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Summary report - Methodology and results of evaluation studies of the Cool Food Pro program and tool

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Summary report

Methodology and results of evaluation studies of the Cool Food Pro program and tool

Deliverable T3.3.1 - March 2023



EUROPEAN UNION



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Summary

This document summarises the results of the two qualitative evaluation studies of the COOL FOOD PRO programme that took place from May to December 2022. It also presents the quantitative results of the ARGAP programme during its pilot phase. It is thus structured in three parts.

The first part is devoted to the study which aimed to evaluate the impact of the Cool Food pro tool and programme on the uses and practices of the professionals involved in the experimental phase of the project on the pilot sites. The study was carried out through a series of group and individual interviews conducted at the various pilot sites (5 French and 3 English) at the end of the experiments.

The second part presents the study which specifically targeted the consumers of the experimental catering restaurants, and which aimed to evaluate the relevance and the levers activated with the help of the workshop activities proposed to the consumers in the framework of the Cool Food Pro project. The evaluation took the form of non-participatory filmed observations, accompanied by micro-interviews with the diners, during 6 distinct workshop activities observed in five different pilot sites in France and England.

The last part proposes an initial analysis of the results of the experimental phase of ARGAP, the support programme for the reduction of food and plastic waste set up at the project's beneficiary sites. These initial analyses allow conclusions to be drawn for the deployment phase of this programme.

This work as a whole is part of Work Package 3 (WP3) of the CoolFood Pro project (CFP). It aims to evaluate the effectiveness of the Cool Food Pro programme and digital tool and to identify possible improvements to the tool for professionals and the accompanying programme for diners.

**Part I - Evaluation of the impact of
the Cool Food pro tool and
programme on the applications
and practices of professionals**

1. Methodology of the evaluation study carried out with the catering team of the pilot sites

Our **empirical analysis is qualitative** and focuses on the impact of the Cool Food Pro (CFP) programme and more specifically, on the digital tool developed, with the aim of improvement. We contacted the 8 pilot sites participating in the experiments, over the period from June to December 2022. The 12 semi-structured interviews were conducted with the people directly involved in the programme, collectively and then individually.

The interview guide used to conduct the study was designed in consultation with members of the MFF consortium, based on the summary report of the results of Work Package 1 (WP1). It is divided into two parts, one group, the other individual. The first part aims to contribute to the conversation about the barriers and levers, at the level of the programme in general and the tool in particular, that were identified by the beneficiaries throughout the experimentation and their impact on engagement. The second part aims to address questions related to the meaning given by the project to the individuals, what the project has or has not allowed to transform in their practice/activity, what are the obstacles, etc. The interviews began with a short presentation of the interview process and objectives. The interviewees were then asked to collectively evaluate:

- the programme from a general point of view by addressing the obstacles and levers in terms of costs (rationalisation of costs? compensation found? investment?), needs (support/training/information on the law and the steps already taken), logistics (storage and space, supply network - change of suppliers - equipment, home delivery when change of container) and their impact on the commitment, as well as the contributions and opportunities of the programme;
- the impact of the digital tool on their practices and uses in particular (frequency of use and contexts, people involved, contributions, modification of individual/group practices, decision-making/initiative mode, constraints identified, additional functionalities desired);
- Support (place in their appropriation of the tool, type of support, needs not covered, prospects/ideas for improvement);
- communication (relevance, ownership, additional needs/suggestions).

This was followed by an individual section where the interviewees were given the opportunity to revisit what had been said collectively and where they were invited to talk about the meaning

of the programme and the tool on a personal level.

The interviews were conducted on site, or when this was not possible, at the university or by videoconference by the LEGO researchers in charge of the study and lasted on average one hour.

In the interests of anonymity, all the verbatims presented are coded and the first names cited are replaced by random names (Appendix 1). The data was analysed using a thematic content analysis technique.

2. Results of the study

We present here the results of the qualitative analysis highlighting the obstacles and levers, in terms of the Cool Food Pro programme in general and the tool in particular, which were identified by the pilot sites throughout the experimentation and which are likely to have had an impact on their commitment. We also look at the meaning given to the programme and the tool by the individuals interviewed.

2.1 In the Cool Food Pro programme

2.1.1 Interest and meaning given to organisations

2.1.1.1 A programme that reinforces the steps already taken

In general, the CoolFood Pro (CFP) programme is perfectly in line with the food transition processes already undertaken by the French and English beneficiaries. It allows them to respond to the evolution of expectations in terms of sustainable food:

UK_Sit7a: "Some of our schools are really good at it. Some best schools really take on board what we're trying to do and encourage them to students to have it. Then we've got some students, and some schools are a bit anti towards it: Why do we have to have plant based foods? Why can't the children have meat all the time and things. Of that side of it all. And it's getting across to the teaching staff from the education team of why we're doing it.

FR_Sit1a: "We had already undertaken quite a few sustainable development actions, so this was in line with what we had done, so we found it rather interesting.

In particular with regard to the Territorial Food Plan on the French side:

FR_Sit3a: "For me, it's integrated into the framework of the PAT approach. It is a PAT partnership project. It is the partners in fact of the Cool Food Pro project at the level of the European interlocutors. We are a pilot site, so I have integrated it as such in our PAT but it is followed up in the framework of my school catering service. This is because our school catering service is at the heart of our TAP, so it is monitored, I would say in a parallel but integrated way.

The MFF programme supports the steps taken and allows for further reflection. In particular, it encourages changes in practices:

FR_Sit4b: "In fact, we already had a project along these lines and Cool Food Pro came along and actually made us progress, made us learn things and therefore review our ways of thinking, of acting and so today it's just a continuation ... for example, if we

want to go for organic milk and Ben we're going to go, we're going to do all the studies. Finally, we'll do the tests on the recipes, create the recipes and try the whole nutritional part.

FR_Sit2a: *"At the beginning, it was the reduction of CO2 on the plate that was important, that's all. As the programme progressed, I realised that it went much further, it reduces CO2, but it's also good for the planet, it reduces waste and therefore the cost price of foodstuffs, which means you can buy better quality products."*

It then provides a framework and structure for the actions undertaken:

FR_Sit3b: *"For me, it's also good to have a support like Cool Food Pro who comes and gives me a hand and says "Wait a minute, there's this". Because as I was saying, there are things that we forget. Yes, we had this to do, but we forgot and this kind of network also allows us to get back on track and to stay on track with the right steps."*

FR_Sit5a: *"I saw it as a long way off at that time. One project among others and we'll see how it progresses and if it's followed up and in fact, in the end it went very quickly, but because there were also many deadlines that were well structured, well organised, planned and that's it."*

2.1.1.2 A motivating programme that strengthens the sense of cohesion

Beyond the individual opportunities, the programme creates a real sense of cohesion between participants from different backgrounds working towards the same goal and acts as a catalyst for the creation of professional networks facilitating the exchange of good practice between peers. In this respect, the debriefing meetings, meetings occasionally organised by the project partners to bring together the beneficiary sites and review the results of the project, allow for the exchange of information on common issues and motivate the stakeholders of the network to pursue their objectives by visualising the common scope of actions that may sometimes seem isolated:

FR_Sit3a: *"What I found very interesting [...] was the meeting we had last week in Plougastel. It was really great, it made it possible to realise that we were very different catering production units, but that we had a lot in common and the exchange was very rich and I find that sometimes we have the opportunity to exchange ideas between peers, who are very different, because in the Agores network we are used to discussing with catering professionals, mainly school catering, middle school and primary school. And here, we had the university hospital catering service, we had the private caterer Izee. In short, these are quite different things compared to what we do, and I found it very interesting. FR_Sit3b: "It's this kind of exchange, round table, meetings with the different interlocutors, it's very, very important and it has more impact, I think, on the level of each person, than having an email, because today we are all... We open our mailbox, "oh yes, there's this" and then in fact we read it and there we are, we've missed it, whereas when we see someone face to face, the exchange is more significant."*

In particular, those involved can position themselves in relation to the results obtained by other

programme sites and in relation to similar structures in their specific field. This brings us back to the notions of social belonging and comparison between peers (Duke, 2010¹ ; Tajfel, 1982² ; Festinger, 1954³). The individual, representing here the structure more globally, is influenced by his peers, in other words, the other structures of the group to which he belongs. Therefore, if the social norms of his reference group change, the structure represented by the individual will tend to conform to them at the risk of finding itself in a deviant situation and therefore of being excluded from the group in the long term. The feedback obtained by means of the tool then enables the individual to position himself or herself in relation to the norm in force and informs the appropriate behaviour to adopt:

FR_Sit3a: *"The one in front of us is the Genêts d'Or, but because they have quite a large number of meals. They must be at 13 tons I think, but there were 4 tons in Brest too. So there you have it, we were, we're not bad, we're not bad, we have to continue.*

FR_Sit1a: *"I think that we could also use the results of Cool Food pro to communicate with our establishments, because it's true that for the moment it was premature, because at the beginning we didn't have many results, but I can see, for example, that the Genêts d'or pilot sites involved in Cool Food pro were the first to have generated very significant carbon gains, particularly with regard to fish. These are things that we haven't yet communicated. I think it would be interesting to communicate this to our establishments.*

There is a form of enthusiasm and pride in participating in this kind of programme:

UK_Sit6a: *"Well, we've only put one input into it, so it doesn't really make a massive amount of difference. But as we move forward once we can open up, all of the individual sites will be able to see what sites do.*

FR_Sit4a: *"And the fact that we know that we are part of this adventure, well, we are the first hospital to be part of it. So it's exciting. [...] And as we know that, in addition, the objective of Cool Food pro is to develop towards other hospitals, so the fact that the Brest University Hospital is the pilot hospital, is a source of pride.*

The MFF programme also creates new synergies and strengthens team cohesion within the same structure:

FR_Sit4a: *"Well, it already reinforces the ideas, the convictions we have and what we want to achieve, i.e. improving quality, knowing that we are already, as we were saying earlier, we are already... We have a team that already produces a lot.* FR_Sit1a: *"I think that it has enabled us to encourage changes in practices at the team level because we had already started to make certain changes. [...] In any case, I thought it was a tool that was used during that period to really encourage concrete things.*

FR_Sit2b: *"It brings the team together. They are even more attentive I think.*

¹ **Duke, C. C. (2010).** Social Identity and the Environment: *The Influence of Group Processes on Environmentally Sustainable Behaviour* (Doctoral dissertation, University of Exeter).

² **Tajfel, H. (1982).** Social psychology of intergroup relations. *Annual review of psychology*, 33(1), 1-39.

³ **Festinger, L. (1957).** Social comparison theory. *Selective Exposure Theory*, 16.

