



D5.5 Lessons learned and recommendations

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Deliverable 5.5

Lessons learned and recommendations

DELIVERABLE TYPE

MONTH AND DATE OF DELIVERY

Report

Month 24/ December 2022

WORK PACKAGE

LEADER

WP 5

APRE

DISSEMINATION LEVEL

AUTHOR

Public

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Programme H2020 Contract Number 101000539 **Duration** 24 Months Start January 2021



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Executive Summary

This report constitutes the deliverable 5.5 "Lessons learned and recommendations" of the 24-month Horizon 2020 Coordination and Support Action project Transition2BIO (GA 101000539).

Transition2BIO builds upon the most relevant communication and education EU funded projects and initiatives to contribute to the implementation of the updated 2018 EU Bioeconomy Strategy and promote the transition towards a more sustainable production, consumption and lifestyle. The project aims to implement an integrated package of communication, awareness-raising and educational activities addressing a wide range of target stakeholders, representing demand side, supply side, multipliers, and supportive environment.



1. Introduction

Transition2BIO, despite the short duration and the small budget available, has produced and piloted different formats, has categorized and make available more than a hundred of tools and materials, becoming a successful bioeconomy project cited by the recent European Commission factsheet 'Research & innovation in the bioeconomy' (October 2022).

This factsheet provides a snapshot of R&I funding in bioeconomy and bioeconomy-related fields since 2008 and showcases successful projects with tangible impacts or projects with promising results. Transition2BIO is cited as successful project about the youth engagement and education.

This document comprises 2 chapters, as follows:

- Lessons learned and
- Recommendations.

The first chapter specify the lessons learned for each main task of the project.

¹ https://op.europa.eu/en/publication-detail/-/publication/580afaee-4071-11ed-92ed-01aa75ed71a1/language-en



2. Lessons learned

The following subsections describe the lessons learned from different Transition2BIO tasks. The data were collected through an online questionnaire filled in by the (sub)tasks leaders.

Lessons learned are the documented information that reflects both the positive and negative experiences of a task. They represent the organization's commitment to the task management excellence and also the project manager's opportunity to learn from the actual experiences of others.

The questionnaire asks for organisational experiences (what worked well and which problems have been encountered), the involvement of the Transition2BIO partners (if worked well and which problems arose), the involvement of the target users (what worked well and what not), if the financial resources and skills available were enough, if the result can be automatised, suggestions for future similar task and what is the learning lesson from it.

2.1 Task 1.3 Production of the toolkits

Responsible partner

BIOCOM

Organisation: what worked well?

A large collection of resources was centralized and valorised.

Organisation: which problems did you encounter?

WP1 did not work very well together. The work was not coordinated particularly well and it was rather difficult to get meetings scheduled. In addition, there was not a clear framework for the toolkits. Given the limited resources and time the toolkits were not as innovative as they could have been. The conceptual framework should have provided more information for the creation of the toolkits.

Involvement of partners: what worked well?

Working with LOBA to develop the tools in line with the corporate design worked well. However, given that LOBA has many responsibilities it was also very difficult at times to assess whether something could get done or not.

Involvement of partners: which problems did you encounter?

There was minimal input besides from ZSI and LOBA on the toolkits.

Involvement of target audience: what worked well?

Targeting the toolkits to 6 stakeholders instead of demand, supple and supportive.

Involvement of target audience: which problems did you encounter?

Toolkits for such broad audiences as describes by the DoA were not very useful and the conceptual framework didn't provide a clear analysis of what the most useful target groups for the toolkits should have been.



Did you have all the resources needed to do your best work?

BIOCOM lacked the necessary PMs to be able to create something beyond toolkits that were pdfs.

How could we simplify or automate things in the future, if possible?

Choosing 3 target groups that were Transition2BIO primary focus such as teachers, young people, and policy makers and making 3 toolkits just for these groups.

Were there skills you felt you needed but didn't have?

It took a lot of time to valorise the many resources (well beyond the PMs necessary). This could have been better done as a consortium or in the first analysis by UNIBO.

