



PROJECT H2020

LIVERUR

Living Lab Research Concept in Rural Areas

DELIVERABLE 6.4:

**Improvement of the platform after
users' feedback**



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LIVERUR - 773757

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EXECUTIVE SUMMARY

Contents of D6.4

Deliverable D6.4 briefly summarises the improvements implemented into the RAIN platform based in the feedback received during the different workshops where the RAIN platform was presented once the answers to surveys from users were analysed (these surveys were presented into D6.2). The improvements that were considered for the platform cover aspects as user experience, security, additional sections and new content.

Objectives, work areas and methods

The objectives of task T6.4 is: to gather the user's feedback in order to define improvements in the first operational version of the RAIN platform.

The methods used included the presentation in workshops of the platform involving not only the WP participants but, also, Living Labs and relevant external stakeholders (e.g. RUBIZMO project) that could provide additional feedback. As in the previous phase, discussions (bi-lateral and in groups) and creativity techniques (e.g. brainstorming) were developed. In this way, the methodology applied for this new iteration of the RAIN platform followed methodical requirements of the LIVERUR Grant Agreement and the Living Lab approach, both of which emphasise user involvement and co-creation.



RAIN Platform – Improvements

After gathering the user's feedback from several workshops, different improvements were identified, being these related to the following sections:

- Public Area: Homepage, Rain Tools, Knowledge sharing, Contact us, Registration page.
- Private Area: News and Enhance your business, Business Model Analysis, Toolbox and RAIN Concept, Open Learning, RAIN Community
- Secure registration process

Acknowledgements

We thank all LIVERUR partners for their contributions to the design, definition and development of the RAIN Platform during the different workshops and meetings, and also for providing information on the LIVERUR Tools and content for the platform and for their valuable feedback on the entire process and for reviewing the deliverable.

1 INTRODUCTION

The LIVERUR project and RAIN Business concept.

The LIVERUR is an research and innovation project that aims to promote Living Labs as innovative business models in rural areas. During the project, a socio-economic analysis was conducted to identify, describe and compare the differences between the new approach of Living Lab and more traditional, entrepreneurial approaches. LIVERUR aims to expand the Living labs business model in rural regions in order to establish a sustainable partnership that includes users, policymakers, businesses and researcher. During the project, Living Labs in 12 LIVERUR Pilot Regions put into practice the RAIN Concept (WP4), the circular Living Lab toolbox (WP5) and the RAIN Platform (WP6) (European Commission, 2018).

Business models often fail because they either do not meet the customer needs and expectations, or they do not consider economic, social or environmental impacts of their products and services they provide or cannot address specific challenges in rural areas. The Regional circular living lab business model concept – the RAIN concept – is a tool to support businesses, projects and initiatives, in designing innovative business models in rural areas moving towards a circular economy, open innovation and information and communication technology focus. It includes all important stakeholders by following the Living Lab approach (Egartner et al 2020).

Work package 6

Work Package 6 (WP6) called “Development of the regional circular living lab tool for entrepreneurs in rural areas” aims at creating a unique and integrated tool and environment for incubating the concept of RAIN (i.e. Regional Circular Living Lab business model). The WP6 is developed in 3 tasks and documented in the corresponding deliverables of WP6.

Task 6.1 Round tables with entrepreneurs and creation of an ICT enabled platform for entrepreneurs.

This task is divided into three sections:

T6.1.1: Round tables. This subtask aims to firstly gather needs and challenges of the entrepreneurs present in the piloting territories. The result of this task has been published in D6.1 Report on the round tables (Koutodis, 2019).

T6.1.2: ICT enabled platform creation: After the round tables, results have been merged and the ICT platform has been developed. The result of this task is the RAIN platform itself and the deliverables D6.2 Report on the establishment of the RAIN Entrepreneurial Tool and evaluation, and D6.4. Improvement of the platform after users’ feedback.

T6.1.3: No Rural Gap Mas. Addressing the gender gap in rural areas. These results are explained in D6.4. Improvement of the platform after users’ feedback.

Task 6.2 Creation of an entrepreneurial living lab community at a cross – border level. In this task, the RAIN platform created in task 6.1 will be used as a powerful tool for the sustainability of the project and this is gathered by the concept of RAIN Entrepreneurial Community. Improvements in the RAIN platform will be performed to act as a pole of attraction for other Living Lab. The result of this task appears in the RAIN Platform and improvements are explained in this D6.4. Improvement of the platform after users’ feedback.

Task 6.3 Training activities to utilize the RAIN Platform. In order to improve the end-users understanding of the platform, specific activities of training are forecasted by the consortium. The results of this task are reported in D6.4 Report on the training activities.

2 IMPROVEMENTS DETECTED

II.1 Public Area

Improvements detected	Status
User involvement: The legend should follow the scroll up/down of the user.	Done
“RAIN” should not be translated, when choose other language than English. As RAIN is also translated when you choose the national language, it is suggested to put a dot after each letter: R.A.I.N.	Done, RAIN is not translated in any of the different sections of the platform.
Create a “Benefits of adopting the RAIN business model” section i.e. in highlight boxes, in a more attractive way to who seeks to know more about the platform and include success cases.	A new section related to the success cases of the project will be created showing information about the experience in different Living Labs of the implementation of the RAIN business model, using information coming from D5.5 “New Rural Business Model Catalogue - A step by step guide with the best practices Case Studies”
Translation: Remove the US flag and replace it with the UK’s one.	Done, the UK’s flag appears in third position in the translation bar, always visible in the left-bottom part of the web site. (Figure 1)
It’s not easy to find how to switch the language. It would be useful the flags to be more visible. The small flags can be visible all the time in the bottom part of the website.	Done, the different languages available are always visible in the left-bottom side of the web site following the scroll up/down of the users. (Figure 1)

