



Deliverable D4.2

FIREPRIME implementation plan in SP Pilot

WP - Task	WP4 Task 4.2	Version (1)	Final
Code (file name)	D4.2_FIREPRIME_Evaluation_SP	Dissemination level (2)	Public
Programmed delivery date	31/10/2025	Actual delivery date	31/10/2025

Document coordinator	Elsa Pastor (UPC)
Contact	elsa.pastor@upc.edu EEBE (UPC)– Eduard Maristany 16. 08019 Barcelona, Catalonia. Ph. +34 934011090
Authors	Elsa Pastor (UPC), Pascale Vacca (UPC), Simona Dossi (UPC), Guillem Canaleta (PCF), Maria Cifre (UOC), Israel Rodríguez (UOC)
Reviewed by	Eulàlia Planas (UPC)
Abstract	This deliverable presents the evaluation of the implementation of the FIREPRIME program in the Sant Cugat (Spain) pilot. The pilot applied the three streams of FIREPRIME—household fire safety, community engagement and education, and resilient infrastructures—through a coordinated set of activities involving residents, Civil Protection units, volunteer fire brigades (ADF), youth organizations, and industrial stakeholders. The evaluation indicates that the program was well received by local actors and generated significant improvements in wildfire awareness, preparedness, and collaboration across the territory. The smartphone app and household assessment training supported capacity-building among both residents and emergency volunteers. Community-focused activities proved highly effective in fostering learning, participation, and awareness. The resilient infrastructure risk assessment demonstrated relevance for industrial facilities. Some limitations were identified, including the need for clearer implementation guides, facilitator training pathways, and streamlined tool usability. Overall, the Sant Cugat pilot shows strong potential for continuity and scalability, offering a transferable model for municipalities and regions facing similar WUI fire challenges.

(1) Draft / Final

(2) Public / Restricted / Internal

Disclaimer

FIREPRIME is co-funded by the European Union. Views and opinions expressed in this document are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the granting authority can be held responsible for them.

Table of Contents

1. Introduction	4
2. Summary of the FIREPRIME implemented activities in Sant Cugat	5
3. Household fire safety stream evaluation	7
3.1. Household risk assessment –training and testing with local agencies	7
3.2. FIREPRIME risk assessment questionnaire (App) testing with homeowners	10
4. Community engagement and education stream evaluation	13
4.1. Wildfire Preparedness Day – 1	13
4.2. The FIREPRIME Challenge Race	19
4.3. Scouts wildfire response video	23
4.4. Wildfire Preparedness Day – 2	26
5. Resilient Infrastructures stream evaluation.....	31
5.1. Site visit to industrial chemical storage plant for hazard identification	31
5.2. Wildfire risk assessment guidelines testing for the chemical industry	33
6. Conclusions of the FIREPRIME evaluation in the SP pilot	37

1. Introduction

FIREPRIME (2024 – 2025) is a project funded by the European Union Civil Protection Mechanism (UCPM) programme under the UCPM-2023-KAPP-PREV call. Many of the wildfires that take place in Wildland-Urban interface (WUI) areas involve extremely complex civil protection challenges. On the one hand, the population experiences threats to their lives and property, highlighting a widespread lack of wildfire risk awareness and preparedness of affected communities. On the other hand, emergency services are often immersed in scenarios where emergency management involves both wildfire suppression and protecting people and property.

It is in this context that the FIREPRIME project seeks to lay the foundations of a European program that promotes wildfire risk culture and resilience among communities, with a civil protection perspective. FIREPRIME is developed in three different regions of the EU, in close collaboration with local authorities and communities. The case study of the Mediterranean is in Barcelona region, specifically in the urbanizations of La Floresta and Sol i Aire in Sant Cugat del Vallès. The other two case studies are found in Austrian Tyrol (Central Europe) and the Gothenburg region (Northern Europe).

Through FIREPRIME, a set of risk awareness and assessment tools, named as FIREPRIME Toolkit, have been designed and adapted to the EU context, discussed and approved with both authorities and communities, through three streams: homeowner fire safety, community engagement and resilient infrastructures. Through the implementation of the FIREPRIME Toolkit, the aim is to:

- To promote wildfire resilience and adaptation of homeowners in WUI areas, community engagement and critical infrastructure resilience.
- To foster a wildfire risk culture among affected communities.
- To improve the necessary coordination and risk governance among local and regional authorities and communities.
- To design an EU adapted strategy promoting wildfire risk awareness among WUI communities.

The FIREPRIME toolkit has been tested in the SP pilot following the program design and implementation strategy described in Deliverable D4.1. This document provides details on the evaluation of the activities carried out. It first presents a summary of the activities implemented in the pilot, noting any deviations from the initial schedule (as outlined in Table 2 of Deliverable D4.1). It then includes the evaluation of each stream, focusing on the specific activities conducted within it. The evaluation is organized into three tables: the first presents general information about the activity, the second describes how the activity was carried out, and the third assesses the tools used in each activity. The document concludes with an overall summary of findings and lessons learned, which will support the development of the sustainability and exploitation plan.

2. Summary of the FIREPRIME implemented activities in Sant Cugat

As reported in D4.1, the implementation plan was designed to be carried out between March and October 2025, involving activities to test all the tools developed across the three FIREPRIME streams: household fire safety, community engagement and education, and resilient infrastructures. The plan was tailored to the local wildfire risk context and to the needs of the involved stakeholders. An updated overview of the scheduled and implemented activities, based on Table 2 of D4.1, is presented in Table 1.

Table 1. FIREPRIME Spanish pilot – Implemented activities.

Activity	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov
Household risk assessment method - testing and training with local agencies		5 th							15 th
The FIREPRIME risk assessment questionnaire testing with homeowners		11 th 12 th							
Wildfire Preparedness Day – Risk Preparedness			17 th						
Wildfire Preparedness Day – Risk Prevention								4 th	
The FIREPRIME Challenge Race	22 nd								
Preparatory session with Scout and video		26 th			22 nd				
Wildfire risk assessment guidelines for the Chemical Industry					22 nd				
TOOLS ASSESSMENT AND IMPROVEMENT									

The overall implementation plan was carried out largely as programmed in D4.1, with only minor adjustments introduced to enhance community engagement and to take advantage of opportunities that emerged during on-site implementation.

The household fire safety activities were carried out as planned during the first half of April 2025, and the results were generally satisfactory. It is worth noting that the risk assessment method, in its final open-access version implemented in the Smartphone App, will be tested again in the Sant Cugat neighbourhoods of Sol i Aire and Mas Fortuny in mid-November. Sol i Aire had already participated in the initial testing phase and expressed strong interest in providing final feedback on the completed version of the App. Mas Fortuny, which was not originally included among the FIREPRIME pilot areas in Sant Cugat, became aware of the project after the Preparedness Day event and requested to begin benefiting from the FIREPRIME tools.

In addition, within this stream, two activities were merged into a single one (“Household risk assessment method – testing and training with local agencies”), combining “The FIREPRIME risk assessment questionnaire testing with local and regional authorities” and “Advanced home assessment training for local volunteers,” as originally reported in Table 2 of D4.1. This decision was made to optimise time and ensure more efficient delivery while maintaining the intended outcomes of both activities.

