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## **Feasibility, impact and scalability study: “Making remote working solutions in the Alps successful”**

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# LIVE WHEREVER YOU WANT AND WORK WHERE YOU'RE LIVING



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D1.4.1

Feasibility, impact and scalability study:  
"Making remote working solutions  
in the Alps successful"

INTERNATIONAL REPORT

Managing the transition  
to hybrid work and  
satellite offices to revitalize  
remote mountain areas

# D1.4.1 Feasibility, impact and scalability study: “Making remote working solutions in the Alps successful” INTERNATIONAL REPORT

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## 1 INTRODUCTION

In response to the dynamic landscape of remote work and coworking spaces, collaborative initiatives have been undertaken by the AlpSatellites partners from France, Italy, and Austria. These endeavours aim to explore inventive solutions that effectively tackle the challenges and seize the opportunities presented by the transformative shift in this paradigm. Particularly emphasized during action 1.3 of the project, the primary focus was on crafting solutions tailored to the distinctive needs of each territory. The subsequent final phase of the project involved a comprehensive analysis of the solutions devised by all partners.

This document includes the various feasibility studies conducted by each country for their respective solutions. While there are shared characteristics and challenges among the countries, the regions also exhibit notable differences. Consequently, the maturity level of each country's solution varies, reflecting the nuanced considerations inherent in addressing the diverse landscapes and demands of remote work and coworking spaces.

Each country therefore represents increased focus on either the financial and/or technical viability and/or scalability of the proposed solutions, their potential social, economic and/or environmental impact and their transferability.

The French partners adopted a collaborative approach, engaging regional stakeholders in the last phase of action. They conducted a feasibility study using an Action Sheet and a Business Model Canvas, focusing on a shared digital platform for remote workers in a new territory. The proposed platform aims to provide practical information and enhance the remote worker experience, with a cost-effective strategy financed by local authorities, subsidies, and potential European funding, to be validated by a team coordinated by PÉTR (Pôle d'Équilibre Territorial et Rural<sup>1</sup>) and in agreement with communes.

Italy implemented a methodology to assess the economic feasibility of establishing coworking spaces. The evaluation considered operational costs and potential revenues, providing insights into the viability of such spaces in different geographical sub-areas.

Austria, recognizing the transferability of its solution, structured a comprehensive framework and guidelines for implementing similar projects. The feasibility and impact study, designed as a set of guidelines, utilized various tools such as the Business Model Canvas, SWOT analysis, and risk matrix. The proposed solution from action 1.3 was approached as a project, necessitating a classical project management approach, with a focus on clear goals, feasibility/resource lists, cost-benefit analysis, and risk assessment.

Each country's approach was unique, tailored to its specific needs and regional characteristics. The collaboration among key stakeholders, clear goal setting, feasibility studies, and risk assessments were common threads binding these initiatives. The following sections delve into the specifics of each country's strategy and findings, providing a comprehensive understanding of their endeavours in navigating the remote work and coworking landscape.

The whole document is structured as follows. The first country introduced is France since they conducted a very generic feasibility study, followed by Austria with a more concrete management approach. The last country is Italy with the most detailed feasibility study. In chapter 2 we present the methodology each country followed, explaining how the feasibility study and whole process was conducted. Chapter 3 is the heart of the document representing the findings of each feasibility study. The last chapter is a small summary and conclusion of the document.

<sup>1</sup> Territorial and Rural Balance Pole





## 2 METHODOLOGY

Each country followed their own methodology, tailored to their specific use case. Methods that have been used by more than just one country are described only once. Especially the SWOT analysis and the business model canvas are recurring throughout the document.

### 2.1 France

Since Activity 1.3 led to several potential solutions on the French side, the two French partners decided to first organize an exchange on the feasibility of these solutions with elected representatives of the territory. Subsequently, all the relevant stakeholders of the territory and the French partners delved into one solution to propose a collective 'Action Sheet' for the chosen solution. Finally, a feasibility study has been conducted on the creation of a shared digital platform for attracting and retaining remote workers.

#### 2.1.1 The first meeting

Every elected person of each French territory (*Briançonnais*, *Ecrins* and *Guillestrois-Queyras*) interested in the project, was invited to participate in a meeting. The date was set for December 18th. The objective of this meeting was to choose only one or two solutions to make a feasibility study. Ten people attended the meeting: the president of the PETR, the LEADER (Liaison Entre Action de Développement de l'Economie Rurale) project manager for the PETR, the president of the *communauté de commune du Guillestrois-Queyras* and its vice-president, the director of ADRETS (Association pour le développement en réseau des territoires et des services<sup>2</sup>), the director, the two presidents and a volunteer of the ACSSQ and finally two members of AMU. To prepare this videoconference, the ACSSQ (Association culturelle sociale et sportive du queyras<sup>3</sup>), its service provider and AMU (Aix-Marseille Université) worked on a PowerPoint presentation. The presentation began with a quick overview of the results of actions 1.1 and 1.2. Then, the French partners reviewed the solutions reached in phase 3:

- Facilitating travel inside and outside the region
- Facilitating the housing journey
- Creating courses to facilitate remote working
- Attracting / retaining remote workers with a link to the region (longer stay)
- Promoting the region's assets (myth-busting)
- Directing the *Agence départementale de développement's* policy towards promoting remote working
- Creating a "Multipass" card

After that, participants were invited to share their points of view by completing a Padlet with 4 "Action Sheets".

#### The action sheet tool

An action sheet is a tool that meeting leaders can use to guide their actions. It is a tool that ADRETS (one of the ACSSQ's service providers), is accustomed to using for its studies. In fact, it is a tool they used for their "Study prior to the implementation of solidarity-based mobility solutions" published in 2023, carried out as part of the "Solidarité des 4 rives" project involving the communes of *Chateau-Arnoux-Saint-Auban*, *Les Mées*, *Volonne*, *Peyruis*, *Ganagobie*, *Malijai*, *L'Escale* and *Montfort*.

Concretely, this sheet should help answer the question: "How?" This form must follow a few basic rules:

- Be very simple and short.
- Be as clear as possible.
- Explain how to do it practically.

When it comes to simplicity, it is recommended to use illustrations like photos, diagrams, tables, etc. All these tools must enable users to understand what they need to do in record time. A priori, all themes can be dealt with in this way. Examples of possible action sheets:

- On regulations governing the use of warning systems
- Describing how to open a relocation room: where to find the keys, the alarm code, how to activate the heating, etc.
- Offering a pre-written press release
- Indicating strategic points to watch out for in the event of heavy rainfall
- Indicating the practical procedures for evacuating a neighbourhood: intersections to be blocked, streets to be used, markings to be set up, etc.

Given the operational purpose of these tools, they can under no circumstances be produced by the municipal project manager alone, and even less so by any subcontractors. These sheets need to be drawn up by the commune's "resource" people, i.e. those with the know-how and skills.

Concretely:

- The project manager organizes technical meetings with the appropriate people.
- The scenario(s) to be worked on are presented to the participants.
- The corresponding identified missions are proposed and validated or completed by the participants.
- For each mission requiring clarification, participants propose concrete actions to be taken (instructions for use and procedures to follow).
- If possible, speakers should suggest illustrative elements: photos, tables, etc.
- The project manager summarizes and formats this information on action sheets.
- Rereading by a neophyte to check the sheet's relevance.

