis is a methodology that is available free of charge, and the documentation is freely accessible<br>access. It has been developed at European level, making it suitable for the |
|-------|--|



|                          |   |
|--------------------------|---|
|                          | <p>EUfarms network. It is carried out through an interview with the farmer, which takes between half a day and a full day. The person using Oasis normally undergoes training offered by the organization that created the method, but the entire assessment and guide are available online. All aspects of sustainability are addressed equally. The aspects of the method are aggregated into a final score using an average of the scores, and the deliverable then returns the single final score as well as radar charts for each aspect of the method. The method also takes into account transformation, which is present in all farms in the network.</p> |
| Sustainability diagnosis | <p>This method can be downloaded free of charge online by submitting a request on the CIVAM website, which provides an assessment document and user guide for the method. To complete it, an interview with the farmer and an analysis of the accounting documents. This means that a day on the farm is needed to carry out the assessment. All aspects of sustainability are taken into account, with a focus on the environment rather than other aspects. The CIVAM method addresses the processing workshop, which contributes to the diversity of workshops on farms in the network.</p>  |

### 4.3 Application of methods in the field

The previous method selection process identified five multi-criteria assessment methods with high potential for application to farms in the EUfarms network: IDEA 4, Oasis, TAPE, Sustainability Diagnosis, and OpenCompass (see Figure 1, "Field-testable pool").

In order to fully understand the content and implementation of each of these methods, they need to be put into practice on the same farm. This allows us to understand how the methods are implemented in the field, but also to compare the results on the same farm and thus perceive the differences between methods in the presentation of these results. For OpenCompass, the method lacked clarity at first glance, which meant that a meeting had to be organized with Farm For Good in order to better understand the characteristics of this method. In addition, it had been applied in 2021 on the test farm. For these two reasons, it was not directly applied in the field but was reworked using the data collected for the other methods.

The other four methods were put into practice at the "Ferme Bio de They" farm owned by Mr. and Mrs. Devillairs in Sorans-lès-Breuray in Haute-Saône (Bourgogne-Franche-Comté), who are pioneering members of EUfarms. This farm is a mixed farming operation covering more than 200 hectares of UAA (mainly pasture and hay meadows and wheat for flour production) with numerous livestock facilities (pigs, dairy cattle, rabbits, chickens). The farm also has an on-site processing facility (butchery, charcuterie, flour mill) and sells its products directly to the public. The farm also has a tourist lodge and a methanization unit.

To avoid repetition and make the interview feasible within the farmer's availability (1.5 days), a single questionnaire was prepared in advance so that it could collect all the data needed for the four methods. To achieve this, the Oasis interview guide was supplemented with the information required for the IDEA4, TAPE, and CIVAM Sustainability Diagnosis methods. The necessary documents (such as accounting records, invoices, statements, and various administrative supporting documents) were also requested in advance in order to prepare for the interview as thoroughly as possible.

On January 9 and 10, 2025, a tour of the farm, an in-depth interview in two parts (4 hours followed by 3 hours), and social gatherings took place in Sorans-lès-Breuray. These events provided an opportunity to gain a thorough understanding of the challenges facing the farm and how it operates, as well as to collect all the data, impressions, and information needed to complete the four methods tested on the farm. The



processing of all this data was the subject of subsequent individual work, organized by method. It shows the results of applying the methods to the same farm using the same questionnaire, both in terms of the method's performance and the analysis of its implementation. A second series of tests of these methods on a second farm in the EUfarms network was planned in Courances (Essonne, Île-de-France) to confirm the results of the application of the methods in Sorans-lès-Breuray. However, given the time constraints imposed by the engineering project schedule, the time required to carry out such an interview, and the availability of farmers during the busy sowing season, this was not possible and the test will be postponed until a later internship.

## 4.4 Obtaining results from methods

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### 4.4.1 Processing of collected field data

The implementation of data processing methods was the subject of significant learning: understanding all indicators, different levels of aggregation, the philosophy behind the methods, the transfer between data collection and work tools, etc. Beyond a thorough understanding of the methods, it was also necessary to master spreadsheets, forms/fill-in fields, output representations, and the paths between data entry and result visualization. The results by method for the tested operation and the implementation analysis are presented in section 5.1.

One of the issues encountered at the Sorans-lès-Breuray farm is the coexistence of a limited liability company (SARL) managing processing and sales in the farm shop and a agricultural cooperative (SCEA) managing agricultural production. This has led to choices having to be made in terms of economic analysis regarding what is taken into account for expenses and income, particularly in accounting.

Discussions were held with the various method designers to clarify certain points (particularly regarding accounting) or to retrieve data (2021 assessment data for OpenCompass and regional data for OASIS).

### 4.4.2 EUfarms grid

Following this, a grid summarizing the expectations of the sponsor EUfarms was provided (see Figure 1, "EUfarms Grid" and Table 5). These expectations correspond to criteria relating to soil regeneration, biodiversity, on-farm slaughter, work organization, sales, local processing, regional integration, and related issues. For each of the methods applied, the grid was completed as follows: a score of 0 was given if the expectation was not present in the method (not taken into account or not apparent at any point), a score of 1 if the expected outcome is partially taken into account (i.e., one or more aspects are considered but the overall expected outcome does not appear or emerge in the results of the method as specified by the sponsor), and a score of 2 if the expected outcome is clearly present and emerges in most of its aspects in the results of the method.

|   |   |   |   |  |
|---|---|---|---|--|
| Welcoming biodiversity                  | Soil regeneration   | Water cycle and infrastructure                        | Hedges and agroforestry                           | Animal welfare                                   |
| On-farm slaughter                       | Preservation of added value   | Local sales   | Diversity of activities                           | Ability to pass on knowledge                     |
| Feeding the region                      | Proposal of activities  | Women on the farm                                     | Farm participation in local and national networks | Product accessibility for all: affordable prices |
| Fragmented plots... or a single block?  | Number of different economic structures on the farm's land                    | Citizen investment to enable the purchase of the farm | Multiple activities outside the farm              | Located in a protected area?                     |
| Balanced governance                     | Distribution of employees, apprentices, partners, self-employed workers, etc. | Relative "independence" from subsidies in particular  | Who invests in the farm ?                         | Job creation                                     |
| Average weekly working hours per farmer | Ability to listen   | Opportunities for training and knowledge transfer     | Time dedicated to passing on experience           | Inspiration generated by the farm                |

*Table 5 - Modified EUfarms criteria grid (green = ecosystem regeneration; pink = economic return; orange = social return; yellow = inspirational return; white = unclassifiable)*

### 4.4.3 Comparative analysis

Finally, based on the results obtained by applying the methods to the Sorans-lès-Breuray farm (graphical and analytical representations), the points raised regarding the implementation of the methods, and the correspondence between the client's expectations and the elements captured by the methods, it was possible to carry out a detailed comparative analysis of these results (see Figure 1, "Opinion of the pool working group") and to present the advantages and disadvantages of these methods in the best possible light in order to assist in the decision to select one of these methods for evaluating the farms in the EUfarms network.

## 5 Results of selected methods and comparison

In this section, comments on the methods should be viewed in the context of EUfarms' expectations. No judgment is made on the methods themselves.

### 5.1 Results of the selected methods

#### 5.1.1 CIVAM method

##### *Philosophy of the method and context of creation*

CIVAMs (Centers for Initiatives to Promote Agriculture and Rural Areas) are groups of farmers and rural residents who work collectively toward agroecological transition. In the 2000s, the issue of farm performance in terms of sustainable development gained momentum and led to the creation of the sustainability assessment studied in this report, a tool that aims to be reliable, accurate, transparent, simple, and quick to implement. CIVAM's agroecological orientation is a strong point for the method, which is therefore intended to be adapted to farms using this agricultural approach.

##### *Structure of the method*

Two documents are available: a diagnostic tool (spreadsheet) and a user guide. There is no pre-designed interview guide, however, all quantitative indicators are described in sufficient detail to prepare for the interview.

The method is organized around the three dimensions of sustainability. Each dimension consists of seven indicators, some of which are divided into sub-indicators that are then aggregated to give a value to the main indicator. The indicators are mainly quantitative, with a few qualitative indicators in the social and biodiversity sections.

The preliminary work required before using the method therefore involves understanding the indicators, mastering the spreadsheet, and distinguishing between the information to be gathered during the interview and that obtained from the farm's documents.

##### *Results of field application*

For each dimension, a table lists the associated indicators, their values, and the scoring grids used to assign a final number of points to each indicator. Based on these tables, radar charts are created for each dimension (see Figure 2).

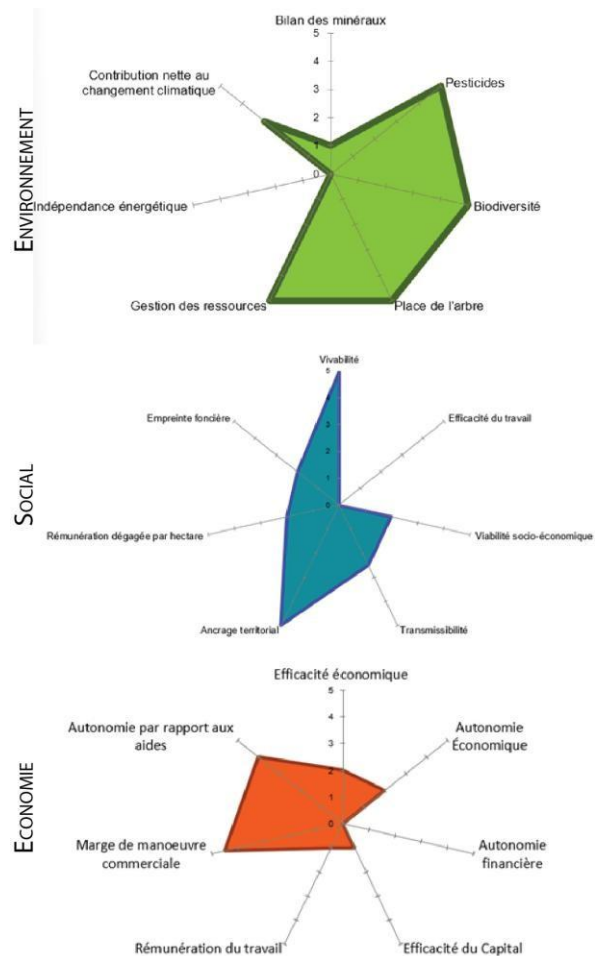


Figure 2 - CIVAM results

- “Environment” dimension:

For the They farm, the pesticide rating reflects the very low use of pesticides. Agricultural practices and the extensive hedgerows promote biodiversity. Resource management in this method refers to soil management, which is optimized through soil cover and long crop rotations. Energy independence is rated very negatively for the They model because the indicator only takes consumption into account and not the farm's own production. Finally, the net contribution to climate change is average due to the farm's carbon emissions (mainly enteric fermentation from cattle).

- Social dimension:

The operator is entirely satisfied with his quality of life. He has chosen to put down roots in the area by offering farm stays and locating production, processing, and sales within the region. The other indicators take into account an economic perspective, which is greatly affected by the farm's debts. As a result, the farm is entirely ready to be transferred but appears difficult to transfer due to these debts.

