

TEXTOUR

Social Innovation and **TE**chnologies for sustainable growth through participative cultural **TOUR**ism

WP5 Deliverable D 5.1

Monitoring program of the implementation plans
in the CT-Labs



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1 Technical description

1.1 About the project

Grant Agreement number	101004687
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- ISTRAZIVACKI CENTAR ZA PROSTOR **CSR**
- GAIA-HERITAGE **GAIA**
- **CULTURE AND TOURISM DEPARTMENT OF RIVNE REGIONAL STATE ADMINISTRATION**
- COA PARQUE· FUNDACAO PARA A SALVAGUARDA E VALORIZACAO DO VALE DE COA **COA PARQUE**

1.2 Document information

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1.3 Document dissemination level

Type	Description	
PU	Public	X
CO	Confidential, only for members of the consortium (including the Commission Services)	
CI	Classified, as referred to in Commission Decision 2001/844/EC	

1.4 Document history

Version	Date	Authors	Description
1	20 Dec, 2022	Heritage Area (CARTIF)	Outline
2	31 Jan, 2023	Heritage Area (CARTIF)	Draft – Content agreement
3	27 Feb, 2023	Heritage Area group (CARTIF)	Contributions compilation (including the outcome of bilateral sessions for targeting and costs clarification)
4	20 Mar, 2023	Partners involved in T5.1 and T5.2	Fine-tuning, wrapping up and validation by CT-Labs, ready for internal review (FSMLRPH, UNINOVA and MRI)
5	29 Mar, 2023	Heritage Area group (CARTIF)	Final improved version
6	8 Nov, 2023	Heritage Area group (CARTIF)	Optimised version in accordance to July 2023 PR2 review
7	28 Jun, 2024	Heritage Area Group (CARTIF)	Optimised version in accordance to April 2024 PR2 review

1.5 Disclaimer

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1.6 List of abbreviations and acronyms used

Acronym	Description
BMC	Business Model Canvas
CT	Cultural Tourism
DoA	Description of Action
EU	European Union
GA	General Assembly
GDPR	General Data Protection Regulation
G&S	Goods & Services
ICT	Information and Communications Technology
IDP	Internally Displaced Persons
KFP	Knowledge Facilitator Partner
KPI	Key Performance Indicator
LT	Long-Term
MONaaS	MONitoring as a Service
MT	Medium-Term
POI	Point of Interest
SME	Small and Medium Enterprises
SMM	Social Media Marketing
ST	Short-Term

TBD

To Be Defined

UCH

Underwater Cultural Heritage

WP

Work Package

1.7 Improvements resulting from the July 2023 RP2 review

D5.1 Request for Revisions	Revisions Compliance
Comment 1: It is not fully clear how the CT-Labs “will be encouraged to interact together upon synergic collaboration encompassing demonstrative types of CT and to identify replicable solutions within a sustainable approach” (see Deliverable description).	This is done through bi-monthly CT-Labs Progress Forums hold between M27 and M43 (see the first paragraph of Section 7). As of October 2023, 5 of these forums have been held.
Comment 2: It is unclear who exactly will do the monitoring – the pilots themselves or an external source.	Footnote 4 points out that the three planned monitoring campaigns (MoCams) involve the recording of the current value asked for the KPIs/Targets/Costs. This will be done by the CT-Labs upon an on-line form embedded in the TExTOUR Platform. The CT-Labs will be trained and supervised by CARTIF to do so, the quality control of the data monitored will be ensured by IETU, and the continuous evaluation of the performance of the actions to which the data correspond will be done by UNINOVA.
Comment 3: It is unclear how social innovation be monitored.	Social innovation is addressed in the BMC set-up per action of each pilot in <i>WP3- D3.2: Participatory CT development strategies and actions</i>. Moreover, the CT-Labs have selected KPIs according to four domains, among which is the ‘social’ one, also linked to the activities that make up the CT strategies they are deploying.
Comment 4: Page 11 quotes: “This is in line with the UNESCO guidance on CT to deliver tailored capacity building actions, inspired by a needs-driven and context-sensitive approach”. Which	Footnote 3 makes the appropriate UNESCO reference.

UNESCO guidance is referred to here?	
Comment 5: It is necessary to include indicators related to the management of visitors and their effects on cultural and natural tangible and intangible heritage, OUV, environment, communities' wellbeing, and diversity of the local economy	As indicated in the first paragraph of section 4.1, KPIs come from the deliverable <i>D2.2: TExTOUR Set of selected criteria and indicators</i>. Thus, the formulation of these new aspects as additional KPIs is included in the corresponding revised version of <i>D2.2</i>. Operationally, the registration of the new KPIs will be complementary carried out in <i>T5.3 (Assessment and quality control protocol)</i> once the three monitoring campaigns are completed to gain a comprehensive approach of the effectiveness of the strategies deployed by the CT-Labs. The TExTOUR-Platform will be suitably adapted to include such a kind of new recordings in line with <i>T5.4 (continuous monitoring and decision making)</i>. Footnote 5 point out about all this.
Comment 6: The term attraction is not the same as cultural/natural property. Intangible heritage is not monitored, only gastronomy. It has to be included in its diversity of expressions.	This is corrected in deliverable <i>WP2- D2.2: TExTOUR Set of selected criteria and indicators</i> when related to KPIs. The appropriate meaning of the term 'attraction' is contextualized in the Targets settings according to the activities that make up the strategy of each CT-Lab. Only Action #8B.1 (Fikardou) directly addresses intangible heritage.
Comment 7: KPIs must measure social inclusion for the project to be coherent.	It is in line with the answer given for Comment 5: new KPIs will address 'social inclusion and participatory governance'. In any case, it is worth noting that: • Inclusion is a topic already addressed in the BMC set-up per action of each CT-Lab in <i>WP3- D3.2: Participatory CT development strategies and actions</i>. • According to the TExTOUR Grant Agreement, the objective of WP5 is to demonstrate a wide set of pilot's-based strategies to promote CT in relevant urban and rural domains and their nexuses with economic growth and employment indicators.

1.8 Improvements resulting from the April 2024 RP2 review

D5.1 Request for Revisions	Revisions Compliance
Comment 1: It is necessary to include indicators related to the management of visitors and their effects on cultural and natural tangible and intangible heritage, OUV, environment, communities' wellbeing, and diversity of the local economy. The revised version of D2.2 is quoted to have included these aspects as new KPIs but as stated in the revision of D2.2 (above) that is not accurate and indicators on tourism impact on conservation are still lacking. This needs to be corrected within the list of KPIs itself (D2.2) and to be included in the Platform. Section 1.7 affirms that "the TExTOUR-Platform will be suitably adapted to include such a kind of new recordings in line with T5.4 (continuous monitoring and decision making)". Accordingly, the re-assessment this deliverable will not focus on this question, but the inclusion of indicators on these aspects in D2.2 (as explained above) and the TExTOUR Platform will be closely monitored in the next reporting period.	The rearranged D2.2 expressly includes new additional KPIs addressing those necessary topics (particularly the 'impacts of tourism on cultural and natural heritage'), which are already integrated into the TExTOUR-Platform (WP4). Therefore, the present D5.1 has been enriched immediately after Figure 3 (p. 19 and 20) indicating that the source of the KPIs is still the deliverable D2.2, which apart from considering those monitored for each CT-Lab throughout three consecutive five-months campaigns (April 2023 – June 2024), will also consider new mandatory additional KPIs upon which the CT-Labs have made the appropriate selection fitting to their context, just to be quantified immediately after the third monitoring campaign -MoCam3- (once completed the deployment of the CT strategies to ensure an overall appropriate implementation of the solutions). A quality review process is then thoroughly followed (T5.3), that will be reflected in D5.2 (<i>Report on quality control and supervision of the implementations</i>). Additionally, T5.4-D5.3 (<i>Report on continuous monitoring and improvements</i>) will make up proper clarifications from the monitoring perspective.

Comment 2:

The terminology aspects have not been corrected (see comments about indicators in D2.2, for example) even if this question has been repeatedly stressed by experts in all meetings and in both reporting periods. Intangible aspects were asked to be included but in its answer the consortium only affirms what it is already known: that they have not except for Fikardou (and very superficially even here). These questions have not been solved and must be addressed transversally throughout the project and within this deliverable.

Terminology aspects are corrected. The term 'attraction' is modified by 'cultural property' where appropriate.

Intangible aspects have been considered in the new additional mandatory KPIs set up in the most recent version of D2.2 (according to CT-Labs' conditions), just as indicated in section 4.1.

2 Executive summary

The goal of this deliverable is to define the monitoring program of the wide set of strategies designed by the TExTOUR pilots to promote CT in their respective relevant urban and rural domains¹. A monitoring program is tailored at each of the 8 pilots² to assess and support the validation of those strategies while they are deploying and implementing the corresponding actions designed after a co-design participative process. Thus, each pilot is a true laboratory to experience CT actions (CT-Lab).

All monitoring programs are about gathering, analysing and fine-tuning the data from: (1) the KPI definition and evaluation procedure (WP2) to evaluate the effectiveness of the actions, pointing out their nexuses with economic growth and employment; (2) the targets coming out the participatory CT development strategies and action plans in the 8 pilots (WP3) to evaluate the deployment of these actions according to heritage resources, related tourism categories and calendar for implementation by the end of the project; (3) additionally, indicative costs and funding sources for actions deployment will be explored as a subject of monitoring, determining the feasibility of this possibility.

Due to the fact that implementations during the project are focused on short term actions, the monitoring programs will run accordingly, but are intended to facilitate the implementation and follow-up of medium and long-term actions. Moreover, it has also to be considered that all monitoring programs will be strongly supported by the tools developed under the TExTOUR Platform (WP4).

¹ Neither public procurement nor tendering process is needed to launch the actions.

² Pilot #8 summarizes two locations in two different countries, so it will be broken down when necessary into P8A: Anfeh (LB) and P8B: Fikardou (CY).

3 The CT-Labs

There is no formal definition for CT-Lab further than a pilot engaging all stakeholders required to work together to co-implement CT actions. CT-Labs are created to collect strategic information regarding CT and mobilise knowledge, researches and key players to develop a practical methodology for promoting the pilots under study in a sustainable way (Figure 1).

Thus, each TExTOUR pilot conform a living lab focused on CT, thereby 8 CT-Labs are running with an 'ad hoc' strategy designed and implemented according to *T3.1 (Co-designing ad hoc sustainable CT strategies in the TExTOUR pilots)*. It should also be noted that the CT-Labs will interact together upon synergic collaboration encompassing different types of CT.



Figure 1: TExTOUR CT-Labs. Source: <https://textour-project.eu/>

This is in line with the UNESCO guidance on CT to deliver tailored capacity-building actions, inspired by a needs-driven and context-sensitive approach³. CT-Labs make users and producers co-create in a safe, open ecosystem spurring social innovation, inclusion and sustainability, pointing the impact of the actions (economic, social,

³ UNESCO tailors capacity-building opportunities to the SmartCulTour Living Labs to foster cultural tourism for a sustainable future: <https://www.unesco.org/en/articles/unesco-tailors-capacity-building-opportunities-smartcultour-living-labs-foster-cultural-tourism>

cultural and environmental), the beneficiaries, and even ICT integration according to allocated resources.

4 CT-Labs monitoring program approach

The strategies in each CT-Lab are deployed in concrete actions that follow some activities. All monitoring programs are about gathering and analysing data at action level according to three premises:

1. To evaluate the effectiveness of the strategies while deploying the actions, pointing out their nexuses with economic growth and employment (based on methodological KPI).
2. To evaluate the deployment of these actions according to the calendar set up for implementation (based on targets established in the participatory CT development strategies and action plans).
3. To explore if it is possible to keep trace on indicative costs and funding sources for actions deployment (also based on the resources estimated in the participatory CT development strategies and action plans).

In a specific face-to-face session with all the pilots at the second GA held in Limassol (CY – October 2022), it was agreed to carry out three monitoring campaigns (MoCams) of five months each⁴ as the allowable time for the perception of changes. These three monitoring campaigns are preceded by a six-month period of definition, fine-tuning and feedback among pilots of the actions to be carried out (Figure 2).

⁴ The three MoCams involve the recording of the current value asked for the KPIs/Targets/Costs. This will be done by the CT-Labs upon an on-line form embedded in the TEXTOUR Platform. The CT-Labs will be trained and supervised by CARTIF to do so, the quality control of the data monitored will be ensured by IETU, and the continuous evaluation of the performance of the actions to which the data correspond will be done by UNINOVA.

Monitoring Approach:

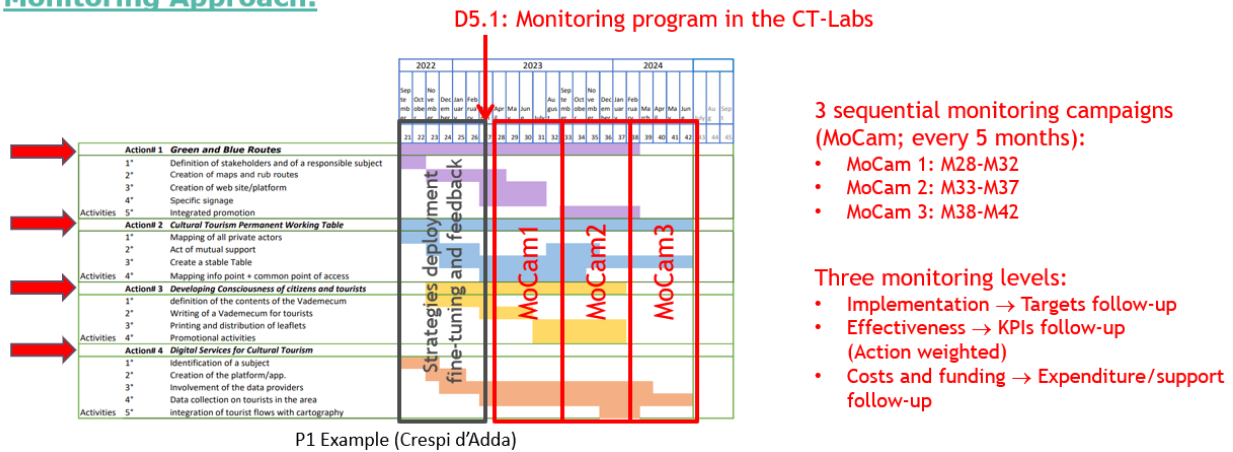


Figure 2: CT-Labs monitoring program approach upon the P1 schedule: Crespi d'Adda (as example)

4.1 Using KPI to monitor the effectiveness of the strategies

Taking as a reference the deliverable D2.2: *TE~~X~~TOUR Set of selected criteria and indicators*, an optimised Excel file consisting of 57 potential KPIs (full list) with a short description and linked to four domains (economic, social, environmental, and cultural) is presented to each CT-Lab⁵. Those KPIs directly related to the tourism sector are 'KPI' category. Those indicators not only related to this sector but to a broader spectrum are 'indicator supportive' category. The ones marked in light brown are EWI (Early Warning Indicators) based on the judgment of the pilots. Regardless

⁵ After the reporting period 2 review, new KPIs are considered: Opinion of visitors; Quality of the visitors' experience; Impacts of tourism on cultural and natural heritage; OUV (Outstanding Universal Value) of WHS (World Heritage Sites); the Environment; the communities wellbeing and the diversity of local economy; Social inclusion and participatory governance.