<sup>2</sup> Association for the networked development of territories and services

<sup>3</sup> Queyras cultural, social and sports association

### The chosen solution

Based on the action sheets, the French partners continued this meeting by asking the elected officials to formulate the most important solution they would like to focus on. They chose to work on “Promoting the region’s assets to welcome remote working”. This conclusion enabled the organization of the rest of the feasibility study by addressing questions such as when everyone could meet, who should be invited, and so on.

#### 2.1.2 The co-construction phase

A new meeting was scheduled for January 12th. The invitation was sent by the French partners to all the participants of the previous meeting but also to other relevant individuals. Nine people attended the meeting: the president of the PETR, the LEADER project manager for the PETR, the president of the *Guillestrois-Queyras communauté de commune* and its vice-president, the president and a volunteer of the ACSSQ and finally three members of AMU. To work together on the feasibility study of the chosen solution, the French partners proposed to use a new tool during this meeting: a business model canvas (this tool is presented in more detail in the Austrian part).

Based on the information they already had, and a French report called “Practical guide: developing remote working in your region” of 2022 proposed by the *Agence Nationale de la Cohésion des Territoires* (National Agency for Territorial Cohesion), they completed the tool as best as they could before attending the meeting. In fact, the guide offers a wealth of food for thought. This guide considers remote working to be a vector of territorial attractiveness, provided certain guidelines are respected. It identifies the risks of carrying out ineffective actions. According to the guide, there are three issues surrounding remote working as a vector of territorial attractiveness.

1. Go beyond communication linked to the imaginary of rurality to translate the reality of a territory based on a strategy: The real attractiveness of a territory as a place to live cannot be based on simple communication tools, on a single image projected in the corridors of the Parisian metro, referring to the great outdoors and wide-open spaces. Territorial marketing, the attractiveness of a territory, is based on its real capacity to welcome people, but also to make its real added value that its service offers, known. Making your region known means developing a real strategy in this area: Diagnosis, priorities and action plans must be drawn up.
2. Creating an ecosystem conducted by telecommuting: Promoting remote working as a way of attracting people to your region is more than just advertising. To achieve this, the region needs to offer a real range of services, including a diversity of reception areas, connections with the world of work, diversity of remote working methods, and diversity of work collectives. This could mean, a region criss-crossed with third places and coworking spaces, as well as local networks and tools that connect with

those involved in the workplace, such as activity and employment cooperatives.

3. Finally, welcoming people to a region because of the easiness it offers for remote working, must be accompanied by all the classic services required to welcome the population: health services, quality education for children, family services, cultural offerings, proximity to public services, etc. Most people who are doing remote work are from high professional social classes and will therefore have a high level of demand for everyday services.

Again, according to this guide, the questions needed, to assess the possibility of making teleworking an argument for territorial attractiveness could be as follows:

Image of the region:

- a. What is the image of my region?
- b. What key words reflect my territory?
- c. How are the assets for remote working?

Target:

- a. What is my target market?
- b. Where might the remote workers interested in coming to my region, come from?
- c. What are the main mobility routes?

My region’s remote work tools:

- a. Identify places, coworking spaces, third-party sites, other possible locations
- b. Collective tools to facilitate mobile working: concierge services, activity and employment cooperatives, etc.
- c. Networks of professional players and their positioning about new forms of work: consular chambers, other local or sectoral professional groups, etc.
- d. What communication tools can I use to promote the services available in my area?

Then, during the meeting everyone was asked to help complete the pre-filled business model below by responding to the black questions (Items in green were already filled in).

Key Partners	Key activities	Value proposition	Customer relations	Customer segments
<p>What kind of partnerships should you consider?</p> <p>Subcontracts for site creation and marketing? For site Management?</p>	<p>Main activities: Site creation, information gathering</p> <p>Support activities: Platform management and marketing</p>	<p>A product: The platform</p> <p>A service: Support</p> <p>1) Information about remote working: <i>Coworking</i> space (number, cost, mode of operation, locations, etc.), connectivity (fiber).</p> <p>2) Presentation of the territory's characteristics: Directory of associations, educational services, medical services, meeting places (bars, etc.), employment (e.g. professions and skills in demand), sports activities, housing (e.g. places to live, property prices, etc.), local products (e.g. labels, brands, cooperatives, etc.), transport (e.g. presentation of rail routes, links to partner sites, etc.).</p> <p>3) Support for remote workers: Initial contact and follow-up (e-mail, telephone, database creation, mailing), testimonials, sponsorship system (to put remote workers in touch with each other).</p> <p><b>Distribution channels (distribution communication)</b></p> <p>Communication plan to promote the product to the chosen customer segment(s) (to be defined with you)</p> <p>Distribution via a dedicated platform and/or your organizations' websites?</p>	<p>Site ergonomics?</p> <p>One-way information or possible exchanges?</p> <p>Can/should the relationship be perpetuated via the platform? How (e.g. remote worker community)?</p>	<p>Highly educated (high income) - Need for a high level of service (e.g. efficient transport)</p> <p>Singles and Families - need for schools, clubs, meeting places, sports, shops and healthcare facilities</p> <p>Self-employed/ Employees/Digital nomads - need for internet connection, <i>coworking</i> spaces</p> <p>Multi-activity professionals/couples - need to know what jobs are available in the area</p>
<p><b>Key resources</b></p> <p>Physical resources: Internet hosting</p> <p>Intellectual resources: Website design and marketing</p> <p>Human resources: Platform and exchange management (if exchanges)</p> <p>Financial resources: What funds can be mobilized?</p>				
<p><b>Cost structure</b></p> <p>Indirect/direct expenses?</p> <p>Variable/invariable loads?</p>			<p><b>Income sources</b></p> <p>What subsidies are available?</p>	

To conclude, the action sheet, for example, allowed us to better understand the potential actions to implement for the chosen solution. The Business Model Canvas completed the feasibility study, enabling participants to envision a coherent project for the implementation of a shared digital platform by selecting partners, defining activities to undertake, and so on.

### 2.2 Austria

The composition of the Austrian solution led us to follow a classical project management approach in order to work on the feasibility of the solution. Our proposed solution for Doren can be seen as a project to be implemented in the municipality, therefore a project management approach covers all the necessary steps. The project management approach helps in presenting information in a structured, organized and interconnected way. It facilitates better comprehension, planning, and execution of the outlined resources and services. We chose the following methods to analyse the feasibility and impact of the proposed solution: *Business Model Canvas, Feasibility/Resource List, Cost-Benefit Analysis, SWOT-Analysis and Risk Matrix*.

Due to the project-oriented nature of the proposed solution we were not able to pin down precise costs during our analyses. To address this limitation, we structured the entire feasibility study as a set of guidelines. Each analysis and method employed has been specifically tailored for the solution in Doren. Nevertheless, we made a deliberate effort to encompass broader aspects beyond those directly related to our specific case. Our aim was to incorporate all essential elements that could prove significant in implementing our solution in a different region. Consequently, each method outlined can serve as a comprehensive guideline for adaptation.