- "Economy" dimension:

The results of the economic assessment of the They farm are heavily impacted by the farm's debts due to numerous investments. On the other hand, the farm is self-sufficient in terms of subsidies, which suggests economic efficiency once the debts are repaid. In addition, the diversity of activities provides commercial flexibility, indicating that the farm is not very sensitive to the economic climate of its main activity.

### ***Advantages and disadvantages***

The sustainability assessment is a fairly effective method to use. The spreadsheet structure is clear and the guide helps you prepare for the interview. The tables and graphs provided are self-explanatory. The user guide helps you interpret the results correctly.

The results are quite harsh because they do not take into account certain characteristics of large, diversified farms:

- Energy independence should take into account the farm's capacity for self-production of energy.
- The economic analysis should highlight the debts, of course, but also reveal the potential of the farm that has taken on debt for optimal diversification and autonomy. In addition, the economic analysis should take into account the possibility of the presence of several structures and therefore several accounting systems that are not always consolidated. For the They farm, this was a major obstacle in analyzing the results and accounting knowledge to determine and apply the strategy proposed by S. Girard.
- Finally, the social aspect is heavily focused on the economic aspect, which is greatly impacted by debt in this case. The rest of the social dimension mainly boils down to opening the farm to the public and integrating it into the local area. This could take into account the well-being and diversity of employees and emphasize the number of secure jobs.

The CIVAM method therefore appears to be a relevant method for multi-criteria assessment, but at first glance seems to lack the detail needed to highlight the characteristics of farms that are quite different from others, due to their involvement in agroecology and their desire for diversification.

## 5.1.2 IDEA 4

### *Philosophy behind the method and context of its creation*

IDEA 4 is an assessment method created by INRAE in 2020. The first method was published in the 2000s, and several versions have expanded the types of farms taken into account. The idea behind IDEA 4 is to give equal weight to the three aspects of sustainable development. However, it should be noted that fairly standardized accounting is necessary to successfully complete the economic section. A simple half-day interview is sufficient for the agroecological and social sections. It is also noteworthy that the IDEA 4 method is completely open source, with calculators and detailed, sourced instructions (INRAE, IDEA 4 Method 2022). This method has French reference data on a dedicated website (INRAE, All IDEA Tools 2022) but is theoretically adaptable to any system.

### *Hierarchical structure of the method*

Figure 3 shows the structure of IDEA 4. It is important to note that the indicators themselves are calculated from items. The method assesses sustainability as the lowest score of the three dimensions. However, the deliverable also shows the aggregated results by component on the one hand and by indicator on the other, which nuances the rather uninformative final score. The calculation of the indicators is explained in an appendix. This makes it relatively easy to link the information entered to the associated indicator.

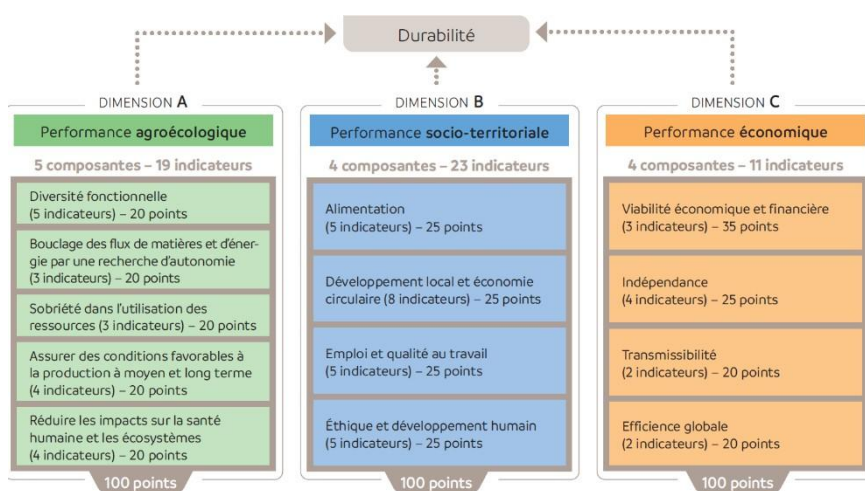


Figure 3 - IDEA 4 hierarchical structure (INRAE, IDEA 4 Method 2022)

Compensations are possible by intra-indicator items and at each aggregation level, details of which are always available in the results file. The indicators are also capped, which helps to prevent inter-indicator compensation (at the dimension level).

### *Results of field application*

The results by dimension, component, and indicator are shown in Figure 4. The single final score provided by IDEA 4 is not very informative, but graphs by component and indicator allow for further analysis (figure). With regard to the components (and indicators, respectively), the shaded bars (see Error! Source of reference not found.) show the maximum score achievable for each component (resp. indicator). These maximums are different for each (resp. each) and could be used to create a radar chart (a common way of displaying results in other methods but not directly implemented in this one). The scores (and maximum scores) are calculated using decision grids supported by scientific sources available in the method documentation (INRAE, IDEA 4 Method 2022).

### *Advantages and disadvantages*

The main advantage of IDEA 4 is the reliability of the method it proposes. The scientific sources are abundant, detailed, and accessible. The tool and method are intuitive and available online. There is also a web platform for referencing and comparing regional averages (not used in this study due to lack of time). It is also noteworthy that several versions (over 20 years) have been used to test the method. The range of topics covered is broad and clearly highlights the areas of interest to EU farms (see Table 5 and Appendix 6).

However, there are some drawbacks to the EUfarms project. The references (particularly on the web platform but also within the method) are currently focused on France. In addition, arbitrary choices (albeit scientifically justified) are made. For example, gross sobriety is sometimes considered without taking into account the production context (quantity produced, OTEX, etc.). The indicator "Water conservation" (see Figure 4), for example, considers that withdrawing 10,000 m<sup>3</sup> per year from groundwater is always problematic without taking into account the pressure exerted in relation to the territory (the argument is based on the median French water withdrawal in agriculture (INRAE, IDEA 4 2022 method)).

*The main drawback is the time and complexity involved in collecting data.* It takes between half a day and a full day to conduct interviews. In addition, due to the complexity of the structures targeted by EUfarms (multiple activities and therefore often multiple legal entities), the accounting documents of the various structures must be consolidated in order to address the economic dimension. This takes time (a

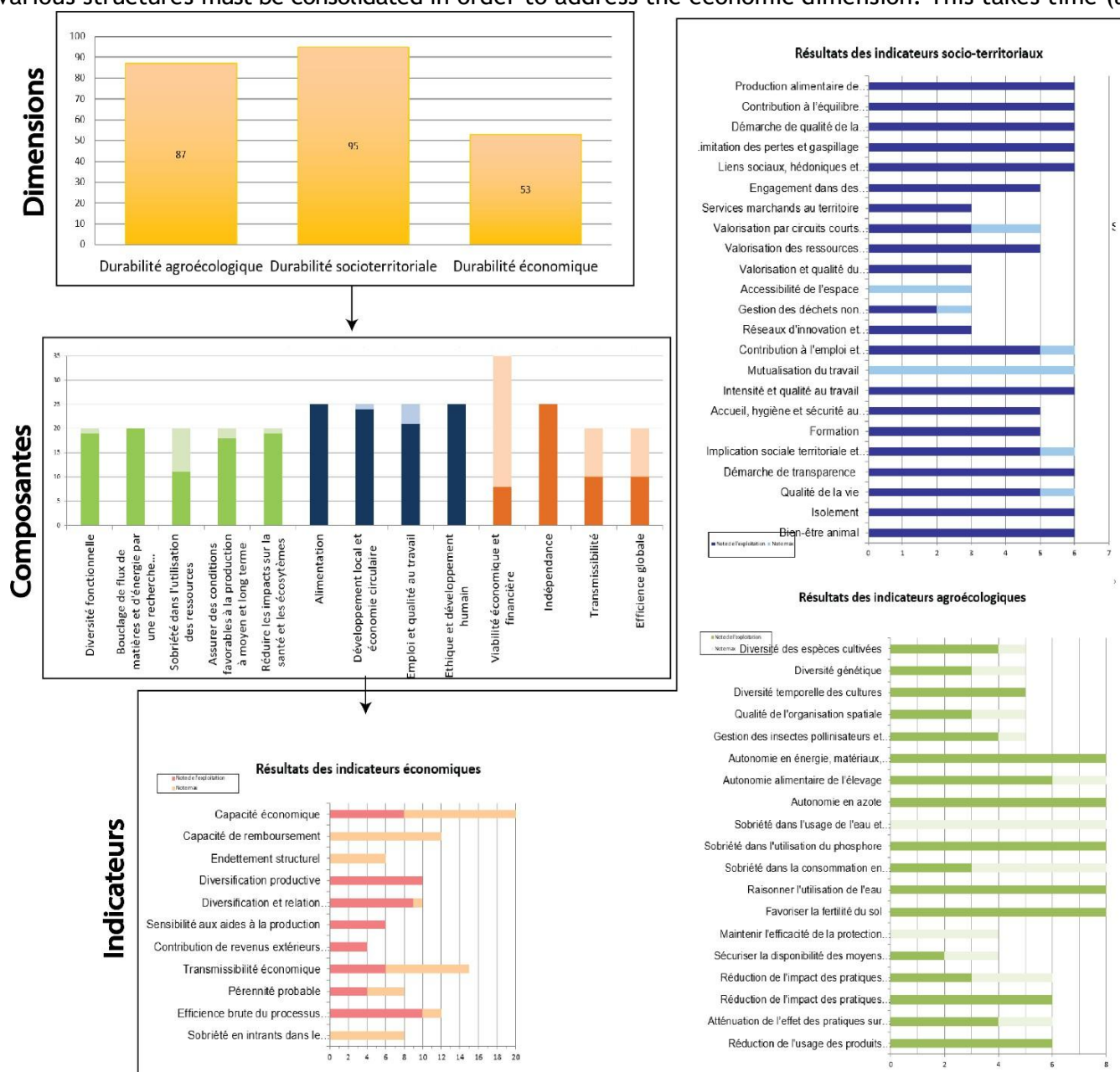


Figure 4- IDEA 4 results for the farm evaluated

additional day) and fairly advanced accounting training (provided that reliable and detailed accounting is available).



reliable and detailed accounting system). In addition, it involves arbitrary choices when considering the overall structure (e.g., which workshop from which structure should be linked to the farm?).

### 5.1.3 OASIS

#### *Philosophy of the method and context of creation*

OASIS is a multi-criteria assessment method created in 2021 by the Agroecology Europe association (Agroecology Europe 2022). This association aims to promote agroecology in Europe through various actions and programs (research, lobbying, training, webinars, etc.). OASIS therefore aims to support farmers in their agroecological transition by offering them an assessment of their progress in this transition. The starting point for OASIS is that there are already many methods for assessing the sustainability of food and agricultural systems (SAFA, MESMIS, SAFE, RISE, etc.) and that it is therefore appropriate to draw on existing methods to recreate a comprehensive tool that is suitable for assessing the level of transition.

agroecological approach to farming. The method is based on a holistic definition of agroecology as "the redesign of agroecosystems to function on the basis of ecological processes, encouraging interactions that enable the agroecosystem to sustain its own soil fertility, plant health, provide natural pest and weed control, and ensure crop productivity" (Agroecology Europe 2022). This assessment has several main concerns: to propose a method that can be carried out in a relatively short time, comprehensive, free, and robust enough to be applied in a diverse set of farms and contexts.