As for the community engagement and education stream, the planned activities also underwent some changes regarding the work with the La Floresta Scout group. During the pilot planning phase, the following activities were initially scheduled: a challenge race and the “Mediterranean Forest Fire and You” activity. However, after completing the challenge race on March 22, the scouts chose to skip the second planned activity and instead design and implement their own activity based on the lessons learned during that event. They created a short film simulating a wildfire approaching their WUI neighborhood in La Floresta, first showing incorrect responses and then presenting a documentary-style reflection explaining the correct actions. The scouts themselves wrote the script, organized logistics, filmed, and edited the video. The final product was later shared with younger members of the group to further raise awareness. Although not originally planned, the initiative is considered a success by the FIREPRIME consortium due to its strong youth engagement and its potential to be replicated by future scout groups. As for the FIREPRIME Preparedness Days, they were carried out as planned, both in terms of dates and format.

The last stream, focused on resilient infrastructures, involved the risk assessment guideline for the chemical industry. This tool was successfully tested at SVC at the end of July. The testing process included a preliminary meeting on January 30th, 2025, during which the FIREPRIME program was presented to SVC management and the site was visited. This preparatory activity was key for engaging stakeholders and ensuring that their input informed the development of the tool.

Finally, based on the feedback received during the testing phase, all tools have undergone refinement in terms of structure, content, format, and design. They are currently being finalized and uploaded to the FIREPRIME IT platform. By the end of the project, all tools will be fully available.

3. Household fire safety stream evaluation

3.1. Household risk assessment –training and testing with local agencies

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	Household risk assessment method - training and testing with local agencies
<i>Tools used</i>	FIREPRIME Homeowner Wildfire Risk Assessment Questionnaire FIREPRIME Smart Phone App FIREPRIME Advanced Home Assessment Training
<i>Place</i>	Centre Social i Sanitari de la Floresta, Sant Cugat del Vallès, Barcelona, Spain.
<i>Date</i>	April, 5 th , 2025. From 10h to 13:30h
<i>Facilitators</i>	P. Vacca (UPC), E. Pastor (UPC), M. Codina (UPC), M., Oriol, (UPC), L. López (UPC), I. Rodríguez (UOC), G. Canaleta (PCF).
<i>Evaluation methodology</i>	On-site feedback was collected through structured conversations, observations, and questionnaires addressing usability, navigation, information access, and display.



Figure 1. Home assessment training with Civil Protection technicians of the Sant Cugat municipality



Figure 2. FIREPRIME Smart Phone App testing

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	20 people
<i>Profile</i>	Civil Protection (CP) Technicians from Sant Cugat municipality and members of the Forest Defense Associations (ADF), which are local volunteers in charge of fire prevention and initial response.
Activity implementation	
<i>Was the general objective achieved?</i>	<p>The main objective of this activity was to gather feedback on the overall household fire safety stream from the local CP unit and the local ADF, in order to refine the tools.</p> <p>The general objective was fully achieved.</p>
<i>Were the specific objectives achieved?</i>	<p>The specific objectives were to test the first version of the smartphone app and to conduct and evaluate the training designed for these groups on how to assist residents in performing an advanced household assessment using the app. For this purpose, we used the risk assessment questionnaire and supporting material (PowerPoint) during the training block, and the first version of the app during the testing block.</p> <p>The specific objectives were fully achieved.</p>
Engagement	
<i>How engaged where the target groups before and during the activity?</i>	Both the CP unit and the ADF were highly engaged throughout the organization of the activity. Communication with them was easy, and they promptly registered for the session. During the activity, their attitude was excellent—they were fully committed and provided very constructive feedback.

<i>Challenges maintaining the engagement?</i>	None
Effectiveness	
<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	Yes, they were. The time allocated was sufficient to carry out all planned activities, and the materials prepared proved to be very useful.
<i>How successful was the activity approach?</i>	The activity was successful. We obtained the information we needed from the participants and received sincere appreciation from them afterward.
Unexpected factors	
<i>Did you encounter any setback?</i>	No
<i>If yes, explain adaptation/mitigation measures</i>	--
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	It certainly is. The CP unit of Sant Cugat is interested in using the smartphone app more widely within their communities to better understand structural vulnerabilities. This can be supported through the advanced home assessment program carried out by trained personnel from the CP unit and the ADF. They now have the foundation and materials to repeat this activity on a regular basis.
<i>Is this an activity that can be easily replicated in other regions?</i>	Surely. The materials for the advanced home assessment program can be easily adapted using the basic resources that will be uploaded to the FIREPRIME IT tool.
Conclusions	
<i>Activity strengths</i>	The activity was well organized and highly engaging for participants. The collaboration between the CP unit and the ADF proved effective, and the tools and materials used were appropriate and useful.
<i>Activity weaknesses</i>	Not detected
<i>Potential measures to address the weaknesses</i>	Not detected

SECTION 3. TOOLS ASSESSMENT	
<i>Tool strengths</i>	Based on the feedback collected, the smartphone app proves to be an effective tool for local fire risk managers to assess wildfire risk within their communities and to promote preventive actions at the household level. Participants in the activity considered it a valuable resource for supporting residents and enhancing community preparedness.
<i>Tools weaknesses</i>	Regarding the app, minor refinements were detected to be needed to enhance its usability and functionality.

	As for the training, adjustments will be required to align with the improvements introduced in the next version of the app. The training should also be adapted to local contexts rather than simply downloaded and applied as is. In addition, local trainers should be prepared to deliver the program to their respective units.
<i>Potential tool improvements</i>	The app is currently being improved, and the next version will be tested again with residents of Sant Cugat. The training cannot be further standardized, as it needs to be adapted to local contexts to remain effective and relevant.

3.2. FIREPRIME risk assessment questionnaire (App) testing with homeowners

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	The FIREPRIME risk assessment questionnaire testing with homeowners
<i>Tools used</i>	Smart Phone App (Beta version)
<i>Place</i>	La Floresta and Sol i Aire communities
<i>Date</i>	11th April (La Floresta) 12th April (Sol i Aire)
<i>Facilitators</i>	E. Pastor, P. Vacca, G. Canaleta, M. Codina
<i>Evaluation methodology</i>	The tool was tested on a house-by-house basis, with feedback obtained orally and documented by hand.



Figure 3. FIREPRIME Smartphone App testing in Sol i Aire. In the photo (from left to right): a resident, an ADF volunteer, and a member of the FIREPRIME consortium taking notes on the feedback.



Figure 4. FIREPRIME Smartphone App testing in Sol i Aire. In the photo we can see the residents and the volunteers interacting.