Finally, the involvement, cohesion and motivation around the project encouraged some individuals to extend the approach:

UK_Sit6a : *" And then we've got the cross channel forum which I'm, you know, hopefully will be attending as well at the end of the month. That's a benefit to get out and see and learn a lot more about it. Because ideally we want to expand it.*

2.1.2 Interest and meaning given to individuals

In addition to the collective aspect, the programme's approach also makes sense for the individuals involved, both from a personal and a professional point of view.

2.1.2.1 From a personal perspective

The programme responds to ethical values and reflects personal practices concerning the fight against food waste and the purchase of local, organic and seasonal products:

UK_Sit7a: *"I'm quite passionate about the climate change is what was happening and what was. You know children are eating too much meat, etc and things that's why we're introducing plant based food. So I'm passionate about driving that forward to all the schools and that's one of the reasons I wanted to get involved quite a lot.*

FR_Sit4c: *"Then there's the whole aspect with Laboceca against food waste... to limit food waste, that also speaks to me. I mean, I'm shocked to see everything that is thrown away. [...] Everything that is not sorted, oh yes. [...] All the plastic is thrown in the bin. We've had yellow bins for 25 years. [...] And the hospital throws it away. [...] It's my personal ethics that it offends.*

FR_Sit2a: *"I am already sensitive, yes. Eating local, organic... What I do at work, I think about at home."*

FR_Sit1a: *"So yes, clearly, I'm a zero waste family, so we're fully involved in this with our local, organic food, the market. So personally, it's obvious.*

In contrast to control tools such as my-cantine.beta.gouv.fr, the programme and the tool are seen as real tools for change:

FR_Sit1a: *"In any case, that's really how I saw it because it's not a control tool... if you're not motivated, you won't fill it in, it's not compulsory. So, it's really a support for change to move towards the determination of sustainable development, etc. "*

2.1.2.2 From a professional point of view

The programme is first and foremost a motivational and engaging tool that offers the opportunity to step back and refocus on the core of one's work:

FR_Sit1b: *"The priority is to find staff, to draw up schedules, to get supplies and then, if we have the time, we go and find the small producer in the area. That gives us an objective and forces us to take the time to ask ourselves the question and to discuss it with the staff to see what we can do. So, in my opinion, there are lots of things I have in mind that I haven't yet been able to start. Now I have my full team, so maybe we'll be able to do more. But in any case, for me, it gave me the opportunity to sit down, to analyse and to say to myself, ah well, I need to take some time for this."*

UK_Sit6a : *" Well, at the time when it first began, like I say, it was because my staff resource was very low and so that's increased and that's got a little better. So that's given me the opportunity to step back from some other things or not be so instrumental in other parts of the business and be able to concentrate on my job."*

The CFP programme complements the professional objectives. On a personal level, it gives weight to the implementation of intentions:

FR_Sit4a: *"We're a support service, we're there for the patient, for the care services, so if we can be there and also provide meals that are tasty and meet the nutritional objectives, and also pay attention to the type of products we bring. Of course, it's a win-win situation. And we also have patients who will be satisfied, so there you go. [...] We know that when you're in a hospital, you can't choose... So if the meal can be a moment of pleasure"*.

FR_Sit2a: *"The Department appreciated what the college has done with the programme. They asked me to come and present the programme at the cookery forum and I told them why it was a good programme [...] it's rewarding. And it's rewarding to make the kids happy and to know that they're eating better and better products."*

UK_Sit7a: *"Yeah and it's made you more made me more aware of myself really is that what we are doing? How are we providing the children better sustainable food? What we were doing before and the reasons why we're doing it."*

FR_Sit1a: *"In fact, I think it gives us arguments, reliable arguments, on which we can base ourselves and say 'Well, look, we've tested it'. And we often drew a parallel between carbon gains and always asking ourselves about the financial impact and the organisational impact. That, plus that, plus that, meant that we went for fresh fish. On the organic yoghurts of the Quiereux farm and the farm of the hay in the hooves, in the same way, there was a significant carbon gain and then in addition there, the small local producers largely increased their prices less than the wholesalers, so that, plus that, likewise, I said to them "well listen, we don't have a choice, we're going because there's no point in not going there". So there you have it, it allowed me to have reliable arguments to be able to deploy and then to promote afterwards and I find that it was, it was very zealous."*

In particular, the programme provides a sense of responsibility for the role to be played by the institutions and brings a certain pride to the participants, which is in line with one of the results identified at the collective level:

FR_Sit4a: *"So, we think that we are playing a role on the local level. So, on the choice of foodstuffs in the end, it also makes us aware of our responsibilities on the choice of foodstuffs, on the economic aspect and we say that our role is important and on the ecological aspect. It makes us even more responsible. And we say to ourselves, here we are, when we see our axis of progress, we say well that's great, thanks to these small"*

challenges, we're already managing to save money so here we are.

FR_Sit4a: "Well, on a personal level, I find it a... It's a source of pride to have been... that the... in any case, that the Brest University Hospital catering service was selected to work on this project.

However, it can create tensions with the various stakeholders involved, especially the already overworked kitchen staff:

FR_Sit1a: "In fact, where I felt tensions with the kitchen managers was that we took on the Cool Food pro project when we were in the process of rolling out new software, when we were in the process of setting up our new management. It's only been a little over a year since we set up our new management, we've had quite a few HR changes, we're in the process of merging kitchens... the kitchen managers told me "Yeah, Sylvie, that's good, but we're not going to be able to be on all fronts now. So, if you put a lot of them on us, we won't be able to go" and that's how Alice said, "Well, that's fine, I'll go" and the other two told me "Well, no, following us Cool Food pro on top of everything else... It's already hard to keep up, it's going to be complicated" and there were some small issues of tension that I heard because we can't load the teams all the time and we know very well that if we load them too much, they can't do everything properly. So, I thought that was more like it.

From a cultural point of view, mealtime is also not considered in the same way in France or in England. In the latter, differences of opinion emerge as to the place to be given to food, giving rise to conflicts of interest between teams:

UK_Sit7a: "Uhm, they. I'm having a battle with the education team at the moment because they don't see eating or they don't see the lunchtime experience as a beneficial experience to the children. Education day all they're seeing is. They've got to be fed and they need to get them in and out and fed quickly so they can go back into their classrooms for education and things like that. They don't see the benefits of what food is related to the whole of the day for those children, so that's the battle.

2.1.3 Barriers and constraints on the French side

2.1.3.1 Fundamental constraints of the catering industry which prevent taking challenges

Despite all the interest in the programme and the meaning given to it, the constraints on French catering (Egalim law, recruitment problems, time, organisational, financial and regulatory constraints) are holding back commitment. The change in practices implied by the programme requires a real dynamic of change within the organisation:

FR_Sit1a: "Because I'm also a referent for the Agores catering network, administrator and Finistère delegate, - it's a constraint that I hear from many colleagues, that we are very, very busy in catering. We have to deal with a lot of things. We have the Egalim

law, we have to stop using plastic containers, we have to develop organic and local food. We all have problems recruiting. Cost-denial problems. So, we take Cool Food pro over all that and I find that it can be a barrier but it's a cyclical barrier in fact. It's saying, "OK, we're all convinced that it's great to do organic, local, to be committed to all that", but I think that technically, some colleagues will also say "Yeah, but wait a minute, honestly, we've had it up to here, we can't take on any more", and that's something I felt internally and that we were obliged to arbitrate. [...] And then, we talked about it regularly in all our meetings. We have meetings with the kitchen managers every two weeks or so, we talked about it every time and basically everyone agreed, it was more about time and organisational constraints.

2.1.3.2 Challenges taken on the basis of feasibility and impact

In general, challenges are selected on the basis of their current feasibility and potential environmental impact:

FR_Sit3b: "For me, it was more about the challenges that were more concrete and more achievable. [...] That's reducing the amount of meat, for example. That's something we can do, that we know how to do because we've already done this kind of operation.

FR_Sit1b: "After that, they gave us guidance and then, clearly, we also did things according to our constraints. Well, we stayed with the beginning, with things that were easier to implement and then it's true that I had taken a back seat seeing that the first ones didn't take me too long either. But it's true that yes, we stuck to things that were easy to do, well easy, with little impact on the organisation in fact.

FR_Sit3a: "Afterwards, it's true that when we discussed it, we wanted to take on challenges because, likewise, there's a question of time and the more challenges we have to follow, the more time-consuming it is, so we tried to select challenges that had a strong impact too. We realised that the local level does not have the greatest impact. On the other hand, reducing the amount of meat, introducing an additional vegan menu, we saw that the cursor was moving a lot and so the idea was to continue our progress on organic food and then afterwards, on the different challenges, to see according to the opportunities that existed locally.

In particular, material, budgetary and human constraints are still hampering the pilot sites from taking up the challenge:

FR_Sit4a: "The difficulty is to do it in my job, so it's also sometimes a frustration, not being able to do everything I want in hospital catering. So, as we were saying, we have to prove, we have to change, so we have to change our practices, so we have to reorientate the work of our cooks and therefore, give meaning to their work as well, but this requires change, so change is accompanied, it takes time. Equip them, so buy equipment to help them in the production of the products that they will be able to create and manufacture, and then the budgetary aspect as well, find the means to move towards this type of more virtuous product. So, it's not done overnight, it's done progressively because we work with constrained budgets for which there was no extension, even if we know that we have to be in the Equalim law, there was no extension for the Equalim

law.

FR_Sit1a: *"What has had an impact is that we haven't been able to take on all the challenges either, in the sense that at the moment there's a lot of inflation on commodity costs and we have to be vigilant to control our food costs. So, it's true that we would have liked to take on even more challenges, especially for more organic products, but it's not that simple. So we took on the challenges that we could technically take on and that had a little impact, but not that much on our food costs.*

FR_Sit4a: *"And also, we think about our teams because we talk about the budget, but we haven't talked about human resources, we won't have more human resources to process the products either.*

And this is all the more the case for structures constrained by markets:

FR_Sit4a: *'Yes, we feel they are a little less involved (the buyers). Well, they have constraints, there are budgetary constraints, they have public procurement constraints, which we also have. And there you have it, impartiality, it's public money so there are codes to respect. There are also competitive tenders to be made, so yes, there are still public procurement rules to be respected.*

2.1.3.3 Levers for action

Despite the difficulties, the choice of products, the modification of recipes, the investment in new equipment (vegetable cutters), the reorganisation of work, can create opportunities to counterbalance these obstacles to some extent:

FR_Sit4c: *"For one of the recipes, I recalculated, because organic milk is richer, to see what we could reduce in our classic recipe to reduce the cost a little.*

FR_Sit4b: *"It was carrots, cucumbers, red cabbage and now we've put everything back into raw materials so that we can buy cheaper over the year. That makes quite a big saving and now we can buy organic milk. [...] That's how it has to be done because as long as we're not given extra money and we're forced to keep to the budget we have, and if we want to progress, we have to find subtleties. It can also be thanks to investment... You can see recently the vegetable cutter which is going to arrive, will make our work much easier, so we will be able to work with more raw products which we will buy cheaper and which will be local.*