What suggestions do you have for future similar tasks?

Making 3 toolkits in a more innovative and comprehensive fashion for 3 priority stakeholders instead of trying to make toolkits for the entire supply, demand and supportive environment.

What did you specifically learn during this task?

Bringing the WP together can be an essential element of the success of the project.

2.2 Task 1.4 Transition2BIO resources Library

Responsible partner

LOBA

Organisation: what worked well?

Good synergies with T1.2 and UNIBO led to having a shared database that could be exported and uploaded on the Library, leaving more time to assessing contents.

Involvement of partners: what worked well?

At the very initial stages, the co-creation with Consortium partners of the three sub sections "Communication"; "Education"; "Support" facilitated clustering of materials which, together with the experience stemming from the LIFT Library, led to the current structure.

Involvement of target audience: what worked well?

The Library has documents targeting very different audiences. From students interested in discovering what the Bioeconomy is, to Policy makers willing to inform on regional and national bioeconomy strategies in different countries. A supportive instrument consisted in sending newsflashes to Transition2BIO mailing list, pitching the categories of materials available based on content type or category.

Involvement of target audience: which problems did you encounter?

The materials are very diversified and aim at very different target audience, making it more difficult to engage very specific target audience.

Did you have all the resources needed to do your best work?

Yes.

How could we simplify or automate things in the future, if possible?

The current Salesforce-based Back Office used to manage the Library is flexible and can be adapted for future projects, having as starting point the database that was co-created with Task 1.2.

What suggestions do you have for future similar tasks?



Narrow the typologies of documents to be stored and clustered. For example, a Library focused on "Bioeconomy education" could be more easily used and promoted; as well a Library on "Bioeconomy strategies and policies".

What did you specifically learn during this task?

How to optimise processes with Consortium partners to ensure a smooth mapping and clustering of documents and subsequent structuring of the Library. Each partner could bring their own expertise and perspective, therefore co-creative sessions are of great use for whom is responsible of the Library development.

2.3 Task 2.1 Large scale awareness raising and public engagement events

Responsible partner

PEDAL

Organisation: what worked well?

In the majority of countries, the content was very relevant and interesting for organisers, some partners had partnerships established with big events. Available tested and also new formats and activities, which made the planning for partners easier. Experienced partners willing to share experience and brainstorm ideas.

Organisation: which problems did you encounter?

The main challenge was the COVID-19 pandemic. Despite Transition2BIO organised 14 instead of 6 originally planned events, the target number of participants was not reached. Organising such an event is financially demanding, unless a partnership is established with the organiser. Well-trained and bigger teams are required to deal with groups or visitors coming at the same time.

Involvement of partners: what worked well?

Partners responsible for organising a large-scale event experienced. High interest and commitment to reach the objectives - testing new formats, organising the event online (due to COVID-19).

Involvement of partners: which problems did you encounter?

The main challenge was the COVID-19 pandemic, due to which several events were cancelled, postponed or held online in 2021. Therefore, in 2021, the events were organised only in Italy and Slovakia.

Involvement of target audience: what worked well?

High quality materials (e.g. Bioeconomy Village, BioArt gallery) are attractive for the target audience. They attracted visitors (all age groups, stakeholder groups) to the booth and were helpful to start conversations with them, relating explanations to something they are familiar with talk in simple and clear language. Organising interactive activities (workshops, quizzes, etc.), was very useful in attracting visitors to the booth.

Involvement of target audience: which problems did you encounter?

The topic and materials were in general very attractive for visitors. One lesson-learnt is that usually, they have some knowledge about the topic, but it is only partial.

Did you have all the resources needed to do your best work?





How could we simplify or automate things in the future, if possible?

I do not think this is possible - the content and activities need to be adjusted to every single event, the main topics of which usually change every year. Also, to attract participants, new contents and activities are needed.

Were there skills you felt you needed but didn't have?

Organising a large-scale event as an online event required new approaches, not all partners had the opportunity, but also the skills to organise it.