### 2.3 Italy

The methodology here presented and applied has the aim to evaluate the economic feasibility of three coworking spaces in the *Unité de Communes valdôtaines Evançon*, one for each part of the Ayas valley: Upper valley (municipalities of Ayas and Brusson); Middle valley (municipalities of Challand Saint-Anselme, Challand Saint-Victor, Emarese); Lower valley (municipalities of Arnad, Champdepraz, Issogne Mont-

jovet, Verres). On the one hand, the economic feasibility has been assessed by estimating the standard operational costs required to run a (standard) coworking space. We will take into examination only this type of (variable) costs, as the investment costs (fixed costs) required to build and start these activities cannot be reasonably assumed, due to the lack of a strategy by the local and regional government about the amount and type of these investments. As far as the standard operational costs to run a (standard) coworking space are concerned, we will collect and use data concerning other practices and cases.

On the other hand, the evaluation of the economic feasibility has obviously required the estimation of the potential revenues of these three coworking spaces, based estimating both the potential demand (market potential) for them, and

the willingness to pay for their use. For the latter, we will use the findings of the survey conducted in Aosta Valley and presented in Section 1.2.

Therefore, our effort here was mainly focused on the former, the estimation of market potential, i.e., the identification of market segments (groups interested in using coworking spaces) and the quantification of their demand for coworking services, in terms of days, for each of the three coworking spaces.

To the best of our knowledge, there is no scientific literature on estimating the market potential of coworking spaces; thus, we have designed an original approach to make these estimates. The methodological approach that we have designed and applied can be divided in the steps framed in the figure 1 below and described as follows.

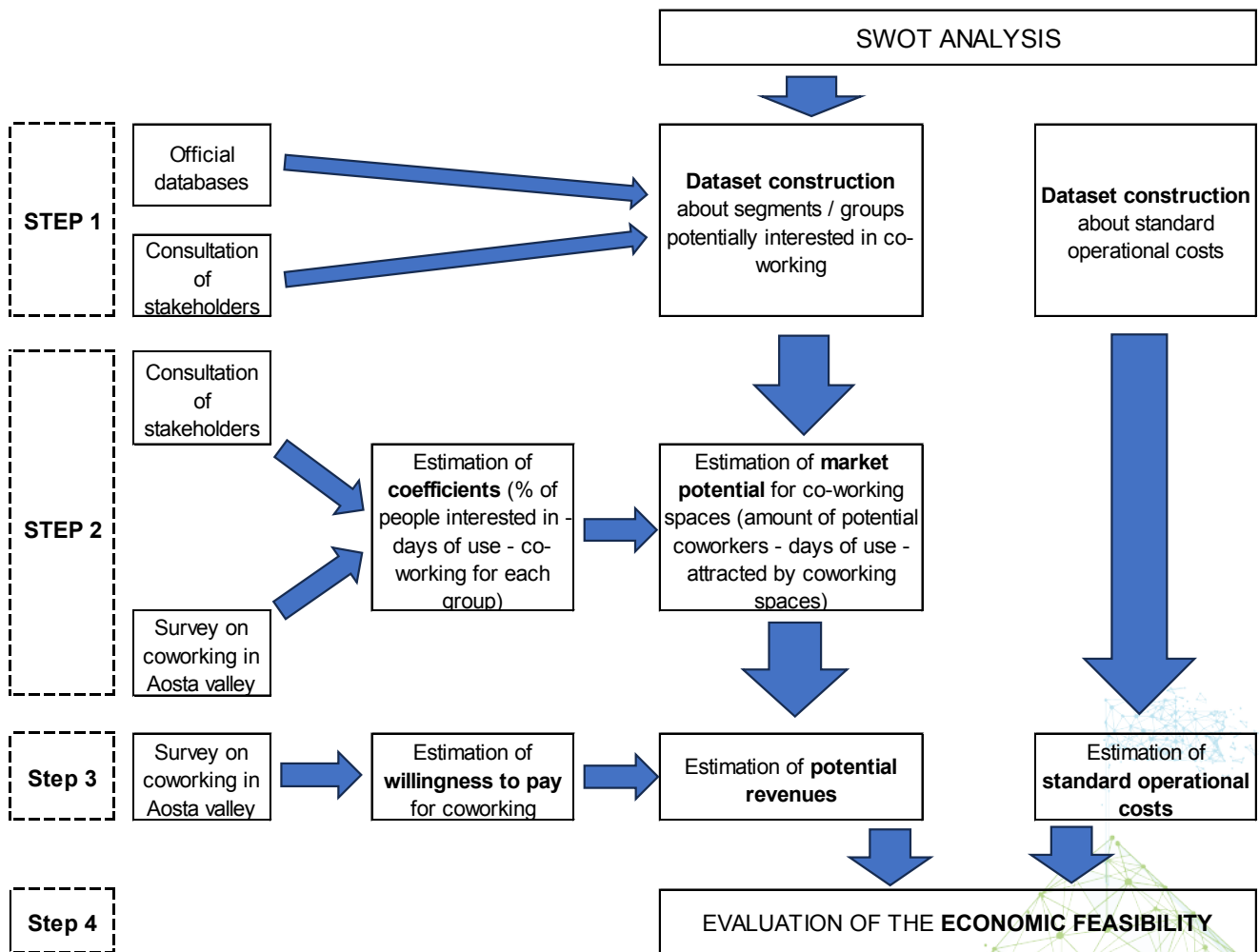


Figure 1: Methodological framework and steps



### 2.3.1 Step 1

Step 1 concerns the construction of the dataset at the municipal level on segments / groups who are assumed to be potentially interested in the use of coworking spaces:

- Residents commuting for work<sup>4</sup> out of the municipalities of the *Unité de Communes valdôtaines Evancon*, divided by area of destination: outside and within the region, divided in turn into commuters to the upper, to the middle and to the lower Aosta Valley. These data have been extracted from the Istat (Istituto Nazionale di Statistica) database<sup>5</sup>.
- Official tourist flows, incoming in the *Unité de Communes valdôtaines Evancon*, these flows are measured in terms of arrivals and overnights stays, divided by origin (domestic or foreign) and by type of accommodation (hotel and non-hotel). Even these data have been extracted from the Istat database.
- Second-home tourist flows, which are based on the statistics about the number of second homes. These data both come from the Istat census database<sup>6</sup> and the database at the municipal scale held by the *Unité de Communes valdôtaines Evancon*. The latter, built on the basis of local taxes paid by the owners of second homes, allowed to estimate more precisely the stock of dwellings actually used, and the number of people using them, even if occasionally (i.e., not abandoned).

Step 1 has also foreseen the collection of data about the standard operational costs of running coworking spaces (salaries of employees, maintenance costs, costs of utilities, etc.).

### 2.3.2 Step 2

Step 2 has foreseen the estimation of the potential demand (market potential) for coworking spaces in terms of days demanded on a yearly basis, using the data collected in step 1, in the following consequential actions:

- Conversion of all the data collected in step 1 in (working) days. For example, the data about commuters were converted in days multiplying the amount of commuters for the number of yearly working days. The same was done for the second homes tourism after estimating the actual tourist flows associated to the stock of those actually used. This operation was not required for the official tourist flows, as data are available in terms of overnight stays.
- Estimation of the coefficients, that is the rate of people interested in coworking for each group (the rate of days potentially dedicated to coworking). To the best of our knowledge, as already underlined above, there is no literature about this step of the estimation of the market potential of coworking spaces: therefore, we could not consider contributions from other studies. Therefore, our

strategy was to consult relevant stakeholders (e.g., as far as the official tourist flows are concerned, we asked the stakeholders the rate of both domestic and foreign tourist flows dedicated to smart working), and on the survey conducted in Activity 1.2 (e.g., when estimating the rate of official tourist flows, in terms of days, potentially dedicated coworking, we used the responses to the question on their interest in using coworking spaces). The estimation of the coefficients took several steps, depending on the segment / group considered: details about them are explained in the next section.