#### *Hierarchical structure of the method*

The OASIS assessment method is divided into five main dimensions: agroecological farming practices, economic viability, sociopolitical aspects, environment and biodiversity, and resilience. Each dimension is itself divided into different themes, which are in turn divided into several criteria.

All criteria are rated on a semi-quantitative scale from 1 to 5. The rating is determined using a benchmark based on one or more indicators. If the benchmark is based on quantitative indicators,

| 4 L'ENVIRONNEMENT ET LA BIODIVERSITÉ |       |  |        |
|--------------------------------------|-------|--|--------|
| IMPACT ENVIRONNEMENTAL               | 4.1.1 | Pollution minimale                         | pg. 57 |
|                                      | 4.1.2 | Optimisation du bilan de carbone du sol    | pg. 58 |
|                                      | 4.1.3 | Minimisation de l'érosion des sols         | pg. 60 |
|                                      | 4.1.4 | Minimisation de la salinisation des sols   | pg. 62 |
|                                      | 4.1.5 | Réduction du compactage des sols           | pg. 63 |
| IMPACT SUR LA BIODIVERSITÉ           | 4.2.1 | Maximisation des réseaux écologiques       | pg. 64 |
|                                      | 4.2.2 | Agriculture à haute valeur naturelle (HVN) | pg. 65 |
|                                      | 4.2.3 | Maximisation de l'agrobiodiversité         | pg. 67 |

| CRITÈRE     | OPTIMISATION DU BILAN DE CARBONE DU SOL   |
|-------------|---|
| INDICATEURS | Type de technique de travail du sol, proportion de sol couvert de matériaux biologiques, niveau de diversification des rotations de cultures, combustion, compostage ou enfouissement des résidus de cultures, utilisation d'engrais organiques ou chimiques, type de système de pâturage et d'élevage en place.  |
| 1           | Surpâturage extrême et/ou intensif et, pas de couverture du sol, brûlage régulier des résidus de culture, pas de rotation des cultures, pas d'utilisation d'engrais organiques  |
| 2           | Surpâturage et/ou travail intensif du sol, quelques sols couverts, rotation des cultures très simplifiée, utilisation rare d'engrais organiques, souvent brûlage des résidus de culture   |
| 3           | Léger surpâturage/travail du sol selon les bonnes pratiques régionales, cultures de couverture/engrais verts occasionnels, rotation des cultures, brûlage occasionnel des résidus de culture  |
| 4           | Bonne gestion du pâturage, travail de conservation du sol, 70 % du sol couvert, longue rotation des cultures, utilisation fréquente de compost et de fumier, cultures de couverture annuelles, présence de quelques arbres, décomposition en surface ou par compostage des résidus de culture   |
| 5           | Gestion holistique des pâturages en rotation, pâturages améliorés avec des espèces à système racinaire profond, semis direct ou semis minimal, décomposition en surface ou compostage des résidus de culture, utilisation de prairies temporaires dans la rotation des cultures, agroforesterie, cultures de couverture pérennes (liste non exhaustive) |

| CRITÈRE     | HAUT NIVEAU D'AUTONOMIE DES EXPLOITATIONS AGRICOLES   |
|-------------|---|
| INDICATEURS | Dépendance à l'égard des fongicides et bactéricides commerciaux, mesurée à l'aide de l'indice de fréquence de traitement (IFT) pour les fongicides et bactéricides commerciaux. |
| 1           | L'IFT est supérieur à 7   |
| 2           | L'IFT est compris entre 5,1 et 7  |
| 3           | L'IFT est compris entre 3,1 et 5  |
| 4           | L'IFT est compris entre 1,1 et 3  |
| 5           | L'IFT est compris entre 0 et 1  |

numerical references are given to assign a score from 1 to 5. Some indicators are to be compared with regional average values. If the reference framework is based on qualitative indicators, each score on the scale corresponds to a situation described in the OASIS guide.

Figure c- Examples of two criteria from the OASIS method

### ***Results of field application***

The OASIS assessment of the They organic farm gives an **overall score of 4.43/5 for the progress of its agroecological transition**. The assessment of the farm is therefore very positive and indicates a very high level of agroecological transition. In terms of "Environment and biodiversity" and "Agroecological farming practices," the farm scored 5/5 and 4.6/5, respectively (see Appendix 3). This demonstrates the very low impact of the farm's agricultural practices on the ecosystem, its ability to regenerate the ecosystem, and the very high adoption of agroecological practices (in particular the presence of numerous multi-species grasslands, compliance with organic specifications, the practice of

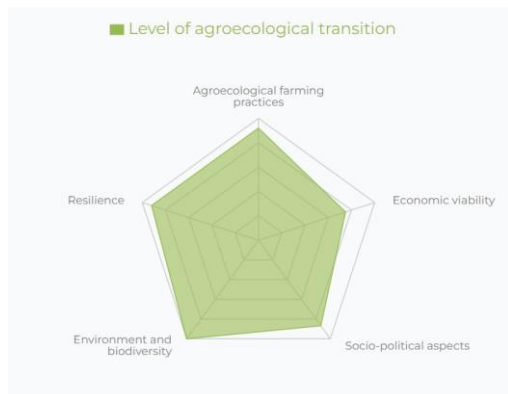


Figure 7- Example of a radar chart rendered by OASIS

generalized dynamic rotational grazing). There is therefore little room for improvement in these areas. In terms of resilience, the farm also scores an excellent 4.55/5 (see Appendix 3). The farm is therefore highly resilient to climate and economic crises due to the adoption of agroecological practices, the high level of diversification of activities and outlets on the farm, and the very high autonomy of the production process with regard to inputs. With regard to the "Socio-political aspects" and "Economic viability" dimensions, the farm obtained scores of 4.34/5 and 3.73/5 (see Appendix 3). The scores are good, but there are some interesting areas for improvement.

The farm stands out for its high level of integration within its local area, offering a diverse range of profitable local businesses and creating jobs through processing and farm sales. However, the farm is characterized by very high capital intensity in terms of buildings and machinery. In addition, the partners are poorly paid and not on a regular basis. This lowers certain criteria quite significantly and explains the difference in rating compared to other dimensions.

### ***Advantages and disadvantages***

Developed by Agroecology Europe, OASIS was designed to be applied across the entire continent, which is particularly well suited to EU farms. In addition, the method is highly adaptable to a wide variety of farms, which may have very diverse activities, including on-farm processing and other services. OASIS offers an interesting approach to farm resilience, i.e., their ability to withstand various climatic, political, or economic crises, by dedicating an entire dimension to this issue. This approach takes into account the notion of robustness, which is important in the needs expressed by EU farms. In terms of its application, OASIS is simple to implement. The method comes with a detailed guide that allows interviews to be conducted in a smooth and humane manner, an intuitive online tool for data processing, and the information to be collected is easily accessible from the interview with the farmer.

However, most indicators are based on farmers' perceptions or on a practice-centered approach. There are therefore few indicators for measuring the actual effects of farming activities on different aspects of the environment or on the ability to be economically viable. In addition, some indicators need to be compared with regional averages. These regional averages are to be determined by the person conducting the assessment, even though this type of data is difficult to find on the internet for specific regions or countries (e.g., determining the regional average expenditure on fertilizers).



## 5.1.4 Open Compass

### *Philosophy behind the method and context of its creation*

The creators of the method are a collective of associations and agri-food companies, including Farm For Good, mentioned above. The entire collective supports sustainable agriculture and considers it essential to carry out objective assessments of agricultural practices, which then serve as a guide for decision-making. Their aim is to make the Open Compass accessible and understandable for free use.

### *Structure of the method*

The method focuses on four themes consisting of indicators (available at (Open Compass Development Group n.d.)). The *Living Soils* theme presents indicators relating to organic matter, cover, tillage, and soil biodiversity. In the *Biodiversity and Water* theme, conversion to organic farming

, accompanied by a specially created indicator specially created indicator, the ecological network, which

takes into account the natural elements put in place on the farm to preserve flora. Finally, the theme of *Autonomy and Resilience* makes it possible to assess autonomy in terms of animal feed, nitrogen, and energy expenditure. Finally, the theme of *Profitability and Efficiency* consists of indicators for yield, input efficiency, and average gross margin, as well as the perfalim indicator, which shows the number of people fed per hectare.

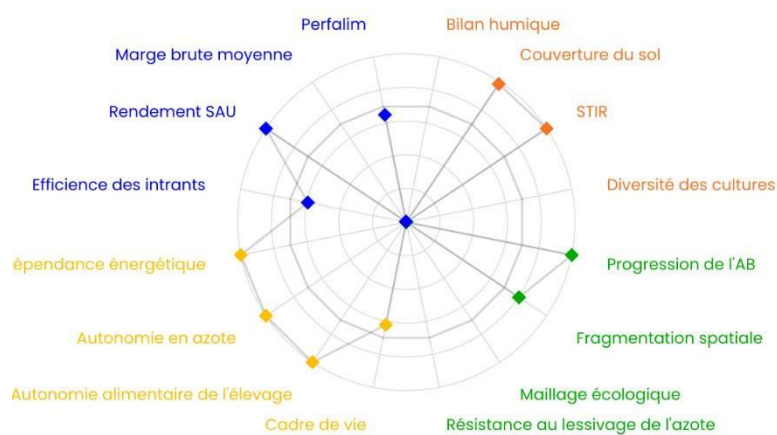


Figure 8- RADAR graph rendered by Open Compass

### *Results of the application in the field*

Open Compass has not been tested directly in the field: we needed a presentation by the creators to better understand this method and have access to the evaluation documents. In addition, an evaluation had already been carried out in 2021, which then allowed us to add the data from 2023.

Some of the results are quite surprising. The humus balance is not rated highly, which may be due to the evaluator not taking input data into account properly. Open Compass's advice is therefore to return organic matter to the soil. However, other evaluations suggest that too much organic matter is being added. Crop diversity is poor, which is due to the fact that the They Farm mainly has grassland and few other crops. However, the farm's temporary grassland is composed of more than 30 different species, which should be taken into account. The ecological network also receives a poor rating. It is noted that "agri-environmental measures are very detrimental to biodiversity." This is surprising given the extensive hedgerows and the wide diversity of species cultivated in the grasslands.

The calculation of the result is ultimately rather unclear and does not reflect the actual situation of the farm. Ultimately, the tool is very crop-oriented. This means that the They farm, which practices mixed farming, cannot be evaluated in its entirety and according to its specific characteristics.

### *Advantages and disadvantages*

The spreadsheet contains highly technical data, which makes it difficult to complete. However, the results are surprising given the agroecological facilities available on the farm evaluated. Furthermore, the absence of social aspects in the evaluation and the lack of economic indicators make the evaluation incomplete in the case of They's farm.

Finally, the Open Compass website (Open Compass Development Collective n.d.) is not fully up to date. This means that not all indicators are described, and some are still being developed, such as the IFTs. As a result, information on the method is rather difficult to access.

### 5.1.5 TAPE

#### ***Philosophy of the method and context of creation***

TAPE (*Tool for Agroecology Performance Evaluation*) is a multi-criteria assessment method developed by the FAO (Food and Agriculture Organization of the United Nations). It was created in response to a growing need for standardized assessment tools that can be used to analyze and compare the impact of agricultural practices on environmental, social, and economic sustainability. The FAO designed it to support public policy by providing data under the FAO umbrella and local initiatives aimed at transitioning to resilient and inclusive food systems.