FR_Sit2a: *"As we have reduced the amount of meat, this has allowed us to lower the cost price, which means that we can buy better quality, organic or labelled products.*

At the level of kitchen staff, the change in practices also implies a reorganisation of the work (change of processes), or even a change of job, which may give rise to resistance:

FR_Sit4b: *"Yes, but then there's the whole part of making the work digestible, because it changes habits, because you have to prove, it's everyday talk. You also have to get the workshops back on track which were not used to working so much. "Yeah, it's another job."*

FR_Sit3b: *"Then, the fact, we were talking about it earlier, that changing habits is not easy. Everyone has to adapt, everyone has to feel part of the movement and everyone has to join in. But yeah, no, afterwards here, we, within the team, it works well, it... "*

Awareness of environmental issues is helping to bring about this change:

FR_Sit1a: *"On the fish challenges, supply, the same with yoghurt, local courgettes, on the other cooking, it's true that there was quite a lot of discussion to explain the whys and wherefores and I find that it gave meaning to the actions and then it was... it allowed to justify in any case certain changes, and it was interesting and it was rather well perceived.*

FR_Sit2a: *"At the beginning, there were questions about the work overload. In the end, they saw that it didn't have that much impact on their work. I explained to them the changes in practices that were going to take place.*

In addition to raising awareness, training would also facilitate these changes in process and profession:

FR_Sit1a: *"We talked about it, but for the moment it hasn't been put in place, to have training on vegetarian menus or on the thresholds of the Egalim law, things like that for the teams. I think that would have been very interesting. After that, it's budgets, but I think it would have allowed the teams to be even more involved and for practices to evolve even more.*

On the other hand, the programme also gives the profession of chef a new lease of life by enabling staff to work with better quality products and efficient equipment:

FR_Sit4b: *"Right now, we've just tested the organic flour, and the pastry chef is over the moon, and he's just brought me the photos of the puff pastry development, and he's telling me there's no photo of the flour. [...] But here we are, so, of course, it also makes the teams behind it adhere, because in addition, they are professionals. The professionals have been working with poor quality products for a long time, so the day we bring back a raw product, a better quality product, well, that satisfies many of them.*

FR_Sit4a: *"And precisely, the purchase of high-performance equipment such as the vegetable cutter will also help by saying, well, we're changing practices, so it's not easy, OK, we understand that it's not easy, but behind that we're equipping you with high-performance equipment that makes, well, different cuts, that can also work on creativity, because we can also imagine different cuts, so we can also imagine behind that to have the perspective to make things evolve.*

Changes in culinary habits, such as the introduction of vegetarian dishes within a meat-centred culture, or the introduction of legumes that modify the texture or taste, can also cause reluctance among diners. Exchanges via professional networks (such as Agores) and changes to recipes can sometimes provide solutions to these problems:

FR_Sit3b: *"Yeah, yeah, we've had some feedback on this, from some parents who say yeah well, I pay the canteen ticket, it's so that my child can eat meat and I'm going to have your vegetarian menu... well, knowing that we don't call it the vegetarian menu.*

We call it the environmental menu. [...] Well yes. It has less impact. As soon as you say vegetarian, it can hurt people who like meat, and when you say environmental menu, ah... it's no longer vegetarian, it's environmental, so it doesn't have the same impact on some people. [...] Yeah, well, because we've also been part of the Agores network for quite a few years and they've... so, on this site, Agores, there's the faq, we call it, it's the frequently asked questions and so there you have it... and that's at the national level and so there are problems that have been raised by some of our colleagues from production sites. [...] And so, the idea came about because in the north of France, there are people who had put the vegetarian menu there, at the beginning of the Egalim law and so there was a rise in parents saying that it was not normal and all that and so there was one who said we're going to change it, we're going to put it on the environmental menu and in fact there, well the sticker, it went down better and that's why we put it... Because I say, because here, we'll have problems too. So there you have it, we put it on the environmental menu and it's true that it... the impact is not the same on awareness with people.

In terms of supply, there seems to be no real difficulty for French restaurant owners to source organic products locally, particularly through the online platform agrilocal :

FR_Sit3b: "I think that today we are well served. We have the possibility to have organic and local food. I mean local, but it depends on the weather, on the climate, because for us, local is safer... we'll say for vegetables, and for meat, it's occasional. These are orders that we place via the Agrilocal platform that we have to plan in terms of weight and volume. After that, I think that today we have enough suppliers for us, to supply us.

The impact of changes in product sourcing and recipe changes also need to be tested beforehand in terms of budget, work organisation, nutrition and taste:

FR_Sit4a: "Let's say that the tests will allow us to work on the process. First of all, if things are going well with the teams of cooks and how they work the product. What consistency will it have? What... so the texture, the flavour too, does it affect the flavour? So it's really the product test, the process test, so, the nutritional test by the nutritionist? What will be the changes? And then with all that, of course, the budget test, what it gives in terms of budget. This allows us to really see the three impacts.

2.1.4 Barriers and constraints UK side

2.1.4.1 Customers to convince

For English contract caterers, in addition to the constraints mentioned by their French counterparts, and more particularly the cost of foodstuffs, which are inseparable from budgetary constraints, the main difficulty lies in having to justify their positions and their financial impact on the customers who make the decisions:

UK_Sit6a: "I suppose barriers wise, it's always quite difficult. We're a contract caterer,

so the sites that we manage are always for a client, for somebody else. So we've got to justify what we're doing and why we're doing it, and also how much it's going to cost them if that's the case, depending on the contract.

UK_Sit7a: "obviously our budgets have been really really controlled now. Now food costs, the prices of food going up everywhere, incomes coming down, families can't afford some basic meals. We've not increased any of their prices this year, because I feel it's probably a long time to do it. And meal prices have stayed exactly the same, so. You know, they've all got their own budgets to manage now, we've I've given my plate cost to primary schools. They have to come up with a plate cost of 85 P. "

The organisational specificities of this type of contract require, in particular, the standardisation of their clients' practices (identical menus for all schools, common document for cooks) in order to manage the taking of challenges:

UK_Sit7a: "It's been some day it has been challenging because before all our primary schools had their own separate menus, so we didn't dictate on this set menu. So they all have had their own menus to do so. That was a lot of work, we put in a lot of work to set it all up now. Going forward to September, all our primary schools are on the same menus now, so it's easier for me now to set the menu, set the parameters so this is what it is. It's all done for more, so all they're doing is just putting numbers in on a daily basis now.

2.1.4.2 Kitchen staff to be mobilised

As in France, the difficulty lies in involving the kitchen staff. Changing practices entails an additional workload that may initially be resisted, but over time becomes part of the routine. Only then can the staff really understand and appreciate the changes:

UK_Sit7a: "When it first came out, we thought, oh, this is a lot of work to be done because when the first project, I think the first phase came out, there was a lot of inputting and it wasn't as easy for lots of schools to do it. They don't want to do paperwork and things, and so we were trying to think if this is gonna cause a lot more work for them to do. But then as we worked along for the project work, and as we were going through, it became a lot easier... It's just a routine to him now that they have seen the benefit and we can sort of showcase those benefits to students, we display things on walls. It is simple at all for them to just put pushing figures now, so that's been a benefit to us to make it easier for them to understand."

Some sites therefore undertake to recruit an in-house person to take on some of this extra work (entering data, visiting sites, creating recipes, training cooks, ensuring that everyone is on board with the process and the changes):

UK_Sit6a: "I am looking to recruit what we call an area cook manager in our business. I'm trying to bring somebody else in to support me with this part of the project so they would manage the site visits operationally, recipes that we build around reducing meat content, sharing them with cooks and going round and making sure everybody is

following what we say they should be doing as such in the kitchens, and so once I'm happy with that all and then we could give ring somebody else and I think we would be able to manage the input.

2.1.4.3 Programmes that sometimes conflict

Unlike the French catering industry, which does not face this problem, the action levers of the Cool Food Pro programme are sometimes in contradiction with those of other British programmes such as Food For Life, which recommends serving meat three times a week, whereas Cool Food Pro encourages its reduction. The English catering industry is therefore at odds with this:

UK_Sit6a: "And the Food Standards, which the Soil Association follows for the Food for life. We're finding that we're now sort of contravening the Food Standards to a point by trying to input what we're putting into the cool food project. Because, you know, we're reducing the meat, but then actually hang on a minute. You need to have your meat product three days a week and you're trying to reduce it down to what we found that. So for this year, for the first time, we've had to sign a non conformance form for one of our menus because we did reduce it down and lost sight of that. We've all got to follow the Food Standards, but I suppose I'm kind of torn a little bit between. Should we be doing this whilst we're going against Food Standards? Should we not be getting the Food Standards on board 1st and then be doing what we're doing?"

However, this problem does not show up on the side of the consumers. Indeed, the English eat culturally more easily vegetarian than the French:

UK_Sit7a : "You know there's never been any barriers really as to what's happening when introducing less meat. We were a bit reluctant to introduce it to our primary schools. First of all, as a meat free, we used to have one meat free dish but the impact we're getting back from all the consensus from parents is that they like the idea of it. They like the idea of eating less meat, and now they're encouraged to see the trust of driving that forward."

2.1.4.4 Reducing food waste to control costs

To counter price increases, the solution of sourcing organic, seasonal and local products is also shared by English restaurateurs, who add that reducing food waste can also help finance this type of approach:

UK_Sit6a: "So just your general commodity is very expensive at the moment anyway, without starting to explore other avenues, such as organic, and buying seasonal and local is probably the best option anyway, so that works on the cost."

UK_Sit7a: "The waste on the other days will offset some of those rising costs, we are seeing in the production, and they can use the waste side of it to benefit their costs."

2.1.4.5 Large suppliers as leverage for procurement

However, the need to use large producers who are able to supply more varieties and quantities and who offer greater flexibility than small local producers is stressed:

UK_Sit6a: "New supplier coming on and we're hoping to go down the road of a national supplier. We had a smaller supplier, but we find that especially organic products and other bits that are slightly innovative, have slightly different norms. They struggle very much to get or you have to pay just a crazy amount of money to get them, so we're hoping by going with a bigger supplier that we would get a better variety, more consistent, better quality, and just a more varied option out there really. And so there are the main obstacles on the costs local and we do buy local from our butchers and we do buy local from our fruit and veg which does give us a bit of an issue with things like organic, because there are only they're smaller companies, so to buy an organic product, normally they'd have to buy a pallet and then they can't sell it on to anybody else. So we've been a bit restricted in that, but we're kind of working with our multi temp supplier."

2.2 With regard to the digital tool in particular

2.2.1 Benefits of the tool

2.2.1.1 An easy-to-use tool

The digital tool developed as part of the programme is generally appreciated by participants for its ease of use and *user-friendly* ergonomics:

FR_Sit5a: "What I had asked for at the very beginning, during one of the first meetings we had at the hospital, was that the computer tool had to be attractive, welcoming, fluid and fast, otherwise no one would use it, and I was the first. And that, for me, was a success."