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	4 residents in La Floresta and 4 residents in Sol i Aire. 6 volunteers from CProtection Unit of Sant Cugat to help residents do the assessment.
<i>Profile</i>	The group of residents was diverse, spanning different ages and levels of awareness regarding wildfire risk.
Activity implementation	
<i>Was the general objective achieved?</i>	The main objective was to gather residents’ feedback on the usability and usefulness of the smartphone app, and this objective was successfully achieved.
<i>Were the specific objectives achieved?</i>	The specific objective was to evaluate the app’s usability, navigability, and user-friendliness, as well as to assess how the trained volunteers (from the Civil Protection Unit and ADFs) supported residents in using the app. Specific objectives were fully achieved.
Engagement	
<i>How engaged were the target groups during the activity?</i>	They were fully engaged throughout the activity. The community leaders did an excellent job selecting neighbours who had a genuine interest in testing the app.
<i>Challenges maintaining the engagement?</i>	None
Effectiveness	
<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	Yes
<i>How successful was the activity approach?</i>	Very successful.
Unexpected factors	

<i>Did you encounter any setback?</i>	No
<i>If yes, explain adaptation/mitigation measures</i>	--
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	Ideally, with the final version of the Smartphone App, no additional testing will be required. However, further testing is recommended if the tool is updated, either in terms of the risk assessment algorithm or the app’s navigation features. In addition, the assessment with volunteers can be easily replicated, provided that they receive appropriate training.
<i>Is this an activity that can be easily replicated in other regions?</i>	This activity can certainly be replicated in Mediterranean countries, Scandinavia, and Central European countries.
Conclusions	
<i>Activity strengths</i>	It is important to select in advance the residents who will test the app, ensuring they are genuinely interested and willing to engage, as was successfully done in this case.
<i>Activity weaknesses</i>	The testing process requires time and patience, and not all residents may be prepared for this.
<i>Potential measures to address the weaknesses</i>	Testers should therefore be informed beforehand that completing the Smartphone App assessment will require a certain amount of time.

SECTION 3. TOOLS ASSESSMENT	
<i>Tool strengths</i>	During the assessment, we were able to see how the Smartphone App accounts for the specific characteristics of each home, providing residents with tailored feedback based on the condition and vulnerabilities of their property.
<i>Tools weaknesses</i>	We also observed that some questions in the tool require a certain level of expertise in wildfire risk.
<i>Potential tool improvements</i>	We identified the need to include two modules in the App: one for a basic assessment and another for a more advanced evaluation. Moreover, we also observed that it would be beneficial for residents to have access within the App to key safety messages and guidance on what to do in case of a wildfire, tailored to the specific context of each pilot area.

4. Community engagement and education stream evaluation

4.1. Wildfire Preparedness Day – 1

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	<i>Preparem-nos!</i> (Preparedness day)
<i>Tools used</i>	Presentations, Q&A session
<i>Place</i>	Centre Social i Sanitari de La Floresta (Sant Cugat)
<i>Date</i>	May 5 th 2025, from 10:00 to 13:00
<i>Facilitators</i>	Elsa Pastor (UPC), Guillem Canaleta (PCF), Israel Rodríguez-Giralt and Maria Cifre-Sabater (UOC)
<i>Evaluation methodology</i>	Oral feedback was collected from attendees onsite, and an online meeting was held after the event with key stakeholder representatives to gather additional feedback.

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	40 people
<i>Profile</i>	The participants included the Firefighters (Bombers de la Generalitat), professionals and volunteers of Sant Cugat's Civil Protection, volunteers of the Forest Defence Association (ADF), members of the Directorate General for Civil Protection of the Government of Catalonia (Direcció General de Protecció Civil de Catalunya), residents of communities exposed to wildfire risk in Collserola (such as Sol i Aire and La Floresta), and the FIREPRIME Catalonia consortium team.
Activity implementation	
<i>Was the general objective achieved?</i>	<p>The Preparedness Days were conceived as strategic milestones within the community engagement and education stream of the FIREPRIME project. Their purpose was not only to raise awareness but also to create structured opportunities for dialogue, trust-building and co-production of knowledge among communities at-risk and key institutional actors.</p> <p>This first activity aimed to strengthen local preparedness networks and support the emergence of communities of practice around wildfire risk. It focused on presenting the FIREPRIME project to the involved communities, providing an interactive forum and fostering networking among participants. The event included presentations of project components and tools, as well as community experiences and self-protection plans. It also sought to situate the initiative within a broader strategy, building on the previous work of consortium partners and institutions such as Civil Protection and the Firefighters.</p> <p>The session concluded with an open debate and a light reception, which further encouraged exchange and connection between participants.</p> <p>The general objective was successfully achieved.</p>

<p><i>Were the specific objectives achieved?</i></p>	<p>The specific objectives of this first Preparedness Day were to reduce vulnerabilities, foster collaboration among stakeholders, and promote better circulation of knowledge related to wildfire preparedness. To meet these goals, the event brought together a diverse group of actors to share their expertise, experiences, and responsibilities.</p> <p>Civil Protection presented their emergency protocols, the Firefighters discussed operational response strategies, and members of the Sol i Aire Self-protection Group shared their own community-based experiences and practices. These contributions provided complementary perspectives, combining institutional knowledge with local experience.</p> <p>The presentations were followed by a question-and-answer session that enabled participants to engage directly with one another, clarify procedures, and strengthen mutual understanding. This interactive exchange proved essential in advancing the objectives of collaboration and shared learning.</p> <p>The specific objectives were achieved.</p>
<p>Engagement</p>	
<p><i>How engaged were the target groups during the activity?</i></p>	<p>The participants were highly engaged and remained attentive throughout the session. At the end of the presentations, several participants asked questions and shared their opinions and concerns.</p>
<p><i>Challenges maintaining the engagement?</i></p>	<p>No significant challenges were encountered. Participants remained engaged and demonstrated a high level of interest in the topic and the presentations.</p>
<p>Effectiveness</p>	
<p><i>Were the logistics of the activity appropriate (time, date, material...)?</i></p>	<p>The selected time and date were appropriate, allowing participants to attend for the entire duration. Although a Q&A session was included, the time allocated proved to be too short given the high level of interest and the number of questions, comments, and exchanges among participants. Extending this interactive segment would have allowed for a richer discussion.</p>
<p><i>How successful was the activity approach?</i></p>	<p>The approach proved to be highly effective for an introductory activity. It created a clear and accessible entry point for participants to understand the FIREPRIME project within its broader strategic and territorial context. By combining institutional presentations with open discussion, the session helped to make the project’s goals and relevance tangible for local communities.</p> <p>The activity also offered a valuable opportunity to highlight and exchange experiences from communities already engaged in wildfire preparedness, while introducing the project to new potential groups, such as the residents of Mas Fortuny. This combination of information sharing and early networking laid the groundwork for stronger collaboration and more participatory engagement in subsequent phases of the project.</p>
<p>Unexpected factors</p>	
<p><i>Did you encounter any setback?</i></p>	<p>NO</p>