Operationally, the registration of the new KPIs will be complementary carried out in *T5.3 (Assessment and quality control protocol)* once the three monitoring campaigns are completed to gain a comprehensive approach of the effectiveness of the strategies deployed by the CT-Labs. The *TE~~X~~TOUR Platform* will be suitably adapted to include such a kind of recordings in line with *T5.4 (continuous monitoring and decision making)*.

of categorization and colour all of them are KPI, thus candidates for selection according to pilot's actions.

For operational reasons (manageability and precision) in the WP3-Workshop#4 (held in C a Parque, PT – July 2022) it was decided, counting on the KFP's and the pilots' criteria, that a maximum of 15 KPIs per action should be selected in any case. Those linked to the economic domain help to find out the nexus with economic growth. It is worthy of remark that 2 of these 15 KPIs are always mandatory, just related to employment (marked in red: 18.1 and 18.2), showing the nexus with this fact. Therefore, the connections set-up in the DoA for the objectives of WP5 about the CT-Labs' based strategies are met. Since the KPIs are selected in relation to specific actions, it is possible to determine their weight into the strategy they are framed.

In a practical way KPIs are formulas that handle different 'constants' and 'variables'. Both are available in their respective tabs of the Excel file. Constants are resulting from the participatory approach for CT development (WP1) and obviously cannot be modified, but variables are the data required for the pilots to provide. These are the ones that KPIs will be automatically calculated against (KPI-Action# tab). If any of the required variables cannot be provided (either by statistics, reliable estimation or other method), it is preferable not to consider it (neither the KPI where it intervenes) and jump into another more suitable KPI. Regarding variables, three columns come into view:

- Base value: it is the latest available figure before starting the MoCams. Thus, is the 'zero' to set-up a baseline.
- Goal value: it is the realistic expected figure wanted to achieve (according to the corresponding KPI meaning). Thus 'goal vs. base' deviations would be faced.
- Current value: This does not need to be filled up right now. It will be asked for once the monitoring campaigns to be started (April 2023 onwards).

The qualitative and quantitative links between actions and KPIs (with their constitutive variables) are given in the completed Excel provided by each pilot. All of them are available in the *Sharepoint* of the project (Figure 3) as an integral part of this deliverable.

Documentos > TExTOUR WP > TExTOUR WP5 > Pilots-KPIs_Baselines_Goals

 Nombre ▾	Modificado ▾
 KPI_to_Monitor_P1-Crespi_dAdda-Completed.xlsx	01/12/2022
 KPI_to_Monitor_P2-Narva-Completed.xlsx	29/12/2022
 KPI_to_Monitor_P3-Umgebindeland-Completed.xlsx	29/11/2022
 KPI_to_Monitor_P4-Via_Regia-Completed.xlsx	16 de enero
 KPI_to_Monitor_P5-Trebinje-Completed.xlsx	23/12/2022
 KPI_to_Monitor_P6-Tarnowskie_Gory-Completed.xlsx	29/12/2022
 KPI_to_Monitor_P7-Coa-Completed.xlsx	29/12/2022
 KPI_to_Monitor_P8A-Anfeh-Completed.xlsx	30/11/2022
 KPI_to_Monitor_P8B-Fikardou-Completed.xlsx	29/12/2022

Figure 3: Excel files with the selection and quantification of KPIs according to actions to be deployed by each CT-Lab.

Apart from considering these KPIs for each CT-Lab to be tracked through MoCam1, MoCam2 and MoCam3, a new set of additional mandatory KPIs are faced after PR2 to address specific topics pointed out by the reviewers, that will be quantified right after MoCam3 (once completed the deployment of the CT strategies to ensure an overall appropriate implementation of the solutions). A list is introduced below in a generic way, but they are fully documented and perfectly broken down in the final version of the D2.2 deliverable.

- Opinion of visitors (service developed in the Platform: Visitors' satisfaction⁶).
- Quality of the visitors' experience (Formula for specific KPI calculation).
- Impacts of tourism on cultural and natural heritage (KPIs: Number of tourists; Number of volunteers; Social cohesion; Identity & visibility; Availability of

⁶ Tutorial: <https://youtu.be/oVIS7EAlckU>

cultural tangible heritage resources; Availability of cultural intangible heritage resources; Social innovation).

- The OUV (Outstanding Universal Value) of WHS (World Heritage Sites): Only apply to UNESCO CT-Labs (Crespi d'Adda, Tarnowskie Góry and Côa Parque).
- The diversity of local economy (Formula for specific KPI calculation).
- The community's wellbeing (KPIs: Cost of living; Human Development Index).
- Social inclusion and participatory governance (KPIs: Culture participation; Equality; Inclusiveness).

It was agreed in the consortium monthly meeting (11 April, 2024) that the opinion of visitors and at least another additional mandatory KPI must be provided by all the CT-Labs.

Meanwhile, their quantification, quality control and use for the supervision of the implementations of the strategies deployed by each CT-Lab will be addressed in deliverable D5.2: *Report on quality control and supervision of the implementations*. Furthermore, their evaluation will be addressed in deliverable D5.3: *Report on continuous monitoring and improvements*.

4.2 Using Targets to monitor the deployment of the strategies

Taking as a reference the deliverable *D3.2: Participatory cultural tourism development strategies and action plans in the 8 pilots*, Targets are 'short-term' expected results coming from WP3-Workshop#4 that will have to be achieved by the end of TExTOUR as a consequence of the implementation of the CT actions set up. The targets have been established in the BMC for each of the pilots' actions (WP3), but to be monitored they require validation and quantification (WP5) in order to ease the juggle between 'Explore' and 'Deploy'.

Every CT strategy implementation during the project is focused on short-term actions but involving activities aimed at facilitating the implementation of medium and long-term actions (P1, P3, P4, P5, P6, P8A & P8B particularly pointed them out in D3.2). The specific pilot session held at the second GA of TExTOUR in Limassol (CY – October 2022) was useful to directly ask and clarify this matter with the partners, resulting in Table 1:

Table 1: CT-Labs driven actions' implementation planning
(X denotes the pilot number)

(ST: < 3 yr; MT: > 3 yr & < 10 yr; LT: ≥10 yr)

	Action #X.1	Action #X.2	Action #X.3	Action #X.4
P1: Crespi d'Adda (IT)	LT	LT	ST	LT
P2: Narva (EE, RUS)	LT	LT	ST	-
P3: Umgebindeland (DE, PL, CZ)	MT/LT	LT	LT	-
P4: Via Regia (UA, BY, DE, FR, ES)	LT	LT	LT	-
P5: Trebinje (BA, HR, ME)	LT	LT	LT	-
P6: Tarnowskie Góry (PL)	LT	LT	LT	-
P7: Vale do Côa (PT)	ST/MT	LT	-	-
P8A: Anfeh (LB)	LT	ST	LT (Depends on funding)	-
P8B: Fikardou (CY)	ST	LT	-	-

4.3 Feasibility of the funding monitoring

Indicative costs, funding and in-kind sources are listed in the BMC of each action to be carried out by the CT-Labs (see deliverable *D3.2: Participatory cultural tourism development strategies and action plans in the 8 pilots*). Those aspects are sometimes fully detailed, and other times scarcely described. On one hand this is due to the idiosyncrasy, the particular orientation and the degree of definition of the resources to be assigned at that time for the development of the actions of each CT-Lab. In the other hand, because the uncertainty of additional financing caused by the international geostrategic situation, which in the case of the EU goes in front to high rates of inflation and an unprecedented increase in energy prices, leading to the decreasing of the support for natural and cultural heritage and related tourism apart from the lack of definition of the real prices of the products and services that may be necessary.

It is bear in mind that the targets of every action have to be met by the end of the project, thus should be kept consistent with the resources already in place. Therefore, the implementation expenditure for every action will be characterized by indicative costs (estimated, but realistic) that will take into account the TExTOUR support and any other additional funding (useful to explore the leverage effect).

5 Monitoring programs for the CT-Labs

On the general basis of the monitoring program described in the previous section, this approach is thoroughly tailored to each of the CT-Labs below.

5.1 P1: Crespi d'Adda (IT)

This UNESCO site is a representative CT-Lab about the company town phenomenon.

5.1.1 P1: KPI to monitor

The file [*KPI_to_Monitor_P1-Crespi_dAdda-Completed.xlsx*]⁷ shows in light green the selection of KPIs and affected actions for the case of Crespi d'Adda. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.1.2 P1: Targets to monitor

Table 2, Table 3, Table 4 and Table 5 detail the targets to be monitored for Crespi d'Adda CT-Lab.

Table 2: Targets for Crespi d'Adda Action #1.1

	Target setting	Target verification ⁸
Action #1.1: Green and blue routes	Number of POIs mapped.	15
	Length of routes mapped based on the 'Route data Service' included in the TExTOUR platform.	5 km

⁷ The Excel file is submitted as a complement to the present deliverable. It is one of those that make up the D5.1 compressed file that is uploaded to the Funding and Tenders Portal of the EC. This is the case for all the Excel files about the action-based selection KPIs to be monitored by each CT-Lab.

⁸ To be requested in the 3 monitoring campaigns to keep trace with respect to the number/boolean specified here (applicable to all CT-Labs).

	Number of QR codes on panels installed.	10
	Number of cultural properties included in the mapped routes.	10

Table 3: Targets for Crespi d'Adda Action #1.2

	Target setting	Target verification
Action #1.2: Permanent consultation table on CT	Number of people attending the consultation meetings.	30
	Number of meetings (general or thematic) of the consultation table to be organized before the end of the project.	5
	Number of articles on local press dedicated to the consultation table activities.	1

Table 4: Targets for Crespi d'Adda Action #1.3

	Target setting	Target verification
Action #1.3: Vademecum for developing consciousness of citizens and tourists	Creation of a <i>Vademecum</i> booklet.	Y/N
	Number of <i>Vademecum</i> flyers distributed.	500
	Number of downloads of the digital version of the <i>Vademecum</i> by the end of TEXTOUR.	200

Table 5: Targets for Crespi d'Adda Action #1.4

	Target setting	Target verification
Action #1.4: Digital services for CT	Web service to monitor tourists' flows based on the analysis of cellular phones data ⁹ (limited to the territory of Capriate San Gervasio).	Y/N

⁹ Cellular phones data will be gathered and analysed in an anonymous way, following the prescription of GDPR regulations. In any case, for privacy reasons, these data will not be made public.

5.1.3 P1: Costs and funding sources to monitor

The Table 6 addresses the estimated cost allocation and status of expenses for the Crespi d'Adda CT-Lab.

Table 6: Costs breakdown for the actions to deploy in Crespi d'Adda

	Indicative costs	Real Costs ¹⁰	
		TE TOUR support	Additional funding
Action #1.1: Green and blue routes	34,000 € <i>Activity of mapping and merging all routes and GPS tracking (20,000€); Editing the contents linked to the QR codes (5,000 €); Signage with QR codes incorporated (5,000 €); Promotional activities (in-kind); 2 electric Joëlettes¹¹ (4,000 €); Testing of routes for disabled people (in-kind).</i>	13,000 €	21,000 €
Action #1.2: Permanent consultation table on CT	8,000 €	8,000 € <i>(LINKS: 3,000 € and UCL: 5,000 € staff supported by TE TOUR budget)</i>	Not expected <i>(Voluntary participation from the institutions involved in the working table)</i>
Action #1.3: Vademecum for developing consciousness of citizens and tourists	3,000 € <i>Layout and printing of the Vademecum (3,000 €); Promotional costs (in-kind).</i>	3,000 €	Not expected
Action #1.4: Digital services for CT	TBD <i>Cost of data to be bought from VODAFONE (or alternative provider).</i>	17,000 € <i>(Subject to possible variation depending on ongoing costs)</i>	TBD

5.2 P2: Narva (EE, RUS)

The city of Narva, and the Kreenholm district in particular, is a representative CT-Lab about post-industrial heritage.

¹⁰ To be requested in the 3 monitoring campaigns (applicable to all CT-Labs).

¹¹ A Joëlette is a wheelchair designed for hiking on any type of terrain.

5.2.1 P2: KPI to monitor

The file [*KPI_to_Monitor_P2-Narva-Completed.xlsx*] shows in light green the selection of KPIs and affected actions for the case of Narva. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.2.2 P2: Targets to monitor

Table 7 and Table 8 detail the targets to be monitored for Narva CT-Lab. Action #2.2 (Virtual tour on Kreenholm manufacture – indicated in D3.2) will finally not be carried out throughout the TExTOUR project, but it is subject to a business plan under development.