What suggestions do you have for future similar tasks?

Establish partnerships. If not done before, try to learn about the attitudes and knowledge of the target groups about the topic and adjust the content and activities accordingly. Use visually attractive materials, present interesting or fun facts, and include interactive activities.

What did you specifically learn during this task?

Learning is best facilitated by using a combination of different formats and activities, it was very inspiring to see how all partners addressed this issue and continuously planned some innovations.

2.4 Sub-task 2.2.1 Hands-on Labs (kids)

Responsible partner

BIOCOM

Organisation: what worked well?

Letting implementing partners have control over the organisation and details of implementing the labs. We needed to be very flexible given that partners had to adapt the labs to the event, school setting. In addition, the frequent meetings in WP2 helped keep everyone on the same page.

Organisation: which problems did you encounter?

It was difficult and time consuming to work with a lot of children. Thus going into schools or targeting one class was more successful than adding experiments to an event setting.

Involvement of partners: what worked well?

The leadership of PEDAL in WP2 helped keep everyone involved and on track.

Involvement of partners: which problems did you encounter?

No serious issues.

Involvement of target audience: what worked well?

Working with a class of the same age and in a school setting was more successful than events.

Involvement of target audience: which problems did you encounter?

The experiments were time consuming and chaotic in an event setting.

Did you have all the resources needed to do your best work?

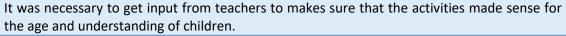
Yes, we successfully learned from each other's experiences.

How could we simplify or automate things in the future, if possible?

Make little videos of the experiments and share on social media.

Were there skills you felt you needed but didn't have?





What suggestions do you have for future similar tasks?

Work with schools. Make videos of the experiments.

What did you specifically learn during this task?

How to better communicate the bioeconomy in a simple manner for children and the best ways to organize interactive activities that do not require so much equipment and resources.

2.5 Subtask 2.2.2 Info-educational games

Responsible partner

FVA

Organisation: what worked well?

The design of info-educational games was proved to be effective in order to involve kids and teenagers in a playful way, stimulating their curiosity and raising awareness on complex topics like the bioeconomy, using a gamified learning experience.

Organisation: which problems did you encounter?

This task was delivered by FVA that has an extensive experience in game design, therefore no organisational problems arose.

Involvement of partners: what worked well?

The Transition2BIO partners supported FVA in validating the info-educational games, providing feedback on the gamified experiences designed for the different audience. With regards to the online version of the book for kids, since this is a very technical task, the partners mainly double checked the linguistic translation of the contents to ensure the final version was ready to be shared and exploited during large-scale events and educational activities. With regards to the other info-educational games (e.g. online quizzes, memory game) FVA and LOBA strongly collaborated for the game design, with a more active involvement and contribution of all the partners.

Involvement of partners: which problems did you encounter?

For some the games designed (e.g. the online version of the book) specific technical skills are needed and therefore the majority of the responsibility needs to be undertaken only by the partner who has this expertise. The involvement of the other partners in this case is very limited as they may not have the knowledge to provide insightful feedback to improve the gamified platform or address specific technical problems that may occur.

Involvement of target audience: what worked well?

Different info-educational games were tailored and designed to target different audiences, using a diverse set of tools and contents to engage the users. This ensured the effectiveness of the different games in conveying the messages and stimulated new ways of thinking, according to the age group of the target audience and also the different context in which the info-educational games were implemented (e.g. online, in class, onsite during large-scale events, as ice-breaker during webinars and trainings).

Involvement of target audience: which problems did you encounter?

Having different target audience may need periodical updates on which could be the most suitable ways to engage the young generations (which are our main target) in gamified learning experiences, also in light of their preferences (e.g. online interactive games/quizzes vs role play



games vs games based on educational cards) and their use of IT tools also in educational contexts.

Did you have all the resources needed to do your best work?