<i>If yes, explain adaptation/mitigation measures</i>	--
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	Yes. The activity is replicable in other territories exposed to wildfire risk in Catalonia. Local communities and public administrations demonstrated strong interest, engagement, and the capacity to organise similar events in the future.
<i>Is this an activity that can be easily replicated in other regions?</i>	The activity can be replicated in other regions, provided that effective communication and connections already exist among the relevant stakeholders. In regions where such networks are not established, preliminary work to foster coordination and communication could be required.
Conclusions	
<i>Activity strengths</i>	<p>The activity demonstrated a strong capacity to foster effective communication between project partners and local communities, clearly highlighting the project’s potential and relevance. Providing space for community representatives to share their experiences was particularly valuable in promoting engagement and contributing practical, grounded perspectives to the discussion.</p> <p>A further strength was the deliberate inclusion of a light reception at the end of the session. This was not merely a logistical detail, but a strategic element to encourage informal exchanges and networking. Shared meals and convivial settings often lower institutional barriers, foster trust, and create opportunities for spontaneous conversation and connection. These informal interactions can play a decisive role in consolidating collaborative networks and strengthening the social fabric of emerging communities of practice.</p>
<i>Activity weaknesses</i>	<p>A key lesson from this first iteration is the need to allocate more time to interactive and participatory segments. Reducing the length of institutional presentations and expanding opportunities for dialogue would better match the high level of community interest.</p> <p>Furthermore, the event showed the strategic importance of informal spaces (such as the light reception) in building trust and facilitating organic networking among participants, a valuable complement to formal engagement methods.</p>
<i>Potential measures to address the weaknesses</i>	<p>Future iterations should allocate more time to structured discussion and exchange, ensuring that participatory elements are fully integrated into the event design. This could be achieved by incorporating dialogical and participatory methodologies, such as small-group discussions, scenario-based exercises, or participatory mapping, which allow for more in-depth interaction and a broader diversity of voices.</p> <p>Strengthening these components would help balance formal presentations with meaningful two-way engagement, further reinforcing trust-building and collaborative learning among participants. It would also enhance the replicability of the</p>

	Preparedness Day format as a participatory tool in other communities.
--	---

SECTION 3. TOOLS ASSESSMENT	
<i>Tool strengths</i>	<p>The Preparedness Day format proved to be a powerful tool for bringing together a diverse range of stakeholders and creating a shared space for dialogue around wildfire risk. It allowed for the clear presentation of measures and instruments being implemented, while simultaneously facilitating direct engagement between institutional actors and local communities.</p> <p>The active involvement of all relevant parties, including firefighters, Civil Protection, local authorities and community groups, enabled a more holistic understanding of the challenges at stake. This collaborative, multi-actor structure is a key strength of the format, as it lays the groundwork for building trust, aligning perspectives and identifying shared priorities for action.</p>
<i>Tools weaknesses</i>	<p>The main limitation of the Preparedness Day format in this first iteration was the insufficient time allocated to dialogue, experience-sharing, and collective reflection. While the presentations by professionals and officials provided valuable information, their length left limited space for the interactive exchanges that community participants clearly expected and valued.</p> <p>This imbalance between one-way communication and participatory engagement reduced the potential of the format to fully leverage its collaborative dimension. Addressing this limitation would enhance both the quality of interaction and the sense of shared ownership among stakeholders.</p>
<i>Potential tool improvements</i>	<p>The format could be strengthened by reducing the duration of formal presentations and dedicating more time to participatory and dialogue-based methodologies. This would allow participants to play a more active role and ensure that community knowledge is better integrated into the discussion.</p> <p>Suggested improvements include incorporating small-group activities, scenario-based exercises, participatory mapping, or guided Q&A sessions to foster more balanced exchanges between institutional and community actors.</p> <p>While the event was already successful as a first iteration, this adjustment represents a straightforward and high-impact improvement that would significantly enhance the tool’s capacity to build trust, deepen dialogue, and increase replicability in other contexts.</p>



Figure 5. First Preparedness day at Centre Social i Sanitari La Floresta.



Figure 6. Sol i Aire Self-Protection Group presents at the first Preparedness Day.



Figure 7. Sharing light meals and facilitating informal conversation and networking among stakeholders



Figure 8. Group photo of all attendees

4.2. The FIREPRIME Challenge Race

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	FIREPRIME CHALLENGE RACE
<i>Tools used</i>	Self-protection field guide. Landscape products game. Fire behaviour game. Wildfire readiness game.
<i>Place</i>	La Floresta Scouts facilities
<i>Date</i>	22 nd March 2025
<i>Facilitators</i>	Carla Vilarasau, Júlia Nogués, Ariadna Goenaga
<i>Evaluation methodology</i>	Debriefing with scouts bosses, as well as on site observations by the facilitators during the activity.

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	20
<i>Profile</i>	Scout group between 14 and 16 years old.
Activity implementation	
<i>Was the general objective achieved?</i>	Yes, the general objective was to organize a challenge race with youth community of La Floresta, and it was fully achieved, with the organization of the event with the scouts groups, under an informal educational context.
<i>Were the specific objectives achieved?</i>	Specific objectives were: (1) To engage 15 youth in wildfire risk management and (2) to test four different games. Both were successfully achieved, since 20 youth attended the activity, and the four FIREPRIME games were tested: Self-protection field guide, landscape products game, fire behaviour game, wildfire readiness game.
Engagement	
<i>How engaged where the target groups during the activity?</i>	The target groups were the youth of the neighbourhood. Since it is a non-formal educational context, youth attended the activity by choice, not by obligation. This was key to ensure their full commitment with the activity from the very beginning. The youth were actively participating in the different games of the challenge race, showing interest and questions on the topic.
<i>Challenges maintaining the engagement?</i>	No challenges maintaining the engagement were detected, except from the last 30 minutes of the activity, because it started raining and the last game of each group was done indoors instead of outdoors. Evaluation team considers that this problem was due to the rain, not because of the games and the activity.
Effectiveness	
<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	Yes, it was organized taking advantage of the regular schedule of the scouts, that meet all Saturdays (mornings or afternoons, depending on the week) at their facilities. For them it was an activity run by an

	external (FIREPRIME), that is very close to their current tasks (environment, self-protection, etc).
<i>How successful was the activity approach?</i>	The activity approach was appropriate, since the activity was fun and mainly practical. The approach was a learning by doing, instead of suggesting theoretical concepts.
Unexpected factors	
<i>Did you encounter any setback?</i>	It was planned fully outdoors, but it rained during the last 30 minutes of the activity.
<i>If yes, explain adaptation/mitigation measures</i>	Last 30 minutes were done indoors.
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	Yes. Both the activity as well as the games instructions are available at fireprime.eu, which means that anybody can download them and implement the activity. In addition, the scout bosses liked the activity, and will use the games during the coming years to keep engaging children and youth in wildfire risk management.
<i>Is this an activity that can be easily replicated in other regions?</i>	Yes. Both the activity as well as the games instructions are available at fireprime.eu, which means that anybody can download them and implement the activity.
Conclusions	
<i>Activity strengths</i>	The challenge race and games make learning about wildfire risk fun and interactive. Encourages teenagers to take leadership in community awareness activities. Connects wildfire concepts to local landscapes and products. Collaboration with scouts and municipality ensures community involvement. Activities and materials remain available online and integrated into local programs. It is an activity that can be implemented both under a formal and non-formal education environment.
<i>Activity weaknesses</i>	Lacks qualitative and long-term impact assessment. Some games may attract less interest than others. Requires careful planning, materials, and trained facilitators. Fire behaviour demonstrations need strict supervision.
<i>Potential measures to address the weaknesses</i>	To create a training for educators that would raise basic wildfire risk knowledge among scouts bosses and other profiles such as teachers. To create more games in order to provide more variety to organize the challenge race.

