

D5.4: Using the NextFood Sustainability Impact Framework – The pilot rounds

WP5: Quality Assured Knowledge Transfer



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Foreword

Existing frameworks for evaluating the quality of education and research are based respectively on application of absolvents and academic merits (e.g. number of publications). This provides little incentive for interactive innovation and practice-oriented research and education. So there is a need for devising new ways of reviewing and measuring performance in this context. In response to this need, the NextFood project has developed a framework on sustainability impacts, taking into account both product and process related impact and impact on different levels; project, intermediary and systemic level. The framework resonates with NextFood's "action learning strategy" in considering multi-actor involvement and action-oriented features. The aim has been to develop a framework which will assess: 1) the quality of practice-oriented education and research in the agro-food and forestry sectors; 2) the processes of interactive innovation in this context; and 3) their positioning in relation to use and impact. The first version of the framework was developed in 2019-2020. As stated in deliverable 5.2, there was a need to develop the framework by pilot testing.

The NextFood Impact Framework is now underway to be examined and further refined in pilot testing, in the Czech Republic and in Sweden, respectively. The Deliverable 5:4 demonstrates how the NextFood Impact Framework is operationalised in the first rounds of testing in these two pilots.

Introduction

The aim of the pilot-tests phase is *to discover ways of refining the Nextfood Impact Framework developed in WP5*. To do this, the framework is tested and further revised in two rounds. The Deliverable 5:3 demonstrated the plan for the operationalisation of the first round in the two pilots, in Czech Republic and Sweden.

The framework is intended to be used in the impact evaluation of research projects primarily. By following the instructions as specified in deliverable 5.2, users will collaboratively assess the impacts of their work-processes and products. The Swedish pilot is examining the extent of applicability of the framework in four cases of applied research projects.

One of the "products" of research projects are the practice abstracts. In addition to being able to assess the impact of research products and processes understood conventionally, the framework should, as promised in 5.2, also be able to estimate the impact of the "practice abstracts". The Czech pilot is testing the framework in relation to usefulness of published practice abstracts.

The first rounds of testing of the NextFood Impact Framework in the two pilots is now concluded, and the findings are summarised here in Deliverable 5.4. The testing will continue during 2021, together with the work to finalise the framework.

In addition, a third pilot will be conducted in 2021. The aim of the third pilot is to test the usefulness of the evaluation framework in an educational setting, and to further explore how the findings hitherto from the two pilots can be integrated into a broad framework. This pilot will be conducted by the Nextfood partner The American Farm School in Greece.

A refined framework will be presented in the next deliverable in February 2022, and be ready to be launched at the end of the NextFood project time.

Theoretical frame

The NextFood Sustainability Impact Framework is based on constructivist approaches to impact (Douthwaite et al. 2003; Douthwaite & Hoffecker 2017). It thus builds on the notion that social, environmental, and/or economic impacts are intimately tied to the circumstances of their production: the social interactions and material practices that enact how technologies and knowledge have effects in specific local contexts. In line with this broad principle, the NextFood Sustainability Impact Framework considers in particular:

- That *impact is work*: it takes time and the collective effort of individuals who apply their knowledge, skills, and resources to identify, assess, and report impacts.
- That different and often unrelated actors have multiple and sometimes conflicting *stakes* and *interests* in the articulation and assessment of impacts.
- That *impact is a layered phenomenon*: it matters how far actors are (in terms of involvement and participation) from the circumstances of knowledge/technological production.
- That impact is as much the effect of knowledge and technologies (the "products" of work) as it is the effect of the activities, relationships, and collective efforts that have entered their production (the "processes" of work).

While acknowledging its complex nature (Chouinard et al. 2017), existing models of impact assessment typically do not account for *impact as social processes*. This results in various dead-ends, such as the inability to trace particular identified "effects" to their "causes" in some specific knowledge, technology, activity or projects, actors, and their organizations.

Some existing models are specifically developed to address this issue. For example, the GTZ model (Kuby 2003) includes an ex-post impact assessment stage, which involves an external assessor building a "plausible bridge" between the direct benefits stemming from a project and its wider level impacts. It is not clear, however, what constitutes "plausibility" in this case, what makes one "bridge" more plausible than another, how to decide between equally "plausible bridges", and who should be involved in the decision-making process. What, for example, makes an external assessor more adequate for this purpose than project participants or other stakeholders?