- Based on the calculation of the coefficients, estimation of the amount of days that the three coworking spaces in the *Unité de Communes valdôtaines Evancon* could potentially be used by each of these segments / groups.

This step is different for each of the market segments taken into account.

### Commuters

- Firstly, we only took into account commuting flows concerning people whose work can be done remotely. They are assumed to be about 53% of the commuting flows (as there is no data about this characteristic of the jobs, we derived this share from the share of employees in sectors which are more likely to employ people who work remotely. This is why, employees in sectors like construction, manufacturing, agriculture, hotels and restaurants, etc. e.g. metalworkers, construction workers, waiters, farmers, etc., are excluded at this stage)<sup>7</sup>.
- Secondly, we weighted the number of commuters (as obtained in the first stage), divided by geographical sub-area of origin, on the distance travelled, assigning an higher weight to long distance commuters and a lower weight to short distance commuters (See Section 4a). The following table shows the weight assigned, based on the part of the Ayas valley of origin (upper, middle and lower), and the part of the Aosta valley where people daily commute:

	Upper valley	Middle valley	Lower valley
<b>Upper Aosta Valley</b>	1	0,75	0,75
<b>Middle Aosta Valley (incl. city of Aosta)</b>	0,75	0,5	0,5
<b>Lower Aosta Valley *</b>	0,5	0,25	0,25
<b>Out of Aosta valley</b>	1	1	1

The amount of commuters, for each area of origin (and each of area of destination) was multiplied for these weights, giving us a “corrected” number of commuters.

<sup>4</sup> We have excluded commuters for studying, for obvious reasons.

<sup>5</sup> See dati.istat.it.

<sup>6</sup> Op. cit.

<sup>7</sup> Source: dati.istat.it (see the section: Occupati (migliaia): Ateco 2007 - posizione professionale - trimestrali).

- III. Thirdly, we calculated the average total number of yearly working days of an employee, in both the public and in the private sector. Considering that on average there are about 250 working days per year (excluding non working days: Saturdays and Sundays), and 30 days of holidays, we assumed an average total number of yearly working days equal to 220 days.
- IV. Fourthly, we calculated the average total number of weekly remote working days in, based on the Italian laws, and on the agreements normally arranged by firms and employees. We have assumed that they are 2 out of 7.
- V. Fifthly, we estimated the percentage of days potentially dedicated to coworking using the rate of Italian respondents interested in coworking coming from the survey conducted in the Activity 1.2 (33%).
- VI. Lastly e, the number of resident commuting to work divided by geographical sub-area was multiplied for the following coefficient:  $*220*(2/7)*0.33$ .

This last stage gave us the potential number of coworking days demanded by commuting resident of the the Unitè de Communes valdotaines Evancon, broken down by sub-area (see Section 5).

### Official tourist flows

We took into consideration the overnight stays divided by origin and by type of accomodation.

- I. During the first stage, we multiplied the overnight stays for the rate of working age population in Europe (In 2022 it was 64%, both in Italy and in Europe, according to the World Bank data) in order to keep in our estimates only tourists who are assumed to be workers.
- II. During the second stage, we have taken into account only the tourists who do a job which can be done remotely. As previously seen, they are assumed to be about 53% of the total (as there is no data about this characteristic of the jobs, we derived this share from the share of employees in sectors which are more likely to employee people who work from remote. This is why, employees in sectors like construction, manufacturing, agriculture, hotels and restaurants, etc. e.g. metalworkers, costruction workers, waiters, farmers, etc., are excluded at this stage)
- III. During the third stage, we estimated the potential interest to remote warking of tourists based on the consultation of stakeholders. According to them, about 10% of overnight stays are usually dedicated by tourists to remote/.
- IV. During the fourth stage, as done for commuters, we estimated the percentage of overnight stays potentially dedicated to coworking, using the rate of respondents interested in coworking coming from the survey conducted in the Activity 1.2, distinguishing between domestic and foreign (33% and 22%).
- V. As a last stage, the number of overnight stays divided by origin and by geographical su-area was multiplied for

the following coefficient:

- a. Domestic overnight stays:  $*0.64*0,1*0.33$ .
- b. Foreign overnight stays:  $*0.64*0,1*0.22$ .

This last stage gave us the potential number of days (overnight stays) demanded for coworking by tourists in the *Unité de Communes valdôtaines Evancon*, broke down by sub-area (see Section 5).

### Second homes tourism

Based on the statistics provided by municipalites the *Unité de Communes valdôtaines Evancon* about the numer of second homes (and the number of people occupying them), we took into consideration only the second homes owned by people resident in other regions, as we assumed that they are more likely to be used as second homes, differently from the dwellings owned by people residents in Aosta Valley.

- I. During the first stage, we estimated the number of days in which second homes are occupied yearly. After consultation with stakeholders, we assumed that these dwellings are occupied on average 20 days per year.
- II. During the second stage, we multiplied the total number of days spent in the second homes, for the rate of working age population in Europe (as mentioned above), in order to keep only the second-home tourists who are assumed to be workers.
- III. During the third stage, we have taken into account only the second-homes tourists who do a job which can be done remotely. As previously seen, they are assumed to be about 53% of the total (as there is no data about this characteristic of the jobs, we has derived this share from the share of employees in sectors which are more likely to employ people who work remotely. This is why, employees in sectors like construction, manufacturing, agriculture, hotels and restaurants, etc. e.g. metalworkers, costruction workers, waiters, farmers, etc., are excluded at this stage).
- IV. During the fourth stage, we assumed the average number of weekly days in which these second-homes tourists do /remote working. We have assumed that they are 2 out of 7.
- V. During the fifth stage, we estimated the percentage of days potentially dedicated to coworking using the rate of Italian respondents interested in coworking coming from the survey conducted in the Activity 1.2 (33%).
- VI. During the sixth stage, the average yearly number of days spent in second homes by people resident in other regions, divided by geographical sub-area, was multiplied for the following coefficient:  $*0.64*(2/7)*0.32$ .

This last stage gave us the potential number of days demanded for coworking by second-homes tourists in the *Unité des Communes valdôtaines Evancon*, resident in other regions, broke down by sub-area (see Section 5).

### 2.3.3 Step 3

Step 2 focused on the estimation of the potential revenues and of the operational costs of the three coworking spaces. On one side, based on the estimate of the market potential (number of coworking days demanded on a yearly basis), and on the estimate of the willingness to pay for the use of the coworking space per day (based on the findings of the survey conducted in Activity 1.2.1), we have calculated the potential revenues on a yearly basis for coworking spaces. On the other side, based on the data collected on standard operational costs, we have estimated the operational costs on a yearly basis of the three coworking spaces.