Table 7: Targets for Narva Action #2.1

	Target setting	Target verification
Action #2.1: Light installation in the building of Joala factory	Development of unique local service in unique location in the form of year-round accessible CT product.	Y/N
	Incremental percentage on domestic and international tourists visiting Kreenholm.	10% increase by 2025 (5,213 visitors in 2022 – ca 5,700 visitors in 2025). About 70% are domestic and 30% are international.
	Carrying out an activity to value and preserve memorable vales and stories of local community, different generations and vulnerable groups.	Y/N <i>Former Kreenholm workers' memories, stories, photos planned to be collected and saved in digital format.</i>
	Carrying out an activity to enhance involvement of communities and different social groups in co-preserving and common introducing of cultural heritage via interactive interface.	Y/N <i>The activity will involve different social groups in co-preserving and common introducing of cultural heritage via interactive interface (among others: former Kreenholm workers, young people, guides in the creation/delivery/implementation of the CT Action and vulnerable groups).</i>
	Number of activities for the support and preservation of the memorable values of inhabitants, former workers, previous generations, previous way of life in Kreenholm district.	1 (at least) <i>Preserving heritage by displaying it during: the opening event; regular light shows (funding dependent number).</i>
	Number of trainings to operator.	1 (at least) <i>Activity for show operator.</i>
	Creating a light installation show oriented to the preservation of emotional connections between	Y/N <i>The light installation show will be approaching memories of senior</i>

	generations and different groups/stakeholders.	<i>generation about unique industrial complex in Narva.</i>
	Number of partners to be engaged for cooperation in CT sector: ex Narva Museum, SMEs (guides, caterers, souvenir sellers, transport companies, accommodation companies), city institutions, cultural actors.	12 partners (at least) <i>Totally at least 7 partners for the development of CT products. At least 5 different partners to be involved on the implementation phase (cafes, guides, souvenirs, transport, workshops, cultural managers, event's organizers).</i>
	Number of promotional events of Narva cultural heritage (Kreenholm district and the city in general).	1 (at least)
	Number of activities to increasing Kreenholm area attractiveness and culture accessibility.	5 (at least) <i>Promotion articles in local and social media; promotion via individual contacts; promotional tours (at least 1), tourism fairs (at least 3); Internet channels, including the city's website; Cooperation with tourism companies (at least 1) via Narva City Government resources and channels.</i>

Table 8: Targets for Narva Action #2.3

	Target setting	Target verification
Action #2.3: Thematic tours at the district of Kreenholm	Carrying out an activity to raise awareness of the target audience on Kreenholm arena and Narva via created digital channels. <i>Digital channels are indicated in the last target of Action#2.1.</i>	Y/N <i>By digital promotion of culture and history among wide to raise awareness and gain almost unlimited reach.</i>
	Number of info-based activities to support different existing thematic tours with informational materials and QR codes to make the tours more accessible for various groups.	358: • <i>Texts for each object is developed and translated into Russian and Estonian languages. Totally 18 objects within the thematic tour.</i> • <i>Each object description with illustrative material is uploaded to visitharva.ee in three languages.</i> • <i>About 20 QR codes are generated with the short description</i> • <i>About 20 info signs with QR codes are produces and placement of signs on the tour route</i> • <i>Routes maps are produced in the approximate amount of 300 items.</i>

5.2.3 P2: Costs and funding sources to monitor

The Table 9 addresses the estimated cost allocation and status of expenses for the Narva CT-Lab.

Table 9: Costs breakdown for the actions to deploy in Narva

	Indicative costs	Real Costs	
		TeXTOUR support	Additional funding
Action #2.1: Light installation on the building of Joala factory	32,400 €	25,400 € <i>Staff costs: 2,000 €. Other G&S: external expert service for development of conception and software (14,000 €); organizing the process of involving local communities (7,400 €); presentation of the new tourist product and opening event (2,000 €).</i>	7,000 € <i>Technical planning, production and installation process.</i>
Action #2.2: Virtual tour on Kreenholm manufacture	TBD	Not expected <i>Business plan under development for deploying and following up this action after the end of the project.</i>	Not expected
Action #2.3: Thematic tours at the district of Kreenholm	5,000 €	5,000 € <i>Staff costs: 1,500 €. Other G&S: Development of information materials' design and printing (800 €); development of materials with relevant QR codes and installation (1,300 €); promotion of the tours via social media (100 €); expert service for development of the webpage enclosing the information (texts, audio and map) to provide tour info and also generating QR codes (1,300€).</i>	Not expected

5.3 P3: Umgebindeland (DE, PL, CZ)

The Umgebindeland area is a representative CT-Lab on the transnational cultural landscape (based on traditional housing).

5.3.1 P3: KPI to monitor

The file [*KPI_to_Monitor_P3-Umgebindeland-Completed.xlsx*] shows in light green the selection of KPIs and affected actions for the case of Umgebindeland. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.3.2 P3: Targets to monitor

Table 10, Table 11 and Table 12 detail the targets to be monitored for Umgebindeland CT-Lab.

Table 10: Targets for Umgebindeland Action #3.1

	Target setting	Target verification
Action #3.1: Activities in and around the Umgebindeho use	Number of guided tours.	5
	Number of workshops & courses.	3
	Hold a photo exhibition.	1
	Creation of a network with local stakeholders and house owners.	Y/N
	Number of 3D-scanned Umgebindehouses.	2

Table 11: Targets for Umgebindeland Action #3.2

	Target setting	Target verification
Action #3.2: Trinational Umgebindeho use-road	Number of one-day-excursions/fieldtrips with totally 450 km (approx.) (112 km in Germany, 206 km in Poland, 133 in Czech).	3
	Selection of especially worth seeing and visitable Umgebindehouses along the trips.	TBD (Depending on whether the owners are willing to allow visits to their homes)
	Number of networks created among stakeholders and associations in Poland, Czech and Germany.	1 (at least)

Table 12: Targets for Umgebindeland Action #3.3

	Target setting	Target verification
Action #3.3: Umgebindeho use database	Bundling of existing collections and transferring into a uniform structure.	Y/N
	Number of digitally-ready visualization of Umgebindehouses and (additional) use of already existing digital material <i>(in cooperation with the University of Zittau/Görlitz)</i> .	2

5.3.3 P3: Costs and funding sources to monitor

Table 13 addresses the estimated cost allocation and status of expenses for the Umgebindeland CT-Lab.

Table 13: Costs breakdown for the actions to deploy in Umgebindeland

	Indicative costs	Real Costs	
		TE X TOUR support	Additional funding
Action #3.1: Activities in and around the Umgebindeho use	40,000 € <i>(Any kind of individual offer / event to be carried out by the respective providers or organizers on their own responsibility are not taken into account since they bear the costs).</i>	15,000 € <i>(‘Other cost’ item: 4,800 €; 4 person-month additional effort is required from ‘personnel costs’ item: 10,200 €)</i>	25,000 € <i>(Funding from the State of Saxony).</i>
Action #3.2: Trinationa Umgebindeho use-road	10,200 € <i>(Any kind of individual offer / event to be carried out by the respective providers or organizers on their own responsibility are not taken into account since they bear the costs).</i>	10,200 € <i>(4 person-month additional effort is required from ‘personnel costs’ item: 10,200 €)</i>	Not expected
Action #3.3: Umgebindeho use database	TBD	3,300 € <i>(1.3 person-month required from ‘personnel costs’ item)</i>	TBD <i>(University of Zittau/Görlitz).</i>

5.4 P4: Via Regia (UA, BY, DE, FR, ES)

It is the largest European cultural route, where Rivne (Ukraine) is a relevant city and a significant CT-Lab about state culture while strengthening ties with the EU.

5.4.1 P4: KPI to monitor

The file *[KPI_to_Monitor_P4-Via_Regia-Completed.xlsx]* shows in light green the selection of KPIs and affected actions for the case of Via Regia. The 'base calculated

value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.4.2P4: Targets to monitor

Table 14, Table 15 and Table 16 detail the targets to be monitored for Via Regia CT-Lab.

Table 14: Targets for Via Regia Action #4.1

	Target setting	Target verification
Action #4.1: Creating a holistic tourist offer 'Via Regia: Ostroh'	Creation of the tourist product 'Via Regia: Ostroh' <i>(development and implementation of the concept of a brand-new tourist product).</i>	Y/N
	Creation of a network of local stakeholders <i>(it will be constantly developing).</i>	Y/N
	Number of trainings (for 20 Ostroh Museums' employees each), citizens, businesses, and institutions on the issues of using common brand background <i>(to build relations between differentiated kinds of activity and using high-quality standards).</i>	2
	Creation of the Via Regia Brand Strategy (involving all possible local stakeholders and external experts).	Y/N
	Number of brand marks in Ostroh (for exhibitions rooms titles, information boards for marking routes, etc), translating them in Braille font	25
	Number of new expositions as a part of a tourist product 'Via Regia: Ostroh' in the local museums.	2
	Number of e-tickets in Ostroh Museums to be sold until the end of TEXTOUR <i>(2 excursions per month with 15 people each -1 year eq.-).</i>	360
	Number of promotional tours for travel bureaus to present the tourist product 'Via Regia: Ostroh' as an offer. <i>(there are 100 travel bureaus in Rivne)</i>	2
	Number of inclusive online tours through Ostrozskyi heritage as a part of Via Regia.	1

	Number of 3D tours with audio guide.	1
	Number of pages on Rivne regional tourist website with 360° images of Ostrozskyi heritage (<i>using place recommendation and digital local guide for promotion a tourist product 'Via Regia: Ostroh'</i>)	5
	Number of targeted advertising for a tourist product 'Via Regia: Ostroh' in local media (<i>via social media pages, monitors in trains, promoting product during festival, all-Ukrainian and international tourist exhibitions, fairs, festivals and other cultural events</i>).	20
	Number of SMM activities by 2 Ostroh Museums' employees of the tourist product 'Via Regia: Ostroh' on 2 social media channels (Facebook, Instagram) about Ostroh castle.	100

Table 15: Targets for Via Regia Action #4.2

	Target setting	Target verification
Action #4.2: Dubno town: recovery of fair traditions	Number of fairs organized.	1
	Creation of the night excursion 'Spirits and Legends of the Dubno Castle' (<i>Adapted to the needs of different kinds of guests by appropriate lighting, marking the first and the last stairs, adapting room titles, assigning the role of inclusive guide to one of the actors, using sign language, etc.</i>) <i>This night excursion will be used as a background for theatrical attraction during the fair to organise to enable visitors to try on the roles (actors as assistants in playing). Cooperation between Dubno Castle, local government and businesses to organize the regional fair will be built up. The 'Spirits and Legends of the Dubno Castle' will be promoted to different types of audiences using Digital Local Guide, social media pages, and place recommendation.</i>	Y/N
	Creating of 360° Online Visit of the 'Spirits and Legends of the Dubno Castle' for vulnerable groups.	Y/N

	Training for 10 Dubno Castle personnel	Y/N
	Number of training for 15 local businesses on promoting a tourist product using ICT.	2
	Number of cultural events organised (vernissages of local artists, outdoors, game libraries, historical reconstructions, thematic festivals of different historical eras, and festivals on the territory of Dubno castle and on the central square of Dubno town).	5
	Number of banners of historical monuments created on the Kyiv-Chop highway.	2
	Launching an open competition for the title of the best product/service in the segment (<i>'Via Regia. Taste 2022: Worthy of a King'</i>).	Y/N
	Number of QR codes used for spreading more information about local services and unique branded products.	25

Table 16: Targets for Via Regia Action #4.3

	Target setting	Target verification
Action #4.3: Creative Cluster in Derman-Ostroh National Nature Park to strength inclusion of internal refugees in local communities	Number of trainings for 15 local businesses on providing tourist services for IDPs.	3
	Number of tours per month for various stakeholders, including IDPs and persons with disabilities.	2
	Number of events for different groups of stakeholders (including artists, IDPs, disabled persons etc.) (<i>3 already existing festivals (Gastro-Festival in Ilyashivka, Novomalyn Fishing Festival, Buderaz Festival); 1 new festival; 6 master-classes etc. The new festival will play the role of glitter for gathering small local initiatives within one Creative Cluster</i>).	10
	Setting a social media page for promoting the environmental friendliness for wide audience.	Y/N
	Number of QR-codes to be marked.	15

	Number of tours to be marked for spreading information about the Derman-Ostroh National Nature Park and its Creative Cluster.	2
	Inclusive website with 360° images of natural heritage and its history and future Creative Cluster events.	Y/N

5.4.3 P4: Costs and funding sources to monitor

Table 17 addresses the estimated cost allocation and status of expenses for the Umgebundeland CT-Lab.

Table 17: Costs breakdown for the actions to deploy in Via Regia

	Indicative costs	Real Costs	
		TE X TOUR support	Additional funding
Action #4.1: Creating a holistic tourist offer 'Via Regia: Ostroh'	3,000 €	2,000 € <i>Used for: 2 trainings for 20 Ostroh Museums' employees, citizens, businesses, and institutions (already in place) ; 1 Via Regia brand strategy creation process (involving all possible local stakeholders and external experts) ; Digital platform support (UNINOVA).</i>	1,000 € <i>From regional budget¹² for: 1 tourist product 'Via Regia: Ostroh' (development of the concept of a brand-new tourist product) ; 1 open competition 'Ostroh local artists for Via Regia' with 10 local artists. Additionally, the Ostroh State Historical and Cultural Reserve will create application for regional development funds and other funding.</i>
Action #4.2: Dubno town: recovery of fair traditions	5,000 €	4,000 € <i>Used for: 1 adapted night excursion 'Spirits and Legends of the Dubno Castle' to the needs of different kinds of guests (EU counties' languages, sign language, etc.); creating of 360° online visit for vulnerable groups; 1 personnel training for 10 Dubno Castle personnel; 2 training for 15 local businesses on promoting a</i>	1,000 € <i>Costs are expected from local budgets¹³ for: 2 street trade organization (souvenirs, food, painting, decorative arts, etc.); 5 cultural events organization (vernissages of local artists, outdoors, game libraries, historical reconstructions, thematic festivals of different historical eras, and festivals) on the territory of Dubno castle and on the</i>

¹² If having no financial limitations related to war legislation.

¹³ If having no financial limitations related to war legislation.

		<i>tourist product using ICT; 2 banners creation of historical monuments on the Kyiv-Chop highway; 1 open competition for the title of the best product/service in the segment ('Via Regia. Taste 2022: Worthy of a King'); 25 QR codes for spreading more information about local services and unique branded products; Digital platform support (UNINOVA).</i>	<i>central square of Dubno town. Additionally, the Dubno State Historical and Cultural Reserve will create application for regional development funds and other funding.</i>
Action #4.3: Creative Cluster in Derman- Ostroh National Nature Park to strength inclusion of internal refugees in local communities	2,000 €	2,000 € <i>3 trainings for 15 local businesses on providing tourist services for IDPs; 2 tours per month for various stakeholders, including IDPs and persons with disabilities; 10 events for different group of stakeholders: internal refugees (internally displaced persons) including artists, disabled persons etc.; 15 QR-codes for marking 2 tours marking for spreading more information about the Derman-Ostroh National Nature Park and its Creative Cluster; 1 inclusive website with 360° images of natural heritage and its history and future Creative Cluster events; Digital platform support (UNINOVA).</i>	TBD <i>Derman-Ostroh National Nature Park will create application for regional development funds and other funding.</i>

5.5 P5: Trebinje (BA, HR, ME)

Trebinje is a representative CT-Lab about the Balkan diversity.

5.5.1 P5: KPI to monitor

The file *[KPI_to_Monitor_P5-Trebinje-Completed.xlsx]* shows in light green the selection of KPIs and affected actions for the case of Trebinje. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.5.2P5: Targets to monitor

Table 18, Table 19 and Table 20 detail the targets to be monitored for Trebinje CT-Lab.