SECTION 3. TOOLS ASSESSMENT

<i>Tool strengths</i>	All tools use hands-on, visual, or decision-based approaches that make complex wildfire concepts easy to understand. Learning by doing approach taking the advantage of an informal context. Together, they address key aspects such as prevention, fire behaviour, readiness, and self-protection.
-----------------------	---

	<p>Activities are adapted for teenagers, encouraging participation.</p> <p>The Landscape products game links wildfire prevention with local land uses and products.</p> <p>The self- protection guide facilitates risk comprehension through a practical analysis.</p> <p>The fire behaviour game is able to keep the interest of youth, through the use of real fire as a training method.</p> <p>The readiness game is an activity that requires physical exercise, which makes it more appealing in some cases.</p>
<i>Tools weaknesses</i>	<p>Self-protection field guide: May feel too static or text-heavy for some teenagers, reducing engagement compared to more interactive activities.</p> <p>Landscape products game: The connection between local products and wildfire prevention may be abstract or difficult for participants to grasp without strong facilitation.</p> <p>Fire behaviour game: Requires strict safety measures and close supervision due to the use of fire or flammable materials.</p> <p>Wildfire readiness game: Decision-making scenarios can oversimplify real emergency situations, limiting the depth of learning.</p>
<i>Potential tool improvements</i>	<p>We do not foresee tools improvement at this point. Some of them require a strong facilitation, and therefore, training educators.</p> <p>Despite some games may look boring, they take more relevance when organized together as a challenge race (with room for both active/hands on and relaxed/technical games combined).</p>



Figure 9. Landscape products game.



Figure 10. Fire behaviour game.



Figure 11. Wildfire readiness game.

4.3. Scouts wildfire response video

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	<p>Wildfire response video:</p> <p>Their initiative consisted of creating a short film in which the scouts simulate a wildfire approaching the La Floresta WUI, where they live. Faced with this critical situation, they take various actions that ultimately lead to a tragic outcome. In the final part of the video, presented in a documentary style, they analyze their mistakes and explain the correct actions that should have been taken in each scenario. Lessons include (taken from Catalan Civil Protection):</p> <ul style="list-style-type: none"> • Keeping the windows closed • Free entrance to facilitate evacuation and emergency access • To take only the essential • Breathe on the ground to avoid smoke • Safe yourself before assisting others • Keep flammable material away from the house • Follow authorities' instructions <p>Wear appropriate clothes and shoes.</p>
<i>Tools used</i>	NA
<i>Place</i>	La Floresta
<i>Date</i>	April – July 2025
<i>Facilitators</i>	Scouts La Floresta
<i>Evaluation methodology</i>	Debriefing with scouts' bosses.

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	20
<i>Profile</i>	The video was created by Scout group between 14 and 16 years old, and shared with the younger colleagues (around 50 more children).
Activity implementation	
<i>Was the general objective achieved?</i>	Yes, the video was successfully filmed and edited.
<i>Were the specific objectives achieved?</i>	Yes, the specific objectives were to create the video and introduce it to younger scouts from the same groups (all of them neighbours from La Floresta).
Engagement	
<i>How engaged were the target groups during the activity?</i>	Full engaged. This activity was the idea of the scouts, not from the FIREPRIME staff.
<i>Challenges maintaining the engagement?</i>	No challenges.
Effectiveness	

<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	Yes. FIREPRIME staff supported the activity providing guidance in terms of script. FIREPRIME provided different improvements to make the video more rigorous.
<i>How successful was the activity approach?</i>	It is considered as a great success, since it was their idea, that came from the first activity done with them (Challenge race).
Unexpected factors	
<i>Did you encounter any setback?</i>	NO
<i>If yes, explain adaptation/mitigation measures</i>	--
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	The scout's group has planned to use FIREPRIME materials during the following years, as a way to tackle wildfire risk, from a risk awareness perspective. The value does not lie in the video itself, but in the fact that they had the idea to create it and worked on it. In the coming years, new ideas may emerge from new generations as well, which can be just as original and help raise awareness about risk.
<i>Is this an activity that can be easily replicated in other regions?</i>	Yes. Non-formal education is common in many EU member states. However, it can easily be implemented under a formal education context (i.e. school).
Conclusions	
<i>Activity strengths</i>	The idea came from the scouts themselves, fostering ownership and motivation. Participants were fully involved throughout all stages of the activity. The video provided a tangible and original result that promotes wildfire risk awareness. Built upon previous FIREPRIME activities, reinforcing learning and commitment. Can be easily adapted by other youth or scout groups across regions. A Whatsapp group with FIREPRIME staff and Scouts bosses was created at the beginning of the project. This was key to ensure regular interaction and adaptation of the activities to scouts needs.
<i>Activity weaknesses</i>	The video's direct impact is confined to a small local audience. Success relies on continued enthusiasm from the scouts and leaders. This group was really enthusiastic, but other groups may be more dormant. Participants required external guidance for script development and editing. In any case, the value was their commitment, not the result itself. Future replication, at long-term, depends on ongoing collaboration between scouts and FIREPRIME.
<i>Potential measures to address the weaknesses</i>	It would be necessary to create a training for educators, as explained at the challenge race evaluation.

SECTION 3. TOOLS ASSESSMENT

<i>Tool strengths</i>	NA
<i>Tools weaknesses</i>	NA
<i>Potential tool improvements</i>	NA



Figure 12. Frame of the video: Recommendation to take only the essential belongings. He takes irrelevant belongings that make him fall.



Figure 13. Frame of the video: Fire service evaluate the incident, explaining what people has done wrong and the appropriate procedures.

4.4. Wildfire Preparedness Day – 2

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	<i>Preparem-nos! II</i> (Preparedness day II)
<i>Tools used</i>	Participatory mapping and presentations.
<i>Place</i>	Centre Social i Sanitari de La Floresta (Sant Cugat)
<i>Date</i>	October 4 th 2025
<i>Facilitators</i>	Israel Rodríguez-Giralt (UOC), Guillem Canaleta (PCF), Elsa Pastor (UPC), Maria Cifre-Sabater (UOC), Alexandre Molina (UOC) and Pascal Vaca (UPC).
<i>Evaluation methodology</i>	Oral feedback was collected from attendees onsite, and an online meeting was held after the event with key stakeholder representatives to gather additional feedback.

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	30 people
<i>Profile</i>	The participants included the Firefighters (Bombers de la Generalitat), volunteers of the Forest Defence Association (ADF), residents of 3 different communities exposed to wildfire risk in Collserola (Sol i Aire, Mas Fortuny i La Floresta), and the FIREPRIME Catalonia consortium team.
Activity implementation	
<i>Was the general objective achieved?</i>	<p>The general objective of this second Preparedness Day was to deepen dialogue and knowledge exchange among stakeholders, moving beyond introductory presentations to create a more participatory and collaborative space. Particular emphasis was placed on enabling community members to engage directly with firefighters, ADF, and other experts and professionals to discuss their questions, concerns, and experiences.</p> <p>This iteration built on the lessons of the first event, shifting from a primarily informative approach to a more hands-on, community-centred dynamic. The workshop format encouraged active participation through group discussions and scenario-based exercises, enabling a richer and more balanced exchange between institutional and community actors.</p> <p>The session concluded with an open debate and a light reception, further reinforcing informal networking and trust-building among participants.</p> <p>The general objective was achieved.</p>
<i>Were the specific objectives achieved?</i>	The specific objectives of this second Preparedness Day were to promote a multidimensional understanding of local vulnerabilities through open dialogue and hands-on collaboration with three communities: Sol i Aire, La Floresta, and Mas Fortuny. The goal was to better capture their specific needs and concerns while identifying potential strategies to improve wildfire risk management and emergency response.