### 2.3.4 Step 4

Lastly, based on the results of step 3, by comparing the potential revenues and the operational costs on a yearly basis, we were able to evaluate the economic feasibility of each of the three coworking spaces.

Clearly, this methodological approach has some limitations. There are in fact risks of overestimation due to a number of issues. For example, we have tried to narrow our analysis to commuters/official tourists/second-home tourists doing a job that can be done remotely. In order to do that, we have narrowed our analysis to some economic sectors (mostly, services), excluding others (manufacturing, agriculture, etc.). Of course, this is quite a rough assumption. In fact, many services sectors, like the health sector, some jobs, e.g. nurses, hospital physicians, etc. cannot be done remotely. Also the risk of overestimation might concern for example the questionnaire survey, whose findings have been the basis of our estimates. You have to consider

that the questionnaire survey is based on a non-probabilistic sampling. This is the reason why the sample might be biased in favour of people already interested in coworking. Another issue concerns the fact that the respondents to the questionnaire of the survey expressed an interest in an ideal coworking space. This is the reason why the estimates produced and presented in Section 5 should be considered as the maximum potential demand for each of the coworking spaces in the *Unité des Communes valdôtaines Evancon*.

Moreover, there are also risks of underestimation. For example, we did not take into account tourist flows attracted by airbnb accommodations, as no official data are yet available in Aosta Valley. These flows are probably accommodated in the second homes owned by people residing in the Aosta Valley; but we assumed for now that this is quite a weak hypothesis. Another example of possible underestimation concerns the digital nomads. We could not take into consideration the potential demand coming from digital nomads, who can come to the *Unité des Communes valdôtaines Evancon* on purpose, to use the digital services available, like coworking spaces. They might come potentially from any part of the world. We do not have data available on this phenomenon with which to produce reasonable estimates in this regard.

However, despite such limitations in one direction or the other (they might balance one with another), we reasonably assume, based on the existing literature, that the market segments that we have identified (and for which data are available) can be the great bulk of the possible potential demand for the three coworking spaces in the *Unité des Communes valdôtaines Evancon*.



### 3 FINDINGS

Following, the different feasibility studies carried out for each solution in the three countries get presented. The studies thereby differ significantly since each examined/proposed solution are at another degree of maturity.

#### 3.1 France

The various meetings and exchanges held and presented in the methodology chapter of this report enabled us to carry out a feasibility study on the implementation of a shared digital platform aimed at attracting/retaining remote work-

ers to/in the French territory. We present here the results of this feasibility study, which was carried out using two tools: an action sheet and a *Business Model Canvas* for the creation of a shared digital support platform.

##### 3.1.1 The action sheet

Initially, the action sheet enabled us to outline a strategic territorial orientation in favour of promoting the assets of the territories in regard to attracting/retaining remote workers. Here are the action sheets that have been completed thanks to the various meetings and exchanges between the project and regional partners:

The image shows a screenshot of a Padlet board titled "Solutions for developing remote working" with a meeting date of 18/12/2023. The board is organized into four columns, each representing a different solution. Each solution has a set of action sheets detailing its main objective, operational objectives, target audience, territories concerned, legal/policy framework, solution sponsor, implementation, resources, success and impact, and contacts. Each sheet includes a comment icon and the text "Ajouter un commentaire".

Solution	Main objective	Operational objectives	Target audience (other than remote workers)	Territories concerned	Legal/policy framework	Solution sponsor	Implementation	Resources	Success and impact	Contacts
Facilitating travel within the region	Develop carpooling within the region	Publicize and share the Department's "Rezo Pouce" service to develop carpooling and carsharing, with a platform and meeting point to be set up		Communities of communes	Agreements with local authorities and departments	Communities of communes and department				
Facilitating travel outside the region	Improving the comfort and frequency of public transport to make it easier for people to work remotely in rural areas	Train and public transport (e.g. equipping night trains with toilets, quality transport for comfort (train rather than bus)		Region and State						
Access to housing: facilitating the housing journey	Facilitate the arrival of remote workers in the region by making it easier for them to find accommodation	Creation or identification of an operator able to provide transitional housing, with equipment and Internet access (or close to coworking spaces) to facilitate the arrival of remote workers on the territory before permanent installation (renovation of aging and vacant stock in this sense)		Public initiative / impetus and reconversion of former vacation center. Region and State.						
Promoting the region's assets (myth-busting)	Raise awareness among companies and potential remote workers of this new choice of workplace and working method	Approach companies that are conducive to remote working, targeting groups (services) and young people. Enhance the value of facilities (hospitals, cultural centers, schools, tourism, sports facilities, shops, etc.). Demystify distance constraints. Promote the advantages of the ZRR (Rural Revitalization Zone) scheme. Use the study for this communication. Have remote workers testify.		EPCI (Public establishment of inter-communal cooperation) with leadership of a network of players. Public community initiative / impetus and reconversion of former vacation center.						

Figure 2: Action sheets on several solutions



This tool enabled us to start visualizing what the implementation of the various solutions selected might look like. By completing it together, the various local players involved in the project and present at the meeting realized that certain actions already existed or were being implemented in their area. They therefore decided to carry out a more in-depth feasibility study only on the **“Promoting the region’s assets”** action.

The aim of this action was to raise awareness among companies and potential remote workers of this new way of working. Together, the territory’s elected representatives then defined their operational objectives, which are as follows:

- Canvass remote working-friendly companies by targeting groups.
- Enhance hospital, cultural, educational, tourist and sports facilities, shops, etc.
- Demystify distance constraints.
- Promote the benefits of the “Zone de Revitalisation Rurale” scheme (in France, if you set up in a rural revitalization zone (ZRR), you can benefit from tax exemptions and exemptions on employer contributions).
- Use the study for this communication.
- Remote workers’ testimonials.

After that, a new tool, the *Business Model Canvas*, was subsequently used to continue the feasibility study. For information, the previous action sheet was not further developed than presented at the first meeting because it was no more relevant to do so, but it did provide important guidelines for the continuation of the feasibility study.

### 3.1.2 The Business Model Canvas

To carry out a concrete feasibility study, it was decided to focus on one means of promoting a region’s assets: the cre-

ation of a shared digital platform. Note that a transposition by analogy is possible if another territory chooses another product/service/tool to promote its assets (e.g. poster campaign, participation in events, etc.).