More relevantly, Spaapen and Van Drooge (2011) introduce "productive interactions" as proxies for impact. These are broadly understood as exchanges between researchers and stakeholders in which knowledge is produced that is scientifically robust and socially relevant. According to Spaapen and Van Drooge, the interactions can be *direct* (e.g. phone, email or face-to-face encounters), *indirect* (involving some kind of material carrier, e.g. brochures, films, exhibitions), and *financial* (e.g. a research contract, financial contribution, etc.). Such interactions are "productive" when, as a consequence, stakeholders actually make use of the research results; that is, when the project outcomes lead to a relevant behavioral change. A limitation to this approach is that it is not clear who in a given instance should decide that a set of interactions is *productive*, i.e. that a particular behavioral change has taken place, indeed, as a result of that specific set (and not another).

However, the "productive interactions" concept is useful as a provisional, orienting terminology for opening impact up to the social processes involved in its making.

Methods

While the Swedish and Czech cases test different aspects of the framework, the basic process behind developing the pilot cases is the same. The process follows the NextFood framework procedurally as described in Deliverable 5.2 and 5.3, where the specifics of the framework is outlined.

1.1. Methods in the Practice Abstract pilot (Czech)

Step by step to set the practice abstract evaluation framework

As a part of discussed Framework, the Updated draft of Evaluation Framework ("Questionnaire") has been developed. See Annex 1 A - version for advisors, and Annex 1 B - version for farmers, practitioners, lectures, other PA's potential users (Annex 1) which can endorse the overall relevance of Practice Abstract's ("PA's"). The evaluation framework measuring the relevance of practice abstracts is based on a combination of quantitative and qualitative data and information. Therefore, there is always a scaling question (e.g. 0 - 25 %) for each criterion, and then space was set for an open explanation of the question (eg. "could you please briefly describe..."). Such a methodological approach enables a quick evaluation of quantitative data, but also a deeper explanation of the relevance of practice abstracts. The purpose was to capture all the necessary areas. Therefore, the Questionnaire can show suitability of so far identified criterions (such as Relevance, Efficiency, Importance, Innovativeness, Sustainability). Criterions can help define quality indicators.

Relevant actors who are able to assess practice abstracts are farmers, advisors and practitioners. For this reason, they have become a key target group for this pilot testing of the framework. In addition, the situation was exacerbated by the existing database of advisers and practitioners in the register of the Ministry of Agriculture of the Czech Republic. Not only the official database, but informal contacts in this sector were also used. Therefore, the Questionnaire has been tested within the community of practitioners, farmers, agriculture advisors, lectures, and other PA's potential users. First round of testing has been finished in Czechia and other testing is desirable to manage across other NF partners.

This can be managed independently according to the Tips & Tricks document (see Annex 2) as a simple guide for facilitators. Facilitators should be respected authorities within the agri-food sector in their country with connection to the above-mentioned community of potential respondents. Respondents are kindly requested to evaluate selected PA (along with its link or name) into the Questionnaire. Once the resources of the community are depleted, they should be sent to researchers along with eventual other findings.

Researchers are now in a process of testing this part of Evaluation Framework on one particular NF case, which is taken as the second alternative of the second testing round.

Evaluating practice abstracts

Based on the methodological description from the previous chapter following Questionnaires, see Annex 1 A - version for advisors, other PA's potential users in Annex 1 B - version for farmers, practitioners, lectures, other PA's potential users should be used for respective groups of stakeholders.

Evaluation and interpretation of questionnaires

Interpretation of evaluations via Questionnaire have two dimensions. Quantitative results can show the appropriate criterion to the future PA user once there will be established mechanism to overall PA ranking. Ranking over 76 % of relevance indicates that selected criterion is in particular PA decently represented. 50 % or lower ranking of relevance indicates that selected criterion is not represented with dignity. Surely you can see the overall relevance of PA by averaging all individual criterions (such as Relevance, Efficiency, Importance, Innovativeness, Sustainability). During the testing phase is this dimension important for identification of weak parts of PA's and indicative for the detection of possible indicators areas, which can lead to more robust measuring instruments.

On the other hand, the second dimension is qualitative. Open ended questions related to the quantitative part of Questionnaire are designed to specify some aspects of hardly quantified criterions of the evaluation process and indicate the precise reason of why this PA is not appropriate in some kind of criterion. In case of aptly formulated issues, the indicator for the final version of Evaluation Framework can be identified.