TAPE is based on a systemic approach to agroecological assessment, incorporating the ten elements used by the FAO to define agroecology (the definition on which EUfarms is based): Diversity, Synergies, Efficiency, Resilience, Recycling, Co-creation and knowledge sharing, Human and social values, Food culture and traditions, Circular and solidarity economy, and Responsible governance. This approach means that the assessment is not limited to productivity criteria alone, but also incorporates dimensions such as social justice, sustainable resource management, and farmer autonomy. Due to its international nature, TAPE is designed to be a flexible tool that can be adapted to local contexts (and therefore applied in extremely different systems, from subsistence to intensive farming) and is based on a participatory approach, where farmers are not simply subjects of study but actors in evaluation and change.

#### ***Method structure***

The method is carried out in several stages, each of which produces a result: stage 0 defines the framework for the assessment, stage 1 provides an understanding of how the farms assessed operate by characterizing the agroecological transition according to the FAO's 10 elements, and finally, stage 2 measures the level of adoption of agroecological principles and progress towards agroecology through 10 performance criteria.

There is little compensation in the results. For stage 0, the deliverable consists of an identity sheet summarizing the operating framework. For stage 1, it is a radar chart giving a score out of 100 for each of the 10 elements of FAO agroecology, with each element having between 3 and 4 indicators (based on detailed multiple-choice answers). For stage 2, there is a table that summarizes, using indicators that aggregate a large amount of information, a "traffic light" approach (red, yellow, green) for 10 performance criteria (land tenure security, productivity, income, added value, pesticide exposure, food diversity, career prospects for young people, women's empowerment, agricultural biodiversity, soil health).

#### ***Results of field application***

*Results of stage 0: Results in Appendix 2.*

These results present the identity of the farm being assessed and provide a clear and concise framework for the subject of the study: what constitutes the farm (grasslands, crops, animals, soil and climate conditions, etc.), the people who live and/or work there, and the context (environmental, political, social).

#### Results of stage 1 (Figure 9):

This stage clearly reflects the farm's progress on all fronts in terms of sustainability and its already fairly advanced progress in the agroecological transition (all 10 elements of FAO agroecology are above 2/3). The idea is to present the farm's strengths and weaknesses in a highly visual way in order to take stock of the assets to

retain and areas for improvement. We could

Note that the few areas for improvement would be in establishing a system where synergies and interactions between components would be even more intense, which could be achieved through greater co-creation and knowledge sharing in decision-making and design.

#### Results of stage 2 (Figure 10):

Finally, this step summarizes a large amount of information on performance criteria, aggregating the level of adoption of agroecology principles within the farm. We can see that the farm demonstrates a high level of adoption of agroecology in a wide variety of areas. These results should be considered in relation to

with those in step 1. While diversity scores highly when characterizing the farm, it is clear that agrobiodiversity has room for improvement, showing that the principle of integrating ever more biodiversity into the system can still be pushed further here. Similarly, the human and social values are one of the characteristics very developed on the farm, but the anchoring of women's empowerment on the farm seems to be improvable

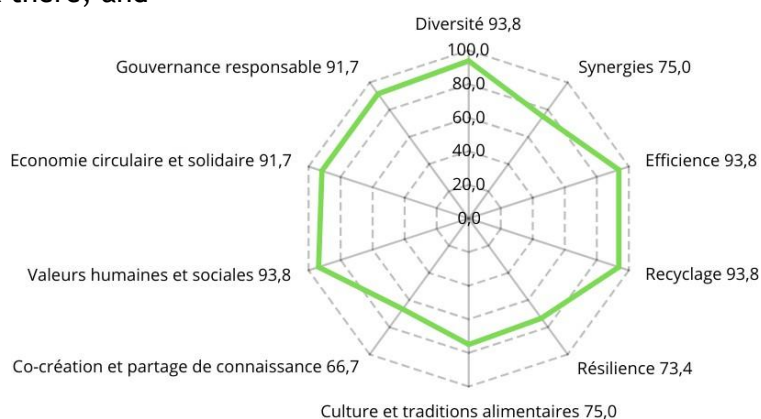


Figure 5 - Results of step 1 of TAPE

| DIMENSION          | CRITERE DE PERFORMANCE DE BASE         | RESULTATS  |
|--------------------|--|--|
| GOUVERNANCE        | Sécurité des régimes fonciers          | Dispose d'un document officiel portant le nom du titulaire ET a la perception d'un accès sûr à la terre ET dispose d'au moins un droit de vendre/léguer toute parcelle de l'exploitation ou d'en hériter |
|                    | Productivité                           | Valeur de la productivité par hectare (2436,2€/ha) ≥ à 2/3 de la valeur moyenne nationale de la production par hectare/an (1963,58€/ha, Agreste)   |
| ECONOMIE           | Revenu                                 | Revenu (343 613,23€) > revenu médian des activités agricoles (données du Système d'information sur les moyens d'existence ruraux (FAO, 2019c))   |
|                    | Valeur ajoutée                         | Valeur ajoutée brute (443 028,57€) > 1,2 x PIB agricole national par travailleur agricole (FAOSTAT)  |
| SANTE ET NUTRITION | Exposition aux pesticides              | Les pesticides chimiques ne sont pas utilisés ET des pesticides organiques ET/OU d'autres techniques intégrées de gestion des organismes nuisibles sont utilisés   |
|                    | Diversité alimentaire                  | Score de diversité minimale du régime alimentaire (8) ≥ 7  |
| SOCIETE ET CULTURE | Perspective professionnelle des jeunes | Score final de l'emploi et de l'émigration (92,9%) ≥ 70%   |
|                    | Autonomisation des femmes              | Score IAFA abrégé (60%) < 80% mais ≥ 60%   |
| ENVIRONNEMENT      | Biodiversité agricole                  | Moyenne entre indicateur "végétation naturelle, arbres et pollinisateurs" et les deux indices de Gini-Simpson (52,1%) < 70% mais ≥ 50%   |
|                    | Santé du sol                           | Score moyen de santé du sol (4,33/5) ≥ 3,5/5   |

Figure 10 - Results of stage 2 of TAPE

### ***Advantages and disadvantages***

The main advantage of TAPE is its great flexibility and adaptability to different contexts. This makes it possible to include very different types of production in the assessment, which is often the case in EU farms network farms. The design of the method and the choices made to "flag" the responses of the farmers surveyed, as well as the choice of information collected and its aggregation/presentation, are based on solid scientific references (FAO expertise).

However, the desire to simplify data collection, which is intended to be applicable in all contexts, leads to certain approximations in the handling of information, which can cause a discrepancy between the quality of information available to operators in a network such as EU farms and the way in which it is processed. In fact, the processing of economic data is iterative, leading to the calculation of accounting information that could otherwise be available: the idea is to simplify the reading of the accounts by relying on simple information, but this work lacks a certain degree of precision regarding the economic context or the economic choices made by the farmer.

The environmental and social/purpose dimensions are very comprehensive and go into great depth on a wide range of sustainability issues (including soil health, agrobiodiversity, nutrition, food traditions, regional integration, the situation of women and young people, etc.).

The information collected is mainly qualitative or semi-quantitative, making the interview with the operator and the collection process fairly comfortable, intuitive, and smooth. The detail of the data is not altered in any way, and the method collects very accurate information. The difficulty lies in processing this data due to the lack of pre-built open source tools and the choices that the evaluator has to make based on the available information (choice of references, certain indicators, certain responses/classifications).

## **5.2 Comparison of methods**

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### **5.2.1 Content**

#### ***Comparison of method structures and references***

IDEA 4 is the method with the most scientific references. For each indicator, several scientific papers are cited to explain its creation and relevance. OASIS, being a synthesis of existing methods, has numerous references linked to scientific papers. In the case of TAPE, serious references are cited for each question, but many approximations and manipulations of the data are made in order to stay true to the spirit of the method, which is that the operator can be autonomous in their diagnosis. Thus, TAPE has less discernible scientific references than the two previous methods. For the CIVAM diagnosis, there are no scientific references given in the user guide, and some indicators are created without references to papers associated with their creation. Finally, in the case of Open Compass, numerous scientific references are available on the website. However, some do not lead to the stated source, which adds to the vagueness of the scientific references. In this case, IDEA 4 appears to be the most scientifically sourced method of the five, followed closely by OASIS.

The methods studied present quantitative and qualitative approaches that are relevant for application to farms focused on agroecology, social issues, and regional revitalization. However, certain orientations have been chosen in terms of the nature of the indicators. IDEA, CIVAM, and Open Compass are methods with a highly quantitative approach to evaluation, which leads to an approach

results/impacts of farming. However, CIVAM and Open Compass are much less comprehensive than IDEA 4 in their quantitative approach to assessment: they offer far fewer indicators in the three dimensions of sustainability.

OASIS and TAPE, on the other hand, take an approach focused on the farmer's perception, with indicators that are more qualitative than quantitative. Thus, the assessment focuses more on practices and perceptions than on quantifiable results.

In terms of the scope of the study, IDEA 4 is the most comprehensive method: it takes into account a great deal of detail across all dimensions of sustainability. The scope of the OASIS study is also very broad, but the information is collected in a slightly less precise, quantified, and detailed manner. TAPE and the CIVAM diagnosis provide even less detail than OASIS. In the case of CIVAM, there are seven indicators per dimension, which makes the method less comprehensive than IDEA. Finally, the method with the narrowest scope is Open Compass: this method focuses mainly on field crops, with quantitative indicators relating to technical itineraries, crop characteristics, and some economic information. The lack of study of social and general economic factors at the farm level is noticeable compared to other methods, in the case of an assessment of farms as diverse as those in the EUfarms network.

### ***Comparison based on EUfarms values***

Using the EUfarms Grid [Table 5 and Appendix 5], it was possible to match the elements that were important to EUfarms with those taken into account by the five methods tested in the field. As a reminder, this grid was organized into five parts: "Ecosystem regeneration: biodiversity, soils, resilient landscapes," "Financial/economic return: long-term income and autonomy," "Social return: caring for people on the farm, life in the region, employment, education, social ties," "Inspirational return: hope and purpose," and "Unclassifiable/Robustness theme." After adding up all the scores, the OASIS, TAPE, and IDEA 4 methods obtained a score of around 40, while the CIVAM Sustainability Diagnosis and Open Compass methods scored around 20. This already gives an idea of which methods are best suited to EUfarms' needs and values.

With regard to the category "Ecosystem regeneration: biodiversity, soils, resilient landscapes," the three methods OASIS, TAPE, and IDEA 4 give these themes a central place in their assessment methods. However, the way in which these themes are addressed differs. OASIS and TAPE measure the regenerative capacity of ecosystems using an approach focused on agroecological practices. IDEA 4, on the other hand, uses an approach that is more focused on effects. In addition, IDEA 4 adds a notion of pure sobriety in the use of inputs, which differs from the approach focused solely on efficiency and autonomy in OASIS and TAPE. The Open Compass and CIVAM methods only partially address this issue. Many important criteria are not taken into account, such as animal welfare or the consequences of tillage in the CIVAM sustainability assessment.