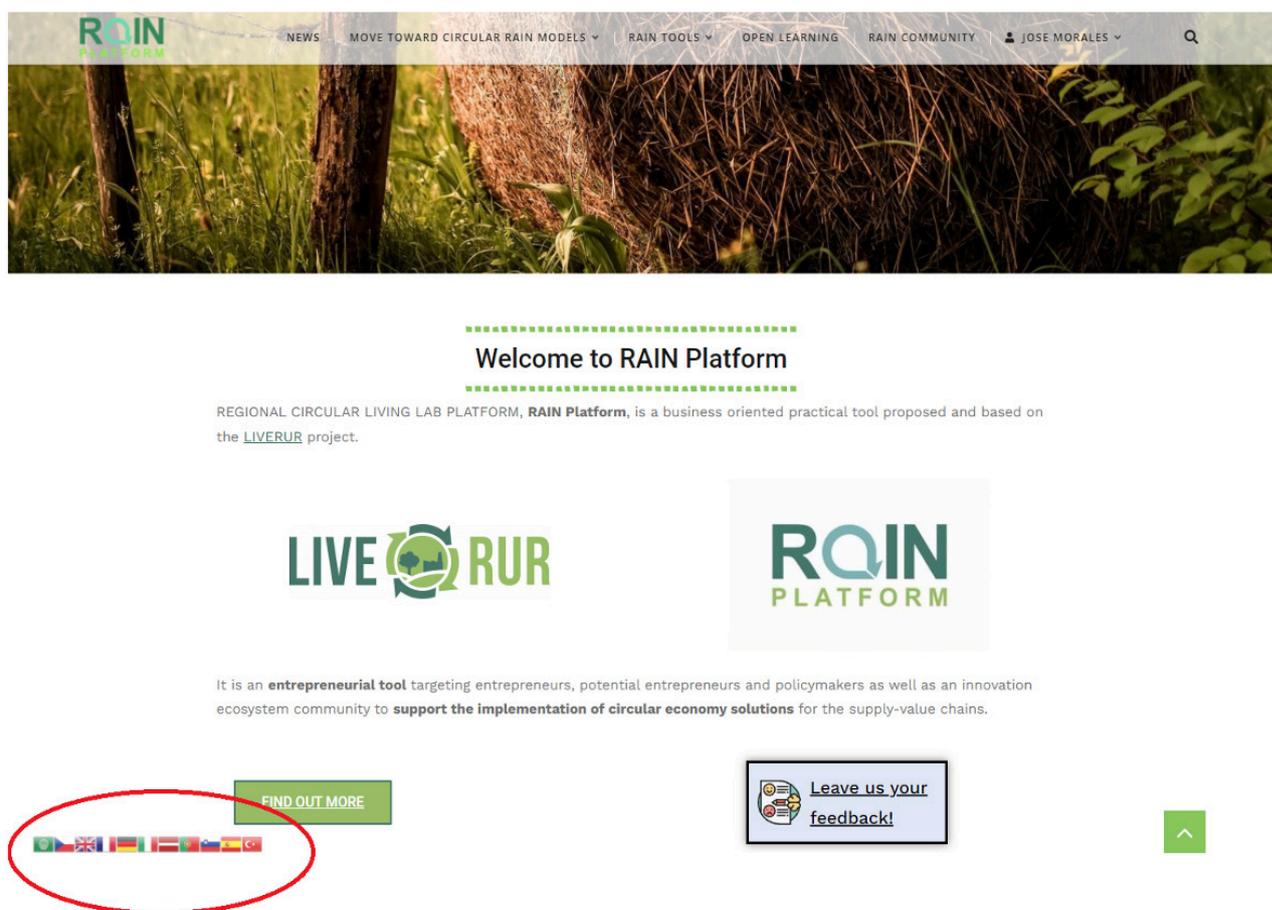
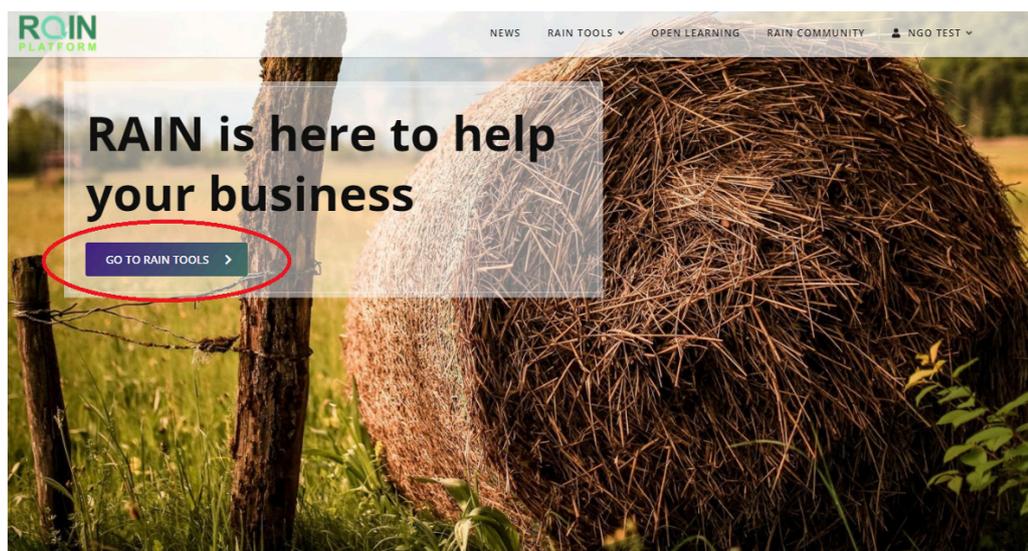


FIGURE 1. DETAIL OF THE POSITION OF THE TRANSLATION BAR

II.1.1 Homepage

Improvements detected	Status
Homepage looks too long and with too much text include pop-up windows which will invite visitors to register and shorten the length.	Less text is now included in the homepage, some new buttons are added to direct users to some sections such as Rain Tools. (Figure 2)



.....
Welcome to RAIN Platform
.....