1.2. Methods in the Research pilot (Swe)

The methods for data collection are qualitative, relying on personal interviews (Kvale and Brinkmann 2015), focus group interviews (Morgan 1996), and participatory observations of meetings (Fangen 2005). The data from the interviews and focus group interviews were captured through audio recordings and subsequent transcriptions into text files. Data from participatory observations were captured through field notes (Emerson et al. 2011).

A number of possible research projects were identified, and four were selected as suitable candidates for the pilot cases. An information flyer about the project was produced in the native tongue, to facilitate easily accessible information to prospective actors. The four selected projects were approached and agreed to act as pilot cases.

In relation to the NextFood impact framework procedural, see figure 1 below, the following steps have been taken.

1. Assemble.

The first step, to assemble a relevant group of stakeholders to work with the impact evaluation, was facilitated by the fact that all four projects have both university researchers and industry stakeholders represented in their working group and reference groups. The stakeholders are e.g. farmers' organisations, advisory organisations, commercial sales companies, other research bodies and authorities.

Personal interviews were conducted with all project leaders and working group members. This comprises 17 personal interviews so far. The project leaders were asked for their view of additional relevant stakeholders, resulting in one more stakeholder added. In addition, the NextFood impact framework was presented and discussed briefly, to prepare for the upcoming focus groups interviews.

2. Involve.

The groups were involved in the impact evaluation process by a first focus group interview, facilitated by NextFood project co-workers. As a preparation for the focus group interviews, the

suggested NextFood impact framework in Deliverable 5.2., was thoroughly examined and adapted to practical use in the pilot cases.

Following the personal interviews, the first round of focus group interviews were organised with each of the projects. These included participants from the working groups and parts of references groups of the projects. At the focus group interviews, the participants were asked to reflect over the desired impacts of the project, in accordance with the adapted version of the NextFood impact framework.

3. Plan

It turned out that while the focus group interviews stimulated lively discussions, however, it was hard to summarise and agree on precise indicators within the allotted time space. Hence, we opted to conclude the interviews after having deemed enough data were collected, and return to our desks for analysis. The data from both the personal and focus group interviews were analysed, resulting in a list of suggested impact indicators for each project. These suggestions are presented for the groups and discussed; three out of four such follow-up meetings are conducted.

4. Execute.

This step includes data collection for the indicators decided upon in the previous step. In this pilot phase, there is a need to strike a balance between efforts that can be expected from group members and NextFood project co-workers. This work is on-going.

5. Reflect

We plan for a third, follow-up workshop for each project, where the reflection can take place, within the timeline of each individual project. The aim is to have the execution finished for all groups by fall 2021. As we work with four cases, the iterative process will continue during 2021, where we refine our approach step by step. This will end up in written documentation for qualitative and quantitative analysis, along with a summary to be able to provide a report with recommendations for improvement of the framework.

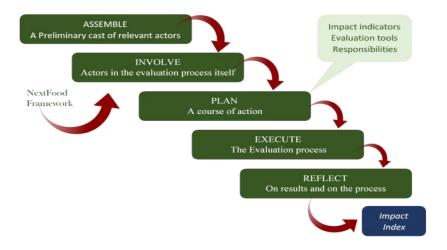


Figure 1. The NextFood evaluation framework procedure

Results and discussion

Practice Abstracts pilot (Czech)

As the findings from the first testing phase showed, the Questionnaire needed to be slightly reformulated into the current version (see Annex 1). Scale from 1 to 4 has been replaced mainly by percentage scale and supported by colour differentiation. This can help to judge each criterion more precisely. Some new questions have been added.

During the data gathering it appeared to be very problematic to find farmers who would be willing and able to read PA:s and evaluate them. This is far beyond the shape of the farmers routine.

Based on the findings from the first phase of testing the relevance of PA's and other criterions was not evaluated well for practical usage (see fig. 2).

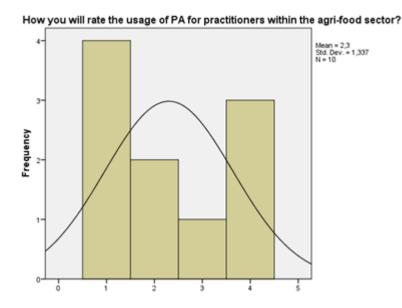


Figure 2. Test results on the relevance of PA's for practice, a mean of 2.3 on a 1-5 Likert scale.