With regard to the category "Financial/economic return: long-term income and autonomy," the methods have different approaches and focus on different points. OASIS is particularly interested in the diversification of activities and outlets, participation in the local economy, and consideration of on-farm processing. However, the consideration of economic indicators is relatively uncorrelated with accounting indicators, which means that the economic viability of farms is only partially taken into account. Similarly, TAPE relies little on gross accounting indicators, which leads to the same problem. On the other hand, the comparative data provided by the FAO allows for a high degree of adaptability of the assessment to the local context. The IDEA 4 and CIVAM methods take a much more accounting-focused approach.

farms, which allows for more accurate consideration of criteria such as transferability, preservation of added value, and wealth created by assets. However, this approach makes data collection more difficult, particularly if several legal structures coexist, requiring the consolidation of accounting data. The CIVAM method is less comprehensive than IDEA, particularly with regard to the diversification of activities, the consideration of processing, and integration into the local market. Open Compass takes economic indicators into account in a much less comprehensive and accurate manner than the other evaluation methods.

Next, for the category "Social return: caring for people on the farm, life in the region, employment, education, social ties," the OASIS and TAPE methods have definitions that are quite similar to those of EUfarms in terms of socio-territorial themes. The criteria that are important to the association are well taken into account in both methods. IDEA 4 also gives these issues a central place in its assessment, but with an emphasis on territorial anchoring and a few themes not addressed, such as the integration of women and product accessibility. The CIVAM method mainly uses economic indicators to address socio-territorial themes, which does not allow all the criteria important to the association to be taken into account.

Regarding the category "Return of inspiration: return of hope and purpose," TAPE mentions these elements but in an aggregated and therefore non-explicit manner. IDEA 4 and OASIS deal with these themes comprehensively, particularly on the issue of knowledge transfer and training. The CIVAM and Open Compass methods address them only partially (apart from training, which is covered in Open Compass).

Finally, EUfarms expressed the need for the concept of "robustness" to be taken into account. This is defined as the ability of a farm to operate its system autonomously, independently, and in the face of the various crises it encounters. OASIS is certainly the method that would take this into account the most through its "Resilience" dimension, which is composed of numerous criteria referring to it. TAPE also mentions it, but in a less central way. IDEA 4 and the CIVAM diagnosis, *on the other hand*, have an approach that is very focused on triple performance and sustainability. It would be necessary to study the approach based on the properties of IDEA 4 to understand how this theme is taken into account, but due to time constraints, it was impossible to do so. It is more difficult to answer this question regarding Open Compass, given that the economic theme is rarely addressed.

### ***Conclusion on the content***

Given these factors, two distinct groups of methods can be identified. On the one hand, OASIS and TAPE focus on a practice-based approach that reflects the level of progress made by farms in the agroecological transition. However, OASIS is more suited to the needs of EUfarms than TAPE, as it was created in a European context and takes into account more criteria that are important to the association. On the other hand, IDEA 4, OpenCompass, and the CIVAM sustainability assessment are more focused on measuring the triple performance (environmental, economic, and social) of the farms evaluated, based on more quantitative and precise criteria compared to pre-established benchmarks. IDEA 4 stands out among the three methods by taking a much broader and more detailed approach to all topics. Therefore, when considering the content of the methods, it would be advisable to select either OASIS or IDEA 4, depending on the preferred approach.

## **5.2.2 Field application**

Beyond an opinion and a comparison of the content of the methods, it seems important in the context of this study to compare their application in the field. Indeed, the chosen method will potentially have to

be applied in the long term by different people, who are not French, and with as little involvement as possible from farmers.

### ***Data collection***

With regard to data collection, IDEA 4 requires a large amount of information. In addition to the interview with the farmer, it seems necessary to use additional documents (in particular clear and reliable accounting records). In a European context, it is possible that the farmer may not have sufficiently clear documents or may not have all the documents requested. Consolidation is also necessary for accounting in a multi-structural framework (common for EU farms). These characteristics of IDEA 4 are also present in the CIVAM and Open Compass methods. There is an additional difficulty with the CIVAM method: the lack of precision for searches in accounting documents (where IDEA 4 specifies the accounting code for each entry).

Regarding the tools provided, TAPE does not have any pre-designed tools. You must organize the data collection yourself. For CIVAM, the interview must be constructed by the evaluator based on the user guide.

Given this observation, it is interesting to note that TAPE and OASIS require data collection that is easier to manage. They focus in particular on the operator's feelings and practices, which leads to more intuitive communication. These methods are designed to be carried out directly by the operator. Fewer documents need to be provided and results are obtained more quickly than with the other three methods. This is mainly because consolidation of entities is not necessary.

### ***Data processing***

Contrary to the previous paragraph, data processing is more difficult for TAPE and OASIS than for the other three methods. OASIS requires regional averages for around ten indicators (which are not necessarily easy to find everywhere in Europe). Furthermore, TAPE did not have tools that provided results directly.

In contrast, IDEA 4, Open Compass, and CIVAM have a clear tool for processing results.

### ***Conclusion of the field application***

In light of the two previous sections, it appears that two groups stand out. IDEA, Open Compass, and the CIVAM method opt for complicated data collection but simple, integrated processing (calculations, decision grids, and referencing are integrated into the data entry tool). In contrast, OASIS and TAPE opt for simple data collection, as this can be carried out by the farmers themselves, but complicated processing, as farms on a global or European scale are taken into account.

## **5.3 Discussion and recommendations**

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It should be noted that the final evaluation of methods and associated opinions after selection (part 5) are based solely on the implementation of methods on a single farm. Discussions related to methods are therefore largely informed by sensitive indicators encountered in the context of a single farm. This fact constitutes a bias in the representativeness of situations.

The use of a single interview guide (which combines four methods) for conducting field assessments also introduces bias in the perception of data collection ease. The analysis of IDEA 4 and its ease of implementation in the field may have suffered from the fact that the

questionnaire provided by the designers was not used in favor of a questionnaire created by the investigators (based on the OASIS method questionnaire).

In addition, strong assumptions were made in order to carry out the methods (particularly in terms of accounting for IDEA and CIVAM). These intra-method biases necessarily lead to a bias in the final opinion on the method.

Agronomic knowledge and values also skew the results. For example, we believe that soil cultivation must be taken into account, and the CIVAM method is heavily penalized as a result.

Finally, the time constraints involved in delivering the project meant that the results could not be put into perspective. The farmer surveyed during the fieldwork was unable to provide feedback and highlight any issues he might have found problematic. In addition, phase 3 of TAPE (putting the results into perspective with the stakeholders concerned) could not be carried out. Finally, the IDEA reference platform was not used, so it was not possible to access the full analysis of the available properties once the evaluation was posted online. The perspective on the results discussed in this paragraph might have influenced the final opinion given on each method.

## 6 Conclusion

The approach implemented during this project made it possible to compare a large number of assessment methods in order to select a few for the EUfarms network. Ongoing discussions with the sponsors throughout the project made it possible to define the specific needs and objectives of EUfarms. These elements were used as selection criteria to choose five methods applicable to a test farm in the network and to compare these five methods and the results they produced. What can be gleaned from this comparison is that the organization of the methods (number of indicators, nature, aggregation and weighting methods, hierarchy) has a significant influence on how the information is taken into account and how the assessment is rendered. This comparison of assessment approaches identified two distinct groups of methods. On the one hand, OASIS and TAPE have approaches focused on the progress of farms in their agroecological transition, which translates into a practice-oriented approach to indicators. On the other hand, IDEA 4, the CIVAM sustainability assessment, and OpenCompass have approaches that focus on assessing sustainability or triple performance, taking into account more quantitative indicators that measure effects rather than practices. Within each of these groups, OASIS and IDEA 4 stand out for the breadth of information they take into account and their good alignment with EUfarms requirements. It is difficult to recommend one method over the other, as they are based on very different but equally relevant approaches.

All of this work can serve as a basis for discussion and further work by the future EUfarms scientific committee, which will decide on the multi-criteria assessment method to be used to evaluate 20 farms in the network.



## 7 Works cited

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# Appendices

## Appendix 1. All methods from the two selected pools selected

| Methods from the work of <i>Soulé et al.</i>   | Methods from documents sent by EUfarms   |
|--|--|
| <p>IDEA</p> <p>Diagnosis of Small-Scale Farming</p> <p>DiagAgroEco</p> <p>CIVAM sustainability diagnosis</p> | <p>CARE / IDEA4</p> <p>EcoFarms</p> <p>Dialect</p> <p>Open Compass</p> <p>Quantification of Organic Farming Externalities</p> <p>TAPE</p> <p>ACCT</p> <p>Certifications</p> <p>Small-scale farming diagnosis</p> <p>CIVAM CAP'2ER sustainability diagnosis</p> <p>OASIS</p> <p>PerfAlim</p> <p>Forest, Land and Agriculture science-based target-setting guidance (SBTiFLAG)</p> |

## Appendix 2. Results of stage 0 of TAPE

|                              |   |  |
|------------------------------|---|--|
| <b>Exploitation</b>          | Country   | France   |
|                              | location  | Sorans-lès-Breurray  |
|                              | coordinates   | 0621531305 Michel Devillairs   |
|                              | type  | mixed farming  |
|                              | system name   | They Organic Farm  |
| <b>community</b>             | household (men, women, young people)                          | Men: Jean-Baptiste, Mathis (under 25), Michel /// Women: Isaline (under 25), Emma, Amandine (under 25), 1 packer, Evelyne  |
|                              | labor labor (men, women, young people)                        | Men: Jean-Baptiste, Damien, Flavien (FTE), Alain (FTE), Mathis (apprentice, under 25), Manoé (intern, under 25), 2 college interns (under 25), Maxime (butcher), Antonin (apprentice, under 25), 1 packer, Michel /// Women: Isaline (under 25), Emma, Amandine (under 25), 1 packer, Evelyne  |
| <b>productive activity</b>   | area  | 200 ha   |
|                              | different productions (workshops, crop rotation, trees, etc.) | 11.47 ha of soft wheat, 1 ha of diversified market gardening (tomatoes, onions, leeks, lettuce, beans, raspberries, strawberries, etc.), 0.59 ha of potatoes, 39.35 ha of alfalfa alone, 117.23 ha of legume/grass mixtures, 30 ha of permanent pasture<br>, 138 dairy cows, 152 pigs, 100 laying hens, and around 60 common rabbits |
|                              | Destination of production (share for own consumption)         | Personal consumption (negligible portion), sale at the farm shop (SARL) for ALL (flour to a baker for bread), milk and cull cows in long distribution channels   |
| <b>favorable environment</b> | natural context and environmental challenges                  | Good organic matter content in the soil, agroecological infrastructure on the farm (groves, ponds, riparian forests, hedges, grass strips), peatlands/wetlands, deep soil (prone to drought)   |
|                              | public policy and and market context                          | Pioneer in local conversion to organic farming, but the number of organic farmers has increased from 1% to 10%, with 12 ha of MAEC contracted with the Department (Haute-Saône), highly controlled/monitored in its decisions  |
|                              | and and networks involved in agroecology                      | EUfarms, AMF, GRAB (Franche-Comté), Haute-Saône Chamber of Agriculture (for landscape integration), participation in numerous training courses and also for employees  |