FVA as responsible partner for this task has an extensive knowledge and expertise in the design of info-educational games, therefore the resources needed were carefully deployed to better respond the project's needs, also exploiting previous success experiences in games, designed and implemented by FVA in the context of EU-funded projects with similar objectives and target groups of Transition2BIO.

How could we simplify or automate things in the future, if possible?

Online platforms like Menti.com could be the easiest ways to engage people in online, interactive quizzes without needing any technical expertise, therefore enabling anyone to customize and implement different kind of online games. In fact, the graphical templates and the system to organise the final results and statistics of the players are automatically produced by the platform, together with the possibility for the players to choose a nickname and an avatar.

Were there skills you felt you needed but didn't have?

No.

What suggestions do you have for future similar tasks?

The active engagement of students in the co-design of info-educational games can be important to explore new formats (e.g. escape games). New EU-funded projects like GenB are more focused on this co-creation aspect and will keep on researching and testing new info-educational games.

What did you specifically learn during this task?

Games are proved to be the most effective way to engage the audience, regardless of their age (adults, kids, teenagers) therefore supporting in conveying in a playful way complex topics like the bioeconomy. Additionally, to reach the emotional side of the users with their active engagement in gamified learning experiences is in fact key to finally consolidate the knowledge.

2.6 Subtask 2.2.3 Training for teachers (all ages)

Responsible partner

ZSI

Organisation: what worked well?

Very diverse activities in very heterogeneous settings.

Organisation: which problems did you encounter?

Covid-restrictions; implementation in curriculum is difficult.

Involvement of partners: what worked well?

Exchange of experiences made.

Involvement of partners: which problems did you encounter?

Informed consent from parents often difficult to get.

Involvement of target audience: what worked well?

Material that is adapted to kids (i.e. book) was very helpful.

Involvement of target audience: which problems did you encounter?



Language issues in teacher training; very low participation in online teaching training.

Did you have all the resources needed to do your best work?

Yes.

How could we simplify or automate things in the future, if possible?

No input.

Were there skills you felt you needed but didn't have?

More tacit knowledge on bioeconomy.

What suggestions do you have for future similar tasks?

Different dissemination/engagement strategy for teacher training needed.

What did you specifically learn during this task?

Reconsidering online training open for all Europeans (different dissemination/engagement strategy needed).

2.7 Task 2.3 Social media awareness and public engagement activities

Responsible partner

FVA

Organisation: what worked well?

Transition2BIO defined a social media strategy also choosing which channels and when to publish project results, news or information, being in this way consistent, but tailored to the audience across all communication channels (e.g. the Instagram page is a key platform for the project to reach younger generations as well as producers, business activities, designers and brands, while LinkedIn is used to support connections and collaborations between Trantision2BIO and many experts from academia, companies, other EU funded projects and B2B industries). This helped in the proper organisation of the contents to be shared.

Organisation: which problems did you encounter?

Social media are in continuous evolution and therefore a critical revision of the strategy should be foreseen periodically during the project.

Involvement of partners: what worked well?

The social media strategy was mainly conducted by responsible partner FVA and the partners were mainly providing details on the events they were organising or involved, or sending interesting news to be shared. The partners also liked and shared some social media posts.

Involvement of partners: which problems did you encounter?

In order to maximise the impact of the social media channels, partners should be more active in re-share and like the posts. This was not always the case, despite several reminders sent by the responsible partners FVA.

Involvement of target audience: what worked well?

The video campaigns were proved to be effective and very impactful, with an overall number of 4.786 views reached among the YouTube channel and the Instagram reels. This format could be further exploited and experimented specifically to attract young generations.

Involvement of target audience: which problems did you encounter?



As the social media statistics proved, the audience is becoming more interested and responsive to video contents rather than images. For this reason, Transition2BIO experimented new formats of campaigns, producing short reels to promote a more active engagement of followers, to better respond to the behavioural change identified, especially among the Instagram users.

Did you have all the resources needed to do your best work?