	<p>To this end, participants took part in small-group sessions structured around real-case scenarios and participatory mapping materials developed by the FIREPRIME team. This format encouraged community members, firefighters, ADF, and other key actors to share knowledge, set priorities, and identify both coordination gaps and opportunities.</p> <p>The participatory dynamic proved highly effective in fostering mutual understanding, trust-building, and collective problem framing, laying the groundwork for more community-centred wildfire preparedness.</p> <p>The specific objectives were achieved.</p>
Engagement	
<i>How engaged were the target groups during the activity?</i>	Community members were fully engaged throughout the activity. They demonstrated a high level of interest in all stages of the workshop and expressed satisfaction with the process.
<i>Challenges maintaining the engagement?</i>	No
Effectiveness	
<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	<p>The timing and logistics of the event proved to be highly effective and well aligned with the participatory format. All groups had sufficient time to explore the issues, exchange perspectives, and complete the activities within the established timeframe.</p> <p>The maps and other participatory materials provided were well-suited to the objectives of the session, enabling structured yet flexible discussions. These resources were well received by both community members and institutional actors, contributing to a smooth facilitation process and a high level of engagement throughout the workshop.</p>
<i>How successful was the activity approach?</i>	<p>The dialogic and participatory approach of this second Preparedness Day proved to be highly successful. By shifting from an informational format to small-group discussions and scenario-based exercises, the session fostered more balanced and meaningful exchanges between community members, scientists from the consortium, firefighters, and members of the ADF.</p> <p>Participants expressed strong appreciation for the opportunity to engage directly with operational actors in an open and constructive environment. This format strengthened trust, improved mutual understanding, and allowed communities to articulate their specific concerns and priorities more clearly.</p> <p>The success of this approach confirms the value of integrating participatory methodologies into preparedness activities as a way to build stronger and more resilient local networks.</p>
Unexpected factors	
<i>Did you encounter any setback?</i>	NO
<i>If yes, explain adaptation/mitigation measures</i>	--

Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	<p>Yes. This activity demonstrated significant potential for building trust and mutual understanding among stakeholders. It also proved to be a practical and effective tool for conducting participatory risk assessments and for establishing a shared understanding of vulnerabilities, needs, and priorities at the community level.</p> <p>Given its clear structure and strong participatory character, the format lends itself to progressive transfer to local actors, such as community groups, firefighters, or ADF members. However, its effectiveness depends on a well-designed facilitation process and the ability to connect operational and community perspectives within a broader preparedness strategy, an aspect that can be supported by expert teams of wildfire social scientists.</p> <p>This makes the activity a valuable capacity-building tool that can strengthen local leadership while preserving the added value of specialised methodological support.</p>
<i>Is this an activity that can be easily replicated in other regions?</i>	<p>Yes, this activity is replicable in other regions, provided that certain enabling conditions are in place. Successful replication would require strong coordination among local actors, adequate preparation of participatory materials, and the active involvement of operational stakeholders, such as Civil Protection professionals, firefighters or ADF members, who can engage on an equal footing with community participants.</p> <p>In addition, maintaining the quality and impact of the activity depends on well-structured facilitation and methodological guidance, ensuring that participatory dynamics are inclusive, balanced, and strategically aligned with broader preparedness objectives. This combination of local ownership and expert support increases both the effectiveness and scalability of the format.</p>
Conclusions	
<i>Activity strengths</i>	<p>The key strength of this activity was its capacity to foster genuine engagement and meaningful knowledge exchange among all participants, bringing together insights from exposed communities, emergency managers, fire engineering, and the social sciences of fire. This interdisciplinary nature greatly enriched the discussions and outcomes. Working with real scenarios in small-group settings enabled communities to reflect on their specific vulnerabilities and priorities in a concrete and practical way.</p> <p>The opportunity for direct, horizontal communication with firefighters and ADF members was particularly valued, helping to build trust and mutual understanding. This participatory format not only strengthened collaboration but also enhanced the relevance and immediacy of the discussions, making them directly applicable to local realities.</p>
<i>Activity weaknesses</i>	<p>While the activity had no major weaknesses, there is room for refinement, particularly regarding the further consolidation of its methodology, materials, and time allocation. Minor adjustments, such as fine-tuning the structure of the group exercises or providing additional guidance to facilitators, could enhance consistency and impact in future iterations.</p>

	Overall, however, the approach has already proven to be highly effective, requiring only incremental improvements rather than substantial changes.
<i>Potential measures to address the weaknesses</i>	Applying this methodology in additional contexts would provide valuable opportunities to fine-tune its logistics, materials, and facilitation process, ensuring greater consistency and adaptability. Iterating the activity across different communities and territorial settings would also help to identify context-specific needs, broaden the range of use cases, and deepen the understanding of the tool’s full potential. This iterative approach would strengthen both its methodological robustness and its scalability for wider implementation.

SECTION 3. TOOLS ASSESSMENT	
<i>Tool strengths</i>	<p>The use of diverse participatory tools, including maps, sticky notes, and tokens, proved highly effective in structuring the discussion around wildfire risk. These tools enabled participants to engage with complex and multidimensional issues such as vulnerability, preparedness, and response in a way that was both accessible and meaningful.</p> <p>By grounding the discussion in the specific local context of each community, the tools encouraged participants to share situated knowledge, negotiate priorities, and explore potential actions in a concrete and collaborative manner. This combination of visual and tactile elements helped make abstract risk concepts more tangible, fostering richer and more inclusive exchanges.</p>
<i>Tools weaknesses</i>	While the tools functioned well in this setting, their full potential has yet to be fully explored. Repeated application in different territorial and social contexts would help to identify areas for refinement, such as improving the clarity of instructions, adjusting the level of complexity, or tailoring materials to different types of communities. These incremental adjustments would make the tools even more versatile and effective in supporting participatory wildfire preparedness processes.
<i>Potential tool improvements</i>	Systematic iteration and evaluation of the tools and materials are recommended to fully explore their potential. Applying them across different community settings would make it possible to identify what works best in each context and adjust their design accordingly. This process would not only enhance their clarity, usability, and adaptability but also strengthen their capacity to support participatory wildfire preparedness on a wider scale. In doing so, the tools could significantly expand the reach and impact of future Preparedness Days and related community engagement activities.



Figure 14. Community members of La Floresta identifying the risk and vulnerabilities of their community during the Preparedness Day II.



Figure 15. Community members of Mas Fortuny working with the materials and maps during the Preparedness Day II.