FR_Sit1a: "It's very intuitive in fact and input is easy. It's a very, very well done site, which is simple. You don't have to go looking in 40 places."

UK_Sit6a: "When I actually spent the time on it to do it, I was quite surprised ... I found it quite user friendly and it was quite easy to navigate around [...]"
"I like the visual effect it gives me as well. That's one thing that a lot of these compliance things that you look at are all very grey and you know, they don't give you much in the way of information as such, but it's very boring information, whereas at all I think it is kind of, but not necessarily fun."

2.2.1.2 A decision-making tool

At the strategic level, the tool is a decision-making aid that allows you to visualise your potential achievements before you set your targets :

UK_Sit7a: *"So that's the key thing for me it's clarity of where we are. Gives us clear data and it gives us clear guidelines of where we can go and what we need to do to improve or reduce it down even more.*

FR_Sit3a: *"You can visualise very quickly, without making a decision before validation. That's what's interesting. You realise that if you take a challenge before validating it, you can immediately see the potential impact it could have. And so it also allows us to judge the cursor, do we go all the way to organic, or do we only go for 50%? ... In short, the fact that we can visualise before validating the challenge is very important. [...] In short, we realised on the spot by doing simulations what was high potential and what was low potential.*

FR_Sit4a: *"Well, there is quite a lot of work underway, so what would be good is that when we are more stable, we should not use the tool to determine all the carbon savings we have made, but rather to say, well, we're going to change the menus, we might do some simulations on the tool to imagine other menus. Finally, we could use it in both directions, cause and effect. Let it be a decision-making tool.*

While on the French side, these decisions are taken individually by the person(s) directly involved in the programme, on the English side, they are taken in a more collegial manner. In fact, although they are initiated by the person in charge of the tool, decisions are validated with the hierarchy, particularly in terms of costs. Their operational feasibility is then checked with the kitchen staff. The tool then supports and backs up the decisions by providing figures and data:

UK_Sit6a: *"... decision on getting to that final figure of what we actually do will be our, you know, my decisions and the menu team would sit and discuss what we would like to do, feed it out to the kitchens, get them to play around and try with some recipes, and some foods, and then come back to us with what they found."*

UK_Sit7a: *" ... I share it with my line manager, I meet with him on a monthly basis. This is what the impact has been. For TDET I summarise it for all the schools and say this is what it has been for the schools, not just individual ones, so it's shared after it's been done properly.*

Being able to see the full range of challenges also encourages reflection and the taking of new challenges:

FR_Sit1b: *"After the opportunities, it may be to give leads because, in fact, clicking by section may lead you to think "oh well, if I click on that section", for example fruit and vegetables, It can give leads on things that are taken regularly, perhaps by others, and*

to say to yourself, "oh well, if there's this fruit and vegetable in the list, perhaps I can take action on it" and to ask yourself the question, "well yes, what do I do with it? Do I, for my part, in my menus, fit in or not? So that can lead to new ideas."

UK_Sit7a: "I think some of the reasons why we didn't do it before was probably financially. ... but we couldn't afford to do it... but using the tool you can still do it and it's not having a financial impact as much as I probably thought it would have in the 1st place. And probably that's why we've not done anything like this before."

2.2.1.3 A tool for evaluating actions

For the beneficiaries who are most advanced in the food transition, the tool is more than a decision-making aid; it allows them to assess the impact of their actions in terms of gains:

FR_Sit5a: "No, we didn't enter them into the tool, but we knew we were going to make money. We didn't know by how much, but we knew we were going to make a profit by transforming the pâté into a hard-boiled egg. So upstream, it was this kind of detail that encouraged us to make these changes and then downstream we took all the results... it didn't change much for us, we were already doing monthly statistics on our purchases. In other words, every month we calculated our percentage of organic products... In fact, we just transposed our information, which we had been doing for 10 years, into the tool, every month, with Florence and Audrey. And then it calculated the gains for us."

From an operational point of view, the tool makes it possible to make the impact of the actions carried out very concrete; by putting figures on them and offering more meaningful equivalents than a percentage of products or carbon. In addition to its informative nature, it allows the team to remain motivated and to unite around common actions. And the format raises awareness

UK_Sit6a: "To see the impact and the difference, by making some small changes within some of our kitchens we can see a big difference. And it's about being able to evidence that, being able to pull out some facts and figures and actually physically show somebody the difference you can make by what we're doing and that was the driving force behind it for me."

FR_Sit1a: "The tool is practical, fun, it's great. And in fact, what I like is that it's highly motivating because every time you make an effort, well, TAC has a little graph showing you the curve that goes up and that's important. This tool has to be motivating. Because I tell you, sometimes you have to find motivation. It's very well presented, it's very clear and the fact that you can see directly... that you can directly visualise all the efforts, it's very, very good."

FR_Sit4a: "It's this notion of carbon that we didn't have until now and we didn't work on it, so now we have the figure, we have the tonnage and we have the equivalent number of kilometres. I think that the number of kilometres driven by car speaks for itself. [...] Well, personally, carbon doesn't speak to me, but on the other hand, after two months, we've achieved one tonne 2 and still not everything has been taken into account, and we've saved 6,200 km by car. So that's what we thought, well, that speaks for itself. 3

return trips from Brest to Strasbourg.

FR_Sit4c: "Yes, I think it's not at all the same. We were talking about 10g less meat in a minced meat dish, and we had to put the figures in ourselves and see what it does, rather than reading 'reducing a portion of meat by 10g is equivalent to', we read it with one eye, it comes out the other or through our ears. [...] Yes, because we are already thinking about our dish, what we could do. Then it becomes meaningful.

Some see it as a commercial interest that allows users to distinguish themselves from competitors and to communicate the results of actions taken to respond to calls for tender:

FR_Sit5a: "Yes, and we haven't gone far enough to go beyond that, but I know I've shared it with some of my colleagues who work for Sodexo in France, so why not include Cool Food Pro in our responses to invitations to tender. [...] Saying that we, but perhaps like others, have tools to measure our impact on the environment a little. [...] And yes, because in all calls for tender today, the environment is an important part of the candidates' response. When we have a tool to monitor it, a recognised tool... I think that it will be highlighted a little bit in our case. [...] That's what I told Florence or Audrey, that it would be good if there was a version, I don't know what you'd call it... commercial, that we could use when we're in a call for tenders with prospects, for example.

2.2.2 Actions to be created

However, using the tool requires the creation of new actions to be integrated into daily routines and implies having time to devote to getting used to it:

FR_Sit3b: "After that, it's a question of time to implement everything, to launch. We can't do it overnight because, besides that, we also have other projects. [...] What I don't have at the moment is time. It's easy to use, but you don't always think about it. [...] I have to get used to the automatic functions in order to use the tool properly. [...] In fact, it's a habit that we don't have and changing habits isn't easy, but once we get the hang of it, yes, well, it'll happen by itself. [...]"

UK_Sit6a : "[...] it was difficult to fit it in and to set my diary around what I need to do and and fill it up and and work that way and once I'm in the swing of doing it then it becomes a little bit easier to do every month. So I wouldn't say that was because of the project ... I would say it's just a part of the fact there was an awful lot going on in the business at the time if that makes sense. I think I'm in a reasonable place now, but it was difficult to get going.

This is especially true for *contract caterers* who manage several contracts simultaneously and have to enter a lot of separate data for each of their clients:

UK_Sit7a: "Now the difficulty is when the eight schools all had different menus, so there's eight schools, times that by 5 days... it's easy now that they all have the same menu."

Data entry may be tedious or easy depending on the software currently used by the beneficiaries (CAPM type) and the routines already in place:

FR_Sit4a: *"We have to go and get the data first. That's the longest part, the extraction is not automatic, you have to go and get it. [...] Maybe in the long run, if we continue every month, so that's part of the internal improvement plans, we can put in a stat that we only have to refresh and that gives us the results straight away. [...] but we just need to spend time on it.*

FR_Sit5a: *"We're lucky enough to have what we call a production management tool, where I make three clicks and extract an Excel file every month with all my purchases. The location, volumes, prices, all that. So I just need to process this file again, which feeds into it. But I put myself in the shoes of certain small structures or even large structures like La Cavale, but which do not have CAPM tools that allow them to extract this information. There..."*

As such, smaller organisations find it more difficult to organise and make time for themselves:

FR_Sit1a: *"And I see, I have colleagues, again, here we are structured, but I have colleagues who are in kitchens with 150, 250 meals a day, there are one or two of them. So, I might as well tell you that the time spent in front of the computer is reduced. And I've got a lot of people who say "no, but wait, do you realise how much work we have to do? And then we are asked to be extremely versatile, to be able to do everything. I think that this is something that could be quite blocking. And I can see, in fact, that the colleagues who use these tools, who use these tools for change, etc., are often from large structures because they are structured for this and they have dedicated people to fill in the appropriate tables for the follow-up of Cool Food pro, contacts to go and provide information and then they hold meetings, they organise, etc. The small ones are more complicated.*

2.2.3 Areas for improvement

2.2.3.1 Accessibility of data

Several areas of improvement in terms of functionality are now expected. The first concerns accessibility to data and navigation on the site. While data entry in the tool is generally assigned to a single user, who has an account with his or her own identifiers, the facilitation of data sharing between users has been requested:

FR_Sit3a: *"So, maybe it's already possible and I don't know how to do it... Maybe I just need a little training, if it already exists, or if it doesn't exist, I think it would be good if it could be made available to people who are in charge and who could extract data that interests them. [...] That's where I don't have access, because I have a fictitious access, so to speak. [...] And so I'd have to get the codes from the kitchen to be able to access that, but I don't have those codes today, which is normal because everyone has their own code. But it's true that I don't see it because I have 0 challenges on my platform, so*

maybe it already exists that I don't see. [...] or maybe I can have a consultation access with my code. So that I don't have to take XXX's code, when he might need it when I was using it. That I have a consultant access to the site that XXX uses in fact.