Table 18: Targets for Trebinje Action #5.1

	Target setting	Target verification
Action #5.1: Small School of Gastronomy	Number of new educational material and/or enhanced educational module to be created.	1 (at least)
	Number of tourist packets offering a visit to local households and experience of food producing and tasting.	1
	Number of local recipes from traditionally grown species to be referenced on regional/EU gastronomic platforms and/or included in local restaurants menus.	3

Table 19: Targets for Trebinje Action #5.2

	Target setting	Target verification
Action #5.2: Magic of Trebinje Villages	Number of thematic routes created to promote different types of heritage and covering around 10 km each.	3
	Creation of a website with thematic routes.	Y/N
	Number of QR codes developed and installed. (10 on cultural and 5 on natural heritage).	15
	Training with local stakeholders.	Y/N
	Application for extra funds submitted.	Y/N

Table 20: Targets for Trebinje Action #5.3

	Target setting	Target verification
	Number of temporary artistic exhibitions (Depending on budget: poster/ mural /spatial installation ¹⁴).	1 (at least)

¹⁴ Installation to house temporary exhibitions (canopy or something more elaborate).

Action #5.3: Start!Art Festival	Creation of a pop-up event and/or a pop-up market.	1 (at least)
	Number of local/international artists and creatives to participate.	15
	Number of spectators and/or visitors of the festival.	100
	Number of applications for extra funds submitted (1 international call + 1 private call).	2

5.5.3 P5: Costs and funding sources to monitor

The Table 21 addresses the estimated cost allocation and status of expenses for the Trebinje CT-Lab.

Table 21: Costs breakdown for the actions to deploy in Trebinje

	Indicative costs	Real Costs	
		TE X TOUR support	Additional funding
Action #5.1: Small School of Gastronomy	7,800 €	6,300 € (1,800 € from personnel costs and 4,500 € from Other G&S).	1,500 € (Expected to be provided from public funds - application for Ministry of Education and Ministry of Agriculture and Water Management-).
Action #5.2: Magic of Trebinje Villages	7,200 €	6,200 € (2,200 € from personnel costs and 4,000 € from Other G&S).	1,000 € (At least 1,000 € are expected to be provided from the international funds -application for USAID funds and foreign embassies small grants-; Digital support from UNINOVA).
Action #5.3: Start!Art Festival	14,800 €	8,300 € (2,800 € from personnel costs; 4,300 € from Other G&S; 1,200 € from travel item).	6,500 € (Expected to be provided from the international and private funds -socially responsible companies and foreign embassies small grants-).

5.6 P6: Tarnowskie Góry (PL)

It is one of the main mining areas of central Europe, UNESCO declared, and reference CT-Lab on historic post-mining facilities.

5.6.1 P6: KPI to monitor

The file [*KPI_to_Monitor_P6-Tarnowskie_Gory-Completed.xlsx*] shows in light green the selection of KPIs and affected actions for the case of Tarnowskie Góry. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.6.2 P6: Targets to monitor

Table 22, Table 23 and Table 24 detail the targets to be monitored for Tarnowskie Góry CT-Lab.

Table 22: Targets for Tarnowskie Góry Action #6.1

	Target setting	Target verification
	Number of trainings regarding educational programme addressed to the primary schools and delivered educational paths for educators.	7
	Number of training courses on nature education for primary schools and on educational paths no. 2 ¹⁵ and no. 3 ¹⁶ for current guides.	2
	Number of groups involved in educational paths by the end of 2024.	150
	Number of events/year organized around routes no. 2 and no. 3.	6
	Number of educators to be trained about the underground route: 'Chodnik Okrężny' in the Historic Silver Mine at Tarnowskie Góry.	12
	Number of current guides to be trained about routes no. 2 and no. 3. <i>(guides trained as part of nature education).</i>	20
	Number of entities interested in educational paths related to the cultural	8

¹⁵ Route no. 2: the nature reserve 'Segiet' in Bytom - the Flushing heap of the Fryderyk mine.

¹⁶ Route no. 3 (the Black Trout Adit – Outlet of the Fryderyk Adit).

Action #6.1: Development of educational paths related to the cultural landscape in Tarnowskie Góry and communes covered by the UNESCO heritage (Tarnowskie Góry, Zbrosławice and Bytom)	landscape in Tarnowskie Góry and communes.	
	Length of routes to be mapped.	5.5 km
	Number of new spaces to be made accessible. <i>(Making the underground route 'Chodnik Okrężny' available to visitors in the Historic Silver Mine in Tarnowskie Góry).</i>	1
	Number of QR codes panels to be installed.	10
	Number of tangible heritage items to be included in the cycling/hiking route.	4
	Creation of an external link within the UNESCO mining site (World Heritage and Extractive Industries) <i>(It applies to training programs - educational offers-).</i>	Y/N
	Setting-up a visitor satisfaction data retrieval system (by means of QR codes). <i>(It will consist of a table with a special software by UNINOVA).</i>	Y/N
	Number of devices to be purchased for enhanced visitor's experience in Tarnowskie Góry and communes. <i>(There will be 2 tablets and 1 GoPro camera. One of these tablets is the target listed in the previous target).</i>	3

Table 23: Targets for Tarnowskie Góry Action #6.2

	Target setting	Target verification
Action #6.2: Integration and information about open- air events and artistic events – the Historic Silver Mine in Tarnowskie Góry and communes covered by the UNESCO heritage (Tarnowskie Góry,	Number of people attending the workshops.	10
	Number of entities interested in open-air and artistic events in the pilot area.	9
	Creation of a dedicated website page.	Y/N
	Local product referenced on the TEXTOUR platform.	Y/N

Zbrostawice and Bytom)		
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Table 24: Targets for Tarnowskie Góry Action #6.3

	Target setting	Target verification
Action #6.3: Improving accessibility of tourism infrastructure by enhancing information on cultural properties and tourism-related sites	Number of entities interested in improving accessibility of tourism infrastructure in the pilot area ¹⁷ .	15
	Length of routes to be mapped.	20 km
	Number of heritage sites to be included in the routes to map.	16
	360° photo to be created for 1 tangible heritage (flushing heap of the Fryderyk Mine 'Hałda Popłuczkowa').	Y/N
	Number of POI to be mapped on the TExTOUR Platform.	70
	Number of POIs including information about accessibility.	70

5.6.3 P6: Costs and funding sources to monitor

The Table 25 addresses the estimated cost allocation and status of expenses for the Trebinje CT-Lab.

Table 25: Costs breakdown for the actions to deploy in Tarnowskie Góry

	Indicative costs	Real Costs	
		TExTOUR support	Additional funding
Action #6.1: Development of educational paths related to the cultural landscape in Tarnowskie Góry and communes covered by the UNESCO	24,400 €	21,800 € Staff costs: 2,000 € Subcontracting: 19,800 € (2,200 € for local visions on the planned routes and creation of educational paths (walking); 2,000 € to conduct a workshop with the participation of methodologists and to develop teaching	2,600 € (1 person for two months of the TGLLA - 1,300 € average monthly salary in 2022-)

¹⁷ Some entities may be involved in the equivalents for Action #6.1 and Action #6.2.

heritage (Tarnowskie Góry, Zbroslawice and Bytom)		materials along the routes; 6,000 € for the development of all scenarios; 1,500 € about organization of trainings for educators; 5,600 € for tests of lesson plan; 800 € for marketing communication and sales plan of the educational offer; 1,700 € for logistic and legal elements related to implementation; TGLLA ¹⁸ and IETU support in-kind).	
Action #6.2: Integration and information about open-air events and artistic events – the Historic Silver Mine in Tarnowskie Góry and communes covered by the UNESCO heritage (Tarnowskie Góry, Zbroslawice and Bytom)	2,700 €	1,700 € Staff costs: 500 € Subcontracting: 1,200 € (800 € for organizing workshops; 400 € for creating the workshops reports; TGCC ¹⁹ , TGLLA, Local Tourist Organization of the Town of Gwarków and IETU support in-kind). Digital platform support from UNINOVA.	1,000 € (Staff costs of local tourism organization)
Action #6.3: Improving accessibility of tourism infrastructure by enhancing information on cultural properties and tourism-related sites	2,500 €	1,500 € Staff costs: 500 € Subcontracting: 1,000 € (600 € for collecting information; 400 € for the implementation of the promotion plan; TGCC, TGLLA, Local Tourist Organization of the Town of Gwarków and IETU support in-kind).	1,000 € (Staff costs of local tourism organization)

¹⁸ Tarnowskie Góry Land Lovers Association.

¹⁹ Tarnowskie Góry Cultural Center.

		Digital platform support from UNINOVA.	
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5.7 P7: Vale do Côa (PT)

It is one of the few UNESCO sites shared between two countries, and representative CT-Lab on prehistoric rock art sites.

5.7.1 P7: KPI to monitor

The file [*KPI_to_Monitor_P7-Coa-Completed.xlsx*] shows in light green the selection of KPIs and affected actions for the case of Côa. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.7.2 P7: Targets to monitor

Table 26 and Table 27 detail the targets to be monitored for Côa CT-Lab.

Table 26: Targets for Côa Action #7.1

	Target setting	Target verification
Action #7.1: The Stone Route- Meet Côa	Number of routes to be defined	4
	Number of POIs to be listed and added to the TExTOUR platform	20
	Number of points of interest from which specific information will be obtained.	15

Table 27: Targets for Côa Action #7.2

	Target setting	Target verification
Action #7.2: Ambassadors for Côa	Number of planned training sessions (1 about the history of Côa; 1 about the museum; 1 about culinary heritage of the area).	3
	Number of residents trained (10 young: 12-25 years old; 5 seniors: 60 and older).	15
	Website page with information about training (sessions and contents) (including the application form for parents in case of minors).	Y/N

5.7.3 P7: Costs and funding sources to monitor

The Table 28 addresses the estimated cost allocation and status of expenses for the Trebinje CT-Lab.

Table 28: Costs breakdown for the actions to deploy in Côa

	Indicative costs	Real Costs	
		TExTOUR support	Additional funding
Action #7.1: The Stone Route- Meet Côa	3,000€ (Placement of QR codes at touristic cultural properties).	TBD	TBD
Action #7.2: Ambassadors for Côa	800 €	800 € (400 € for trainings' printing material; 400 € for food and beverage to trainers and trainees).	UNINOVA is in charge of creating the webpage to be embedded in the TExTOUR Platform ²⁰

5.8 P8A: Anfeh (LB)

Known historically for its salt production since the Phoenician time, Anfeh is a representative CT-Lab for traditional coastal activities.

5.8.1 P8A: KPI to monitor

The file [KPI_to_Monitor_P8A-Anfeh-Completed.xlsx] shows in light green the selection of KPIs and affected actions for the case of Anfeh. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.8.2 P8A: Targets to monitor

Table 29, Table 30 and Table 31 detail the targets to be monitored for Anfeh CT-Lab.

Table 29: Targets for Anfeh Action #8A.1

	Target setting	Target verification
	Benchmark report of existing labels.	Y/N

²⁰ According to the manpower allocation for WP5.

Action #8A.1: Label 'Made in Anfeh': Promotion of local products, digital-marketing and e-commerce	Label 'made in Anfeh' conception, criteria, functioning (including report).	Y/N
	Number of partnerships-agreements.	3-5
	Creation of the Label committee.	Y/N
	Number of websites communicating the Label.	3
	Creation of a Helpdesk for 2 months (<i>Helpdesk located in the Municipality of Anfeh and also online to help local producers to fill the documents to adhere to the label</i>).	Y/N
	Number of products 'labeled'.	8
	Carrying out a workshop on sustainable packaging.	Y/N
	Number of videos about the products.	5
	Sale estimation on products in guest houses and online.	2,000 €
	Making a final report / evaluation.	Y/N

Table 30: Targets for Anfeh Action #8A.2

	Target setting	Target verification
Action #8A.2: Thematic visit paths through multimedia and digital storytelling	Organizing a workshop on low impact scuba diving and safety.	Y/N
	Number of thematic visit paths designed with virtual maps and QR codes. (<i>Natural heritage and fauna & flora; Archeological heritage; Village routes with historical buildings, emphasizing cultural traditions</i>).	3
	Number of local actors trained on creating digital content and audio-visual capsules.	6
	Number of local tourist guides trained to strengthen their skills in accompanying and guiding the tourists.	10-15
	Number of fieldworkers trained to regularly collect data related to tourism in Anfeh to monitor, assess and improve the strategy.	10-15

Table 31: Targets for Anfeh Action #8A.3

	Target setting	Target verification
Action #8A.3: Preparation for and first stages of implementation of an Art Residency	Making an exhibition at the residency (involving 100 visitors).	Y/N
	Number of local hosting families trained to accommodate artists.	3
	Number of open doors to be held.	4
	Number of entities to be cooperating on this action (+5 expected on the long-term).	4
	Number of Lebanese artists involved (+ 2 or 3 national and international artists on the long-term).	2
	Number of tourists visiting the workspace.	200
	Number of students to be collaborating with hosted artists.	25

5.8.3 P8A: Costs and funding sources to monitor

The Table 32 addresses the estimated cost allocation and status of expenses for the Anfeh CT-Lab. Due to the political situation and severe economic crisis in Lebanon, these might differ, making it very difficult to find any additional funding.

Table 32: Costs breakdown for the actions to deploy in Anfeh

	Indicative costs	Real Costs	
		TExTOUR support	Additional funding
Action #8A.1: Label 'Made in Anfeh': Promotion of local products	3,860 €	3,860 € <i>Staff costs: GAIA Heritage will recruit one person for 8 months -2 days per week- to contribute to the adequacy of the programme and locally follow the implementation of the action (700 €).</i> <i>Other direct costs: 500 € for the organisation of an event with local guesthouses, local commerce and producers to present the products and the strategy of commercialisation; 2,300 € for the organisation of an event to present to the community of Anfeh and to visitors the local products and to raise awareness on the label 'Made in Anfeh' (including promotional material); 150 € for translation; 210 € about printing material for the label.</i>	Not expected <i>(the economic and political situation in Lebanon makes it difficult to secure additional funding for these activities).</i>
	4,570 €	4,570 €	Not expected

Action #8A.2: Thematic visit paths through multimedia and digital storytelling		<i>Staff costs: 2,100 € in new recruited HR to create and digitize the content. Other direct costs: 370 € for printing brochures; 2,100 € to organise workshops: visit trail + ethical diving and UCH protection.</i>	<i>(the economic and political situation in Lebanon makes it difficult to secure additional funding for these activities).</i>
Action #8A.3: Preparation for and first stages of implementati on of an Art Residency	5,000 €	5,000 € <i>Staff costs: GAIA will recruit a person to follow up related activities (800 €). Other direct costs: organisation of activities (up to 3,000 € for welcoming 2 artists: up to 1,200 € for the expenses of the art workspace -final amount to be adjusted-).</i>	Not expected <i>(the economic and political situation in Lebanon makes it difficult to secure additional funding for these activities).</i>

5.9 P8B: Fikardou (CY)

The very small and picturesque settlement of Fikardou is a representative CT-Lab about village authenticity.