The resources planned were carefully distributed among the activities. The paid social media campaigns are not always effective, while the creation of interesting content is more attractive. Therefore, FVA decided to use part of the cost planned for paid social media campaigns to design attractive contents including videos, cards, etc. Another way to maximise the resources was to implement collaborations and joint social media campaign to share the efforts with relevant projects and initiatives, finally increasing the overall impact.

How could we simplify or automate things in the future, if possible?

The planning of the posts can partially automate things, however proper social media management requires daily commitment.

Were there skills you felt you needed but didn't have?

No.

What suggestions do you have for future similar tasks?

Social media management is a central activity for projects dealing with communication and dedicated effort should be considered and planned during the proposal writing. The revision of the social media strategy is key to keep the followers engaged and interested, as well as keep on extending the community.

What did you specifically learn during this task?

To carefully monitor and take into consideration the behavioural changes in the audience, in order to ensure that social media are responding to the specific project needs.

2.8 Task 3.1 Communication and education mentoring activities

Responsible partner

APRE

Organisation: what worked well?

WP3 meetings were organised quite often with the partners in order to define the training and mentoring agendas. The inputs and experiences of partners supported the creation of an interesting training activity that was spread to EU Member States, Regions and other EU networks and projects.

It was very important to involve as speakers high level experts.

Organisation: which problems did you encounter?

Sometimes the content of each training module was not really clear to the partners and some redundances occurred in the preparation of the materials.

Involvement of partners: what worked well?

The partners were available to finetune the training module in order to have a good final product.



Involvement of partners: which problems did you encounter?

Some partners were not really involved in this activity.

Involvement of target audience: what worked well?

Target users were generally satisfied from the training modules attended.

Involvement of target audience: which problems did you encounter?

Several calls (one to one meetings) were organised with target users in order to promote the training modules. All of them have shown interest but not all of them were available to attend the trainings and finally to promote it.

Did you have all the resources needed to do your best work?

Yes

How could we simplify or automate things in the future, if possible?

In order to maximise the impact, the training modules have been recorded and a webpage was built in order to show all the contents (videos and presentations).

Were there skills you felt you needed but didn't have?

The organisation of the trainings was done also identifying external experts.

What suggestions do you have for future similar tasks?

Additional modules could be added.

What did you specifically learn during this task?

For the preparation of the agenda was important the co-creation with all partners.

2.9 Task 3.3 Future skills for Bioeconomy

Responsible partner

UNIBO

Organisation: what worked well?

The project activities were quite straightforward; good project management.

Organisation: which problems did you encounter?

Not big ones; the problem with the workshop was that we relied on the help of external entities not always motivated to do things on time.

Involvement of partners: what worked well?

All.

Involvement of partners: which problems did you encounter?

Not special ones.

Involvement of target audience: what worked well?

There was interest.

Involvement of target audience: which problems did you encounter?

In most cases the input received were interest at the general level, but it was difficult to go in depth into solutions.

Did you have all the resources needed to do your best work?

Yes.

How could we simplify or automate things in the future, if possible?

Not sure.





No.

What suggestions do you have for future similar tasks?

Include lower number of participants.

What did you specifically learn during this task?

n.a.

2.10 WP4 Strengthen the European Bioeconomy Network

Responsible partner

FVA

Organisation: what worked well?

The EuBioNet proactively facilitated the mutual learning and sharing of good practices among more than 130 projects and initiatives, connecting them, as well as presenting innovative formats and providing a thematic overview of several EU-funded projects and their main outcomes in the context of relevant events and workshops. This systemic approach consolidated the EuBioNet robust position in stimulating the debate and delivering contents to increase its effectiveness in contributing to the transition towards the circular bioeconomy in Europe.

Organisation: which problems did you encounter?

Leading a network like the EuBioNet requires not only daily commitment, but also building trust and collaborations among the EuBioNet and the projects. The key of the EuBioNet success is the perception that all projects have that the initiative is for the benefit of the entire community and all projects can have a say in the network. This trust building activity is not easily replicable in other contexts and grows day by day through concrete actions that need a super-partes inclusive attitude by the animators.

Involvement of partners: what worked well?