FR_Sit4a: *"And then, at the very least, we should also know if someone has gone to enter the challenges, if we need to be more precise... or else, be careful, you put an extra 0, the next time, you'll have to do it, you never know.*

2.2.3.2 Linking to other existing management software

In order to facilitate the entry of challenges, linking the tool to other supply management software already in use would also be very useful:

FR_Sit3b: *"I don't know if we could link it to this. I know it's not going to be easy, but the person who created this software (Maïa software), they also put little support in there that allows us to go through our orders, what percentage of them are organic, local... It also puts it on the menus, that's it, when we enter. It will also give us our orders by supplier, once we've entered this into the database and then, if there's a way of linking this, for example, to put it in parallel, that would be interesting.*

2.2.3.3 Improvements to the challenges

The possibility of linking the challenges together is also expected. For example, if today users can visualise the impact of a change from conventional to organic products, they would also like to be able to visualise the impact of a change from conventional to organic and local, or even seasonal products:

FR_Sit3a: *"I don't know if the platform allows it today... Because we're actually doing a more seasonal challenge or a more organic challenge... And it's true that if we could accumulate the same product, for example, my tomato in July, I'll not only take it locally, but also it will be organic. I don't think we can do that on the platform today. [...] So, perhaps we should also be able to associate a local... Finally, the fact that it is both local and organic in fact, rather than taking it from a supplier, we don't know where the organic tomato comes from, so we'll take it... or a conventional tomato, because not only will we make it organic, but we'll also make it local.*

Moreover, the capture of challenges is not always obvious and a need for clarification of data is required:

FR_Sit5a: *"When we had a challenge on the premises, in fact, it was marked, 'fill in your quantity bought' and I found that we didn't know if it was what we had bought after the challenge, or if it was what we had, what we would have bought if we hadn't passed the challenge. [...] So in fact, should we give information about the situation before? Or do we really have to give information about the challenge itself?*

Finally, a better navigation of past results and the possibility of isolating challenges by period is also an avenue to be favoured in order to evaluate, over a given period, what the gains have been on one or more challenges. A sort of reporting of challenges classified by order of impact on the environment. A simpler and more visual data extraction would be a plus:

FR_Sit5a: *"Is there any way to recover the previous challenges with the results? I'm not so sure we can... [...] It's a shame. [...] because today we have month by month, or action by action when we validate them... and now we don't have access. I'll come back if there isn't something... That is to say that today we have relocated sheep meat to Brittany, whereas before we used to go and buy it in New Zealand or in England, in the conventional way, whereas now we have switched to Breton organic. [...] Once the challenges are recorded... a priori, or I don't know how to do it, what is the total impact of this relocation only for this meat? [...] There you go, there you go, we don't have a clear extraction over the whole period... I find.*

FR_Sit4a: *"On the other hand, I'd like to have a bit of a reporting page [...] The challenges, well, maybe the fact of having relocated the courgettes. How much did it bring? How much did it bring us? Finally, knowing what our most significant action was, our most significant challenge, it would be good to know that.*

2.2.3.4 Improvements in revenue

While revenue sharing is appreciated and expected, a classification of revenues by environmental impact would be a plus to assist in decision-making:

FR_Sit4a: *"What would be good is perhaps a kind of reminder or maybe a top 20 of recipes that really save carbon. [...] Maybe we could have a table to say "Well, we want to go even further in our carbon gain because it stimulates us, so tomorrow, where do we start? [...] To have a little help, a reminder. Well, I don't know how to put it. An aid to decision making. [...] Maybe that could be part of good practice.*

There is also a problem with the seasonality challenges that remain throughout the year. The possibility of putting them on hold would be appreciated.

2.2.3.5 Implementation of a user guide

The introduction of a user guide illustrating how to use the tool could help to overcome most of the difficulties mentioned:

UK_Sit6a: *"I suppose if yeah there was like an editorial or something that you know you could have sat and read through and watched and looked at to actually see it. See the examples of the input and that may well have been helpful, yeah?"*

2.3 In terms of support

2.3.1 Useful support to be adapted to the institution's situation

The support was generally appreciated by the beneficiaries and considered useful:

FR_Sit3a: *"It gave us comfort and it gave us tools that we didn't have. So we talked a lot about the platform, but it's true that the advantage, which in my opinion is very specific, but which we took because it was something to take, is that we were able to benefit from support in reducing food waste in our public schools because we are necessarily involved in reducing food waste in our own homes, and we can't force the public schools in the municipality to take this approach, But since there were challenges to reduce food waste and since we were already very committed at the level of, well, already sufficiently advanced at the public level, there wasn't much interest in putting anything back in our schools, so we proposed to the public schools and I was pleased to see that they were interested and committed to the approach, 2 schools, so that's great. We were also able to benefit as a pilot site, we tested the new educational tools on sustainable food, so there you have it, the seasonality maps, the globe with the carbon impact of the recipes, all that, it was tested in each of our 2 public schools. I know that within the framework of the accompaniment of the reduction of food waste, therefore, beyond the weighing, I believe that there were interventions of the association "au goût du jour" which were supplemented a little and sensitised these some classes in the public schools. At the beginning of the school year, we're going to have a training course about tasting education within the community, so there you have it, it's extremely beneficial. We would have liked to set it up ourselves, it would have taken us a lot of time to organise and perhaps not as well and perhaps not with the same resources and in any case, it would have cost us money too. So there you have it, it made us feel completely comfortable. We were ready for this kind of activity, which is completely consistent with what we had started to set up, so it allowed us to go further, in fact. [...] In short, it's a pool of resource people who support us, who are really nice, so it's really only positive.*

UK_Sit7a: *"The support we've been getting from Ana and Lauren has been fantastic. Anything I want, or I'm not sure of anything, just an e-mail and they come back to me straight away. The support has been very brilliant from what they give us for things and so yeah I couldn't ask for more."*

The support is all the more necessary as the pilot site is starting its food transition process and needs to become aware of and understand the process of reflection. Longer and more in-depth support is then necessary for the tool, but also for the strategic orientation of the establishment and the taking of challenges:

FR_Sit4b: *"So we don't use it much outside the (coaching) sessions actually. But mainly because of lack of time. It's true that doing it in a support meeting like this is certainly more fun and we understand the process better, at least for the first few times, you know. And it's true that Ben, we'll have to do it ourselves.*

"I'd still want to do it. It's still do you know if they weren't there, I'd still carry on doing it. But it's a lot easier having them in the background to think, well, I'm stuck in there."

FR_Sit1a: *"We didn't simulate it in advance. In fact, it was mainly Claire and Audrey who said to us, 'well, for example, if we went for fresh fish rather than frozen fish from I don't know where, there would be a strong impact. That could be an interesting challenge. They gave us advice on yoghurts, it was the same, on local courgettes too. They guided us. It's true that if we hadn't had these referrals, I think we would have struggled a lot more and it's only once we'd filled in the first month that we would have said to ourselves, "Well, the impact is interesting or, in the end, it's not so great".*

FR_Sit1b: *"So honestly, the fact of receiving alerts and perhaps having someone there, it's a reminder and avoids going backwards the next day, or afterwards simply forgetting. Afterwards, the support to enter the figures into the tool, perhaps not. Afterwards, to analyse them and then take advantage of their various feedbacks, from other establishments, to exchange ideas, ways, processes, etc., that can be interesting.*

The support enables beneficiaries to share their constraints and to make progress thanks to appropriate monitoring. In particular, it has helped to find new suppliers:

FR_Sit4a: *"And then we make progress and I think it's also interesting for Cool Food Pro and the Maison de la Bio to understand our constraints because I think that since we've been exchanging comments, we've all grown in our knowledge of each other. [...] And I'd like to come back to the support provided by the Maison de la Bio. The advantage of working with the Maison de la Bio is that the Maison de la Bio works with the catering industry... They know the catering industry well and therefore know how to direct us to suppliers who can meet our needs. That was an important point, because choosing an organic product if there are no quantities, no deliveries, no specifications, it makes no sense. On the other hand, the Maison de la bio also directs people to producers who are able to meet their needs, and that's important too.*

For some, the novelty of the tool legitimises the frequency of support:

FR_Sit4a: *"It's true that it's brand new, it's good to keep this frequency. And we can also see that the application is not yet finalised, and there are still some small bugs, so we need to continue this support. So, I think that it helps us and I think that the Cool Food Pro teams also see the little bugs that are on the fringe.*

However, the advice given on creating menus and new recipes should be more tailored to the target audience:

FR_Sit4c: *"When we took stock of the current situation, we could see that the advice she gave us was much more directed at schools. Well, more in the area of taste education. We have EHPADs / Retirement homes / Nursing homes, and we are more concerned with respecting people's tastes. [...] The recipes are not necessarily adapted to our public, which has its own constraints.*

Finally, the continuation of support seems to be desired and necessary in order to maintain the motivation and the momentum:

FR_Sit1a: *"It's true that, saying to ourselves, "Come on, she'll leave us and then we'll*

complete everything, on our own and then we'll manage with the monitoring of our indicators and all that", I think that the motivation would not be the same and above all the benefits would not be the same because, as Alice says, having an outside view also allows us to re-interrogate ourselves and then reorient our choices etc. [...] And as much as [My canteen \(agriculture.gouv.fr\)](http://My.canteen.agriculture.gouv.fr) will eventually become a compulsory ministerial tool, so we won't have much choice but to go and fill it in, it's an optional tool, an aid tool. So it's very interesting, but it's true that when you have a lot of things to do, if there's no support, I don't really know if you'd go like that. I think that [Ma cantine.gouv](http://Ma.cantine.gouv.fr) is more of a tool which, in the long term, will be used as a control tool to check that we are within the thresholds of the Egalim law. With Cool Food Pro we are in a different business. We're more about wanting to change, about wanting to take on challenges, about moving the lines. But for that, I think that being accompanied is not bad.

2.3.2 Support that requires some reorganisation

However, the support offered by the CoolFood Pro project requires time and a reorganisation of the work in order to integrate it fully into the routines so that the work done can be sustained over time:

FR_Sit3b: *"Well, the support is going well with Claire .Twice she had shown me how to use the support. Afterwards, it's easy to use, but it's more time-consuming [...]* It has to be checked and organised in the work, otherwise it's going to be forgotten.

FR_Sit3a: *"Just that we integrate it into another routine. For example, it could be integrated into our monthly update. Because XXX and I have a monthly review. It could be integrated into that. For example, the entry of a new challenge and the results of the previous one... Well, these are things that we could programme ourselves in fact. [...]* That's what I'm proposing, but it's not active, nor has it been decided yet, but it could follow on from the support that Claire is offering us today. [...] the idea is perhaps to keep it behind so that it remains effectively recurrent and becomes a subject for regular follow-up within our service.