5.9.1 P8B: KPI to monitor

The file [*KPI_to_Monitor_P8B-Fikardou-Completed.xlsx*] shows in light green the selection of KPIs and affected actions for the case of Fikardou. The 'base calculated value' and the 'goal expected value' are computed based on the variables and constants involved in the selected KPIs.

5.9.2 P8B: Targets to monitor

Table 33 and Table 34 detail the targets to be monitored for Fikardou CT-Lab.

Table 33: Targets for Fikardou Action #8B.1

	Target setting	Target verification
Action #8B.1: Holistic Digitization and Virtual presentation of the village	Creation of a Regional Committee for the design, setup and implementation of the 'e-Fikardou' village (involving local authorities and Cypriot Ministry of Antiquities).	Y/N
	Search, find, evaluate, and select cultural heritage objects to be digitized.	Y/N <i>(It is likely to be quantified in July 2023)</i>
	Establishment of a Fikardou Gastronomy Laboratory.	Y/N

(tangible and intangible history): e-Fikardou	Design, set up, implement, test and run an online application which will include all digitized objects, complementary materials and the entire village.	Y/N
	Integration of the virtual village on the TExTOUR platform.	Y/N
	Final press conference to present the virtual Fikardou.	Y/N

Table 34: Targets for Fikardou Action #8B.2

	Target setting	Target verification
Action #8B.2: Digitization of cycling and walking routes and experiences²¹	Creation of a Regional Committee for the design, setup and implementation of the cycling and walking routes and experiences (involving the local cycling club and the Nicosia Tourism Board).	Y/N
	Length of the cycling and walking routes to be digitized and integrated in the selected POIs.	1-2km (1 route)
	Design, set up, implement, test and run an online application which will include the routes and experiences.	Y/N
	Integration of the routes and experiences on the TExTOUR platform.	Y/N
	Final press conference to present the routes and experiences digitised.	Y/N

5.9.3 P8B: Costs and funding sources to monitor

The Table 35 addresses the estimated cost allocation and status of expenses for the Fikardou CT-Lab.

Table 35: Costs breakdown for the actions to deploy in Fikardou.

	Indicative costs	Real Costs	
		TExTOUR support	Additional funding
	TBD (at least 50,000 €)	30,000 € (Manpower allocation)	TBD (at least 20,000 €) (The CUT university and the Fikardou Council are

²¹ Interviews to keep record on old customs, local receipts and some dances.

Action #8B.1: Holistic Digitization and Virtual presentation of the village (tangible and intangible history): e-Fikardou			<i>currently sponsoring with 20,000 €. There are also ongoing negotiations with the Cyprus Government and the Deputy Ministry of Tourism and Ministry of Education, Culture, Youth and Sports for financial support. The Deputy Ministry of Research, Innovation and Digital Agenda has also shown interest).</i>
Action #8B.2: Digitization of cycling and walking routes and experiences	TBD (at least 2,000 €)	2,000 € (Manpower allocation)	TBD (The CUT university and the Fikardou Council are currently contributing in-kind. There are ongoing negotiations with the Cyprus Government and the Deputy Ministry of Tourism and Ministry of Education, Culture, Youth and Sports for financial support. The Deputy Ministry of Research, Innovation and Digital Agenda has also shown interest).

6 From monitoring programs to monitoring service

The diagram for representing tasks, words, concepts, or items linked to and arranged around the CT-Labs' action plans as highest-level concept map is presented to organize information, dynamic hierarchical structuring and node folding. Also the MONaaS is detailed as a framework to facilitate the deployment of online state monitoring functionalities, which tracks KPIs, targets and costs upon request on three five-month MoCams.

6.1 Key concepts and Mind Map

Mind maps, or concept maps, have been used to illustrate the relation among concepts and activities in the project. Concept maps²² are graphical tools for organizing and representing knowledge. They include concepts, usually enclosed in circles or boxes of some type, and relationships between concepts indicated by a connecting line linking two concepts. Words on the line, referred to as linking words or linking phrases, specify the relationship between the two concepts. Concepts can be defined as a perceived regularity or pattern in events or objects, or records of events or objects, designated by a label. The label for most concepts is a word, although sometimes other symbols or more than one word is used. Propositions are statements about some object or event in the universe, either naturally occurring or constructed. Propositions contain two or more concepts connected using linking words or phrases to form a meaningful statement.

The Figure 4 shows the highest-level concept map for TEXTOUR. This map illustrates the hierarchical structure and will be helpful to identify common elements that could be used later during the project. Following the structure, it is possible to generate concepts, e.g. *"Key Performance Indicators monitor the Actions that have either Economic, Social, Cultural or Environmental Impact"* or *"CT-Labs develop a Strategic Vision supported by an Action Plan composed by Actions focused on Tourism Types"*.

²² <http://cmap.ihmc.us/docs/conceptmap.php>

This graph has been supervised by domain experts and does not pretend to be exhaustive.

KPI identification, as seen in WP1 and WP2, is the basis for developing an integrated evaluation procedure to measure the performance and impacts achieved through the implementation of the cultural tourism plans identified in WP3. Next tasks within WP5 will deal with the procedures for collecting, processing and analysing KPI's data. Task 5.2 will develop on Monitoring Programme implementation, data gathering procedures and data analytics. Not every KPI has the same relevance, so expert advice will be collected to proceed with KPIs' weight assignment.

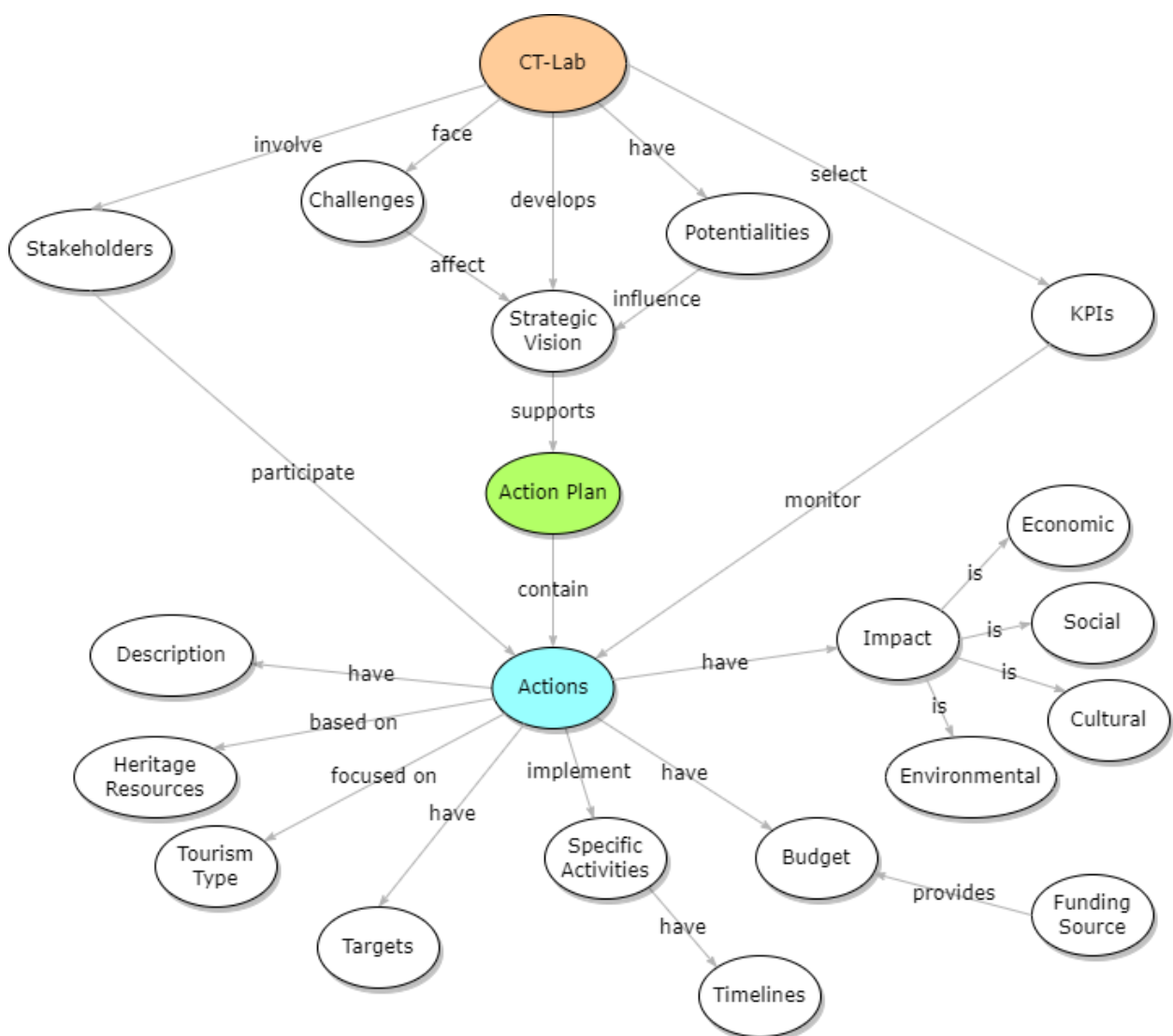


Figure 4: TEXTOUR high level concept map.

6.2 The MONaaS architecture

The architecture of a software system is the fundamental organization, embodied in its components, the relationships between them and the environment, and the principles that govern its design and evolution.

6.2.1 Requirements Analysis

When designing a software system, including its architecture, the system is modelled to support the requirements, even the non-functional ones, and other restrictions that should be considered. The full list of requirements is shown in Table 36, according to the following codification:

- **R.TY.nn**

where

- R is for Requirement
- TY is the type of requirement (TE - Technological, MN - Management, FN - Functional)
- nn is the number of requirement

Some requirements in Table 36, e.g. R.FN.01 & 02, are included in the list for clarity, but they are grey shadowed because it is assumed that some functionalities related to pilot management, such as creating or editing pilot's data are out of scope of the MONaaS.

Table 36: List of requirements

Id	Type	Requirement	Description
R.FN.01	Functional	Create a pilot	The Admin user can create a new pilot, providing all the mandatory information
R.FN.02	Functional	Edit a pilot	The Admin can modify any field in pilot profile. Admin is responsible for consistency checking and avoiding duplications
R.FN.03	Functional	Enable/Disable a pilot	The Admin can enable or disable a pilot for accessing the platform, but without deleting the data from the database. If a pilot is disabled, data can be seen but no editing is possible

R.FN.03	Functional	Enable/Disable a pilot	The Admin can enable or disable a pilot for accessing the platform, but without deleting the data from the database. If a pilot is disabled, data can be seen but no editing is possible
R.FN.04	Functional	KPI selection	A CT-Lab Pilot user can select which KPI should be considered for a specific Action. Baseline should be open for editing
R.FN.05	Functional	Target selection	A CT-Lab Pilot user can select wich Targets should be considered for a especific Action. Baseline should be open for editing
R.FN.06	Functional	Edit an Action Plan	A CT-Lab Pilot user can edit an Action Plan by modifying its data, e.g. General Info, Baseline, Actions or Activities within an Action
R.FN.07	Functional	Baseline open	A Quality Reviewer can open the Baseline for editing
R.FN.08	Functional	Baseline submit	A CT-Lab Pilot user can submit a Baseline whenever it is completed
R.FN.09	Functional	Baseline close	The Baseline is made up of the values of KPIs and Targets at the moment the user submitted the Action Plan. A Quality Reviewer can review a Baseline submitted by a user and close it if everything is correct
R.FN.10	Functional	Add Activity	A CT-Lab Pilot user can create new Activities within an Action. Baseline should be open for editing
R.FN.11	Functional	Edit Activity	A CT-Lab Pilot user can modify Activities within an Action. Baseline should be open for editing
R.FN.12	Functional	Delete Activity	A CT-Lab Pilot user can remove Activities within an Action. Baseline should be open for editing
R.FN.13	Functional	TPI: TExTOUR Performance Index	The Monitoring platform should show a global value that summarises the values of all the KPIs, called TPI for TExTOUR Performance Index (¿CTPI: Cultural Tourism Performance Index?)
R.FN.14	Functional	TPI calculation	TPI value is obtained by the combination of all the relevant KPIs considering their relative weight

R.FN.15	Functional	KPI weights	Every KPI has its own weight, independently of other pilots, i.e. the same KPI can have different weights in different pilots. However, all KPIs belonging to the same category within the same pilot must be equal to 100%
R.FN.16	Functional	KPI weights assignment	The CT-Lab Pilot user can assign/modify the weights of the KPIs within its own pilot
R.FN.17	Functional	KPI values	The CT-Lab Pilot user can assign/modify the values of any selected KPI. Monitoring over time is possible by assigning values on different dates. KPIs are calculated using the variables and constants, so the user has to modify the corresponding variables to obtain an updated KPI value
R.FN.18	Functional	Usability	The user interface must be as simple as possible making easy the interaction with the MONaaS
R.FN.19	Functional	SSO	User must be logged in to access to data. Accessible data depends on user profile. Single Sign On: once logged in, the user can switch from one tool to the other without further authentication.
R.FN.20	Functional	Save values	The user can click on "Save" button as many times as needed, leaving the application and returning later without losing any data
R.FN.21	Functional	Close Monitoring Campaign	A Quality Reviewer can review a monitoring campaign submitted by a user and close it if everything is correct
R.FN.22	Functional	Open Monitoring Campaign	A Quality Reviewer can open a monitoring campaign for editing
R.MN.01	Management	Administrator	The user with the Admin profile has access to all the data and functionalities
R.MN.02	Management	Quality Reviewer	The user in charge of the quality review has access to the data provided by the CT-Lab Pilots under its supervision. The Admin user assigns the reviewers to the CT-Labs
R.MN.03	Management	CT-Lab Pilot	The Cultural Tourism Lab pilot user (CT-Lab Pilot) has access to the data and functionalities related to its pilot only. The Admin user assigns the user to the CT-Lab pilot

R.MN.04	Management	Visitors	Visiting users (not logged in) can access to the public part of the Monitoring data
R.MN.05	Management	MONaaS Open Source	The Monitoring Platform must be implemented on top of existing Open Source software, whenever possible
R.MN.06	Management	Baseline composition	The baseline of a CT-Lab Pilot is made up of the description of the Action Plan and the initial values of the KPIs and Targets
R.TE.01	Technological	Interoperability	MONaaS must provide an Open API to serve data upon request
R.TE.02	Technological	Data loading	Some data, those that are less suitable to be changed, will be pre-loaded off-line into the platform, while the rest of the data will be provided by the users through the corresponding forms

6.2.2 Use-Cases Description

The next step is the creation of a Use-Case diagram (see Figure 5), which summarises the details of the software system, the users or “actors”, and their interactions with the system. An effective use case diagram can help in discussing and representing the scope of the software system, and the scenarios in which the system interacts with people, organisations, or external systems. Following this diagram, a detailed explanation of every use case is included in the form of tables (from Table 37 to Table 50).