REGIONAL CIRCULAR LIVING LAB PLATFORM, **RAIN Platform**, is a business oriented practical tool proposed and based on the **LIVERUR** project.



FIGURE 2. SIMPLIFIED HOME PAGE WITH DIRECT ACCESS BUTTON TO RAIN TOOLS

Link the information to European open calls. Link to Green Deal, CAP, etc.	Links added in the Open Learning section as additional resources in each of the fields included. Available only after registration as indicated in the platform. (Figure 3)
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FIGURE 3. LINKS TO FURTHER INFORMATION INTO OPEN LEARNING SECTION

Create different entry points to the public information depending on the different user-types	Public and private areas accordingly to the user profile: Policy Maker (Research Institution, NGO, Policy Maker) or Company (SME, Large company, freelancer) different sections are displayed. See figure Figure 4, Figure 5, Figure 6 for details.
--	---

FIGURE 4. PUBLIC AREA MENU BAR

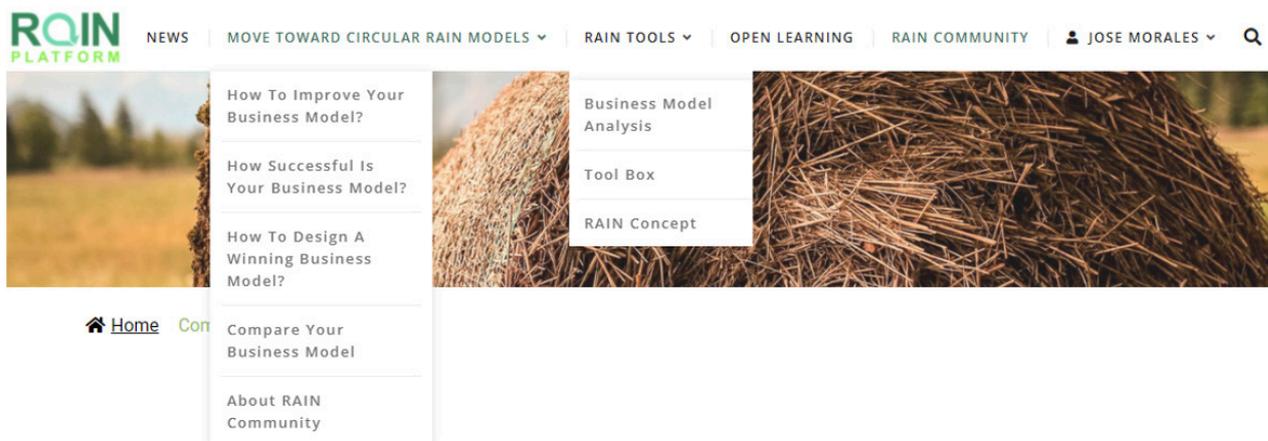


FIGURE 5. PRIVATE AREA COMPANY PROFILE MENU BAR

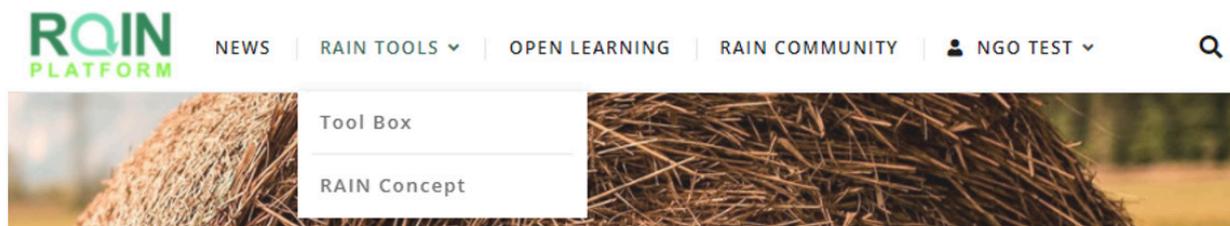


FIGURE 6. PRIVATE AREA POLICY MAKER PROFILE MENU BAR

II.1.2 Registration page

Improvements detected	Status
Birth date not needed. Birth date is too personal data. Include instead a drop-down menu: under 20; 21-30; over 30.	This item was removed from the registration.
Find a way to address the “region/province” in small countries.	A box for completing the region/province was added in the registration. (Figure 7)

FIGURE 7. REGION/PROVINCE BOX INCLUDED INTO THE RESGISTRATION PROCEDURE

The “Activity Start” date is not necessary and it can be confusing for the user.	This item was removed from the registration.
Place all the compulsory boxed to fill in the beginning of the page.	Done, all the compulsory boxes are placed and grouped at the beginning of the registration procedure. (Figure 8)

FIGURE 8. COMPULSORY BOXES GROUPED AT THE BEGINNING OF THE REGISTRATION PROCEDURE

Add different roles. Change the position into role.	Changed to role. It is a not compulsory item for the registration. (Figure 9)
--	---

FIGURE 9. POSITION BOX CHANGED TO ROLE BOX

II.2 Private Area

II.2.1 Private Area: News and Enhance your business

Improvements detected	Status
<p>In the beginning of the “Enhance your business” section, the three buttons stand alone. The user expects them to have hyperlinks. The Icons “Analyze your existing business models”/”Apply living labs”/”Improve your business models”, should forward the user to the page Business model analysis.</p>	<p>The section is renamed as “Move toward circular rain models”. The animation of the icons is removed, the five subsection with hyperlinks to the corresponding content are included and are displayed in an easy way to click them. (Figure 10)</p>