5. Resilient Infrastructures stream evaluation

5.1. Site visit to industrial chemical storage plant for hazard identification

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
<i>Activity name</i>	Site visit for hazard identification and stakeholder engagement at SVC Ravago Chemicals plant
<i>Place</i>	SVC Ravago Chemicals, Pol. Ind. Les Vives, 08295 Sant Vicenç de Castellet, Barcelona
<i>Date</i>	January 30 th 2025
<i>Facilitators</i>	Eulalia Planas, Elsa Pastor, Simona Dossi
<i>Evaluation methodology</i>	<p>On-site guided visit of SVC Ravago Chemicals by the Plant Manager, during which facilitators observed plant operations and facilities with the objective of identifying relevant wildfire hazards, and understanding stakeholder needs. The hazards were identified collaboratively through discussion and observation.</p> <p>In this activity the wildfire risk assessment tool was not directly applied because this was a preparatory activity to engage stakeholders and inform the tool development by the stakeholder input retrieved. Tool-related questions are therefore not included in the following tables of section 5.1.</p>

SECTION 2. ACTIVITY PERFORMANCE	
Participants information	
<i>Number of participants</i>	3 participants plus FIREPRIME consortium members
<i>Profile</i>	<ul style="list-style-type: none"> • Plant Manager: overall responsible for operations and safety. Most senior member with most years of experience. • Safety Expert: responsible for occupational health and safety oversight. Medium level of seniority and experience in the plant, in depth knowledge of operation and safety systems. • Maintenance Employee: responsible for plant infrastructure and equipment. Medium level of seniority and experience in the plant, in depth knowledge of operation and equipment.
Activity implementation	
<i>Was the general objective achieved?</i>	Yes. The objective of identifying and understanding potential hazards to wildfire risk in the chemical storage and distribution process was achieved. Furthermore, the objective of engaging the stakeholders, understanding their risk awareness and availability to engage in wildfire risk assessment was achieved.
<i>Were the specific objectives achieved?</i>	Yes. The session successfully gathered information on hazard sources, stakeholder roles, and site-specific risk factors.
Engagement	
<i>How engaged were the target groups during the activity?</i>	The participants were highly engaged, providing detailed explanations and openly discussing existing challenges and mitigation practices. The activity began with a presentation by the Plant Manager describing chemical handling procedures, and existing plant safety systems, followed by a full tour of the facility.

	Key risks were pointed out, and facilitators documented hazards and stakeholder concerns for inclusion in future assessments.
<i>Challenges maintaining the engagement?</i>	No challenges were encountered.
Effectiveness	
<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	The visit was well-timed and adequately prepared. The logistics of the activity were simple as they required a standard site visit around the ground of the chemical plant and discussion from informed and prepared participants.
<i>How successful was the activity approach?</i>	Successful. The combination of guided observation and open discussion generated valuable, site-specific data - all objectives were achieved.
Unexpected factors	
<i>Did you encounter any setback?</i>	No setbacks were encountered.
<i>If yes, explain adaptation/mitigation measures</i>	
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	The objective of this activity was to gather information to create an appropriate and useful wildfire risk assessment, so it would need to be replicated in case of creating or adapting an assessment to a new type of infrastructure. In that case, the site visit can be easily replicated by setting a general agenda, and having prepared members engaged in sit-specific safety conversations.
<i>Is this an activity that can be easily replicated in other regions?</i>	Yes. The same methodology applies to similar infrastructures and only requires contacts in the infrastructure site in question, and prepared facilitators to take notes and engage in discussions. Facilitators should have a background understanding on the operation and safety of the infrastructure in question, and in-depth knowledge of wildfire risk.
Conclusions	
<i>Activity strengths</i>	<ul style="list-style-type: none"> • High personal engagement and collaboration. • Direct observation of real hazards. • Practical, relevant insights for risk assessment.
<i>Activity weaknesses</i>	<ul style="list-style-type: none"> • Limited participant pool, only few employees can attend, and only one industry can be assessed at a time. • Some technical knowledge is needed to facilitate an industrial site visit to understand chemical and process safety hazards. • Time constraints limited in-depth analysis.
<i>Potential measures to address the weaknesses</i>	Set up a preparatory session to inform and train the facilitators on the infrastructure-specific risks, and the potential hazards to look out for during the visit.



Figure 16: Photos of potential hazards identified during “Site visit for hazard identification and stakeholder engagement at SVC Ravago Chemicals plant” Activity for resilient infrastructures, Spanish pilot

5.2. Wildfire risk assessment guidelines testing for the chemical industry

SECTION 1. GENERAL INFORMATION OF THE ACTIVITY AND TOOL	
Activity name	Validation and testing of wildfire risk assessment for the chemical industry at SVC Ravago Chemicals plant
Tools used	FIREPRIME Wildfire Risk Assessment for the Chemical Industry
Place	SVC Ravago Chemicals, Pol. Ind. Les Vives, 08295 Sant Vicenç de Castellet, Barcelona
Date	July 22 nd 2025
Facilitators	Eulalia Planas, Elsa Pastor, Simona Dossi
Evaluation methodology	Presentation of local wildfire hazard situation, and historical wildfire activity. The participants then completed the wildfire risk

	assessment without any guidance to test the ability to answer the questions and understand the results. The results calculated by the participants, and those assessed previously by the UPC facilitators were compared as a validation of the assessment. Finally, the assessment answers and results, as well as any feedback regarding the assessment and its application, were discussed with all participants.
--	---

SECTION 2. ACTIVITY PERFORMANCE

Participants information

<i>Number of participants</i>	3 participants plus FIREPRIME facilitators
<i>Profile</i>	<ul style="list-style-type: none"> • Plant Manager: overall responsible for operations and safety. Most senior member with most years of experience. • Safety Expert: responsible for occupational health and safety oversight. Medium level of seniority and experience in the plant, in depth knowledge of operation and safety systems. • Maintenance Employee: responsible for plant infrastructure and equipment. Medium level of seniority and experience in the plant, in depth knowledge of operation and equipment.

Activity implementation

<i>Was the general objective achieved?</i>	Yes. The objective of testing the wildfire risk assessment tool, evaluating participant understanding, time necessary to complete the assessment, and potential improvements, were met.
<i>Were the specific objectives achieved?</i>	<p>Yes.</p> <ul style="list-style-type: none"> • The answers given by the participants and plant safety employees were compared to the answers given by the UPC team that developed the assessment – this served as a validation of the assessment, by validating that the final calculated score of the assessment was in fact congruent by both the developers and the target stakeholder users. • The time taken to complete the form (2 – 2.5 hours) and the time to complete each section of the assessment was noted. • Unclear questions or sections of the assessment that needed more explanation and modification to improve clarity were conducted. • Discussion in what contexts the incentivisation of conducting this type of risk assessment were conducted, giving facilitator teams valuable insight in how to improve reach and impact of such an assessment.