More than a number, the verbal evaluation of advisors and other practitioners decided to merge forces with researches from WP 6 and develop new guidelines for PA writers to communicate their work more practically to possible users, see Annex 3. The plan of how to encourage NextFood PA writers to write highly relevant PA was prepared and first re-writed PA's are already done. Along with updated Questionnaire it is ready to be tested in another phase.

Implication

As repeating the testing process in another country is highly dependent on experienced and keen facilitators, researchers decided to start developing another limb for the second testing phase. Involving a particular NF partner is at the beginning and planning for further steps is an ongoing process nowadays.

We would like to also point out here potential problematic issues of presented approaches in the pilot. It is relatively time consuming and demand a decent level of professional facilitation. This can

possibly challenge the applicability of the framework as the level of expertise for the facilitator needs to be up to mentioned standards. In this context also the reviewers (for the CZ approach) have to be selected accordingly to their particular expertise otherwise proper evaluation might lack relevance. Complexity of agri-food sector including geographical and climatic difference within Europe or even globally thus presents important constraint of the framework applicability. Robust pool of experts is needed to process the evaluation framework in appropriate manner. This fact gets even more complicated when considering general low quality of significant part of practice abstract having high potential to discourage experts from further collaboration and evaluation. Above mentioned obstacles will be subject of research in the last year of the project in order to suggest ways to overcome them. From the current knowledge we hypothesize already that training of the facilitators as well as a basic set of evaluating experts might become necessary indicating also need for a future budgetary allocation. However, the aim is to make a ready-to-use framework that allows an experienced and engaged project manager to take the role as a facilitator.

Research pilot (Swe)

To fit the outline of the NextFood evaluation framework, presented in Deliverable 5.2, with the practical encounters within the pilot cases, we adapted and developed certain parts of the suggested framework.

• We have redefined and specified the three levels into Project level, Intermediary level and Value chain level/Extended value chain level. This builds on the insight of the need of an individual level, i.e. the project level, as this is where collaboration can be evaluated.

In comparison to Deliverable 5.2., table 4, the following adaptations were made:

- Developed and specified the content of Project level indicators
- Redefined and specified the content of Intermediary level indicators
- Redefined and specified the content of Systemic level indicators
- Redefined and specified the product and process related categories for intermediary and systemic level.

With these adaptations included, a new template for the focus group interviews was developed, presented in Annex 4. The findings from the rounds of testing the framework are rich and diverse, and four of the main points are summarised below.

1. We have noted that important things in relation to impact may very well happen before the actual project time, such as shaping the set-up of the project, and building relations and networks with relevant stakeholders. Among our four pilot cases, there are examples of cases with both long time relations between stakeholders and newly made relations, and a mix of these. This puts emphasis on the step to assemble a group of stakeholders. To involve relevant actors in the project and work in an inclusive mode are important parts of creating the conditions for impact itself, i.e. in enabling impact. Furthermore, relations with stakeholders before the project can affect the early work of initiating and designing a research project. Hence, the *process* of research is important for enabling impact, not just the *end-products* of research projects. And this process may very well start before the research project time.

- 2. While each project is unique and thus requires unique impact indicators, there is a need to include indicators that can be generalised across all kinds of projects, in order to enable comparison. For this reason, we have turned our attention to the concept of 'productive interactions' by Spaapen and van Drooge (2011). This concept emphasises three kinds of indicators, which can be incorporated into the impact indicators; direct, indirect and financial. However, as the indicators of 'productive interactions' are not very precise, we seek to understand how they can be usefully specified in each of the pilot cases, while at the same time being able to generalise across cases.
- 3. The higher the level, i.e. at intermediary level and value chain level (see Annex 4), the harder to pinpoint the impacts of the project. This fact is making the participants reluctant to decide on precise indicators on these levels, as they know many factors are at play, and that the time span to impact can be considerably longer than the project running time. Together with the stakeholder groups, we will discuss further how to capture and account for this. This speaks in the favour of using indicators that can be evaluated within the project time.
- 4. Engaging stakeholders in a process of evaluation contributes in itself to the creation of societal impact. Project members valued the discussions about impact since it added a from-the-outside-in perspective, which is something that contributes to the examining of established working methods and promotes new ways of thinking.

Interrelation between Practice abstracts and Research pilots

The NextFood evaluation framework is intended to be used in the impact evaluation of research projects primarily. One of the "products" of research projects are the practice abstracts (PA's). Hence, the Swedish and Czech pilots are interrelated, as they test the evaluation framework on applied research projects and of PA's, respectively.