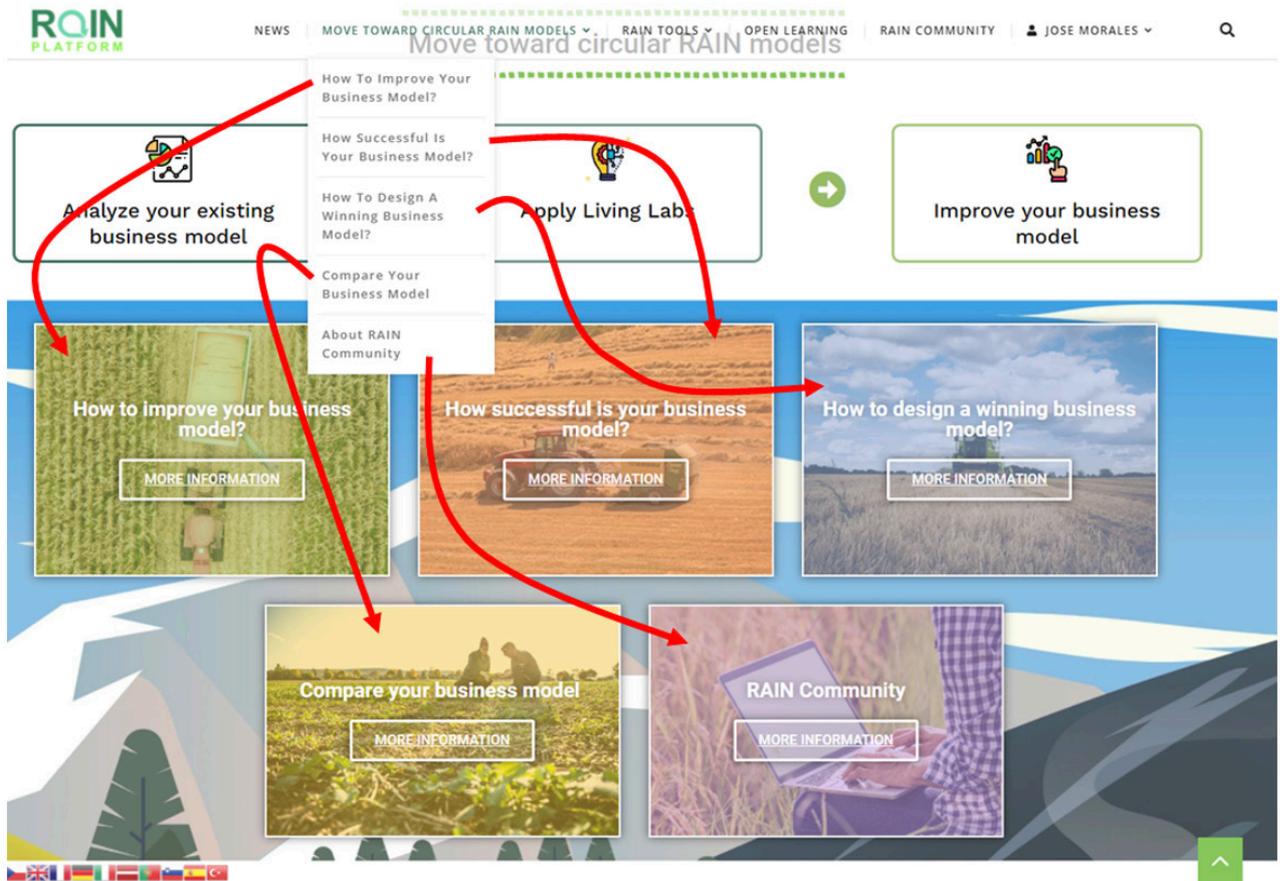


FIGURE 10. NEW HYPERLINKS TO MOVE TOWARDS CIRCULAR RAIN MODELS SECTION

Change the name of the section “Evaluate your Business model”.	Section renamed to “Business Model Analysis”. (Figure 11)
---	---

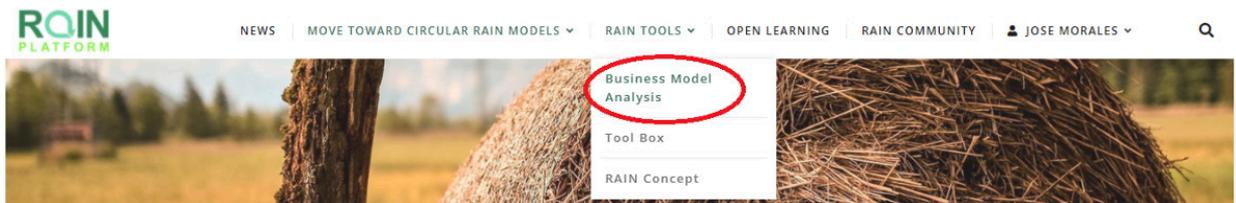


FIGURE 11. SECTION RENAMED, BUSINESS MODEL ANALYSIS

“Improve your business model” section change to “how to build your circular living lab” as the key entry.	Section renamed to “RAIN concept”. (Figure 12)
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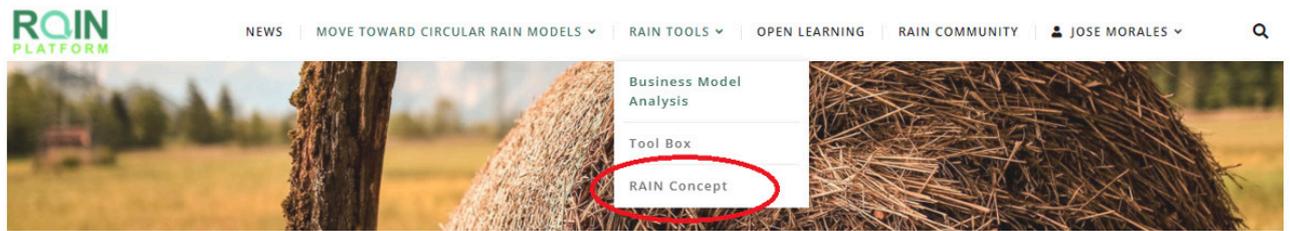