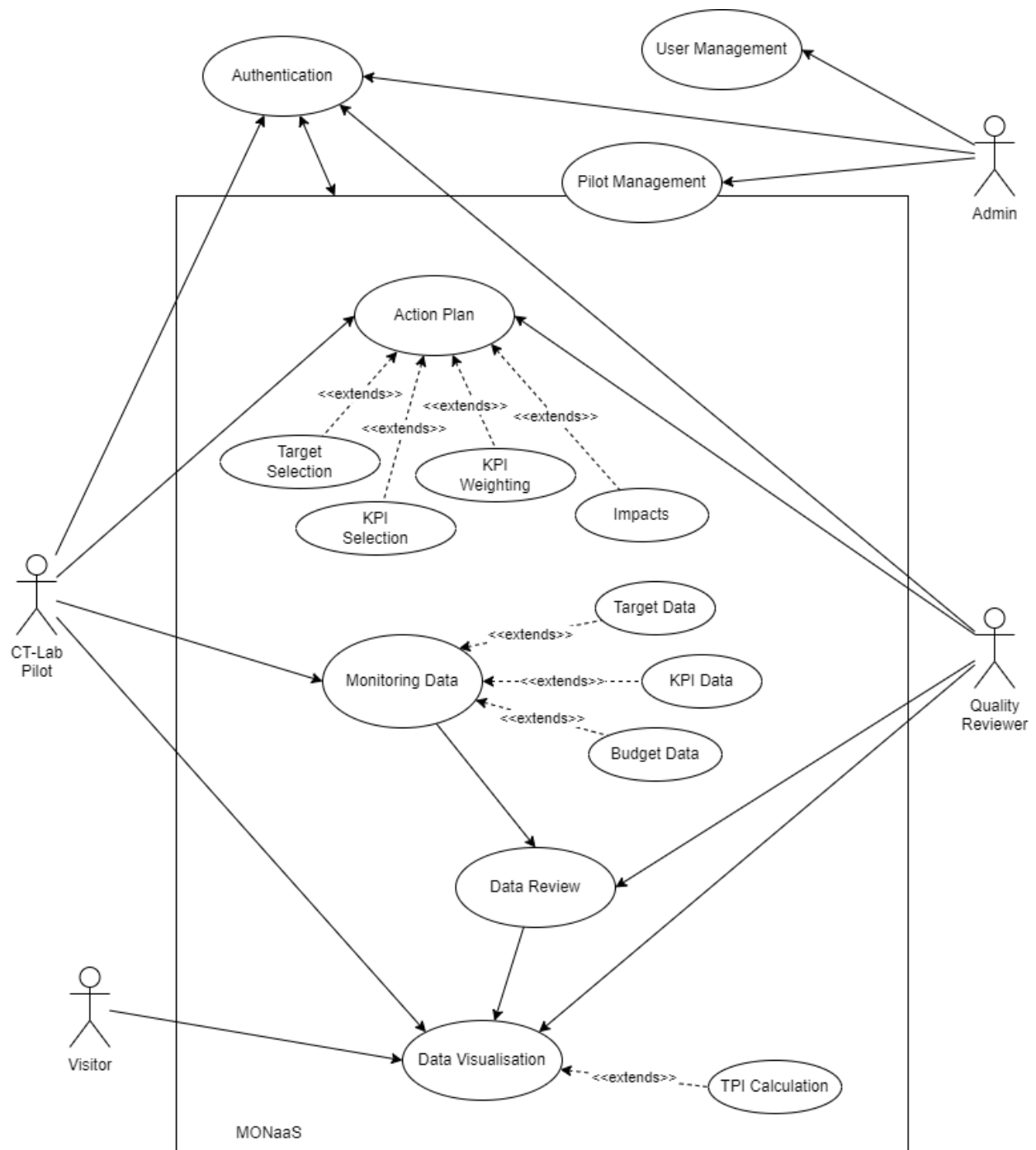


Figure 5: Use-Case diagram.

Table 37: Use Case 01 - Authentication

Id	UC01 - Authentication
Repetition	Every time a user connects to the platform
Actors	Admin, Quality Reviewer, CT-Lab Pilot user
User Interfaces	Web browser, login page
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	The actor has been validated by the Admin user and granted access to services according to the actor's profile
Impulse	The actor requests access to the platform
Description	The actor connects to the server with a web browser and selects Login (R.FN.19)
	1. Actor introduces the user name and password
Exceptions	The actors has a valid open session in the platform already
End Situation from the User's Point of View	• Login successful: Grant access to the actor according to its profile
	• Login Error: Error message and Login dialogue again
End Situation from the System's Point of View	• Login successful: set the session id and token while the session is open
	• Login Error: Notify the error to the user and show Login dialogue again

Table 38: Use Case 02 - Pilot management

Id	UC02 - Pilot Management
Repetition	Every time the Admin pushes the "Edit Pilot" button
Actors	Admin
User Interfaces	Web browser, Edit pilot page
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	The CT-Lab Pilot has been created already
Impulse	The Admin pushes the "Edit Pilot" button

Description	The Admin user can enable or disable a pilot, in order to be shown in the platform (R.FN.03). It is assumed that other functionalities related to pilot management, such as creating or editing pilot's data are out of scope of the MONaaS
Exceptions	If a pilot is disabled, data can be seen but no editing is possible (R.FN.03)
End Situation from the User's Point of View	- On "Save": New value for pilot Enabled is set - On "Cancel": No modification is made
End Situation from the System's Point of View	- On "Save": save the Enabled value to the database and return to the previous page - On "Cancel": No changes, return to the previous page

Table 39: Use Case 03 - Action Plan

Id	UC03 – Action Plan
Repetition	When a Pilot is created, the CT-Lab Pilot user has to create an Action Plan
Actors	CT-Lab Pilot (user), Quality Reviewer (QR)
User Interfaces	Web browser, New/Edit Action Plan page, KPI selection form, KPI Weighting form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled and Baseline is open
Impulse	The CT-Lab Pilot user clicks on either button "New" or "Edit" Action Plan
Description	- A new Action Plan is composed by a set of Actions, the KPIs to measure the impact of those activities, and the Targets to quantify their throughput - The CT-Lab Pilot user creates a new Activity, providing a title and a brief description - The user selects the relevant heritage resources among the list - The user selects the type of heritage-based tourism categories among the list - The user defines the objective and targets expected to be reached by the Action at the end of the project. - For each target, the user clicks on the "Add Target" button (and UC07 is executed) - The user includes the stakeholders involved, if any - The user includes the specific activities which break down this Action (R.FN.10, 11 & 12) - The user selects the Monitoring KPIs among the list. - For each KPI, the user clicks on the "Add KPI" button (and UC08 is executed)

	9. The user defines the weights for the selected KPIs in a balanced manner by clicking on the "KPI Weights" button (and UC09 is executed) 10. The user defines the required resources to develop the Action 10.1. Budget: The expected cost 10.2. Funding source: The origin of the budget 10.3. Funding type: The type of funding provided 11. The user defines the Impact of the Action by selecting the impact domain from a list and a description of the positive/negative impact (and UC10 is executed) 12. The user clicks on "Save" button when needed (R.FN.20) 13. The user clicks on "Submit" button and the Action Plan mode is set to "Under Review" (R.FN.08) The Quality Reviewer checks the Action Plan and clicks on "Close" button if everything is OK (R.FN.09), otherwise clicks on the "Open" button to return the Action Plan to the CT-Lab Pilot user (R.FN.07)
Exceptions	For creating/editing an Action Plan, the CT-Lab Pilot must be Enabled and the Baseline has to be Open (R.FN.07)
End Situation from the User's Point of View	• On "Cancel": No modifications are made • On user "Save": New values for pilot's Action Plan, targets, KPI selection and/or KPI weights are set, but in draft mode • On user "Submit": The Action Plan is closed for editing and set in review mode for the Quality Reviewer • On QR "Save": New values for pilot's Action Plan, targets, KPI selection and/or KPI weights are set, but in draft mode • On QR "Open": The Action Plan is open again for editing by the CT-Lab Pilot user • On QR "Close": The Action Plan is closed and the user can start introducing the monitoring data
End Situation from the System's Point of View	• On "Cancel": No changes, return to the previous page • On "Save": save the new/modified values to the database in draft mode and return to the previous page • On "Submit": save the final values to the database and return to the previous page • On "Open": change the status of the Action Plan to open for editing • On "Close": change the status of the Action Plan to closed for editing

Table 40: Use Case 04 - Monitoring Data

Id	UC04 – Monitoring Data
Repetition	When the Action Plan is approved by the Quality Reviewer and set to Close, The CT-Lab Pilot user can start introducing the monitoring data
Actors	CT-Lab Pilot
User Interfaces	Web browser, Monitoring Data form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity

Initial Situation	A CT-Lab Pilot is Enabled and Baseline is closed
Impulse	The CT-Lab Pilot user clicks on "Add Monitoring Data" button
Description	1. A new Monitoring Campaign is composed by a set of monitoring data values 2. The CT-Lab Pilot user creates a new Monitoring Campaign 3. The user introduces the updated target values (and UC11 is executed) 4. The user introduces the updated KPI values (R.FN.17) (and UC12 is executed) 5. The user introduces the updated budget data (and UC13 is executed) 6. The user clicks on "Save" button when needed (R.FN.20) 7. The user clicks on "Submit" button (R.FN.08) and the Monitoring Campaign is set to "Under Review"
Exceptions	For introducing the Monitoring data, the CT-Lab Pilot must be Enabled and the Baseline has to be Closed (R.FN.07)
End Situation from the User's Point of View	• On "Save": New values for monitoring are set, but in draft mode • On "Submit": The monitoring campaign is closed for editing and set in review mode for the Quality Reviewer • On "Cancel": No modifications are made
End Situation from the System's Point of View	• On "Save": save the new/modified monitoring data values to the database in draft mode and return to the previous page • On "Submit": save the final monitoring data values to the database an return to the previous page • On "Cancel": No changes, return to the previous page

Table 41: Use Case 05 - Data Review

Id	UC05 – Data Review
Repetition	When the Monitoring Campaign data are submitted by CT-Lab Pilot user the Quality Reviewer has to revise the data
Actors	Quality Reviewer (QR)
User Interfaces	Web browser, Monitoring Data form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A new Monitoring Campaign has been submitted
Impulse	The QR clicks on "Review Monitoring Data" button
Description	A new Monitoring Campaign is submitted for quality review 1. The QR revises the target data provided by the user and changes/amends data, if needed 2. The QR revises the KPI data provided by the user and changes/amends data, if needed 3. The QR revises the budget data provided by the user and changes/amends data, if needed 4. The QR clicks on "Save" button when needed (R.FN.20)

	- The QR clicks on "Close" button and the Monitoring Campaign is set to "Closed" (R.FN.21) - The QR clicks on "Open" button and the monitoring Campaign is set to "Open" for editing again (R.FN.22)
Exceptions	For reviewing the Monitoring data, the CT-Lab Pilot must be Enabled and the Monitoring Campaign must be submitted
End Situation from the User's Point of View	- On "Save": New values for monitoring are set, but in draft mode - On "Close": The monitoring campaign is closed for editing and data are available for visualisation into the platform - On "Open": The monitoring campaign is open for editing by the CT-Lab Pilot user - On "Cancel": No modifications are made
End Situation from the System's Point of View	- On "Save": save the new/modified monitoring data values to the database in draft mode and return to the previous page - On "Close": save the final monitoring data values to the database and return to the previous page - On "Open": save the new/modified monitoring data values to the database in draft mode, change the status of the monitoring campaign to open for editing, and return to the previous page - On "Cancel": No changes, return to the previous page

Table 42: Use Case 06 - Data Visualisation

Id	UC06 – Data Visualisation
Repetition	Every time an actor access to the platform
Actors	Visitor, CT-Lab Pilot user, Quality Reviewer (QR)
User Interfaces	Web browser, Data Visualisation dashboard
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	The actor can be loggen in (User, QR) or not (Visitor)
Impulse	The actor clicks on the "Monitoring Dashboard" button
Description	Data Visualisation shows the TPI (TEXTOUR Performance Index) value (and UC-14 is executed) The Data Visualisation dashboard shows monitoring data according to the profile of the actor: - For a Visitor: The platform shows a list of CT-Lab Pilots that are enabled and a dashboard with the public data of the Pilot - For a CT-Lab Pilot user: The platform shows all the data of the pilot assigned to the user. Filters are available for selecting among the information to be shown - For a QR: The platform shows all the data of the pilots assigned to the QR. Filters are available for selecting among the information to be shown
Exceptions	For displaying the Monitoring data, the CT-Lab Pilot must be Enabled (except for Admin users, R.MN.01)

End Situation from the User's Point of View	The actor clicks on any other button or menu option and jumps to the new location
End Situation from the System's Point of View	The actor leaves the page

Table 43: Use Case 07 - Target Selection

Id	UC07 – Target Selection
Repetition	When the CT-Lab Pilot user is defining the targets for the pilot in the Action Plan
Actors	CT-Lab Pilot user
User Interfaces	Web browser, Target selection form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, the Baseline is open and the Action Plan is being created/edited
Impulse	The CT-Lab Pilot user clicks on the "Add Target" button
Description	A new Target Selection is composed by a description and quantitative values. - The CT-Lab Pilot user can select from the list of available targets or introduce a new target - For the available targets: 2.1. Max Value: the maximum expected value for the target in the current action 2.2. Min Value: the minimum expected value for the target in the current action - For the new targets: 3.1. Name: a sort name for identifying the target 3.2. Description: a brief textual description of the target 3.3. Max Value: the maximum expected value for the target in the current action 3.4. Min Value: the minimum expected value for the target in the current action
Exceptions	Any new target can be introduced, the platform does not check if a target has been defined already, so users are responsible for avoiding repetitions and ambiguities. Once introduced, Targets cannot be deleted for database consistency
End Situation from the User's Point of View	- On "Save": New values for target are set - On "Cancel": No modifications are made

End Situation from the System's Point of View

- On "Save": save the new/modified target data values to the database
- On "Cancel": No changes, return to the previous page