In the UK, rather than video-conferencing, face-to-face meetings with all the stakeholders involved are preferred:

UK_Sit6a : *" , I prefer face to face. I mean, I'm not even talking about having regular meetings. I mean, once every three or four months. Something like that, you know. Just the general people who are involved in it and understand the tool and have been using it and know what it's all about. You know, and just how it's affecting their business, and that would be quite interesting.*

2.4 In terms of communication

2.4.1 Relevant and shared communication

The communication was generally considered relevant by all French participants who have communicated it internally and externally to their stakeholders, or plan to do so:

FR_Sit3a: *"They gave it to us personally on Tuesday and so I put one in the safe in the kitchen, well where we communicate with the kitchen, and I gave one to our biggest school which has invested quite a lot in the subject. [...] So, I would say internal communication, yes, and mainly aimed at the elected representatives, even if I know that our colleagues are also interested. The proof is that they have made some very pertinent remarks to me. And also the public, because we owe them an account of what we do.*

FR_Sit5a: *"On the other hand, towards our employees, we had a TV on which we broadcast all the internal and external information to our employees and this would have been part of the information transmitted regularly.*

FR_Sit4a: *"There is a communication planned there these days, in TEChospital.*

The same is generally true in the UK, where sharing the results with colleagues and consumers (children and parents) is eagerly awaited, although for the moment there is little commitment given the progress made in the process (in its early stages):

UK_Sit6a: *"We communicate to the schools and the very early stages of where we are with that at the moment We've communicated to the schools involved in it at the moment. That's all, we haven't got to communicate further afield, and we don't always necessarily communicate to parents and we generally have to do that through the school rather than go direct. So we may supply a communication to the school to send out and because we don't have that facility to go directly, that makes sense.*

UK_Sit7a: *"Yeah, I take screenshots of it all and print them out and then put them on the notice board and say this is what's been saved this week... But if I can get some more communication or better communication now, there's probably something that I need to be looking at going forward."*

For French hospital catering, it seems more difficult to reach part of the target audience, namely patients:

FR_Sit4a: *"It's true that the events were held in the self-service centres. The workshop activity of MAB29 was done during the week in themselves. Ideally, it would be good to have activities in the departments, but the difficulty is that we have a lot of departments.*

2.4.2 A tool for raising awareness at different levels

Internally, the communication around the CoolFood Pro project provides awareness among kitchen staff:

FR_Sit3b: *"Well, yes, if it moves. We've been working on this kind of approach for quite some time now and so all the staff, the kitchen, everyone is aware of the impact and over time, and given everything that's happening at the moment with catering and food, the team has been aware of this for quite some time now. So there you have it, it makes sense (the communication)... "*

UK_Sit7a: *"So yeah, because I think one of the things that we found when we first*

looked at it, is that if we didn't share it and it was kept on me, the cooks would see no benefit from it. They will think more about why we're doing it. So it's got to be shared with them so they understand what the benefits are because they're doing the cooking there, and it's their schools, so they need to share it with their students."

However, the impact of communication on kitchen staff varies according to the type of management and the degree of progress in the process. It will have a greater impact on a structure that is making progress and on staff who are committed:

FR_Sit5a: "Because we haven't made them aware of it either. It may be mean, what I'm about to say, but our kitchen staff do what we ask of them. That is to say that if we decide to change this or that product, or this or that technical sheet in the menu, they won't really realise why we're doing it. They will do it. [...] In fact, my cook, it's going to be mean what I say but we don't necessarily ask him to think about what he's doing. He applies what the production restaurant has planned. [...] No. Well, yes, a little bit, but there comes a point when saying every month what you've done well, if you like, at some point it loses its meaning. They know it too. Anyway, we're very committed, so whether we're 80% organic or 85% organic, for example, for them... When we go from 20 to 70, it still makes sense.

It is an important tool for legitimising the interest of the actions undertaken to governance and elected officials in order to ensure their continuity:

FR_Sit3a: "I see it more in the long term, that is to say that for a TAP to be able to really unfold and take on its full potential... That is to say, to be really well implemented and start to act concretely, it has to be able to last over time and for it to last over time, elected representatives have to be able to continue to judge that it is useful, and I think that figures like that that come up regularly, give meaning to what we do. And it supports what we do. [...] For me, it's more in a vision, let's say a year or two years ahead, that I project myself and say to myself that if we have tools like Cool Food Pro that allow us to establish and make very concrete our day-to-day action, which, yes, can sometimes seem a bit like, well, it's meetings, it's meetings, it's stuff, but in concrete terms, what does it do for the region? I need to be able to rely on this kind of figures, at least, I think it's really useful.

FR_Sit4a: "So, you have to know that catering is not at the heart of the hospital, because the hospital is first of all care. In one, it's care. After that, we are, as if to say yesterday, we are people in the shadows. We are part of a logistical service, which are the support services, so we are not there to care for the patients. In the end, we simply participate in the hospital's activity. So to answer your question, we always need to show what we do because we don't know, if they don't come to us... if we don't say what we do, nobody will come to see what we do because, apart from providing meals, full stop. Yes, the kitchen provides meals, full stop. But to show that we are taking a step towards integrating more virtuous, more local products... [...] So reporting is important and so that we can tell our management that it's important, that's all. So we need to show what we do so that they know, because otherwise they don't know. [...] That's it. Afterwards, also to justify because we want to push towards organic products, we want to push towards local products, so to be in Egalim, but at some point, we'll have to say, here, it's going to cost so much, so we'll go or we won't go.

Communication also offers beneficiaries the opportunity to explain in a simple and concrete way to the target population the very real impact of the actions carried out:

FR_Sit3a: "But what really motivated our interest in joining this programme was that I needed to be able to demonstrate with figures that what we do on a daily basis in our TAP, in our kitchen, is visible. That there is really a concrete result for people, so the fact of committing to a more sustainable, more local, more seasonal, more organic food, etc... well, it wasn't just because we wanted to do it like that, because it was fashionable. In concrete terms, we have figures to show as a result of what we do. It's being able to make it real, concrete to people and that it speaks to them. It's not just a desire to go organic. It's that everything, all of it, really makes sense and has a positive impact on the planet.

At the level of the consumers, and especially the children and their parents, the equivalents in terms of car miles, heating days, T-shirts etc. offer a simple and fun way to raise awareness:

FR_Sit3b: "Oh yeah, that makes sense for the children too. It's concrete for them and it's tangible [...] Because even when we weigh, it doesn't mean much to them, but it was also to show them that well, for example, the amount of waste there was the day before, that represents the weight of a cat, the weight of a dog. So, today, that's it, that's what the children are talking about.

UK_Sit7a: "And you know we're putting some posters up about what we're doing to introduce plant based foods and why we're doing it. Then some of the children now ask why? What's that about? About the mileage was saved and the energy, what we're doing and their carbon footprints, and they're asking questions 'cause we're displaying more about it. So it's becoming easier now by introducing plant based foods because they are curious about why we're doing it and what the benefits are.

UK_Sit7a: " It creates a better impact with the parents, especially the parents because we're talking to them parents evenings or we go into schools and when we have some parents when we are able to, we go and talk to the parents and the parents are asking, you know why we're doing it? Why are we introducing plant based foods? While we're doing that, and we get taught the reasons why? They can see the benefits and they like the idea of doing it and while we're there talking, they like to sample some. Sometimes we have some parents, even though we're talking to them and we're giving them samples of the food that we're introducing, and they're saying, 'oh, that's really good because my child wouldn't normally eat it at home'.

It is also a way in the long term, to reach new clients registered in the process for contract caterers:

UK_Sit6a: "I've got a brand and marketing manager who is fully on board in supporting case studies and we do a lot of work on branding and adding bodies to our menus and to our website and to our logs and things like that. So those sort of things to try and get the message out there and help to encourage more interest in the project maybe to enable us to then you know get more clients on site in that way and so I haven't really developed too much in the way of going out there and doing anything at the moment as it's still very very early days for us.

2.4.3 Areas for improvement

However, some suggestions for improvement were made, particularly with regard to the accuracy of the time period over which the challenge is taken:

FR_Sit3a: "So, the comment that was made to me very accurately and that I hadn't noticed is that it would be good if we could note the period over which we made these savings because we don't know. Did we save 4 tonnes in 2021? Did we save 4 tonnes in the first half of 2022? Or in this case, what is the case, is it that we have saved 4 tonnes in 3 months. This is important."

Other types of support are also expected to communicate on the work accomplished, such as a message broadcast via television to patients in their rooms for medico-social establishments or posters in the departments for the staff. Communication formats were also proposed, such as the broadcasting of a video presentation of the project to the various stakeholders (kitchen staff, consumers, etc.) to explain the why and how of the approach:

FR_Sit4b: "There are really other means of communication that would be needed to really reach the patients, without bothering the carers. Maybe it's television."

UK_Sit7a: "It's probably a bit of both. It's probably posters, so it's more visual so they can see what it's all about, and then probably a short video of reasons why the projects will be happening so it gives them a small snapshot of what the overall picture is. buy posters because it's visual there, not just for the principles but it's visual for students to see. Short videos or we could do a whole school assembly with the reasons we are getting involved."

2.5 Summary of the study results

Tables 1, 2 and 3 summarise the results of the analysis of the interviews.

Table 1. Benefits of the CoolFood Pro programme

At the collective level	At the individual level
<p>+A programme that reinforces the steps already taken</p> <p>+A motivating programme that strengthens the sense of cohesion</p>	<p>+The programme responds to ethical values and reflects personal practices</p> <p>+A real tool for change</p> <p>+A motivational and engaging tool</p> <p>+It complements the professional objectives</p> <p>-It can create tensions with the different stakeholders in the kitchen, conflicts of interest between teams</p>

Table 2. Constraints and levers in the CoolFood Pro programme

	Barriers	Levers
<p>France</p>	<p>- Fundamental constraints of the catering industry (temporal, organisational, financial, regulatory, material, human)</p> <p>-Challenges taken on the basis of feasibility and impact;</p> <p>-Reluctance of consumers</p>	<p>+New opportunities through reorganisation of work, investment in new equipment;</p> <p>+Awareness of ecological issues, training, exchanges via professional social networks promote change;</p> <p>+Ease of supply via the agrilocal online platform</p>

UK	<ul style="list-style-type: none"> -Budgetary constraints Convincing beneficiary customers -The need for uniformity of practice -Mobilising kitchen staff (additional workload) -Programmes that sometimes conflict 	<ul style="list-style-type: none"> +Reducing food waste to control costs +Large suppliers as a lever of supply
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Table 3. Evaluation of the tool, support and communication

	The tool	Support	Communication
Contributions	<ul style="list-style-type: none"> +An easy to use tool +A decision-making tool +A tool for evaluating actions 	<ul style="list-style-type: none"> +Utility +Enables structures to progress and find suppliers +Necessary to keep teams motivated 	<ul style="list-style-type: none"> +Relevant and shared communication +A tool to raise awareness at different levels (staff, consumers) +Legitimise actions with governance +Attracting new customers (catering)
Difficulties	<ul style="list-style-type: none"> -habits to be created -Difficulty in getting organised 	<ul style="list-style-type: none"> -Adapting support to the structure and the public -The need to reorganise work 	<ul style="list-style-type: none"> -Difficulty in communicating with a part of the consumers, the patients

<p>Areas for improvement</p>	<ul style="list-style-type: none"> + Facilitating access and sharing of data + Linking to other existing management software + Improvements to the challenges (clarification of data and possibility of linking challenges together) + Improvement in revenue + Implementation of a user guide 		<ul style="list-style-type: none"> + Specify the period for the challenge + New communication media and formats: posters, videos presenting the project
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Part II - Evaluation of Cool Food Pro consumer support systems

3. Methodology and theoretical framework of the study on the evaluation of consumer support systems

Introduction: (outline of the section)

3.1 Theoretical framework used in the study

The inventory carried out during the preparatory phase of the Cool Food Pro programme enabled us to determine certain specificities related to meals taken in catering compared to those taken at home or even in commercial catering.