The first rounds of framework testing of applied research projects (Swedish pilot) resulted in an understanding of the importance of an adequate *process between stakeholders* for enabling impact. This process is important for the impacts of the end-products of research projects (Spaapen and van Drooge 2011). At the same time, the results of testing the framework on PA's (Czech pilot) resulted in a low relevance of the PA's to practice and practitioners. This led us to formulate the hypothesis that there is currently a lack of collaborative research processes between research and practice, resulting in inadequate PA's. To increase the likelihood that both research projects and PA's are perceived as useful for practice, and hence generate impact in practice, they need to be made in collaboration between relevant stakeholders.

If a research project is co-produced with relevant and representative practice stakeholders, they will safeguard practical relevance within the project, and will be more inclined to contribute to the impact by spreading the results to practitioners. Likewise, if a PA is written together by researchers and practitioners, the likelihood increases that it will be useful for other practitioners.

This assumption, among other aspects, will be tested within the Greek pilot of education. PA's produced by the Greek pilot will be tested using the Questionnaire (Annex 1A or 1B). For any other future followers/practitioners of respective PA's this will be a huge advantage for identifying suitable PA to read for their specific needs. This process can be replicated for any other PA.

The Education pilot will also test the general indicators developed within the Research pilot, and will contribute to formulate specific indicators. A good process involving stakeholders is vital to enable relevance and impact of the end-product. See figure 3.

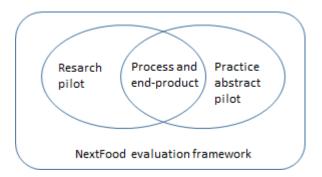


Figure 3. Interrelated results of the research and practice abstract pilots. A process of co-production is vital to enable relevance and impact of the end-product.

Educational pilot (Greece)

In addition, a third pilot will be conducted in 2021, with the aim to further explore how the hitherto findings can be integrated into the framework, and to test the usefulness of the evaluation framework in an educational setting. Action-oriented education has been put forward as a way to bridge education and training with research focusing on sustainability interventions. Cooperation has been initiated with the NextFood partner The American Farm School in Greece. They will test the NextFood evaluation framework within their education, integrating the findings from the Czech and Swedish pilots into their set-up; the importance of a valid process and a joint production of one PA for each "learning set". The relation between the three pilots is illustrated in figure 4.

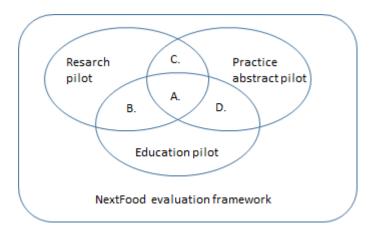


Figure 4. Interrelated results of the research, practice abstract and education pilots.

The AFS will participate in the testing of the NextFood impact framework with the research action learning activities of the 3rd cycle of activities that involve the conduction of action-learning sets in 3 fields: animal farming, plant farming and nutrition. In each learning set we will involve professionals, students, University professors, advisors and researchers (direct actors). Educational outcomes will be used for the production of five undergraduate and one postgraduate theses.

The professionals involved are 1 tomato farmer, 1 oregano farmer, 1 family sheep farmer, the manager of one state-of-the-art sheep farm, the manager of the central research laboratory of the Food Science and technology, Department of IHU and 1 actor from the Food Industry (still unknown). In total, there will be 7 students involved, 6 undergraduate and 1 postgraduate, 3 professors and 3 researchers. There are 5 learning sets organized for each set of actors which will take place in the course of 6 months, starting from the 22nd of April 2021. The interim period between learning sets will be about 1 month.

Embedded in the actor reflection logs are questions that encourage the actors to think of relevant impact indicators (environmental, social, and economic) relating to the learning set process itself (i.e., process-related impact factors) and to the outputs resulting from participating in the research project (i.e., product-related impact factors). . Specifically, during the 2nd and 3rd learning sets we will engage actors in a focused conversation about indicators relating to the research project, and how the knowledge and experiences gained through their participation in the project and the between-actor collaboration could be used to influence the uptake of future and professional practices that relate to the economic, environmental and social sustainable development components. . During the 4th and 5th learning sets, we plan to incorporate the production of a practice abstract from the professionals in collaboration with the students. The learning sets will end with individual interviews and focus groups that will include the exploration of indicators of impact, their evaluation, and plans for future action.