Table 44: Use Case 08 - KPI Selection

UC08 – KPI Selection	
Id	
Repetition	When the CT-Lab Pilot user is defining the KPIs for the pilot in the Action Plan
Actors	CT-Lab Pilot user
User Interfaces	Web browser, KPI selection form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, the Baseline is open and the Action Plan is being created/edited
Impulse	The CT-Lab Pilot user clicks on the "Add KPI" button
Description	A new KPI Selection is composed by the baseline and goal values. 1. The CT-Lab Pilot user selects from the list of available KPIs 2. For the selected KPIs, the user assigns: 2.1. Baseline: the initial value for the variables needed to calculate the value of the KPI in the current action before the beginning of the Action Plan 2.2. Goal: the expected value for the variables needed to calculate the value of the KPI in the current action after the deployment of the Action Plan
Exceptions	No new KPIs can be introduced into the platform, so users can choose among the already defined KPIs only
End Situation from the User's Point of View	• On "Save": New values for KPI are set • On "Cancel": No modifications are made
End Situation from the System's Point of View	• On "Save": save the modified KPI data values to the database • On "Cancel": No changes, return to the previous page

Table 45: Use Case 09 - KPI Weighting

UC09 – KPI Weighting	
Id	
Repetition	Once the CT-Lab Pilot user has defined the KPIs for the pilot in the Action Plan
Actors	CT-Lab Pilot user
User Interfaces	Web browser, KPI weighting form

Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, the Baseline is open and the Action Plan is being created/edited
Impulse	The CT-Lab Pilot user clicks on the "KPI Weights" button
Description	The KPI Weighting consists of a list of the previously selected KPIs and their assigned weights. Weights are unique for every Pilot, so changes in one Pilot does not affect other Pilots 1. The CT-Lab Pilot user assigns the weight, a value between 1 and 99, to every KPI in the list 2. The sum of all the weights must be 100
Exceptions	The system assigns the same weight to every active KPI by default; only user intervention can modify these default values
End Situation from the User's Point of View	• On "Save": Check if the sum of new values for KPI weights equals 100 ◦ Check successful: New values for KPI weights are set ◦ Check Error: Error message and show form again • On "Cancel": No modifications are made
End Situation from the System's Point of View	• On "Save": ◦ Check successful: save the modified KPI weights values to the database and return to the previous page ◦ Check Error: notify the error to the user and show the form again • On "Cancel": No changes, return to the previous page

Table 46: Use Case 10 - Impacts

Id	UC10 – Impacts
Repetition	When the CT-Lab Pilot user is defining the impact for the pilot in the Action Plan
Actors	CT-Lab Pilot user
User Interfaces	Web browser, Impact form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, the Baseline is open and the Action Plan is being created/edited
Impulse	The CT-Lab Pilot user clicks on the "Impact" button
Description	The Impact of the Action consists of a list of Economic/Social/Environmental/Cultural expected effects caused by the deployment of the Action Plan. 1. The CT-Lab Pilot user introduces a textual description of the impact 2. Optionally, it is possible to assign a numeral value to the impact

	3. The user can introduce as many impact items as needed
Exceptions	It is not mandatory to introduce any impact, but at least one item in each category (Economic, Social, Environmental and Cultural) is recommended
End Situation from the User's Point of View	- On "Save": New values for impacts are set - On "Cancel": No modifications are made
End Situation from the System's Point of View	- On "Save": save the modified impact data values to the database - On "Cancel": No changes, return to the previous page

Table 47: Use Case 11 - Target Data

Id	UC11 – Target Data
Repetition	When the CT-Lab Pilot user introduces new/updated target values for the current Monitoring Campaign
Actors	CT-Lab Pilot user
User Interfaces	Web browser, Target Data form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, Baseline is closed and a Monitoring Campaign is open
Impulse	The CT-Lab Pilot user clicks on "Add Target Data" button
Description	The Target Data form consists of the list of previously selected targets. For every item in the list, the CT-Lab Pilot user introduces an updated value, if any
Exceptions	For introducing the Target data, the CT-Lab Pilot must be Enabled and the Baseline must be Closed (R.FN.07)
End Situation from the User's Point of View	- On "Save": New values for target data are set, but in draft mode - On "Cancel": No modifications are made
End Situation from the System's Point of View	- On "Save": save the new/modified target data values to the database in draft mode and return to the previous page - On "Cancel": No changes, return to the previous page

Table 48: Use Case 12 - KPI Data

Id	UC12 – KPI Data
Repetition	When the CT-Lab Pilot user introduces new/updated KPI values for the current Monitoring Campaign

Actors	CT-Lab Pilot user
User Interfaces	Web browser, KPI Data form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, Baseline is closed and a Monitoring Campaign is open
Impulse	The CT-Lab Pilot user clicks on "Add KPI Data" button
Description	The KPI Data form consists of the list of previously selected KPIs. 1. For every item in the list, the CT-Lab Pilot user introduces an updated value of the affected variables, if any
Exceptions	For introducing the KPI data, the CT-Lab Pilot must be Enabled and the Baseline must be Closed (R.FN.07)
End Situation from the User's Point of View	• On "Save": New values for KPIs and variables are set, but in draft mode • On "Cancel": No modifications are made
End Situation from the System's Point of View	• On "Save": save the new/modified variables and KPIs data values to the database in draft mode and return to the previous page • On "Cancel": No changes, return to the previous page

Table 49: Use Case 13 - Budget Data

Id	UC13 – Budget Data
Repetition	When the CT-Lab Pilot user introduces new/updated budget data values for the current Monitoring Campaign
Actors	CT-Lab Pilot user
User Interfaces	Web browser, Budget Data form
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	A CT-Lab Pilot is Enabled, Baseline is closed and a Monitoring Campaign is open
Impulse	The CT-Lab Pilot user clicks on "Add Budget Data" button
Description	The Budget Data form consists of a list of budget items. 1. For every item in the list, the CT-Lab Pilot user introduces an updated value, if any 1.1. Budget: The expected cost 1.2. Funding source: The origin of the budget 1.3. Funding type: The type of funding provided 2. The user can introduce new items in the list, if needed
Exceptions	For introducing the budget data, the CT-Lab Pilot must be Enabled and the Baseline must be Closed (R.FN.07)

End Situation from the User's Point of View	- On "Save": New values for budget data are set, but in draft mode - On "Cancel": No modifications are made
End Situation from the System's Point of View	- On "Save": save the new/modified budget data values to the database in draft mode and return to the previous page - On "Cancel": No changes, return to the previous page
Table 50: Use Case 14 - TPI Calculation	
Id	UC14 – TPI Calculation
Repetition	Every time an actor access to the Data Visualisation dashboard
Actors	CT-Lab Pilot user, Quality Reviewer (QR)
User Interfaces	Web browser, Data Visualisation dashboard
Resources and Tools	Desktop PC and/or mobile phone with data connectivity
Initial Situation	The actor is logged in
Impulse	The actor clicks on the "Monitoring Dashboard" button
Description	Data Visualisation shows the TPI (TEXTOUR Performance Index) value (and UC-14 is executed) The Data Visualisation dashboard shows monitoring data according to the profile of the actor: - For a Visitor: The platform shows a list of CT-Lab Pilots that are enabled and a dashboard with the public data of the Pilot - For a CT-Lab Pilot user: The platform shows all the data of the pilot assigned to the user. Filters are available for selecting among the information to be shown - For a QR: The platform shows all the data of the pilots assigned to the QR. Filters are available for selecting among the information to be shown
Exceptions	For displaying the Monitoring data, including the TPI value, the CT-Lab Pilot must be Enabled (except for Admin users, R.MN.01)
End Situation from the User's Point of View	The actor clicks on any other button or menu option and jumps to the new location
End Situation from the System's Point of View	The actor leaves the page

6.2.3 Sequence Diagrams

The sequence diagram is used primarily to show the interactions between objects in the sequential order that those interactions occur. One of the primary uses of sequence diagrams is in the transition from requirements expressed as use cases to the next and more formal level of refinement. Use cases are often refined into one

or more sequence diagrams. In the TExTOUR case, it is not necessary to transform every use-case into sequence diagrams, but those that have any specificity only.

Sequence diagram in Figure 6 shows that only Admin users can enable or disable a CT-Lab Pilot. Enabling a Pilot means that it is accessible for quality reviewers (QR) and CT-Lab Pilots users, while disabling means that the Pilot cannot be edited but it still appears in the monitoring dashboards.

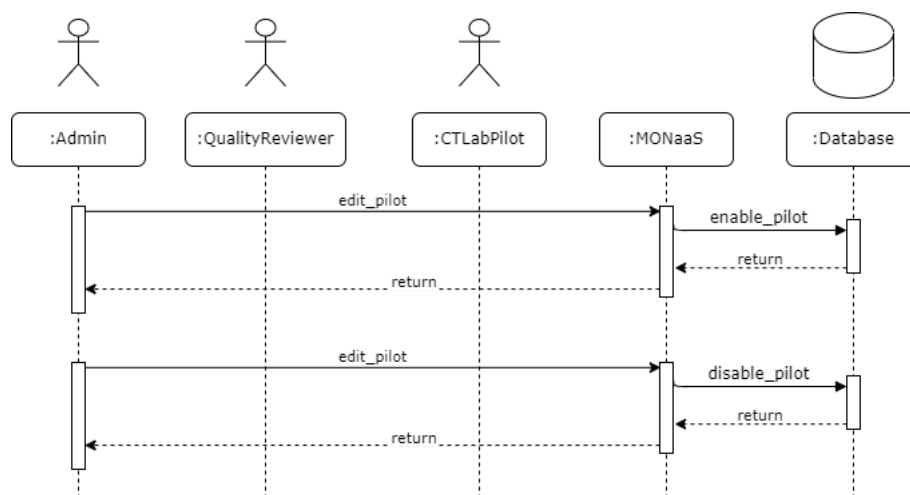


Figure 6: Sequence Diagram (SD) for Enable/Disable a pilot

Next two sequence diagrams, in Figure 7 and Figure 8, illustrate the different responsibilities either creating/editing a Pilot or introducing the monitoring data. In both cases, it is the CT-Lab Pilot user who provides the data to the MONaaS system and, once the information is ready, submits it to the QR. Quality reviewers are in charge of closing the Action Plan or the Monitoring Campaign once reviewed, and only the QR can open them again, if needed.