Engagement

<i>How engaged were the target groups during the activity?</i>	Engagement was good throughout the entire activity. Participants showed curiosity about how wildfire risk integrates with the plant operations, and offered insights and opinions based on their knowledge and experience.
<i>Challenges maintaining the engagement?</i>	Some initial uncertainty arose due to the lack of facilitation during the assessment, but this was intentional and later turned into valuable feedback on the clarity of the wording of some assessment sections. Certain questions (specifically about the condition of the

	vegetation in the surroundings of the plant) instigated doubts and discussions to be able to be answered.
Effectiveness	
<i>Were the logistics of the activity appropriate (time, date, material...)?</i>	Yes. The materials (risk assessment templates, local vegetation photos, topography maps, background presentation on local wildfire activity and wildfire risk) were sufficient, and the session length allowed the completion of the entire risk assessment and group reflection and discussion.
<i>How successful was the activity approach?</i>	Successful. The approach revealed practical insights into user experience and understanding of wildfire risk.
Unexpected factors	
<i>Did you encounter any setback?</i>	Some uncertainty in interpreting specific assessment criteria emerged (surrounding vegetation types).
<i>If yes, explain adaptation/mitigation measures</i>	Clarifications were provided during the discussion phase, and feedback was recorded to improve the guidance in the wildfire risk assessment guide document wording to better assist future users of the assessment.
Sustainability/Replicability	
<i>Is this an activity that can be implemented/adapted in the future with the leadership of local stakeholders?</i>	Because the objective of this activity was to validate the risk assessment and test its applicability and usability, the activity requires facilitators that have knowledge of the risk assessment and can complete it to have a benchmark for the testing to be compared to in the validation process. If such a profile of facilitators is available, the activity can be replicated in case of adaptations to the risk assessment for a different industry.
<i>Is this an activity that can be easily replicated in other regions?</i>	Yes. With wildfire local hazard data (surrounding vegetation and topography maps and data), and a relevant wildfire risk assessment, the same format can be adapted to other industrial sites. The materials needed to allow participants to complete the assessment can be prepared using the local hazard data.
Conclusions	
<i>Activity strengths</i>	<ul style="list-style-type: none"> • Direct testing of tool usability. • Constructive feedback from experienced practitioners and the intended users of the assessment tool. • Enhanced awareness of wildfire risk relevance to plant operations.
<i>Activity weaknesses</i>	<ul style="list-style-type: none"> • Difficulty interpreting specific assessment sections. • Small sample size limits broader conclusions. • Time-intensive activity, about 3.5 hours out of the participants normal working day operations were required.
<i>Potential measures to address the weaknesses</i>	<ul style="list-style-type: none"> • The guidance document for the assessment can be improved, more written guidance can help guide the users with more ease. • The activity in the future can be conducted multiple times, with more industries, or with larger number of participants.

SECTION 3. TOOLS ASSESSMENT	
<i>Tool strengths</i>	The wildfire risk assessment provides a comprehensive review of all the wildfire risk contributing factors, and all the potential vulnerability of the industrial plant. The tool assessment method

	was engaging to the users, and provided them with interesting thought-provoking considerations.
<i>Tools weaknesses</i>	The assessment is long, requires some meaningful amount of time to fully complete, and requires some understanding of the surrounding vegetation and topography and the user needs to investigate to apply the assessment correctly.
<i>Potential tool improvements</i>	The guidance document was improved by providing more detail, explanation and guidance to the questions found difficult to answer by the stakeholders. Wording was adapted to improve clarity and guidance to specific sections of the assessment.



Figure 17: Photos of “Validation and testing of wildfire risk assessment for the chemical industry at SVC Ravago Chemicals plant” Activity for resilient infrastructure steam, Spanish pilot

6. Conclusions of the FIREPRIME evaluation in the SP pilot

Reception and engagement of stakeholders

The FIREPRIME program was very positively received in the Catalan pilot. Local actors—including Civil Protection, ADF volunteers, firefighters, and residents—demonstrated strong commitment and interest from the early phases of the project. The collaboration with established community groups, such as the Sol i Aire Self-Protection Group and the La Floresta Scouts, proved particularly valuable, fostering trust and long-term engagement. The bottom-up nature of several activities, especially those initiated directly by residents and youth, highlights a sense of ownership that reinforces sustainability of preparedness efforts in the territory. In the resilient infrastructure stream, industrial stakeholders such as SVC Ravago Chemicals also showed strong and constructive interest, openly discussing vulnerabilities and mitigation pathways.

Adequacy and adaptation of tools and activities

Overall, the FIREPRIME tools were well adapted to the pilot context and aligned with the needs of local authorities and communities. The smartphone app proved useful both for residents and for Civil Protection technicians assisting homeowners. The Preparedness Days and the participatory formats employed were appropriate to local dynamics and contributed to meaningful dialogue. Educational tools also proved particularly suitable when introduced through youth-led group settings, where technical elements could be embedded into playful or cooperative tasks. The resilient infrastructure risk assessment tool was also considered relevant and well designed for industrial contexts. However, some tools—particularly the App and the industrial risk assessment—require minor refinements in usability and clarity of instructions to facilitate broader independent use.

Most useful and impactful components

The activities that involved direct collaboration and hands-on learning were the most impactful. The App risk assessment tool testing together with the household assessment training strengthened the operational capacity of residents, Civil Protection and ADF volunteers to manage wildfire risk at parcel level. The challenge race and the scouts-produced video demonstrated exceptional capacity to engage youth in wildfire preparedness. The participatory mapping and scenario-based exchanges during the second Preparedness Day were especially effective in creating shared understanding and strengthening coordination between communities and emergency services. In the resilient infrastructure stream, the combination of site visits, structured assessment, and facilitated discussion proved particularly impactful, raising industrial awareness of wildfire exposure and clarifying links between plant safety systems and wildfire scenarios.

Limitations and opportunities for improvement

The main limitations detected relate to the time and expertise required to fully implement some tools. The full household assessment and the industrial risk assessment demand time investment and, in some cases, facilitators trained and wildfire knowledge that not all users

initially possess. Some activities would benefit from expanding participatory segments and further standardizing supporting materials. Also, in all streams, success depended on close collaboration between FIREPRIME expert staff and stakeholders' leaders. For replication with dedicated project funding, it will be necessary to develop clearer implementation guides and a "training for trainers" program. These limitations are manageable and point to clear opportunities: developing facilitator training modules, creating simplified explanatory resources, and allowing flexible, progressive use of the tools.

Effects on awareness, preparedness, and collaboration

The pilot contributed to a measurable increase in wildfire awareness, preparedness, and cooperation among local actors. Residents gained clearer knowledge of vulnerabilities in their homes and surroundings; local services strengthened communication and trust-building with residents; industrial partners developed stronger awareness of their potential exposure and the operational relevance of proactive wildfire mitigation. Youth groups became active agents of community awareness. A key outcome is the establishment of new communication channels and trust-based relationships that support long-term resilience.

Potential for continuation and future uptake

There is strong interest in continuing to implement FIREPRIME in Sant Cugat, both from Civil Protection units and from communities themselves, including those not originally selected (e.g., Mas Fortuny). The tools and formats developed show high potential for extension to other municipalities in Catalonia, Spain, and other wildfire-prone countries in Southern Europe, where similar WUI risk conditions exist. The resilient infrastructure methodology also has clear potential for transfer to other industrial sites facing wildfire exposure, although sustained application will likely depend on institutional incentives and facilitation support. The pilot has developed a replicable model that could be supported through municipal programs, regional wildfire preparedness strategies, or future EU cooperation initiatives.

Lessons learned and transferability to other regions

The Sant Cugat pilot demonstrates that FIREPRIME is transferable to other regions, provided that the implementation is adapted to local governance structures, community organization, and wildfire risk conditions. Key lessons include the central importance of working through existing local networks, combining technical knowledge with participatory processes, and ensuring that educational activities are hands-on and locally meaningful. For the industrial sector, co-developing assessments through site-specific dialogue and maintaining facilitator support is essential for success and acceptance. The pilot provides a strong reference model for future replications in other Mediterranean regions and beyond.