## Appendix 3. OASIS graphical results



## Appendix 4. Complete exclusion grids

| Methods  | Study scale<br>= operation | Multi-criteria:<br>consideration of<br>aspects (economic +<br>social +<br>environmental) | degree of application<br>= generic (case study<br>influencing the<br>creation of a<br>method)           | Plant and animal<br>production  | objective<br>different<br>from<br>certification<br>only | architecture<br>with indicators                          | Opacity  |
|--|----------------------------|--|---|---|---|--|--|
| Care / Idea4<br>(Anna)                             | Yes                        | yes  | Yes   | All   | Yes   | yes  | Conversion into<br>capital Not obvious                         |
| Idea4 (Anna + P)                                   | yes                        | yes  | yes   | All   | yes   | yes  | explicit   |
| Dialect (PS)                                       |                            | no   |   |   |   |  |  |
| EcoFarms (PS)                                      |                            |  |   |   |   |  | little<br>documentation<br>and no direct<br>access to the tool |
| Regenerative<br>Alliance Label<br>(R)              | no                         |  |   |   |   |  |  |
| Biodiv score (R)                                   |                            |  | no  |   |   |  |  |
| Certified<br>quality labels<br>(R)                 |                            |  |   |   | No  |  |  |
| Planet score (R)                                   | No                         |  |   |   |   |  |  |
| Regenerative<br>agriculture (R)                    |                            |  |   |   | No  |  |  |
| Open Compass<br>(PS)                               | yes                        | yes  | yes   | all   | Yes   | yes  | explicit   |
| Evaluation of<br>positive<br>externalities<br>(PC) | no                         |  |   |   |   | No   |  |
| TAPE (PC + A)                                      | Yes                        | yes  | yes   | all   | yes   | Yes (60<br>indicators<br>aggregated<br>into<br>criteria) | explicit   |
| ACCT   |                            | no   |   |   |   |  |  |
| Sustainability<br>diagnosis<br>(CIVAM) A           | yes                        | yes  | yes   | all   | yes   | yes  | explicit   |
| Cap2er (PC)  |                            |  |   | Very focused on<br>cattle/sheep/horse<br>breeding + field<br>crop methods |   |  |  |
| OASIS (R)  | yes                        | yes  | yes   | yes   | yes   | yes  | explicit   |
| Perfalim (PS)                                      |                            | no   |   |   |   |  |  |
| SBTi FLAG<br>Guidance (R)                          |                            |  | no  |   |   |  |  |
| Diagnostic for<br>Smallholder<br>Agriculture (R)   | yes                        | yes  | Generic   | all   | Yes   | yes  | explicit   |
| DAESE  |                            |  | No (settings configured<br>for the Picardy region<br>and<br>can be adapted for other<br>French regions) |   |   |  |  |

|             |     |     |     |     |     |     |  |
|-------------|-----|-----|-----|-----|-----|-----|--|
| Diagagroeco | Yes | Yes | yes | yes | yes | Yes | Little documentation but direct access to the tool |
|-------------|-----|-----|-----|-----|-----|-----|--|

# Appendix 5. Complete comparison table (orange = selected method)

| Tableau de comparaison des analyses multi-critères |                              |   | Explications  | CARE/IDEA4   | IDEA 4  | Open Compass  | TAPE  | Diagnostic Agriculture Paysanne  | Oasis  | Diagnostic de durabilité CIVAM   | Diagagroeco   |
|--|------------------------------|---|---|--|---|---|---|--|--|--|---|
| Contexte de l'étude                                | Informations générales étude | Type de production agricole   | Polyculture-élevage, grandes cultures, cultures pérennes, élevage, quelles sont les exploitations qui peuvent être évaluées ? | Tout type  | Tout type   | Tout type   | Tout type   | Tout type  | Tout type  | Tout type  | Tout type   |
|  |                              | Prise en compte de la transformation  | échelle de la parcelle, de l'exploitation, du territoire  | non  | non   | non   | oui   | oui  | oui  | oui  | non   |
|  |                              | Echelle spatiale d'étude  | échelle de la parcelle, de l'exploitation, du territoire  | exploitation   | exploitation  | exploitation  | exploitation  | exploitation + insertion territoire  | exploitation   | exploitation   | exploitation  |
|  |                              | Echelle temporelle d'étude  | A un instant t ? Evolution dans le temps ?  | instant t (identifie marge de progrès)   | instant t (identifie marge de progrès)  | instant t   |   | instant t  | instant t + évaluation régulière pour suivre l'évolution   | instant t  | instant t   |
|  | Objectifs / Finalités        | Type de structure   | Quelle taille d'exploitations sont évaluées ? Ferme-ferme ? Coopérative ?   | Tout type  | Tout type   | Tout type   | Tout type (même si particulièrement adapté à l'agriculture vivrière)  | exploitation familiale / paysanne  | Tout type  | Tout type  | Tout type   |
|  |                              | Certification, Sensibilisation, Apport de connaissances, Diagnostic, Comparaison des systèmes, Identification des éléments à améliorer / Conseil, Conception des systèmes | Apport de connaissances, Diagnostic, Identification des éléments à améliorer & Conseil, prédiction des coûts financiers       | Apport de connaissances, Diagnostic, Identification des éléments à améliorer & Conseil, Conception des systèmes                        | Apport de connaissances, Diagnostic, Identification des éléments à améliorer & Conseil, Conception des systèmes   | Apport de connaissances, Diagnostic, Identification des éléments à améliorer & Conseil, Conception des systèmes       | Sensibilisation, Apport de connaissances, Comparaison des systèmes, Conseil                                       | Diagnostic Agriculture Paysanne, Conseil   | Diagnostic, Comparaison des systèmes   | Diagnostic pour évaluer la durabilité  | Sensibiliser et accompagner vers la transition agroécologique, évaluer la performance et engagement dans agroécologie, faciliter les discussions avec conseiller et groupe, pistes de progrès |
|  |                              | Temps nécessaire  | Temps nécessaire pour réaliser l'étude (pour l'exploitant)  | Temps IDEA4 + CARE (entretien auprès agris, diagnostic et traduction des coûts)  | collecte des données 3 heures + temps d'appropriser la méthode et d'analyser les documents apportés par l'exploitant  | 1/2 journée   | enquête en ligne de 4 heures maximum (analyse + retours + résultats + réflexion collective)                       | 1/2 journée  | 1/2 j ou 1 j   | 1 journée par ferme  | ?   |
|  | Modalité d'évaluation        | Nationalité de la méthode et application dans quelle zone ?   |   | Française  | Française   | Belge   | FAO (International)   | Français pour fermes plutôt françaises   | Européenne et Europe   | française et France principalement   | France  |
|  |                              | Qui a créé l'outil ?  | Scientifiques ? Public ? Privé ?  | INRAE, Public (CEV, IDELE, ENSFEA, CEZ-Bergerie Nationale)   | INRAE, Public (CEV, IDELE, ENSFEA, CEZ-Bergerie Nationale)  | Farm For Good, société coopérative  | FAO   | FADEAR   | Agroecology Europe Scientifiques + Public  | CIVAM  | ACTA à partir connaissances instituts techniques et INRAE   |
|  |                              | Age et nombre de versions   | De quand date la méthode ? Quelle version ?   | 11 ans   | 25 ans (2000), 4ème version   | moins de 4 ans  | 6 ans (2019)  | 7 (certainement 1ère version)  | 2021 : 1ère version  | années 2000, plusieurs versions (révisé régulièrement)   | 9 ans, améliorations continues  |
|  |                              | Qui évalue ?  | Qui peut réaliser l'évaluation ? Faut-il une accréditation ? Y a-t-il besoin d'un acteur tiers ? Faut-il une formation ?      | un acteur tiers (inté à la comptabilité)   | acteur tiers recommandé / initié (pas de formation) : étudiant, stagiaire, apprenti, enseignant, conseiller agricole, chargé de mission, chercheur  | acteur de Farm for good (pour avoir accès aux documents)  | l'agriculteur lui-même (faisable par conseiller ou collectif)   | Agriculteur avec accompagnement de l'ADEAR   | Tout le monde, détail de l'évaluation disponible, formation par AEU  | Tout le monde mais tout de même analyse compte et entretien (formation)  | Agriculteurs et conseillers   |
|  |                              | Destinataire  | A qui s'adresse les résultats ? pour qui sont-ils compréhensibles ?   | Agriculteurs, financeurs, pouvoirs publics, acteurs de territoire  | Agriculteurs, conseillers, chercheurs, décideurs publics  | Agriculteurs, conseillers, chercheurs, acteurs territoires  | Agriculteur, FAO (alimenter bande de données)   | Agriculteur  | Agriculteurs, pouvoirs publics, consommateurs  | Agriculteurs, conseillers, enseignants, animateurs de groupe, consommateurs  | Agriculteurs, conseillers   |
|  |                              | Moyens financiers nécessaires   | L'évaluation a-t-elle un coût financier pour l'exploitant ? (Si info disponible)  | Non  | Coût du conseil selon organisme réalisant la méthode  | Non   | Non   | Non  | Non  | Non  | Non   |
|  |                              | Moyens humains à déployer   | L'exploitation doit-elle déployer des moyens humains pour réaliser l'évaluation ? (Estimation)                                | conseiller et potentiellement une personne capable de traduire monétairement   | Enquêteur pour l'entretien ou Agriculteur lui-même, personne initiée à la comptabilité (surtout si compte pas consolidé)  | Enquêteur pour l'entretien  | Non (questionnaire à remplir par l'agriculteur, en théorie, mais réalisable sous forme d'entretien)               | Enquêteur pour l'entretien   | Enquêteur pour l'entretien   | Enquêteur pour l'entretien ou Agriculteur lui-même, personne initiée à la comptabilité (surtout si compte pas consolidé) | Agriculteur rempli lui-même   |
|  |                              | Type de collecte de données   | Entretiens, dossier PAC, analyses ...   | Compte de résultat + infos pour IDEA   | plan cadastral, relevé PAC, facture énergétique, relevé compteur d'eau, liste des matériels automoteurs, liste des surfaces par cultures, cahier d'enregistrement, phyto-sanitaire, cahier de fertilisation, liste animaux par espèce, cahier élevage (vété...), quantité/composition des aliments, document de synthèse du cabinet comptable, détail des aides versées | Entretiens, PAC   | Entretien avec l'exploitant   | Documents comptables, documents PAC, entretien   | Entretien avec l'exploitant  | Entretien avec l'exploitant, étude de la comptabilité  | Entretien avec l'exploitant, données économiques  |
| Contexte de l'étude                                | Modalité d'évaluation        | Accès à la donnée (visibilité, accès aux résultats et à la méthode)   | Méthode open source ? Opacité de la démarche ? A-t-on accès à la méthodologie ?   | Open source  | Open source complet, méthode accessible sur internet  | Pas d'accès direct à la méthode sur internet, mais contact avec les créateurs, informations pas complètes sur le site | Visibilité totale pour les indicateurs, reconstruction autonome de l'excel proposé dans les papiers de la méthode | Manuel détaillé pour 30 €  | Méthodologie détaillée en libre accès  | Méthodologie détaillée et tous les documents en libre accès  | inscription pour utiliser le diagnostic, tutoriel d'utilisation, mais où trouver info sur construction et réflexion outil ?   |
|  |                              | Qualité des sources   | Sur quelles références se construit la méthode ? Références bibliographiques scientifiques ? Conseil scientifique ?           | Références bibliographiques scientifiques  | Références bibliographiques scientifiques   | Théoriquement très clair mais sources manquantes / non actualisées.   | Références bibliographiques scientifiques   | FADEAR, peu de références scientifiques précises et bibliographiques   | Inspiration à partir de nombreuses méthodes d'évaluation multicritères de références internationales + réf scientifique  | pas de références bibliographiques dans le document  | pas accès au document pouvant présenter des références  |
|  |                              | Données de référence  | Existe-t-il une base de données de référence sur laquelle se fonde la méthode ?   | Pas de données de référence pour comparer la ferme à d'autres  | Il n'y a pas "une base de données" mais pour chaque indicateur, présence de références bibliographiques associées aux valeurs utilisées pour calculer l'indicateur  | Pas de comparaison à des données de référence   | Peu de données de références  | ?  | Comparaison à des moyennes régionales pour certains indicateurs  | Oui moyennes régionales des IFT, moyennes nationales pour consommation moyenne des travaux culturels et CTEX.            | Pas de comparaison à des données de référence   |
|  |                              | Architecture des données (indicateurs, dimensions, critères...)   | Comment s'organisent les données pour arriver au résultat final ?   | Indicateurs IDEA + CARE : 53 indicateurs répartis en capitaux (biodiversité, atmosphère, eau, troupeau, humain, sociétal, patrimonial) | 2 grilles d'évaluation : - 1ère grille : 3 dimensions, 13 composantes (4 à 5 composantes par dimension), 53 indicateurs (2 à 8 indicateurs par composante) - 2ème grille : 5 propriétés, 15 branches  | 16 indicateurs répartis en 4 catégories   | 36 indicateurs répartis en 10 éléments de l'agroécologie - l'étape 2 (10 critères, 4 à 5 items par critère)       | 6 thèmes de l'agriculture paysanne (travail avec la nature, autonomie, transmissibilité, développement local, répartition, qualité) -> critères -> indicateurs | 5 dimensions (Pratiques agricoles, viabilité économiques, aspects sociopolitiques, environnement et la biodiversité, résilience) -> thèmes -> critères -> 1 ou 2 indicateurs par critère | 3 dimensions (économie, social, environnemental), 24 indicateurs calculés à partir de données retirées                   | 3 dimensions : pratiques, performances, démarches   |
|  |                              | Modalité d'agrégation   | Nombre de niveaux dans l'architecture de données  | somme d'argent   | 3   | Aucune  | 2   | 3  | 4  | note finale par critère (déterminée dans le guide)   | ?   |