Conclusions

The first two rounds of testing of the NextFood Impact Framework in the two pilots are now concluded, and the findings are summarised in Deliverable 5.4. In its existing version, the impact framework is applicable for the identification of indicators and assessing societal impact of applied research projects. Even if the operationalisation of the framework would demand a facilitator or a peer-reviewer, it has a relatively easy-to-use format that allows usage on a wider scale. What remains to be developed is the notion of an "impact index" that offers a comparison of different projects.

The Czech pilot is testing the NextFood evaluation framework in relation to usefulness of published Practice abstracts (PA's), and the results thus far indicate a low relevance of the PA's to practice and practitioners. The Swedish pilot is testing NextFood evaluation framework in relation to applied research projects, which resulted thus far in an understanding of the importance of an adequate process between stakeholders for enabling impact. A third pilot will be conducted in 2021, with the aim to integrate the hitherto findings into an educational setting. These three pilots add different perspectives on societal impact of action-oriented research and education. A rich set of data from interviews and focus group discussions with stakeholders have been collected from the pilots that will form the basis for a revised and final version of the framework to be delivered in 2022.

The development of the NextFood impact framework, as well as the learnings during the pilots, will be important contributions in the completion of the final deliverable of WP4 of the NextFood projekt, tasked with policy assessment and recommendations.

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Annex 1A. Evaluation of Practice abstracts - version for advisors

A. Updated draft of Evaluation Framework ("Questionnaire") - version for advisers

Updated draft of Evaluation Framework

<u>Criteria for evaluating of Practice Abstracts – version: advisors, other PA's potential users</u>

All criteria will be evaluated on the scale from 0 to 100 % (relevance rate)

+ commented on by agro-environmental specialists. Both levels will be analyzed.

All criteria carry the same weight.

All criteria can be statistically evaluated (mean, median, variability etc.)

- 1) Relevance of practice abstract (PA) for practitioners.
- a) How do you rate the relevance of the PA's topic for practitioners within your field of expertise in the agri-food sector?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe your assessment?

b) How do you will rate the **usage** of the PA for practitioners within your field of expertise in the agrifood sector?

b.1) on regional level

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe your assessment?

b.2) How do you rate the barriers of usage of PA for practitioners in your country within the agri-food sector?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe your assessment?

b.3) How do you rate the barriers of usage of the technology or knowledge described in the PA??

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %
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Could you please briefly describe your assessment?

2) Efficiency

a) Time

How time demanding will be the transfer of the innovation from the PA to practice in the context of your working routine?

too demanding	demanding	less demanding	not demanding

Could you please briefly specify and describe your opinion?

b) Financial costs

How high financial costs will be to transfer the innovations from PA to practice?

too expensive	expensive	less expensive	not expensive

Could you please briefly specify and describe it your opinion?

c) Resources

Apart of financial and time costs, please consider **one** another crucial level of costs regarding transfer from PA to practice:

Please evaluate:

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

3) Importance of PA's:

a) What is the **Importance** of the PA for the creation of new markets or increasing visibility on existing markets?

<i>0</i> – 25 %	26 – <i>50</i> %	<i>51 – 75 %</i>	76 – 100 %

Please specify why/how?

b) What is the **Importance** of the knowledge and/or technology described in the PA for environmentally friendly behavior?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Please specify why/how?

c) What is the **Importance** of the knowledge and/or technology described in the PA for socially responsible behavior?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Please specify why/how?

4) Innovativeness of the PA:

Please, rate the level of innovativeness of the PA:

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe what specifically is innovative within this PA?

5) Sustainability

Can you rate the importance of PA for sustainable solutions for practitioners?

a) economically

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %
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b) environmentally

<u> </u>			
0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %
0 20 /0	20 00 70	0, 70,	70 700 70

c) socially

not relevant	0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Annex 1B. Evaluation of Practice abstracts - version for farmers

B. Updated draft of Evaluation Framework ("Questionnaire") - version for farmers

Updated draft of Evaluation Framework

<u>Criteria for evaluating of Practice Abstracts – version: farmers, practitioners, lectures, other PA's potential users</u>

All criteria will be evaluated on the scale from 0 to 100 % (relevance rate)

+ commented on by agro-environmental specialists. Both levels will be analyzed.

All criteria carry the same weight.

All criteria can be statistically evaluated (mean, median, variability etc.)