The first specificity lies in the fact that **catering is a service that is experienced**, to varying degrees, **as being captive** for the consumer. The consumer has a status that makes him or her more of a user than a customer (Crédoc, 2014). This is reflected in the fact that diners generally do not choose their catering restaurant, that their choices within the latter remain limited, and that they have few means of action to change things (Dubuission-Quellier, 1999; Rayburn et al., 2020).

The customer perceives an imbalance of power in favour of their catering offer, which is accompanied by a limitation of their choice and participation at the construction of the service offer (Rayburn, 2015). This is known to influence the perception of service quality and customer satisfaction (Furrer, 2018), but we have also seen that **it results in a delegation of the consumer's sense of responsibility for the** environmental (and social) consequences of their catered meals (Luchs and Miller, 2015).

The absence of this sense of responsibility is important as it hampers the consumer's ability to engage, and therefore in his or her ability to act and change behaviour.

One of the challenges of accompanying diners towards a low-carbon, healthy and sustainable catering is to allow them to **take ownership of the needed food supply change in catering**.

The other challenge is to **give them back enough power and control so that the feeling of captivity can be alleviated and a feeling of responsibility can be created**. Several theories of appropriation and motivation can shed light on the problems and issues we have just raised (De Certeau⁴, Proulx⁵, Deci and Ryan⁶). Without presenting them here, we have used them to

⁴ Certeau, M. D. (1994). *The invention of the everyday*. *Arts de Faire, 1*, Folio essais.

⁵ Proulx, S. (2015). The sociology of uses, and after? *Revue française des sciences de l'information et de la communication*, (6).

⁶ Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry, 11*(4), 227-268.

shed light on the discourse and behaviour observed during this evaluation.



The main objective of the researchers at the beginning of this evaluation phase, was therefore to better understand the **forms that effective support should take for the joint evolution of the offer and the choices of the consumers**. In other words, what kind of mediation should be implemented to promote the feeling of control among diners so that the final supply-demand state has a meaning shared by all the stakeholders in the system, so that the system is not experienced as captive and a feeling of responsibility can develop?

The second major question was to what extent and in what way the Cool Food Pro programme had succeeded in meeting this challenge.

3.2 Intervention evaluation

The generated programme that assesses consumers, includes several types of activities and it has a varied public target, which includes schoolchildren from elementary school to college, as well as adults. Several forms of engagement activities, focused on the different levers addressed by the programme, are proposed to these audiences: raising awareness of the impact meat consumption has on GHG emissions, the importance of seasonality, local produce, organic food and the fight against waste. This last lever has been more specifically addressed in the ARGAP project, which is the subject of a dedicated section (Part III). Table 4 summarises the different activities observed during this evaluation.

Table 4 - Summary of activities for diners observed during the evaluation

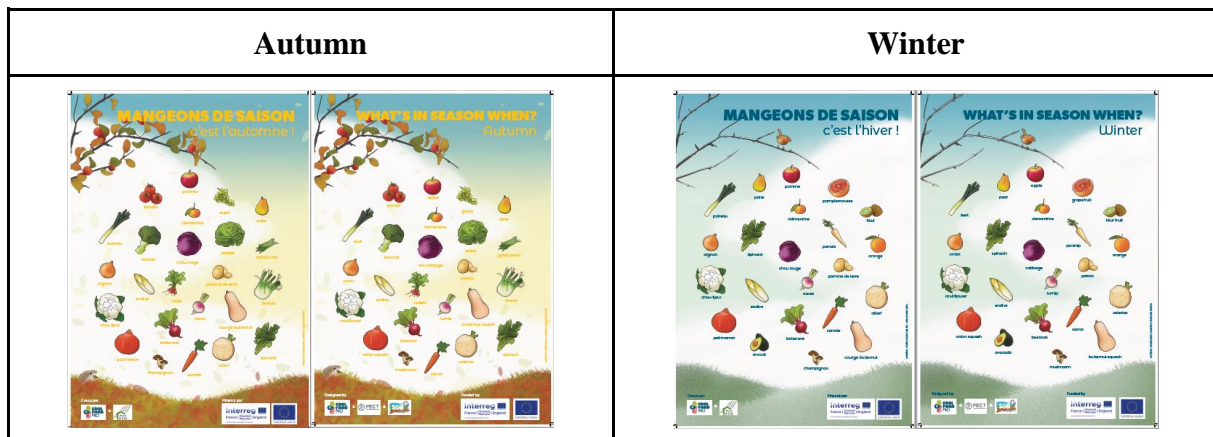
Levers	Activity name	Purpose and form	Visual(s)
	True/false game	<p>To make known the organic food, its guarantees and to fight against the preconceived ideas</p> <p><i>Card game mobilised in the form of either a standing and moving debate or in small discussion groups</i></p>	

	<p>Let's eat fruit and vegetables in season!</p>	<p>Understand the consequences of eating food from a distant geographical area and out of season</p> <p><i>Magnetic maps of Europe and the World and magnets showing various fruits and vegetables</i></p>	
	<p>What fork for the climate?</p>	<p>Understand the effects of food and agricultural production on the environment and the emission of greenhouse gases and its consequences: global warming</p> <p>A luminous sphere that lights up in 3 different colours depending on the degree of emission of the chosen meal (20 meals available)</p> <p>A set of cereal and legume tubes to raise awareness of plant-based proteins.</p>	

These tools are supplemented by posters given to the sites, which provide information on seasonality. We found that these posters were also sometimes used during the events as additional educational tools.

Figure 1. Seasonality posters in FR and EN





3.3 A methodology of observation and micro-interviews

The evaluation was carried out using an observational methodology. We decided to abandon the quantitative methodology initially envisaged for reasons of accessibility to the data. Obstacles to the circulation of questionnaires became apparent quite early on. The first obstacle was linked to the unsuitability of questionnaires for children, who could not answer correctly and/or for whom it was the parents who were going to be mobilised, even though they were not the target of the evaluation. The second obstacle was related to the difficulty of administering a questionnaire in certain establishments such as the CHRU in Brest (and this for various reasons independent of the Cool Food Pro programme).

We therefore chose a new methodological option and proposed a protocol of filmed observation and micro-interviews, a protocol that had already been used in studies on catering (Guillemot et al.)⁷. The material collected thus consists of 4 different forms of data: Audio recordings of mini-interviews, filmed observations with filmed interviews, photographs in context and observation notes.

The research team is composed of two researchers, Morgane Innocent and Erwan Joud, the first in charge of the observations (photographs and field notes) and mini-interviews at the end of the workshop activity, the second in charge of all the filmed observation and filmed interviews. This collection team was then reinforced at the analysis stage by Annick Tamaro and Samuel Guillemot.

⁷ Guillemot S, Dyen M and Tamaro A (2022) Vital Service Captivity: Coping Strategies and Identity Negotiation. *Journal of Service Research*, 2022, 25 (1), pp.66-85

3.4 Presentation of the study modalities

Table 5 shows the types of activities evaluated, as well as the sites where the observations took place and on which dates.

Table 5 - Presentation of the observed sample

Country - Site	Date	Activities
FR - Collège de la Fontaine Blanche in Plougastel-Daoulas	23/05/2022	What fork for the climate? in the playground True/false game in the classroom (5th grade)
FR - Collège de la Fontaine Blanche in Plougastel-Daoulas	24/05/2022	True/false game in the classroom (5th grade)
FR- CHRU of Brest	02/06/2022	What fork for the climate? At the entrance of the CHRU staff canteen Display of spring and summer seasonality posters.
EN - UNUM - Dorking	16/06/2022	What fork for the climate? Let's eat fruit and vegetables in season! Display of spring and summer seasonality posters. In the staff canteen area.
EN- St Augustine School - Peterborough	17/06/2022	What fork for the climate? Let's eat fruit and vegetables in season! Use of the calculator to show the children the effect of the different levers in e-CO2 but especially in T-shirts, etc. In the classroom (children aged 8 years).
FR- Ecole du Phare - Lilia Plouguerneau	20/06/2022	What fork for the climate? Let's eat fruit and vegetables in season! Display of spring and summer seasonality posters. Class(es) from CP to CM2, in a small room adjacent to the canteen and before or after the children's meal.

3.5 Description of the material collected

These different observations have made it possible to collect a very rich material, both in quantity (see Table 6) and in quality. However, we must emphasise the difficulty of obtaining

good quality audio recordings in environments that are often very noisy (canteens, catering restaurants, classrooms, playgrounds) and sometimes at a time when the participants' attention is focused more on the prospect of the meal than on the activity in progress.

Table 6 - Summary of observation and mini-interview material collected

Type of equipment	Quantification (number and/or duration)
Observations and filmed interviews	16h for 6 observations
Observation notes	46 handwritten pages
Background photographs	71
Audio micro interviews without image	49 interviews for a total duration of

3.6 Analysis methodology and coding

The results were subject to an initial analysis by the collecting researchers. The analysis was carried out by taking an in-depth look at the various collection materials and, in particular, the filmed observations, which were the subject of a summary video montage. The theory was developed by induction through exchanges between the researchers. For the moment, the materials were not transcribed, as the coding work was carried out mainly on the video material, which was coded by sequencing film segments. The other media were then mobilised to support or challenge the results observed via the coding of the filmed observations. Presentation of the methodology for analysing the results (by induction with an increase in theory, particularly through exchanges between researchers).

The coding revealed the following descriptive categories regarding the effect of the accompaniment on the behaviour of the diners:

- The notion of the action potential of the consumers,
- The obstacles and limits to the capacity for action of the consumers,

It also identified a number of strengths and weaknesses in facilitation techniques.

Finally, the coding brought out the notion of mediation as the central role of support and its breakdown into three types of relevant mediation

- Mediation by increasing the skill level of the consumers,
- Mediation through conviviality,
- Mediation through co-creation, i.e. through the participation of the consumers.

Part of this first-level analysis is presented in subsection 4, entitled study results. The other part is offered in the form of a videography, the link to which is mentioned in the results.

4. Results of the study

4.1 Videography of the summaries of the evaluation of the accompaniment of the consumers in the framework of the Cool Food Pro project

The film can be viewed via the following link:

<https://ubocloud.univ-brest.fr/s/M99QHcpC2dWHHjn>



4.2 Different forms of mediation for different audiences

The observations lead us to the conclusion that it is delicate, and sometimes complicated, to encourage the feeling of control of the consumers in the framework of catering, whereas this is necessary so that the final supply-demand state has a meaning shared by all the stakeholders of the system and that the system is not experienced as captive. This step is necessary for a feeling of responsibility to develop among the consumer/consumer.