|                  |             |  |   |  |  |  |   |  |   |  |   |   |
|------------------|-------------|--|---|--|--|--|---|--|---|--|---|---|
|                  |             | Niveau final d'agrégation  | Durabilité -> Dimension du DD -> critères -> indicateurs (cf note définition)                     | somme d'argent   | Note de la dimension la moins performante parmi les 3  | Aucune   | Agrégation des indicateurs en éléments clés (résultats par élément)   | Agrégation des indicateurs en critères puis en thèmes avec une note  | Agrégation finale, moyenne des notes de 5 dimensions                          | Agrégation de sous-indicateurs   | ?   |   |
|                  |             | Type d'indicateurs   | Où se situent les indicateurs sur la chaîne cause/impacts ?                                       | cause  | cause  | majoritairement cause  | majoritairement cause   | Cause  | Cause ou pratiques  | causes (pratiques)   | ?   |   |
|                  |             | Pondération  | Facteurs de pondération et à quelle échelle ?   | ?  | valeur d'un indicateur de 3 à 20 selon les indicateurs (assez forte pondération + pondération des indicateurs au sein d'une même composante même si cela reste proche, PAS de pondération entre composante ou entre dimension) | aucune   | Aucune  | Pondération au niveau des indicateurs et critères en fonction des questions, pas de pondération entre les thèmes   | Pondération de 1 à tous les niveaux d'agrégation                              | Aucune   | ?   |   |
|                  |             | Compensation   | Compensation possible ? A quel niveau ? Explication   | ?  | Pas de compensation entre dimensions mais compensation entre indicateurs et composantes  | aucune   | compensation entre indicateurs pour le même élément mais pas entre les éléments qui ne sont pas agrégés                                 | Pas de compensation possible entre les thèmes, compensation entre critères   | Compensation possible car moyenne à tous les niveaux                          | pas de compensation  | ?   |   |
|                  |             | Livrable   | Format  | Quel format de livrable ?  | dossier complet par capital + une page sur IDEA4   | Cartes heuristiques par propriété + résultats par dimension avec les scores des propriétés | graphique en radar et conseil basé sur jauges correspondantes au radar par indicateur   | Radar des résultats pour les éléments pour la caractérisation de la transition agroécologique + rapport et organisation d'événements pour débats dans les étapes suivantes | Fleur ou diag en radar  | Note unique + graphes radars par dimensions  | Document qui donne une note par critère (pas de note finale totale)                                     | ? |
|                  |             | Conséquences après rendu des résultats // Interprétation des résultats | Conseil sur les pratiques ensuite ? Comparaison avec des valeurs de référence ? Prise de décision | Conseil, prise de décision   | Prise de décision, mise en place de discussions  | Conseils, rédaction automatique d'un rapport   | Rédaction d'un rapport de transition agroécologique puis organisation de débats collectifs et mise en commun à l'échelle de territoires | Conseil sur les points positifs et négatifs  | Discussion, évaluation forces et faiblesses, possibilité d'avantage marketing | Evaluation des faiblesses et points forts de la ferme (pas de comparaison avec d'autres) | Réflexions sur les performances, pratiques et démarches, estimer degré d'engagement dans l'agroécologie |   |
|                  | INDICATEURS | Approche générale  | Dimension du DD mise en avant // Quelle définition et échelle de la durabilité ?                  | CARE concentré que sur économique  | équité dans le traitement de l'environnement, du social et de l'économie   | Concentré sur économique et environnemental  | social assez mis en avant devant la viabilité économique (qui est aussi présente quand même)  | Les trois mais surtout social et autonomie éco   | Equité dans les dimensions du DD  | plus de critères : environnement > société > économie                                    |   | ? |
|                  |             | Performance économique   | Indicateurs économiques   | Nombre d'indicateurs ; proportion cause / impact des indicateurs ; liste des indicateurs | tout est transformé en valeur monétaire - TOUS   | 7  | 1   | 3  | ?   | 14   | 13  | ? |
|                  |             |  | Prise en compte de la transformation  | //   | 0  | 1/2  | 0   | 1/2  | ?   | 2  | 1   | ? |
|                  |             |  | Prise en compte de synergie entre productions agricoles   | //   | 0  | 4  | 2   | 2  | ?   | 0  | 2   | ? |
| Social           |             | Bien-être au travail   | //  | 8  | 8  | 1  | 6   | ?  | 13  | 4  | ?   |   |
|                  |             | Insertion territoire   | //  | 0  | 14   | 0  | 10  | ?  | 6   | 8  | ?   |   |
| Environnement    |             | Eau  | //  | 7  | 3  | 1  | 1   | ?  | 1   | 1 (pas pris en compte pour le diagnostic)  | ?   |   |
|                  |             | Atmosphère   | //  | 5  | 3  | 0  | 1   | ?  | 0   | 1  | ?   |   |
|                  |             | Sol  | //  | 12   | 3  | 4  | 4   | ?  | 8   | 1  | ?   |   |
|                  | Ressources  | //   | 0   | 4  | 3  | 2  | ?   | 1  | 1   | ?  |   |   |
| Biodiversité     | //          | 11   | 6   | 5  | 6  | ?  | 11  | 14   | ?   |  |   |   |
| Bien-être animal | //          | 9  | 1   | 0  | 1  | Pas l'info   | 2   |  |   |  |   |   |



# Appendix 6. Complete EUfarms criteria grid

| Critères importants pour EUfarms  |  |  | TAPE |   | IDEA 4 |   | Civam |   | OASIS |   | OpenCompass |   |
|---|--|--|------|---|--------|---|-------|---|-------|---|-------------|---|
| Régénération de l'écosystème : biodiversité, sols, paysages résilients  | Actions (et non agir) pour accueillir la biodiversité  | Réensauvagement intra-parcellaire ou laisser des espaces à la vie sauvage // Présence de bois sur la ferme   | Oui  | 1 | Oui    | 2   | Oui   | 1 | Oui   | 2 | Oui         | 2 |
|   | Régénération des sols  | évolution matière organique et microbiologie du sol  | Oui  | 2 | Oui    | 2   | Oui   | 1 | Oui   | 2 | Oui         | 2 |
|   | Reconnecter l'eau à la terre - Hydrologie Régénérative / création de mares... d'où vient l'eau utilisée sur la ferme?  | nb mares, entretien ruisseaux  | Oui  | 1 | Oui    | 2   | Non   | 0 | Oui   | 2 | Oui         | 1 |
|   |  |  |      |   |        | Items donc même si le 1 est peut être rapide dans la conclusion, c'est rattrapable. |       |   |       |   |             |   |
|   | Linéaire de haies + diversité des arbres OUI diversité des espèces => agroforesterie   | km haies pour 100 ha   | Oui  | 2 | Oui    | 2   | Oui   | 2 | Oui   | 2 | Oui         | 2 |
|   | Plein air des animaux / Les animaux vivent dans ce qui se rapproche de leur écosystème naturel et peuvent réaliser leurs fonctions vitales (une vache peut être une vache) | Cheptel, pâturage (dynamique), % temps de pâturage à l'herbe, nombre de bêtes par ha   | Oui  | 2 | Oui    | 2   | Non   | 0 | Oui   | 2 | Non         | 0 |
|   | Abattage à la ferme ? En dehors de la ferme, à combien de km ?   |  | Non  | 0 | Oui    | 2   | Non   | 0 | Oui   | 2 | Non         | 0 |
|   | Conservation de la valeur ajoutée / création de valeur   | Pourcentage de la production transformée à la ferme / Pourcentage des ventes en circuit court / ouïque à la ferme ? % des ventes dans cette boutique ? | Non  | 0 | Oui    | 1   | Oui   | 1 | Oui   | 2 | Non         | 0 |
|   |  | EBE / personne ou EBE / ferme ou par 100 ha  | Non  | 0 | Oui    | 2   | Oui   | 1 | Non   | 0 | Non         | 0 |
|   | Vente locale   | Répartition géographique de l'export des productions de la ferme   | Oui  | 2 | Oui    | 2   | Non   | 0 | Oui   | 2 | Non         | 0 |
|   | Diversité des activités  | Nombre de structures juridiques actives sur la ferme   | Non  | 0 | Non    | 0   | Non   | 0 | Non   | 0 | Non         | 0 |
| Retour des finances / de l'économie : des revenus résilients sur le long terme pour les communautés ... + autonomie | Capacité à transmettre   | Taux d'endettement et son évolution  | Oui  | 2 | Oui    | 2   | Oui   | 2 | Oui   | 1 | Non         | 0 |
|   | Organisation du travail / Gouvernance équilibrée / Prise de décision claire  |  | Oui  | 2 | Non    | 0   | Non   | 0 | Non   | 0 | Non         | 0 |
|   |  |  |      |   |        |   |       |   |       |   |             |   |