- 1) Relevance of practice abstract (PA) for practitioners.
- a) How do you rate the relevance of the PA's topic for practitioners within your field of expertise in the agri-food sector?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %
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Could you please briefly describe your assessment?

b) How do you will rate the **usage** of the PA within your field of expertise in the agri-food sector?

b.1) on regional level

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe your assessment?

b.2) How do you rate the barriers of usage of PA for you in your country within the agri-food sector?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe your assessment?

b.3) How do you rate the barriers of usage of the technology or knowledge described in the PA for you?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe your assessment?

2) Efficiency

a) Time

How time demanding will be the transfer of the innovation from the PA to practice in the context of your working routine?

too demanding	demanding	less demanding	not demanding

Could you please briefly specify and describe your opinion?

b) Financial costs

How high financial costs will be to transfer the innovations from PA to practice in your specific case?

too expensive	expensive	less expensive	not expensive

Could you please briefly specify and describe it your opinion?

c) Resources

Apart of financial and time costs, please consider **one** another crucial level of costs regarding transfer from PA to practice in your specific case:

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	•••••

Please evaluate:

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

3) Importance of PA's:

a) What is the **Importance** of the PA for the creation of new markets or increasing visibility on existing markets in your specific case?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Please specify why/how?

b) What is the **Importance** of the knowledge and/or technology described in the PA for environmentally friendly behavior in your specific case?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %
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Please specify why/how?

c) What is the **Importance** of the knowledge and/or technology described in the PA for socially responsible behavior in your specific case?

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Please specify why/how?

4) Innovativeness of the PA:

Please, rate the level of innovativeness of the PA in your specific case:

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Could you please briefly describe what specifically is innovative within this PA?

5) Sustainability

Can you rate the importance of PA for sustainable solutions in your specific case?

a) economically

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %
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b) environmentally

0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

c) socially

not relevant	0 – 25 %	26 – 50 %	51 – 75 %	76 – 100 %

Annex 2. Tips and tricks for collecting Practice abstracts evaluations

Step by step + Tips & Tricks

- Use preferably PA's from NF project. The new ones, which are after encouraging process for writing high excellency PA's initiated by joint forces of WP6 & WP5. Help the respondent to find relevant PA.
 - § If respondents are willing to write down their findings into our form but they do not have expertise as is the content of the new PA's help him/her to find some relevant (old) PA from EIP agri website.
- Potential groups of respondents: advisors, lectors (high school & university teachers, training authorities from e.g. specialized NGO's), practitioners at managerial level, well skilled students from family farm, farmers (if willing to share) etc.
- Content of the PA must be in line with respondent's expertise.
 - § write down to each form which group of respondents replied
- Assessment of one PA = one respond form only
 § Don't let respondents to write down their general findings from more PA's into one form.
 We need the specific evaluations.

Be positive to your respondent in order to gain relevant and valuable answers:)

Annex 3. New guideline how to write a Nextfood Practice abstract

Write a Nextfood Practice Abstract to Communicate Your Work

1. What are Practice Abstracts?

Practice Abstracts (PA) are a form of dissemination of project results which encourage

- · practitioners to contact project partners who have innovative and useable results because
- · results are presented in a short, concise, interesting and easily understandable way.

The European Innovation Partnership-Agricultural Productivity and Sustainability (EIP-AGRI) developed the PA format which all Horizon 2020 projects must use to give research results visibility not only among peers but also to a wider audience. You can benefit by widely sharing your research results!

2. For whom are Practice Abstracts intended and where are they published?

Practice Abstracts should be of interest to practitioners: in the case of NextFOOD that is farmers/foresters and educators, administrators, policy makers, local authorities in these sectors.

The NextFOOD PAs will be published

- on the EIP-AGRI website, along with PAs from other H2020 projects,
- on the NextFOOD Platform where they will be highlighted as News,
- as part of a potential peer review system, which will use PAs to assess project impacts

PAs are also suitable for Press Releases or as basis of short articles for the lay press or as a way to publicise your activities to potential partners.

3. How do I write an appetizing Practice Abstract?

Practice Abstracts are like appetizers, they are small, easy to digest and they leave you wanting more!