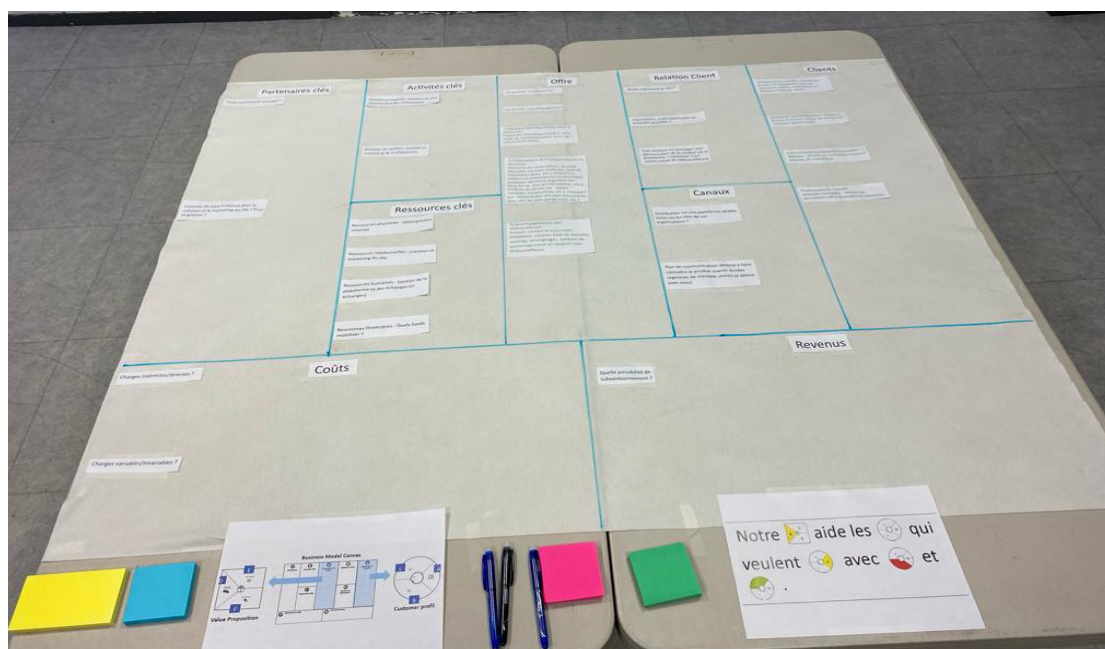
The *Business Model Canvas (BMC)* is a tool that enables us to easily and visually transcribe an organization’s business model (Cf Austrian part). Here, we have used it to show the various elements to be considered and not overlooked in the implementation of such a platform, aimed at supporting remote workers in their choice and installation in a new territory. In this way, the *Business Model Canvas* allows us to go further than the action sheet, as it gives us the opportunity to assess whether the elements of a business model are coherent and feasible. This is particularly relevant here, as it has been employed to study the implementation of a digital platform among all possible means of promoting the territory.

Here, we first present the pre-filled Business Model Canvas that was proposed by AMU to the participant of the second meeting. Then, we present in more detail each part of the Canvas filled completely by all French partners of the project and elected people from the territory together: customer segments, value proposition, distribution channels, customer relations, key activities, key resources, key partners, cost structure and revenue sources.

### The pre-filled Canvas

Thanks to what they learned from previous steps and the first French meeting for this activity, the AMU members worked on pre-filling the BMC. On the day of the second meeting, this pre-filled Canvas was shown to ACSSQ members and most important to the elected representatives from the territory (picture below).

Figure 3: Pre-filled Business Model Canvas Workshop



### From customer segments to value proposition

First, the BMC proposes to analyse the customer's profile to draw up the value proposition (diagram below).

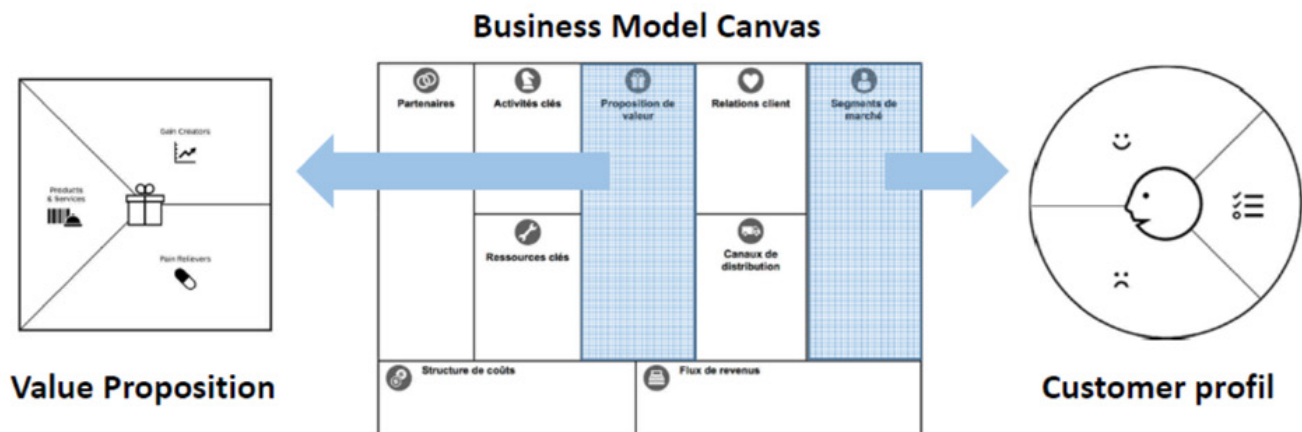


Figure 4: Value proposition canvas

In our case, the product's customer is the 'remote worker' looking for a new place to live (customer jobs). The problem is that they sometimes lack clear information on the territories that would enable them to carry out their projects (customer pains). What they would like is to find information quickly and, in several languages (see report 1.2), on potential areas to set up in, so they can better plan (customer gains). This is what the AMU members presented during the meeting.

During Activity 1.2, we examined the profile of remote workers in the study area. Remote workers are more likely to be single, or, less frequently, families with children or couples planning to have children in the short or medium term. The latter are therefore looking for sufficient, even efficient, educational services. As for the former, they need meeting places to avoid feeling too isolated.

From a professional point of view, they work from home, a coworking space, or anywhere, so they first need a place to work (it just depends on people) and a good internet connection (almost all of them). They are generally people with higher education, and with professions that can be described as intellectual. They are well-paid and have high service expectations (e.g., hospitals). Their status is most often that of an "auto-entrepreneur", but there are also a few salaried employees. It has also been observed that remote workers based in mountain areas may have several activities (not necessarily remote working). That's why they need to know what jobs are available in the area and potentially what jobs and skills local organizations are looking for.

The more specific case of 'digital nomads' is also worth noting. These are remote workers who don't stay in one place for long, and in mountain areas, especially in the region studied, they generally don't stay for more than 6 months. The classic pattern tends even more towards shorter peri-

ods of stay. They, therefore, need seasonal accommodation. Remote workers in mountainous regions also need to be able to move around so that their loved ones can come and visit them. They, therefore, generally need to be close to a metropolis. This proximity is most often addressed through the travel time required to get there. It is, therefore, necessary to provide them with clear information on internal and external transport services.

Remote workers also need social ties. This social link can come from the people around them or from work colleagues. In the case of remote working in mountainous regions, remote workers need to find structures that enable them to overcome isolation, to have meals with other people, and to benefit from the informality of physical social exchanges (free discussions, coffee machines, etc.). This more qualitative information is also important and should, therefore, be presented.

We were also able to appreciate, at various levels, the integration and sense of belonging of remote workers in mountain areas. For a remote worker, feeling part of the community means getting involved locally in a way other than professionally, participating economically, feeling good, making friends and creating links, being welcomed, being identified, and so on. It would, therefore, be a good idea to pass on information about local associations, places to buy local products, *coworking spaces*, etc., to remote workers.

NB. All the customer categories identified are sensitive to common elements of the regional offer, such as the sports activities on offer, the cultural offer in place, or the possibility of discovering a particular historical and architectural heritage. However, each "customer segment" has its own specificities and is looking for specific elements (e.g., singles are looking for group activities to create a bond, while families are looking for activities that are accessible to younger children).