|  |  |   |     |   |  |     |   |  |     |   |  |     |   |  |     |                                  |   |
|--|--|---|-----|---|--|-----|---|--|-----|---|--|-----|---|--|-----|----------------------------------|---|
|  | Répartition salarié, apprentis, associés, à leur compte, etc.  | curiosité   | Oui | 2 | "communauté" étape 0 + item "émancipation des jeunes et émigration" étape 1 + thème "jeunesse et éducation" étape 2 ("jeunes sur l'exploitation", "jeunes travaillant sur l'exploitation", "jeunes en formation", "reprise exploitation" "niveau de formation")  | Oui | 2 | Nombre d'UTA et répartition. Indicateur: "Contribution à l'emploi et gestion du salariat" avec plusieurs items notamment SAU/UTA, Formation continue, accueil stagiaire etc (indicateur = formation)       | Non | 0 | Oui  | 1   | Capacité d'attirer et de conserver une main-d'œuvre motivée -> combien de temps restent les employés dans l'exploit | Oui  | 1   | UTH sur la ferme, Nb de salariés |   |
|  | Relative "indépendance": aides PAC et autres aides, irrigation, pétrole, intrants...                       | L'objectif n'est pas forcément la totale indépendance des aides. Exemple de fermes qui utilisent les aides PAC pour faire de leurs fermes des réserves naturelles (Paysans de Nature)   | Non | 0 |  | Oui | 2 | Indicateur: Sensibilité aux aides à la production ("subvention 1er pilier / EBE), contribution revenus extérieurs et diversification. Autre composante: Efficience globale (notamment sobriété en intrant) | Oui | 2 | Autonomie par rapport aux aides  | Oui | 2   | Faible part des subventions dans le revenu agricole brut,  | Oui | 1                                | Primes  |
|  |  | Indépendance irrigation, pétrole, intrants  | Oui | 2 | critère "Recyclage" + critère "Efficience" étape 1   | Oui | 2 | cf ci avant  | Oui | 2 | Indépendance énergétique surtout, revient dans certains indicateurs de biodiversité par exemple (à préciser)   | Oui | 2   | Minimisation des coûts variables   | Oui | 2                                | Autonomie et résilience : autonomie en N, autonomie alimentaire élevage, indépendance énergétique |
|  | Qui investit dans la ferme (foncier et outil de production/transfo/accueil) et part de PAC et institutions | curiosité - pour savoir : est-ce que dans les fermes c'est une foncière qui investit dans le foncier ? + part de PAC : pour différencier le foncier / outil de production   | Non | 0 |  | Oui |   | part de PAC et avant, contribution de revenus extérieurs aussi (juste un oui / non)  | Non |   |  | Non | 0   |  | Non | 0                                |   |
|  | Création d'emplois   | On constate est 3 " plus d'emplois de les fermes bios 5 à 10 " fois plus dans les fermes en agroécologie bio avec transfo<br>En France rapport des chambres : 40.6 ha / ETP<br><a href="https://drive.google.com/file/d/1pdrdFKMPLpKb8a3v8xWqWuOqTf5XJ3QE/view?usp=sharing">https://drive.google.com/file/d/1pdrdFKMPLpKb8a3v8xWqWuOqTf5XJ3QE/view?usp=sharing</a> CA / UTH ou UTA ou ETP / évolution du nombre d'actifs dans la temps<br>Emploi / superficie : ETP/ferme ETP/100ha | Oui | 2 | "communauté" étape 0 + critère "valeur humaine et sociale" étape 1 ("émancipation des femmes", "travail", "émancipation des jeunes et émigrations", "bien être animal")  | Oui | 2 | SAU / UTA, création dans l'exploitation et création dans réseau, et >50% main d'œuvre saiso. habite sur le territoire  | Oui | 2 | Rémunération dégagée par hectare -> peut être utilisée pour créer des emplois ; Efficacité du travail -> rémunération dispo / UTH ; Viabilité socio-économique -> résultat social / UTH ; Transmissibilité économique -> Capital d'exploitation / UTH associés | Oui | 2   | Importante contribution comparative à la création d'emplois  | Oui | 2                                | UTH sur la ferme Nb de salariés, Norme UTA  |
|  | Nourrir le territoire  | Nombre de productions / Nombre de famille nourries pas la ferme / superficie / % de production pour alimentation humaine  | Oui | 2 | thème "agrobiodiversité" de l'étape 2 + "destination de la production" étape 0 + critère "culture et tradition alimentaire" étape 1 ("régimes alimentaires", "identité conscience locale alimentaire", "tradition de préparation des aliments, variété/race locales")  | Oui | 2 | Part de la SAU consacré à alimentation humaine dans l'indicateur "Production alimentaire de l'exploitation". Autre indicateur : "Contribution à l'équilibre alimentaire mondial"                           | Non | 0 |  | Non | 0   |  | Oui | 2                                | Perfalim  |
|  | Proposition d'activités  | Nombre d'ateliers autres (transfo / artisanat / table d'hôte, restaurant, boutique...)  | Oui | 2 | thème "Autres activités" étape 2   | Oui | 2 | Agrotourisme, Ferme pédagogique, services marchands rendus au territoire   | Non | 0 |  | Oui | 2   | Niveau élevé de diversification des activités  | Non | 0                                |   |
| Retour du social : soin de l'humain à la ferme vie sur le territoire, emploi, éducation, lien social | Les femmes dans la ferme : ergonomie / intégration   |   | Oui | 2 | item "émancipation des femmes" étape 1 + thème "émancipation des femmes" étape 2 (différents items "temps consacré à": "% personnes travaillant + de 10,5 h", "décision sur prod végétale", "décision sur prod animale", "décision sur autres activités", "propriété animaux", "propriété végétaux", "propriété autres activités", "propriété principaux actifs", "propriété actifs secondaires", "participation événements agroécologie") + item "reconnaissance légale du terrain" étape 2 | Non | 0 |  | Non | 0 |  | Oui | 2   | Niveau élevé d'équité entre les sexes  | Non | 0                                |   |
|  | Participation de la ferme aux réseaux locaux et nationaux: associations, coopératives...                   |   | Oui | 2 | "acteurs et réseau de l'agroécologie en interaction" étape 0 + critère "co-création et partage de connaissances" étape 1 ("transfert horizontal", "accès aux connaissances", "participation aux réseaux et organisation") + item "participation aux projets d'agroécologie" étape 2  | Oui | 2 | Indicateurs : réseaux d'innovation et mutualisation de matériel, et implication sociale territoriale et solidarité (dans autre composante)   | Oui | 2 | Ouverture professionnelle et sociale -> Participation à la vie sociale du territoire (associations, collectivités...) (réponse oui/non)  | Oui | 2   | Participation substantielle et continue dans des réseaux, des collectifs, des organisations            | Oui | 1                                | Temps consacré aux réunions professionnelles, activité politique                                  |
|  | Repas /événement en commun sur la ferme ? sur le territoire ?  | portes ouvertes, accueil à la ferme... volonté sociale ou économique ?  | Oui | 1 | "acteurs et réseau de l'agroécologie en interaction" étape 0 + item "participation aux projets d'agroécologie" étape 2   | Non | 0 | sauf si salle de pause chauffée / installation comptent  | Oui | 2 | Ouverture pro et sociale -> accueil de public  | Oui | 2   | Communication transparente et haut niveau de responsabilité  | Oui | 2                                | Nb de jours ouverts au grand public   |
|  | Accessibilité des produits à tous : prix adaptés en fonction des revenus/ prix libre ? Repas solidaires... |   | Non | 0 |  | Non | 0 |  | Non | 0 |  | Oui | 2   | Participation substantielle et continue à l'économie sociale et solidaire                              | Non | 0                                |   |
|  | Temps de travail par semaine moyen par paysan.ne   |   | Oui | 2 | thème "émancipation des femmes" étape 2 (différents items "temps consacré à": "% personnes travaillant + de 10,5 h" + critère "valeur humaine et sociale" étape 1 ("émancipation des femmes", "travail", "émancipation des jeunes et émigrations")   | Oui | 1 | Nombre de semaines durant lesquelles l'agi se sent surchargé   | Non | 0 | Efficacité du travail -> heures annuelles travaillées (en % du SMIC horaire net)   | Oui | 2   | Niveaux de charge de travail satisfaisants : Temps suffisant pour les relations familiales et sociales | Oui | 2                                | Nb d'heures par semaine, UTH sur la ferme, Nb de salariés   |
|  | Capacité à l'écoute, la communication non violente, la prise de décision holistique                        |   | Oui | 1 | item "émancipation des femmes" étape 1 + thème "émancipation des femmes" étape 2 (avec notamment "temps consacré", "% personnes travaillant + de 10,5 h", "décision sur prod végétale", "décision sur prod animale", "décision sur autres activités", "propriété animaux", "propriété végétaux", "propriété autres activités", "propriété principaux actifs", "propriété actifs secondaires")  | Non | 0 |  | Non | 0 |  | Non | 0   |  | Non | 0                                |   |

|   |   |   |     |    |   |     |    |  |     |    |   |     |    |   |     |    |   |
|---|---|---|-----|----|---|-----|----|--|-----|----|---|-----|----|---|-----|----|---|
| Retour de l'inspiration : retour de l'espoir et raison d'être | Possibilité de se former, transmettre   | Jours de formation continue ou de participation à des réseaux par personne par an | Oui | 1  | "acteurs et réseau de l'agroécologie en interaction" étape 0 + item "participation aux projets d'agroécologie" étape 2  | Oui | 2  | Formation continue en nombre de jours par an   | Oui | 1  | Ouverture professionnelle et sociale -> démarche de formation | Oui | 2  | Suffisamment de temps pour acquérir des connaissances et de nouvelles compétences | Oui | 2  | temps consacré à la formation, temps consacré aux réunions professionnelles, nb de colloques-conférences/an |
|   | Temps dédié à transmettre son expérience : formations, stages, vwoofing, visites de fermes... |   | Oui | 2  | item "émancipation des jeunes et éducation" étape 1 + thème "jeunesse et éducation" étape 2 ("jeunes sur l'exploitation", "jeunes travaillant sur l'exploitation", "jeunes en formation", "reprise exploitation" "niveau de formation") | Oui | 2  | Accueil stagiaire, apprenti, accueil groupe pro, implication dans des structures pro | Non | 0  |   | Oui | 2  | Plaidoyer substantiel et continu et éducation sur l'agroécologie                  | Non | 0  |   |
|   | Inspiration générée par la ferme  | Nombre de personnes touchées chaque année?  | Non | 0  |   | Oui | 2  | Accueil public, implication citoyenne, transparence sur pratiques                    | Oui | 1  | Accueil public  | Oui | 2  | Communication transparente et haut niveau de responsabilité                       | Non | 0  |   |
|   | Investissement citoyen pour permettre l'achat de la ferme                                     |   | Non | 0  |   | Non | 0  |  | Non | 0  |   | ?   |    |   | Non | 0  |   |
|   | Pluriactivité en dehors de la ferme ? sur la ferme ?  | Génère de la robustesse?  | Oui | 2  | critère "résilience" étape 1 ("stabilité des productions", "réduction de la vulnérabilité", "endettement", "diversité des activités") + thème "autres activités" de l'étape 2   | Oui | 2  | Revenu extérieur à la ferme Oui/Non + diversification                                | Non | 0  |   | Oui | 2  | Niveau élevé de diversification des activités                                     | Non | 0  |   |
| Nombre de oui / Nombre de points                              |   |   | 22  | 38 |   | 24  | 44 |  | 13  | 20 |   | 24  | 48 |   | 13  | 22 |   |