FIGURE 12. SECTION RENAMED, RAIN CONCEPT

<p>Enhance your business section: Button #2: Apply Living Labs, maybe to be renamed to: Toolbox, because it is a bit confusing for the user.</p>	<p>Section renamed to "Toolbox". (Figure 13)</p>
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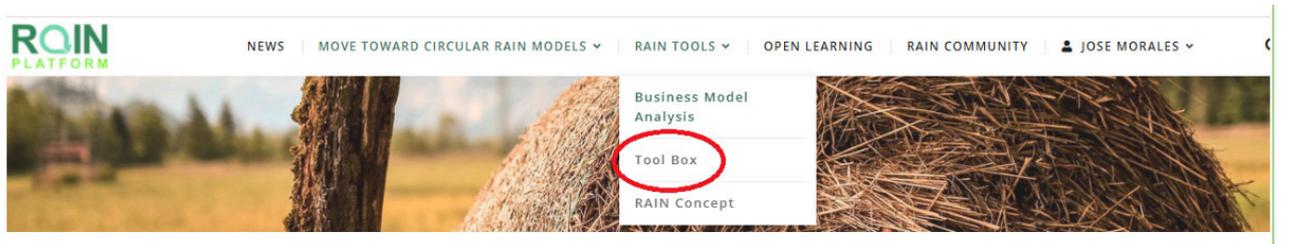


FIGURE 13. SECTION RENAMED, TOOL BOX

II.2.2 Private Area, Tools: Business Model Analysis.

Improvements detected	Status
<p>The Tools should open in a different window, so people don't have to leave the Toolbox to consult a tool.</p>	<p>Recommendations for the business are displayed in a different window. (Figure 14)</p>

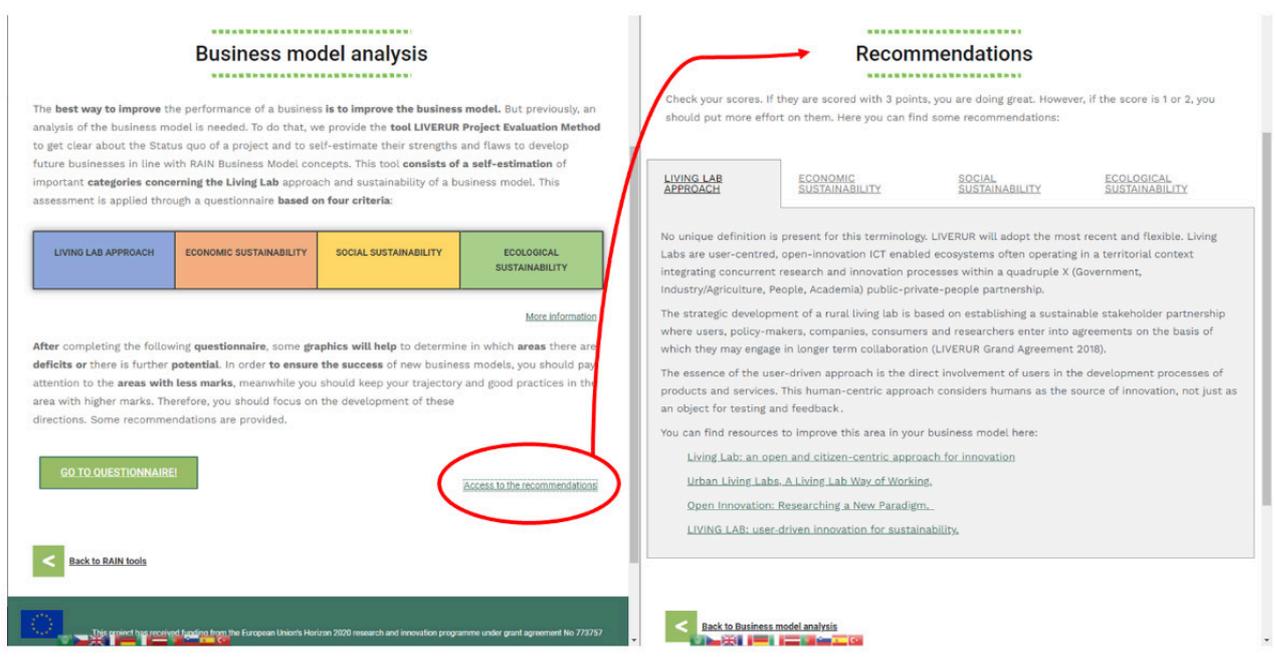


FIGURE 14. NEW WINDOW TO OPEN RECOMMENDATIONS

II.2.3 Private Area, Tools: Toolbox and RAIN Concept

Improvements detected	Status
Keep the menu all the time visible.	Done. (Figure 15)
Include more colors in the boxes of the toolbox, not just green.	Done. (Figure 15)
Reduce blank space in the text of the Toolbox page.	Done. (Figure 15)