This is where 'mediation', in its various forms, comes in.

We define mediation as the role of mediation taken on by the accompanying structure and therefore the action is intended to reconcile the expectations, needs and meanings between, in this case, the stakeholders of the catering offer and the consumers of these restaurants.

However, we note that very often this attempt at mediation is based on a rational paradigm that

has little effect on diners. Moreover, for the tools that have been mobilised and that manage to play on other levers, such as the luminous sphere which provokes a Waouh effect, it seems clear that the tools are not adapted to all audiences.

The synthesis of the results shows that three forms of mediation are or could be effective. Two were observed in the context of the Cool Food Pro events: mediation through skills development and mediation through conviviality. Another was not observed but was mentioned by the consumers and seems to us to be sufficiently important to be included in the results of this analysis: mediation through co-creation.

4.2.1 Raise the skills of the consumers

Mediation through skills enhancement is the one most used in the framework of Cool Food Pro. It is based on the paradigm of the rational consumer, which assumes that if the consumer has adequate knowledge, he will act rationally and change his consumption behaviour.

The target of mediation through skill building. We found that this mediation works relatively well with children and young people, using the various CFP tools, and all the more so when it is associated with a "wow" moment in the case of the youngest (luminous sphere) or with debate in the case of secondary school pupils (via the standing debate in particular).

Among adults, mediation through skills development also works, but care must be taken not to reach only the convinced, who spontaneously come to the front of the workshop activities to exchange.

Implementing good mediation by building skills requires a particular posture that should not be top-down. Facilitation and active pedagogy techniques must be used.

4.2.2 Using usability to engage in behavioural change

Mediation through conviviality was only really observed on one site, that of Unum, where the head chef and, to a lesser extent, the employees, were heavily involved in the Cool Food Pro workshop activities and in accompanying the consumers in changing their eating behaviour. The particularity of this mediation is that it does not rely on a body of knowledge that the consumer must appropriate. Mediation relies on the credibility of the mediator, in this case the chef, and his ability to make new practices accessible. The fact of relying on this notion of

credibility makes it possible to activate the mechanisms of trust and is therefore a powerful lever.

The target of mediation through conviviality could be adults, in particular.

The implementation of this mediation requires a very strong investment from the kitchen and dining room teams and is linked to the training of operators in catering and to a possible evolution and upgrading of these functions

4.2.3 Putting diners back at the centre of the evolution of the offer through co-creation

Mediation through co-creation was not observed in the context of the project. On the other hand, it was mentioned in the exchanges, particularly with the schoolchildren, or even in a less direct way with certain adults.

This form of mediation could have the major virtue of giving the consumers the power to act on the catering offer made to them. This could reduce the feeling of captivity and therefore increase the feeling of responsibility, which would facilitate behavioural change.

The implementation of co-creation can be envisaged in different forms, for example by organising challenges and recipe competitions, or by organising events such as Happenings during which the consumers go to the other side of the "counter". This form of support remains to be explored and invented.

Part III - Quantitative results: focus on the ARGAP program

5. Results and conclusions of the ARGAP experimental phase

5.1 Presentation of the ARGAP program

ARGAP is a support programme for the reduction of food and plastic waste, which is an integral part of the Cool Food Pro support. Implemented from mid-2022, this programme essentially mobilises the team of the partner LABOCEA on the French side and PECT on the English side. The latter will be involved in weighing food waste and will then measure the CO₂ and financial savings generated by the reduction of this waste. To do this, ARGAP offers each supported site an audit consisting of 3 diagnostic weigh-ins, the development of an action plan to reduce waste, then a series of 3 weigh-ins to measure the impact of the implementation of corrective actions. LABOCEA has several years of experience in this field and has trained the English partner PECT to support English sites.

5.2 Global results of the ARGAP experimental phase

During the experimental phase, ARGAP supported 8 French and 9 English pilot sites over 5 months, from May to September 2022 for the French sites and from September to January 2022 for the English sites (the latter having been trained later in food waste reduction). The roll-out phase of both programmes begins following these 5 month periods. This study focuses on the experimental phase, in order to draw conclusions for the roll-out phase. As such, we will try to present the main indicators to be retained following roll out.

In general, for the two French and English experimental phases, the ARGAP programme has made it possible to save 50 tonnes of CO₂e, i.e. approximately 14% of the total CO₂e savings achieved by the project in January 2023. These figures should be seen in the context of the seasonal closure of schools, which slows down the gains. However, these gains are extremely contrasted between the French and English pilot sites: 50,473 kg of CO₂e were achieved by the French sites, and 12 kg of CO₂e were achieved by the English sites. There are several reasons for these results.

5.3 Identification of main levers

The main lever is the typology of the sites supported (sector, size), which is significantly different on the two sides of the Channel. On the French side, ARGAP made it possible to reach 9,000 diners, while on the English side it made it possible to reach 1,500. These figures can be explained by the fact that sites in different sectors are supported: for the French sites, medico-social catering represents 85% of the consumers, while school catering represents 15%. In contrast, for the English sites, school catering represents 100% of the consumers, and these sites are much smaller.

Furthermore, the figures show that the sector of activity has a strong influence on the CO₂e savings achieved, with medical and social catering accounting for 85% of the total savings achieved by the French sites. Indeed, the medical-social sector is subject to strong constraints (human and financial resources) and often does not yet have a waste reduction approach in place, and therefore has a very high potential for improvement. On the other hand, the English sites are mostly schools, and are often more advanced in the waste reduction process, in addition to having a smaller number of diners and therefore a lower impact. In addition, the launch of the English ARGAP programme was accompanied by greater inertia, as the sites were sometimes preoccupied with different environmental initiatives at the same time (stronger competitive context), thus delaying the implementation of the first corrective actions following the weigh-in.

5.4 Adequacy of the program and support

In general, ARGAP responds to a real need in the catering industry. Indeed, all sites are looking for methodologies and advice to reduce their food waste, but often lack the resources (people, time, equipment and knowledge) to achieve this, regardless of the sector. On both the French and English sides, the pilot and deployment sites were very interested in the field support offered by Cool Food Pro, as well as in the possibility of monitoring their progress and calculating environmental gains on the calculator. Moreover, the partners LABOCEA (French side) and PECT (English side) were able to experiment their support with sites from different sectors (mainly schools, but also hospitals, universities, companies, etc.), which allowed them to develop cross-cutting skills concerning support for waste reduction.

The support remains globally adapted, but the need inertia to observe results is more important.

Nevertheless, the positive impact of the network in terms of involving the sites can be seen here: LABOCEA's support was provided on a departmental scale, with a large number of colleges supported, whereas PECT's support was scattered over the sites of different structures and was therefore more difficult.

The ARGAP programme has the advantage of providing face-to-face support over a sufficiently long period of time to monitor the impact of changing practices. In addition, the programme provides materials developed to facilitate the process: weighing sheets to continue independently, waste reduction guides, video tutorials, etc. For the sites, it is also an opportunity to benefit from on-the-spot support enabling them to target the stages at the source of waste precisely, while questioning their practices with the help of an external viewpoint and expertise. This support sometimes allows them to question their practices but also to reorganise their roles (e.g. appointment of a waste reduction manager, allowing them to take ownership of the project). The creation of the waste reduction project also brings together individuals from different teams and leads them to develop and build solutions together, which can then have a positive impact on the rest of their work. Here again, the French partner LABOCEA was favoured because of its experience in the field and its human resources (an average of 4 consultants deployed in the department), unlike the English partner PECT, which was only able to deploy one person to provide support (the trained person having left the structure at the end of 2022).

5.5 Acceptability of the program by the kitchen staff

Generally speaking, the teams are aware of the issue of food and plastic waste, and people are quite willing to take part. However, resources can be a major obstacle: for example, some sites that initially volunteered withdrew, as they were unable to find the time and staff to devote to the project. On other sites, the staff were already very busy and had neither the time nor the capacity necessary to devote themselves to the project, despite the presence of Cool Food Pro, so the results of the support were limited. This reluctance can be observed more generally in cooks with many years of experience, who are discouraged by the ongoing constraints. For their part, the English partners encountered more difficulties in supporting the sites over time, as they were sometimes involved in different environmental initiatives and did not prioritise ARGAP support. On the other hand, ARGAP is less effective when the team undergoes a high turnover, as the observations and recommended corrective actions are not always passed on to the new

team members.

To overcome these difficulties, the programme is most effective when one or more people are actively involved in the process, making it possible to "catalyse" the results and efforts and to maintain them over time. Similarly, it is essential that the kitchen team does not undergo the process but is the driving force behind it, otherwise they will not be involved in the process and will only follow it out of compulsion which is not conducive to long lasting behaviour change.

5.6 Relevance of the calculator within the support

Since ARGAP aims to reduce food and plastic waste in the long term, and not only during the follow-up weigh-in, the calculator plays a key role in the sustainability of the approach: with its monthly monitoring, it allows the establishment to build the habit of following up the results. It reminds the sites to organise their monthly follow-up weigh-in sessions. However, these weigh-in sessions are often restrictive and time-consuming, and it is possible that some of the sites supported do not continue them beyond the ARGAP support. For sites wishing to continue to implement corrective actions without carrying out monthly monitoring weigh-ins, the option of automating the monitoring allows them to continue to communicate the actions without going through the weigh-in process.

Furthermore, it is important to keep in mind that ARGAP cannot be separated from the other Cool Food Pro action levers: it is not a question of reducing waste at all costs at the expense of meal quality (e.g. serving the children's favourite meals every day so that there is no waste), but rather of moving towards healthier and more sustainable meals while activating the levers to reduce waste

Annex 1. Interviews conducted: institutions involved, people met

Establishment	Sector	Function	Transformed first name	Coding
Les Genêts d'Or	Social and medico-social	Director of the catering association - Director of AGORES and departmental delegate for Finistère	Sylvie	EN_Sit1a
	Social and medico-social	Head of the Briec kitchen	Alice	EN_Sit1b
La Fontaine Blanche College Plouguastel Daoulas	School	Head chef	Christian	EN_Sit2a
	School	Manager	Elisabeth	EN_Sit2b
Central Kitchen Plouguerneau	School	Deputy Director General	Soline	EN_Sit3a
	School	Head chef	Didier	EN_Sit3b
CHRU Brest	Health	Catering Manager	Alix	EN_Sit4a
	Health	Head chef	Michel	EN_Sit4b
	Health	Dietician	Christine	EN_Sit4c

Sodexo	School	Director	Clément	EN_Sit5a
Norse	School	Craig Neale ^[MK4]	James	UK_Sit6a
Thomas Deacon Education Trust	School	Catering Operations Manager	Harry	UK_Sit7a