Concerning remote worker's profiles, during the meeting



the participants added that (see picture below):

- Even if they seem to have significant incomes, they sometimes prefer free time over work, even if it means sacrificing part of their income by taking part-time jobs or having only one from the couple working.
- The remote workers, the region hopes to attract, are mainly those who intend to stay, and not necessarily the digital nomads.

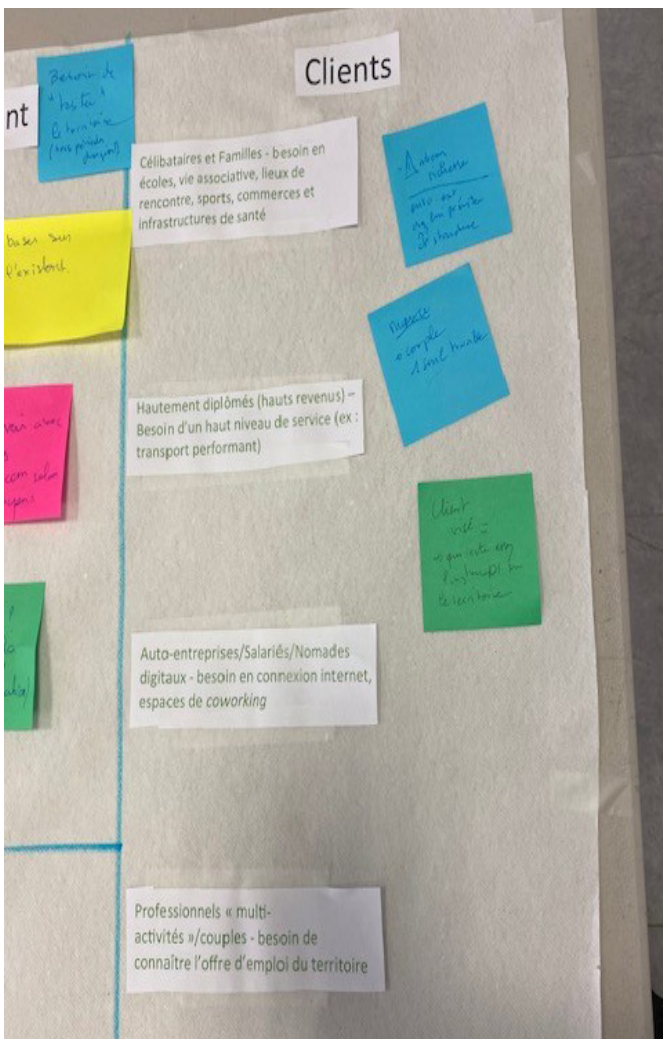


Figure 5: Remote worker's profiles

Therefore, we believe that the platform for potential remote workers should offer information designed to help them save time in their search (gain creator) and project themselves more easily into the territory (pain relievers). This will involve providing practical information on potential places to practice their profession (e.g., coworking spaces) and on the general quality of communication networks (e.g., fibre deployment). To meet all their needs and prevent potential frustrations, the platform should inform them about the territory's characteristics, including associations, educational services, medical services, meeting places (bars, etc.), em-

ployment (e.g., jobs and skills in demand), sports activities, housing (e.g., places to live, property prices, etc.), local products (e.g., labels, brands, cooperatives, etc.), and transport (e.g., presentation of rail routes, links to partner sites, etc.). During the meeting we added a few things to our initial proposal like:

- A "territory test" offer proposed through the website.
- A list of temporary furnished accommodation available via the website.
- Enhance the rural aspect of life on the territory (markets, cooking classes, etc.).
- Breaking the myth of being landlocked by giving travel time estimates.
- Identify welcome booklets and share them.

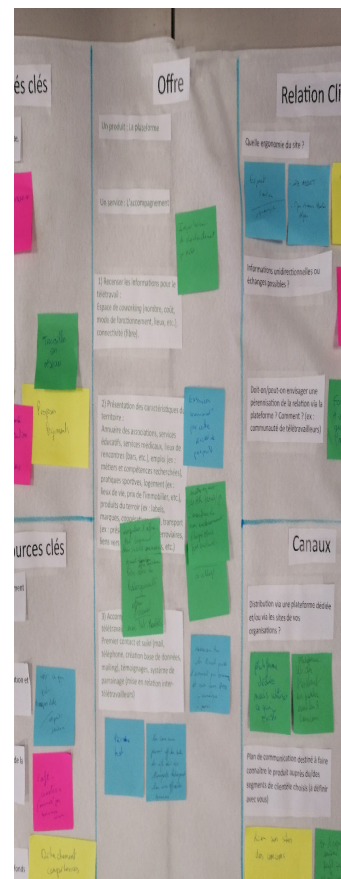


Figure 6: Value proposition, offers for remote workers

Finally, thanks to this tool, we were able to better understand that the envisioned platform (product) helps remote workers who want to find a new place to live (customer jobs), with a need for clear information on the territories that will enable them to successfully complete their project (customer breads), and better project themselves (customer gains).

### Distribution channels

After we worked on the clients and value proposition parts of the Business Model, we asked everyone to think about the distribution of the product and the service it provides by posing two main questions (see picture below):

- Should the website be dedicated, or should it be part of your organisation’s main websites?
- How do you get the word out about your product and service?

To the first question, the participants responded that it should be discussed with the three sub-territories, but that it would be easier to work on a dedicated website based on what already exists. That means that some of these territories already have dedicated websites for attracting people (not only remote workers), and maybe these websites can be used as examples for the new one.

To the second question, they mentioned that the website link should be proposed on each territory’s website. It would also be interesting to think about referencing the website on the internet and to ask the department and the region to help in spreading it through their own websites.

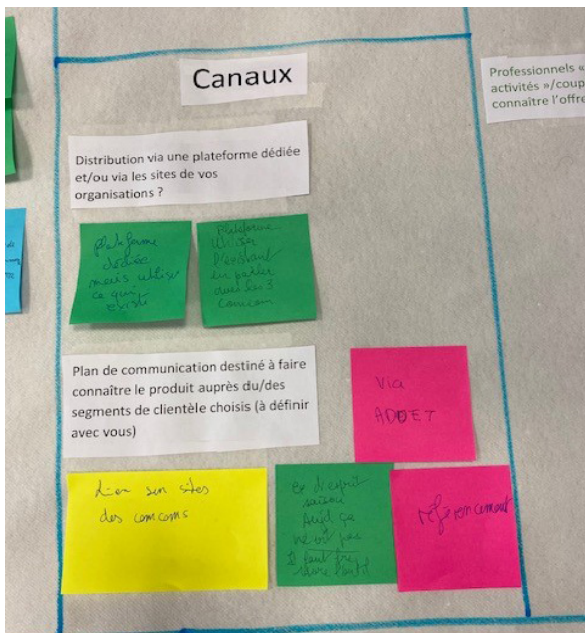


Figure 7: Distribution channels to reach remote workers

### Customer Relations

Regarding the relation with remote workers, we proposed three points for consideration:

- site ergonomics
- possibility of exchanging information on the website
- maintaining relationships with service users

In terms of ergonomics, it was decided to take inspiration from other platforms, such as the one mentioned above, aimed at attracting seasonal workers to the Briançonnais area, or the one of the Departmental Agency, aimed at attracting individ-

uals to the department. The aim is to create a website that is easy to use, with concrete information, available in English, and perhaps a forum related. This forum could be an opportunity for remote workers to connect with each other as a community, to help each other and to share testimony. The idea to create a sponsorship system, or the role of a remote worker ambassador has even been suggested. Of course, territories will be invited to make this decision according to their budget and the operating mode they choose.