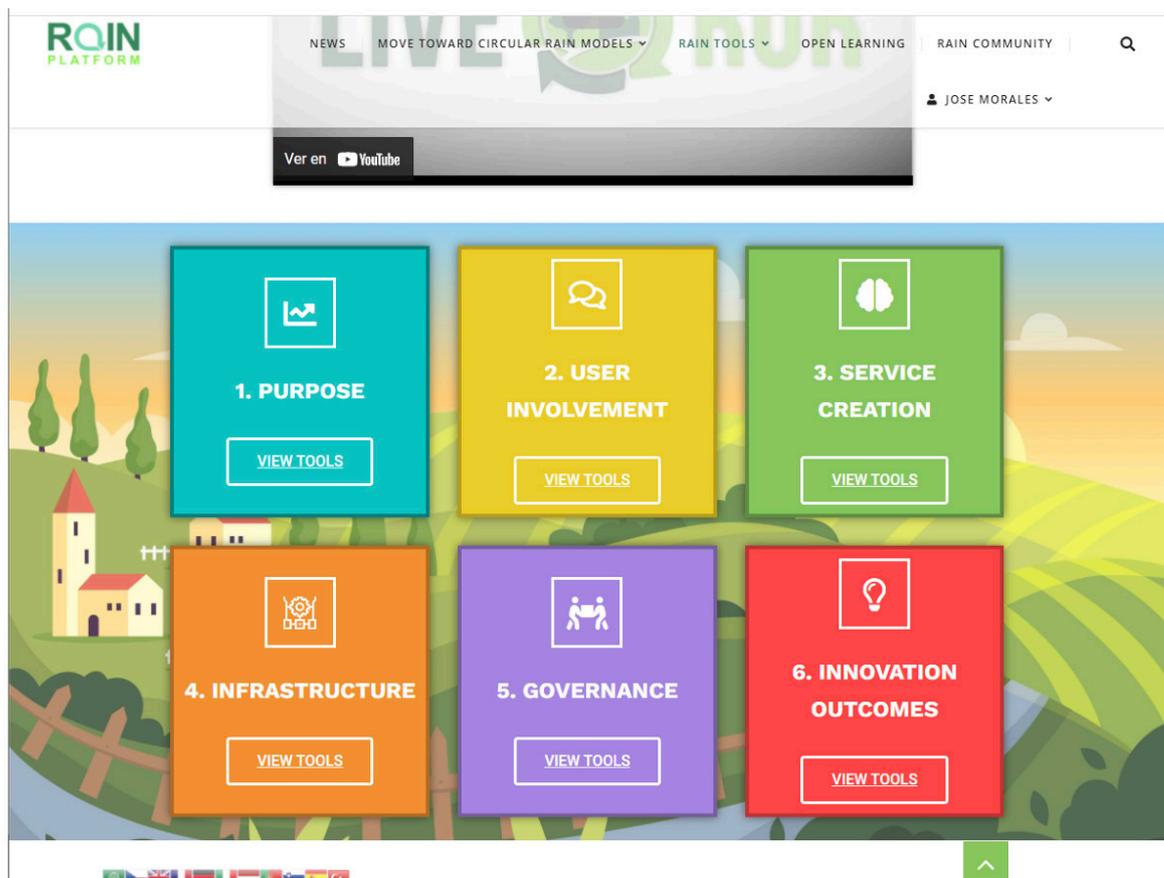


FIGURE 15. IMPROVEMENTS IN THE TOOLS OF THE PRIVATE AREA

II.2.4 Private Area, Tools: Link between the business model analysis and the toolbox

Improvements detected	Status
When the user finishes the questionnaire there are only external links but no indication on what LIVERUR tool to use to improve each of the indicators.	Once the business model analysis is completed by the user, some links will be displayed accordingly to each criterion of the analysis. Each link will refer to specific tool that can improve the evaluation of the associated criterion. This section will be added accordingly to next table.

LIVING LAB APPROACH		
Criterion	Points	Link to tool
User-centered	0-2	/user-involvement/stakeholder-database/ /user-involvement/target-group/ /user-involvement/personas/
	2-3	/user-involvement/interview/ /user-involvement/people-shadowing/ /innovation-outcomes/liverur-project-evaluation-tool/
Multi-actor approach	0-2	/user-involvement/stakeholder-matrix/
	2-3	/user-involvement/people-connections-map/ /user-involvement/brainstorming-toolbox/ /innovation-outcomes/liverur-project-evaluation-tool/
Level of engagement & participation	0-2	/purpose/mind-map/ /user-involvement/brainstorming-toolbox/
	2-3	/user-involvement/workshops/ /infrastructure/action-catalogue/ /innovation-outcomes/gap-analysis/ /innovation-outcomes/liverur-project-evaluation-tool/
Openness	0-2	/user-involvement/stakeholder-database/ /user-involvement/stakeholder-matrix/
	2-3	/service-creation/users-offerings-map/ /infrastructure/testing-spaces/ /infrastructure/online-collaboration-tools/ /innovation-outcomes/liverur-project-evaluation-tool/

Real-life setting	0-2	/user-involvement/workshops/
	2-3	/service-creation/rain-concept-tool/ /purpose/living-lab-worksheet/ /infrastructure/testing-spaces/ /innovation-outcomes/li-verur-project-evaluation-tool/
Technological integration	0-2	/infrastructure/online-collaboration-tools/ /infrastructure/web-analytics/
	2-3	/innovation-outcomes/technology-readiness-level/ /innovation-outcomes/li-verur-project-evaluation-tool/
ECONOMIC SUSTAINABILITY		
Criterion	Points	Link to tool
Innovation or type of innovation	0-2	/innovation-outcomes/design-thinking/
	2-3	/governance/learning-loop/ /governance/causes-diagram/ /governance/spider-web/ /innovation-outcomes/life-cycle-assessment/ /innovation-outcomes/li-verur-project-evaluation-tool/
Regional Conditions	0-2	/purpose/swot-analysis/ /purpose/problem-solution-fit/
	2-3	/purpose/theory-of-change/ /innovation-outcomes/li-verur-project-evaluation-tool/
Resources	0-2	/governance/marketing-mix/
	2-3	/governance/scaling-plan/ /innovation-outcomes/technology-readiness-level/ /innovation-outcomes/li-verur-project-evaluation-tool/