Here are some tips (and rules) for writing an interesting and appetizing PA:

- · Stick to why, what and how. Include who, when, where if necessary
 - Use between 1000-1500 characters (not counting spaces)
- Focus on what is most innovative and most important. Why is your result interesting?
 - Tell the innovativeness of your result: process/product/marketing/organization/etc.
 - Tell the value/benefit of what you did. Why might someone else want to do the same?
 - o Relate to the market: creation, advantage, increasing visibility, etc. (if relevant)
 - Relate to sustainability compared with conventional approaches (if relevant)
 - Identify potential legislative barriers on regional/national/worldwide level (if known)

- Be objective: Tell what you did and how someone else can do it or something similar
 - How time consuming will it be to transfer your result into practice
 - Describe ideal conditions: climate, technical equipment, etc.
 - o How expensive (moneywise) will it be?
- · Use specific yet easily understandable words. Avoid jargon and academic words and phrases.
- Ensure your language is gender-sensitive, i.e. for pronouns, use the plural form where possible ("they", "them" etc.), or explicitly state both genders in the pronouns (e.g. "s/he" or "she and he", "him or her" etc.), or use gender-neutral terms where appropriate (e.g. "land-owner" instead of "landlord", or "firefighter" instead of "fireman") to avoid reproducing gender stereotypes through your writing. You can also directly address gender inequalities by explicitly mentioning those gender groups that are typically underrepresented or even excluded, e.g. "women farmers" or "male nurses" etc. For further information, please see the EU guidelines here.

A more detailed guide how to write a PA developed by the EC can be found here.

We are looking forward to receiving your appetizing Practice Abstracts!

Annex 4. Template for NextFood impact framework of applied research

Template for the focus group interviews of the Swedish pilot of applied research projects, and elaboration of framework components.

Level	Sustaina bility aspect	Process-related impact indicators. I.e. how the work processes in the project affect the factors below.	Product-related impact indicators. I.e. how the project results and products affected the factors below.
Project level, i.e. the individuals participating in the project working group and reference group.	Economi c	Indicators of how the project processes create economic value for the participants, eg new financial / entrepreneurial opportunities, ability to participate in the local economy.	Indicators for how project results and products create economic value, eg enter into innovation processes, become patents or commonly used concepts, etc.
	Environ mental	Indicators for how the project processes create environmental value for the participants, eg awareness of the environmental impact of their own work, change in working methods.	Indicators of how the project's results and products affect the environment, eg more environmentally friendly behavior, production or consumption.
	Social	Indicators for how the project processes create social value for the participants, eg participation in meetings and in the project in general, trust building, relationship building between actors / individuals.	Indicators of how the project's results and products affect social values, such as more socially sustainable behavior, production and consumption.
Intermediary level, i. e. the organisations that the project level individuals respresent.	Economi c	Indicators of how the project creates economic value with its processes. For example, the number of contacts and the quality of the relations between the project and external economic actors, how the project enables the use of its processes for financial purposes at intermediate level.	Indicators of how the project creates economic value with its results and products. For example, the number of contacts and the quality of the relationships between the project and external economic actors, how the project enables the use of its results and products for financial purposes at intermediate level.
	Environ mental	Indicators of how the project creates environmental value with its processes. For example, the number of contacts and the quality of the relationships between the project and external environmental actors, how the project enables the use of its processes for environmental purposes at an intermediate level.	Indicators of how the project creates environmental value with its results and products. For example, the number of contacts and the quality of the relationships between the project and external environmental actors, how the project enables the use of its results and products for environmental purposes at an intermediate level.

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Indicators of how the project creates social values with its processes. For example, the number of contacts and the quality of the relationships between the project and external social actors, how the project enables the use of its processes for social purposes at the intermediate level.

Indicators of how the project creates social value with its results and products. For example, the number of contacts and the quality of the relationships between the project and external social actors, how the project enables the use of its results and products for social purposes at the intermediate level.

Value chain level and extended value chain level

Economi c

Indicators for how the process has led to, for example, changes in the value chain's economy or economic structure, ie actors, networks, economic behavior, etc. That is, has your way of working, your work processes in the project, led to an impact on this?

Indicators of how the project's results or products affect the economy, economic actors, networks, economic behavior in the value chain.

Environ mental

Indicators of how the process has led to, for example, changes in the value chain's environmental policy and environmental effects from manufacturing to the consumer. That is, has your way of working, your work processes in the project, led to an impact on this?

Indicators of how the project's results or products affect the value chain in a more environmentally friendly direction. For example, environmental organizations, nature conservation organizations, authorities that monitor environmental interests, etc.

Social

Indicators of how the process has led to changes of a social nature in the value chain from manufacturing to consumer. That is, has your way of working, your work processes in the project, led to an impact on this? Indicators of how the project's results or products affect the value chain in a more socially sustainable direction. For example, external actors for social sustainability such as authorities and NGOs that work with social issues, networks for gender equality, equal treatment, etc.