The proactive involvement of the EuBioNet members and Transition2BIO partners supported the EuBioNet in pursuing its objectives to: promote collaborations and joint action plans, facilitate networking and stakeholder engagement activities at European, national and regional level, increase bioeconomy awareness and communication, support the creation of the innovation ecosystem for the bioeconomy. Although the daily activities of the EuBioNet are more on the hands of the main animator FVA, all the partners were very supportive in the organisation of the annual EuBioNet MML workshops, participating as moderators in the thematic working groups and inviting participants. In particular, the role of PEDAL as task leader in T4.3 was key for the success of the events jointly organised with FVA.

Involvement of partners: which problems did you encounter?

The EuBioNet can play an important role in facilitating these joint activities, nevertheless these activities needs a strong coordination of efforts among the partners involved.

Involvement of target audience: what worked well?



The value of the European Bioeconomy Network is widely recognized, not-only by the projects and stakeholders involved in the network, but also by the European Commission and CBE JU. In particular, EuBioNet is considered a great success in terms of: actively promoting mutual learning, collaboration and knowledge exchange among projects; facilitating thematic discussion and enabling the identification of common challenges to be addressed; shortening the gap between projects and the beneficiaries of the results (e.g. policy makers and industries); promoting the debate and recommendations for future research and coordination actions.

Involvement of target audience: which problems did you encounter?

All the activities undertaken by the EuBioNet demand intense and continuous work that should be supported financially. The possibility to ask for a participation fee from the projects is not feasible, since the projects have their own budget already allocated to specific activities. The clustering among sister projects, that is mandatory in Horizon Europe, is typically limited to few projects funded under the same topic and doesn't include other topics, or programs like, for instance, Erasmus+ and Interreg.

Did you have all the resources needed to do your best work?

During Transition2BIO project, there were dedicated resources to extend, animate, widely disseminate and promote the EuBioNet as replicable good practice in the context of local, national and international workshops, conferences and events. In the immediate future, after Transition2BIO, no dedicated EU funding is foreseen to support the EuBioNet. Nevertheless, in particular partner FVA that was the main animator of the community is interested in keeping up the good work and looking for future funding to support the daily EuBioNet activity.

How could we simplify or automate things in the future, if possible?

To expand the outreach and value of the EuBioNet community, FVA – which is the responsible partner for the EuBioNet animation – is periodically mapping the new funded projects, performing dedicated desk analysis, following specific topics of interest and collaborating with the granted consortia. This activity need daily and direct effort and can't be simplified or automatized.

Were there skills you felt you needed but didn't have?

No.

What suggestions do you have for future similar tasks?

Beyond structural support, the Transition2BIO partners discussed ideas to animate the EuBioNet community after the end of the project. The most suitable pathway is the leading of the thematic working groups kicked-off during the Projects2Projects workshop, under the responsibility of former Transition2BIO partners. The efforts to be allocated for this activity could be (partially) covered by clustering activities already foreseen in newly funded projects under Horizon Europe.

What did you specifically learn during this task?

The EubioNet formula itself as well as several formats designed and experimented by the initiative (e.g. Projects2Projects and Projects2Policy) could be replicated in other domains beyond bioeconomy, maximizing the impact of EU Funded Projects.



3. Recommendations

The analysis of the lessons learned collected from the different tasks of Transition2BIO suggests that:

- Partners need a constant coordination of the activities at work package level, mutual learning exercises to exchange experiences and good practices coming from other EU funded projects (if available);
- Any kind of product delivered by the project can have good chances to create the expected impact if it is well shaped on the needs of a specific target user;
- Awareness activities (such as events in the context of large scale fairs) can be more
 costly than the foreseen: a good way to be impactful and spend as less as possible is to
 have agreement with the local organiser, add other activities in the same location and
 involve other EU projects;
- In order to engage target users different formats together should be used, this will capture the attention;
- The involvement of external organisations is not easy since they don't have any commitment; the involvement of external experts is more easy since they will appear and their participation can arise their visibility.



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Consortium







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