SOCIAL SUSTAINABILITY		
Criterion	Points	Link to tool
Climate action & biodiversity	0-2	/service-creation/value-proposition-canvas/
	2-3	/purpose/living-lab-worksheet/ /innovation-outcomes/liverur-project-evaluation-tool/
Sustainable resource management	0-2	/purpose/problem-solution-fit/ /purpose/swot-analysis/
	2-3	/purpose/living-lab-worksheet/ /innovation-outcomes/liverur-project-evaluation-tool/
Products & material regeneration	0-2	/service-creation/business-model-canvas/ /service-creation/value-proposition-canvas/
	2-3	/service-creation/lean-model-canvas/ /innovation-outcomes/liverur-project-evaluation-tool/
Responsible production & consumption	0-2	/service-creation/business-model-canvas/
	2-3	/innovation-outcomes/evidence-planning/ /innovation-outcomes/liverur-project-evaluation-tool/

TABLE 1. BUSINESS MODEL ANALYSIS AND TOOLS LINKED

II.2.5 Private Area, Open Learning

Improvements detected	Status
Include the year when the webinar was developed and more information such as last viewed and number of views.	This data are available in the Youtube channel where the video is uploaded. (Figure 16)

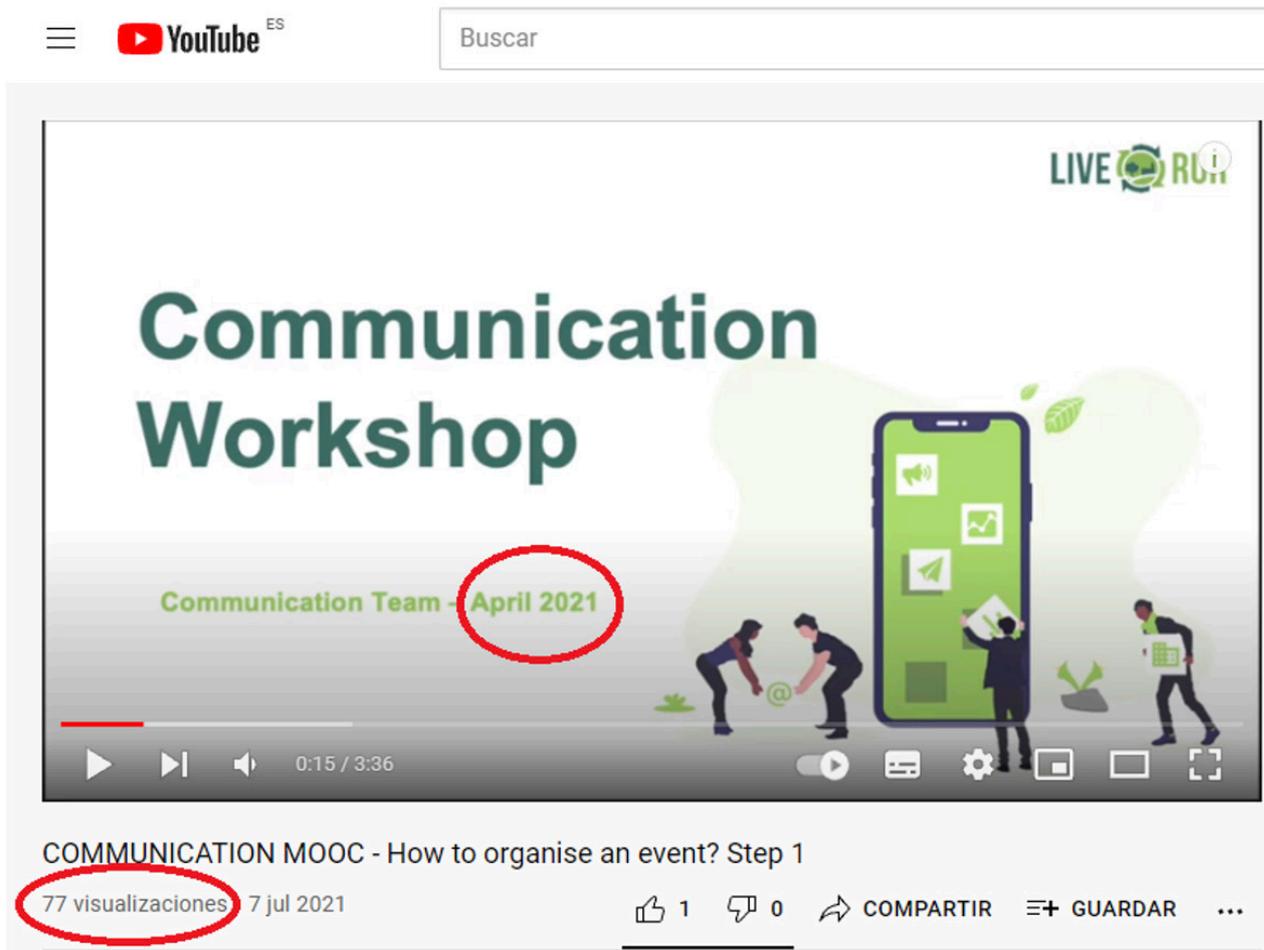


FIGURE 16. INFORMATION EMBEDDED IN YOUTUBE ABOUT LIVERUR'S MOOCS

<p>Create a LIVERUR Webinar on how to use RAIN Concept (or other tools). Promote the webinars created by LIVERUR partners or similar not so much external links or third parties' tutorials about the concepts.</p>	<p>New section created: LIVERUR MOOCs. Webinars made by the partners of the project are placed in this section as well as additional resources. (Figure 17)</p>
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LIVERUR MOOCs

In this section you will find a MOOC (Massive Online Open Courses), is not only an online course that can be accessed by anyone, but the creation of an agile environment, both in its design and content and oriented to the market (new sources of income, relations with the company and orientation of the applied research to the market). It consists, therefore, in developing online videos, readings, forums and tests to control the evolution of the learning of the participants