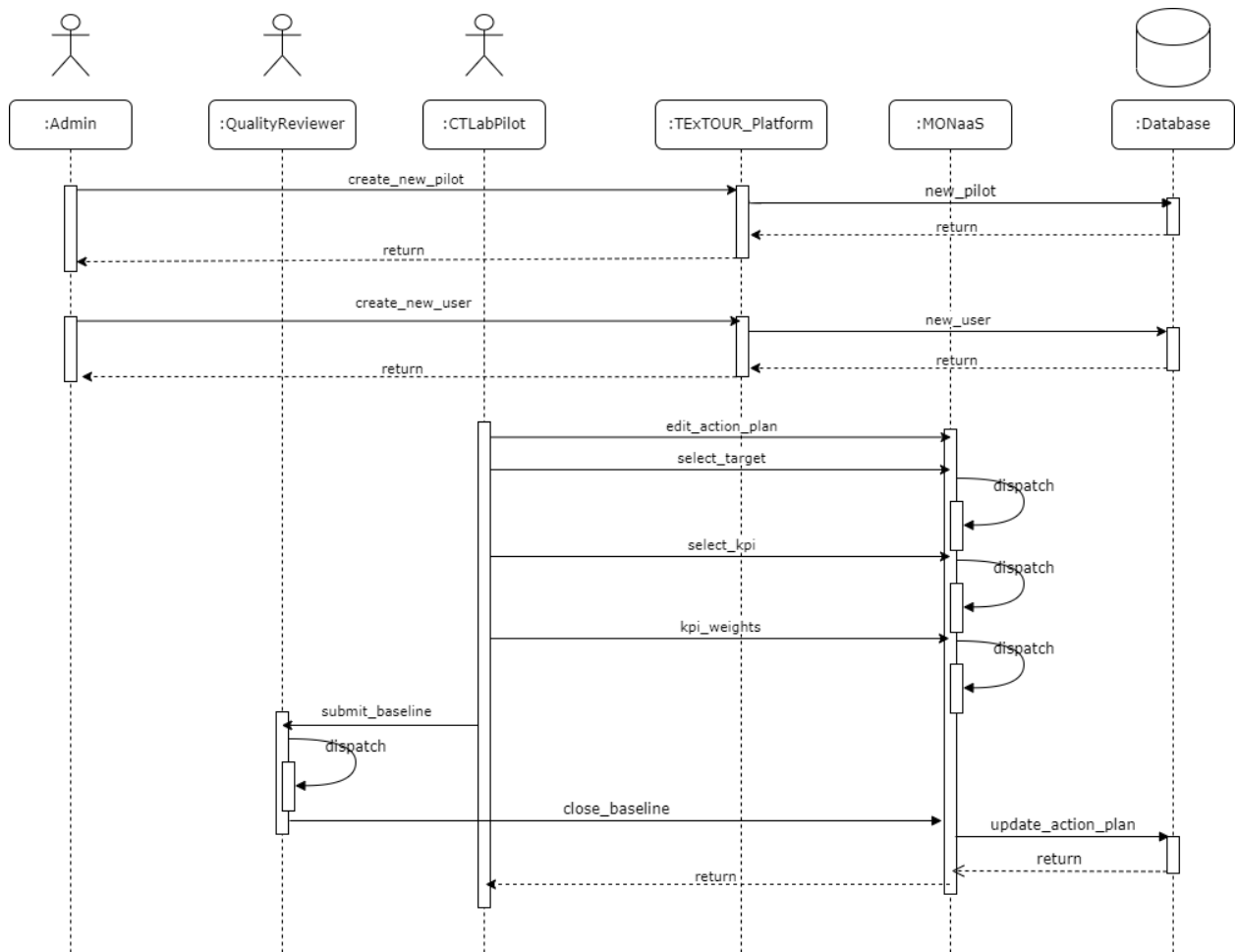


Figure 7: Sequence diagram for creating a new Action Plan

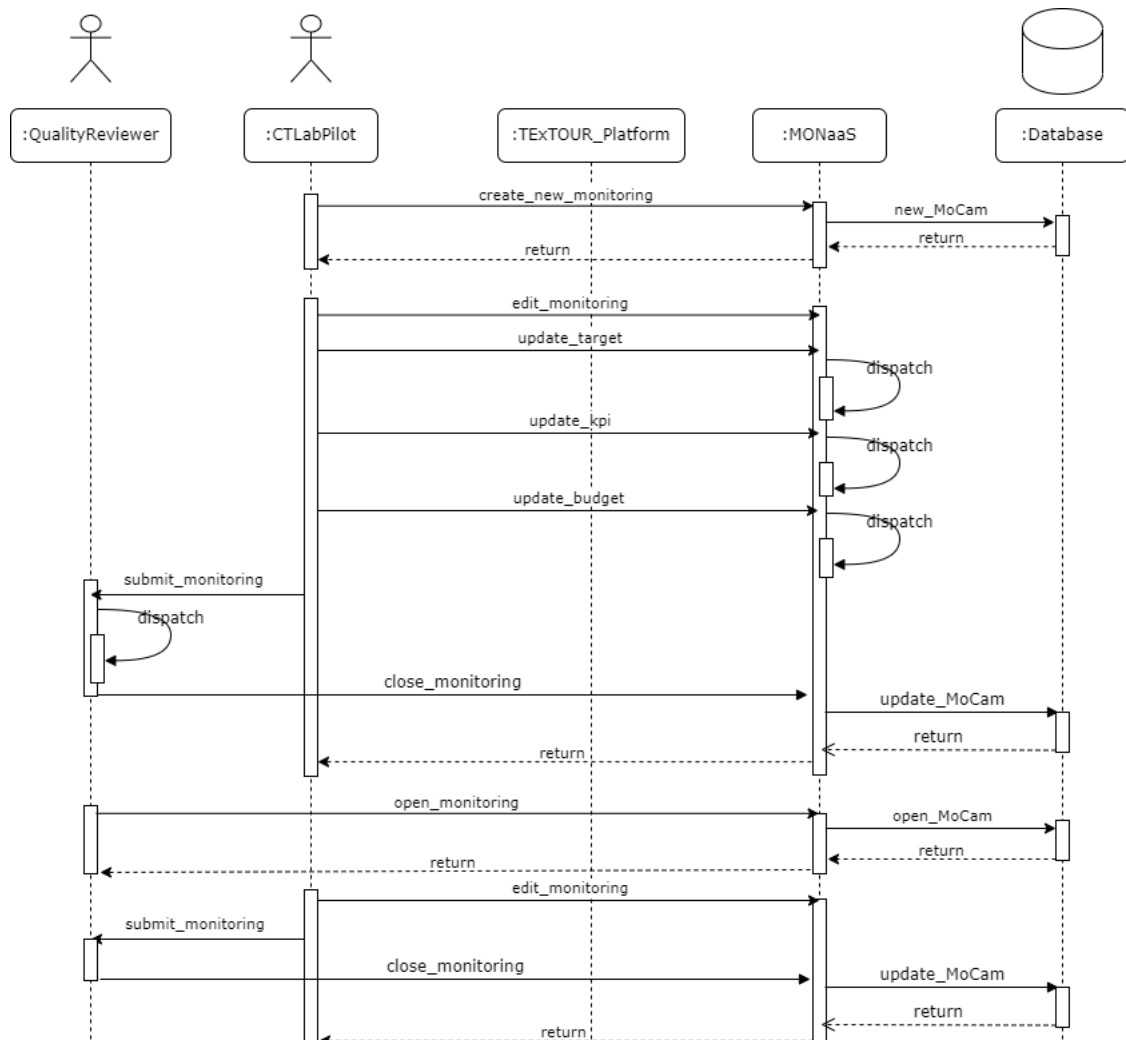


Figure 8: SD for creating a new Monitoring Campaign and introducing the monitoring data

The diagram in Figure 9 shows a component's perspective of the proposed solution architecture, distributed on three application layers: data access; application; and presentation layers. This layer-based design makes the Monitoring platform more flexible by separating the front-end from the back-end, i.e. the user centred side from the data centred side.

By placing the Monitoring behind an API, built using Python's web service framework, e.g. Flask, the Monitoring platform can be flexibly integrated into third party software packages where it may be combined with different toolkits to provide policy developers and decision makers with powerful and effective tools in assessing the impact of cultural tourism action plans during their development.

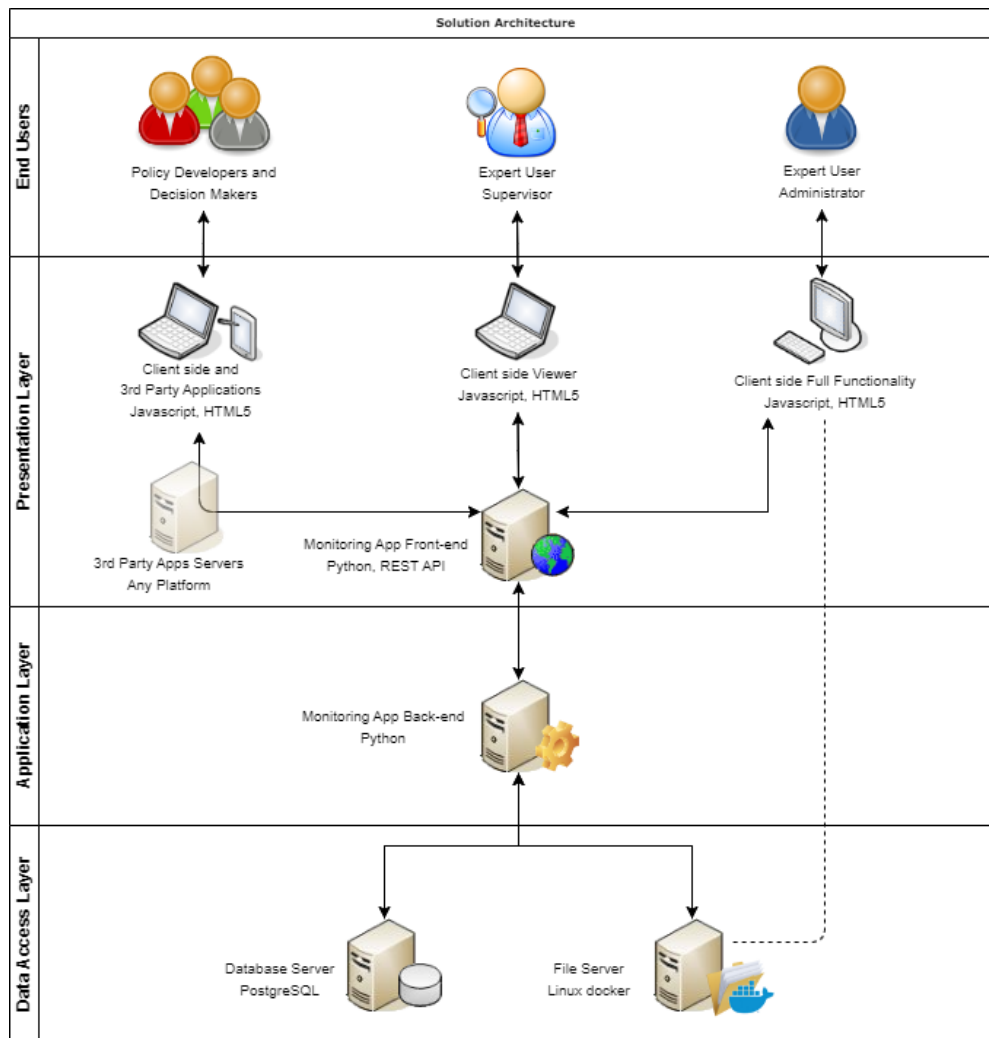


Figure 9: Solution architecture and layers diagram

6.3 Database description

A description of the database showed in Figure 10 is provided. To facilitate their identification, tables have been grouped according to the type they belong to. Thus, first the parametric tables will be described, then the data tables and, finally, the relational tables.

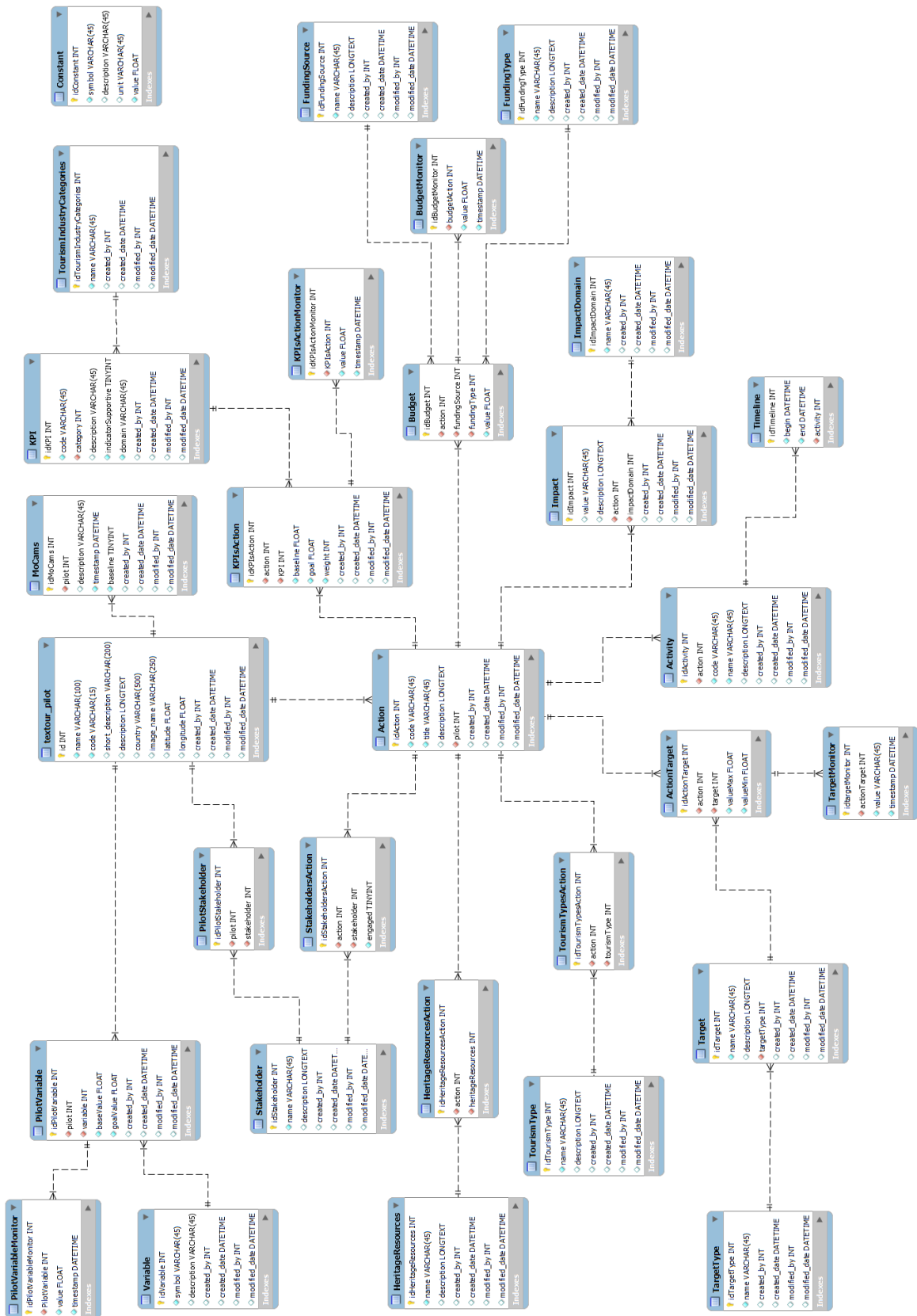


Figure 10: Database schema

For the documentation of the fields of the tables, a series of labels or flags are used, such as those shown in Table 51, which indicate whether the field has any special characteristic that defines it.

Table 51: Labels, or flags, for table fields

Flag	Description
PK	Primary Key (🔑): Unique identifier for every element on the table
NN	Not Null (💎): The field cannot be null
AI	Auto Increment: Field value auto increments itself
FK	Foreign Key (🔗): References to the primary key of other table that is related to this

6.3.1 Parametric Tables

The following tables store the parametric information needed for the functioning of the system, i.e. the values of predefined enumerations.

- FundingType
- HeritageResources
- ImpactDomain
- TargetType
- TourismIndustryCategories
- TourismType

6.3.2 Data Tables

The following tables store information records relevant to the management of the monitoring programme. Information is variable and depends on contents provided or modified by the user, so table contents are not listed usually. This is specific information about the KPIs values, actions, activities and so on. A user with the appropriate permissions can access these records, modify them or include new information in the database, if needed.

- Action
- Activity
- Constant
- FundingSource

- KPI
- MoCams
- Stakeholder
- Target
- textour_pilot
- Timeline
- Variable

6.3.3 Relational Tables

Sometimes there are complex relationships between the different entities that make up the system. A relationship between two tables is "many to many" when each element of a table can be related to one or more of the elements of the other table, and vice versa.

The way to store these relationships between elements of different tables is through a relational table that links them. Sometimes, this new table can have additional fields to store variables of the represented relation. The following tables contain information that relates entities to each other. As in the case of data tables, the content of these tables usually is not listed since it is not static.

- ActionTarget
- Budget
- BudgetMonitor
- HeritageResourcesAction
- Impact
- KPIsAction
- KPIsActionMonitor
- PilotStakeholder
- PilotVariable
- PilotVariableMonitor
- StakeholdersAction
- TargetMonitor
- TouristTypesAction

7 Conclusions

Each TExTOUR pilot conforms a CT-Lab, which is a living lab focused on the implementation of representative CT strategies. The CT-Labs are strongly encouraged to interact together upon synergic collaboration encompassing demonstrative types of CT and to identify replicable solutions within a sustainable approach. This will be done through bi-monthly CT-Labs Progress Forums between M27 and M43.

The strategies in each CT-Lab are deployed in concrete actions subject to a particularly tailored monitoring program useful not only in the ST but also in the MT/LT. It is conceived in such a way that allows facing the lack of homogeneity of the CT-Labs and the topics covered by gathering and analysing data about the three aspects agreed to make available the validation of the proposed strategies: (1) the effectiveness of the actions, pointing out their nexuses with economic growth and employment (by means of tailored KPI); (2) the deployment of the actions in themselves according to the calendar set up; (3) the costs and funding sources for implementation. Aspects (2) and (3) are watched by fine-tuning of the BMC established in the participatory CT development strategies and action plans. On aspect (3), the structure and dating of costs given by the CT-Labs is very diverse. With the data provided so far it seems that they can be monitored, but there is a possibility that it cannot be done completely for some particular actions in any of the CT-Labs and the leverage effect could not be fully understood.

Three monitoring campaigns (MoCams) of five month each (M28-M32; M33-M37; M38-M42) are planned as the allowable time for the perception of changes, aiding to understand why a CT destination is 'attractive'.

Monitoring is intended to be offered as a service (MONaaS) to provide data recording, access and analysis about CT strategies deployed in any pilot (current or future), so can be outsourced in a flexible and consumption-based subscription model in the MT-LT, independently or embedded in other applications for data-driven decision making about CT. With the increasing demand of cloud computing, MONaaS is expected to be gaining more popularity for effective and efficient monitoring based on up-to-date

technology, experts advanced technical skills and scalable processes without coming with great expenses.

The main stages in MONaaS analysis have been included in this report, from the conceptualisation through the concept maps to the detailed database description. This analysis complements the information in D4.2 about the set of tools that conforms the TExTOUR platform.

8 References

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