 <u>Communication Workshop</u> 	<p>The Communication MOOC is about the necessary steps to make a communication workshop. Inside these contents we will explain the aim and the format of the event and the different phases to create an event. In addition, not only will we describe the vital communication resources but we will also give an example about one event of our partner ADRI.</p>
 <u>The Rain Platform</u> 	<p>The REGIONAL CIRCULAR LIVING LAB PLATFORM, RAIN Platform, is a business-oriented practical tool proposed and based on the LIVERUR project. It is an entrepreneurial tool targeting entrepreneurs, potential entrepreneurs and policymakers as well as an innovation ecosystem community to support the implementation of circular economy solutions for the supply-value chains.</p>
 <u>ToolBox</u> 	<p>Goals of the toolbox: Introduce tools to help setting up a Living Lab; Identify tools to help users of the Living Lab; Have flexible tools, adjustable case-by-case; compile easy and ready to use tools; Learn good practises; Import tools from other tested toolboxes.</p>

FIGURE 17. LIVERUR MOOCs

<p>PPT of the platform to be prepare, which partners can use during their workshops. Must also explain the structure and guidance to the use of the site.</p>	<p>The ppts presentations can be downloaded as pdfs documents. In addition, in the platform a PDF viewer for the main documents has been added. (Figure 18)</p>
--	---

Documentation



FIGURE 18. PDF FILE AVAILABLE FOR THE RAIN PLATFORM

<p>Automate MOOCs Certification procedure</p>	<p>This procedure will be automated, instead of sending an email to liverurcom@ucam.edu. The user will be asked at the beginning of the questionnaire if he/she wants a certificate of the MOOC completion successfully. In this case the user has to be registered, so that if the MOOC is successfully passed, a certificated document will be generated using data from registration procedure.</p>
--	--

II.2.6 Private Area, Rain Community

RAIN Community is divided into 5 sections: Forums, Members, Recent Posts and My Profile.

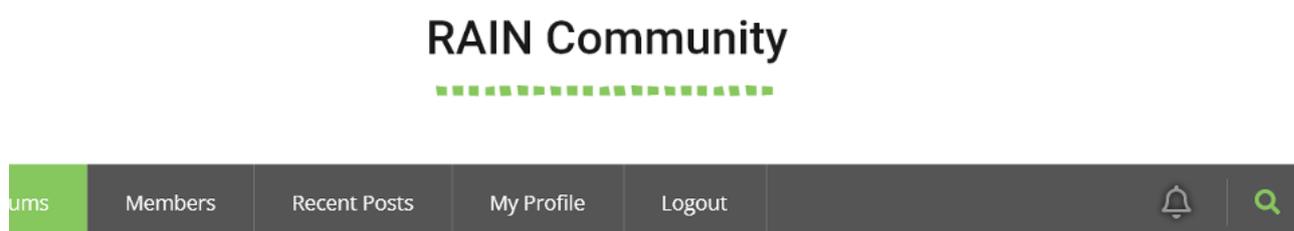


FIGURE 19. RAIN COMMUNITY SECTION

- **Forums:**

Currently the Rain Community's forum sections is organised into 1 Main Forum and 14 specific discussions threads (Azores Archipelago, Bretagne, Central Region of Malta, Comprensorio del Trasimeno, Eastern Slovenia, Jihozápadní Čechy, Latvia, Ouedhref, Pays de la Loire, Province of Reggio Emilia, Südburgenland, TR33 Region, Western Slovenia and Vega del Segura); this structure aims to focus into concrete topics to make have a Question and Answer section where the RAIN community can interact fluently.

To increase the participation among RAIN community and also interaction among users with the Advisory Board and External Experts is decided to create 2 new threads, devoted specifically to promote this communication between experts and users.

Additionally this new discussion forum will be promoted into different dissemination actions and workshops proposed in LIVERUR project.

- **Members:**

In members section is possible to revise basic information about the users of the platform: avatar, rating, number of posts, and registration date. Also is possible to check the complete profile of the user and to send directly a message to communicate with the user.

- **Recent Posts:**

Check the latest posts into the forums.

- **My Profile:**

To revise each user's activity, account information and subscriptions to forums.

At the end of the section is added a forum statistics area to check some metrics of use of the forums and a legend of icons used. The next figure shows the current statistics of the platform.



FIGURE 20. FORUM STATISTICS

II.3 Secure registration process

As part of the quality process linked to the correct running and maintenance of the RAIN Platform, new users registration is periodically inspected, thank to this inspection a cyberattack classified as DoS (Denial of Service) attack has been detected. Through this attack the perpetrator aims to make a service unavailable to valid users by temporary or even definitively disrupting services of a host connected to the internet, overloading the system with an excess of request that the service cannot handle.

In this case the attack has consisted into bots that have created hundreds of new members of the RAIN platform, making it unavailable to trusted users.

The solution consists on the implementation of a Recaptcha plugin to avoid this kind of fraudulent registration.



Username * <input type="text"/>	Company name * <input type="text"/>
E-mail Address * <input type="text"/>	Type of company * Choose account type <input type="button" value="v"/>
Password * <small>?</small> <input type="password"/>	Country * Choose a Country <input type="button" value="v"/>
Confirm Password * Confirm Password <input type="password"/>	Region / Province Seville <input type="button" value="v"/>
First Name Jose <input type="text"/>	Role <input type="text"/>
Last Name Morales <input type="text"/>	Website URL <small>?</small> https:// <input type="text"/>
Activity description <input type="text"/>	
<div style="border: 2px solid red; border-radius: 50%; padding: 10px; display: inline-block;"><input type="checkbox"/> I'm not a robot  <small>reCAPTCHA Privacy - Terms</small></div>	
<input type="button" value="Register"/> <input type="button" value="Login"/>	



Additionally, a script is executed periodically to search, detect and eliminate this kind of bot users accordingly to email patterns:

```
1delete wp_users, wp_usermeta 2from wp_users inner join wp_usermeta on wp_usermeta.user_id = wp_users.ID 3and wp_users.user_email like '%clicktids%';
```