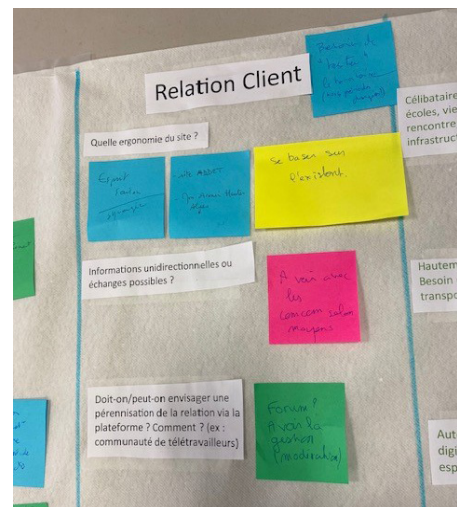


Figure 8: Customer relations

### Key activities

The key activities (creating value directly perceptible to the customer) will be mainly the website creation and information gathering. But it will also be keeping the website up to date or product/service governance. And it could also become about proposing housing if they chose to do so. Support activities will mainly focus on managing and marketing the platform but will also concern the capacity of working on the network, mobilizing companies and create a team.

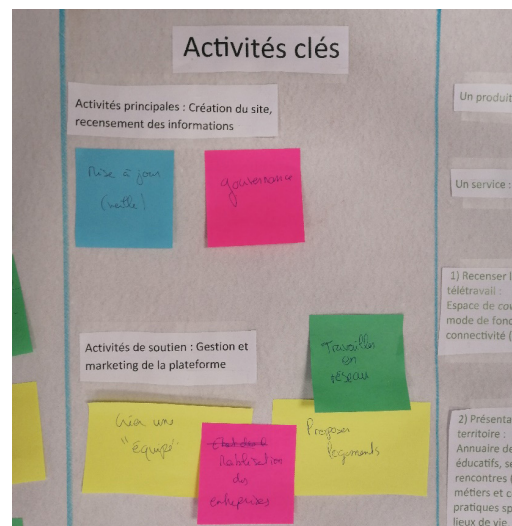


Figure 9: Key activities



**Key resources**

The key resources will be physical (e.g. web hosting), intellectual (e.g. site creation and marketing), human (e.g. management of the platform and exchanges) and financial (this part will be discussed further in the report). However, during the meeting it was proposed to add a few things. For intellectual resources, it might be beneficial to leverage the efforts already undertaken for developing a website targeting the attraction of new workers in Briançonnais, which is one of the entities within the studied territory. Also, maybe some agent of the territory skills could be solicited on the project by delegation (see picture below).

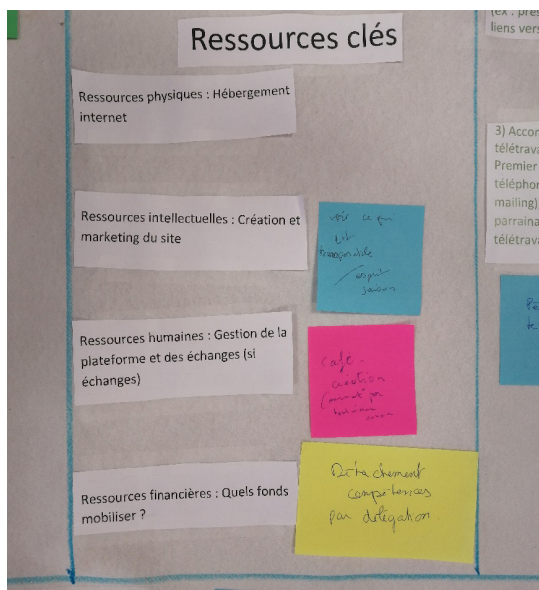


Figure 10: Key resources

**Key partners**

Next, we asked participants to answer the question “Which partners should be involved?” and to consider the partnerships that could and should be envisaged for the design and governance of the website. Obviously, they first mentioned the institutional partners already involved in the project, such as the PETR (to whom the coordination mission could be entrusted), the communities of municipalities (which have the economic competence) and the communes (which decide for their territory). The possibility to involve public business incubators and the UPE05 (Enterprises Union of Hautes-Alpes), which are ultimately the holders of remote work expertise in the field, and whose support would enable to offer a product in line with real needs, was also mentioned. The Hautes-Alpes economic development agency can also be mobilized to support or even co-finance the platform. The tourist offices of the 3 territories, which are the intermediaries for the new populations, could also be involved, particularly for the “test” and welcome aspects, as they are the ones who know the availability of seasonal accommodation for example. The directors of technical services within the communes may also be approached, as they

could potentially take on the responsibility for the governance and sustainability of the project. Alternatively, elected officials from the department and the region can assist in gathering information, such as fibre deployment details. Overall, participants are genuinely inclined to refrain from subcontracting activities, aiming to avoid escalating the platform’s costs and instead leveraging the expertise of various agents within the three communities. (see picture below).

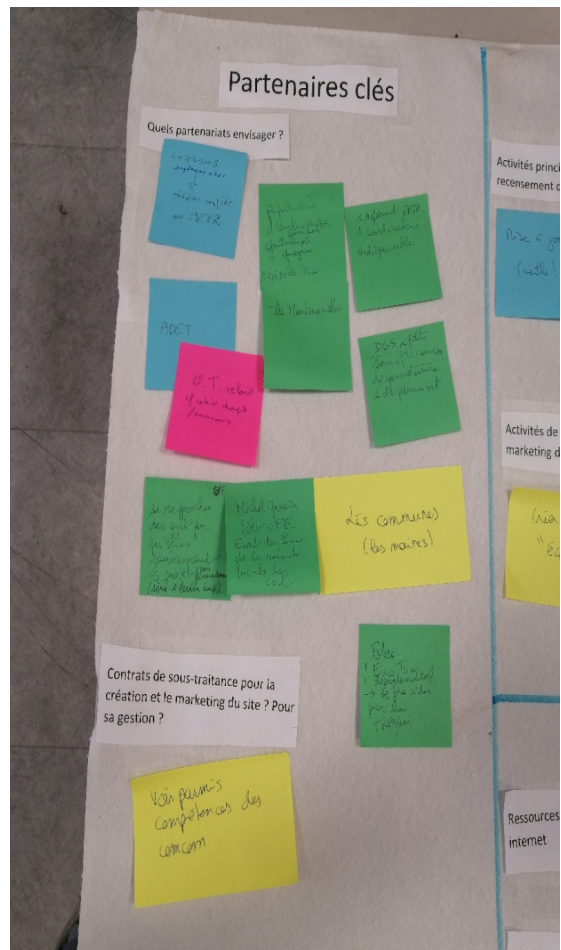


Figure 11: Key partners

**Cost structure**

As far as the cost structure is concerned, what stands out is the common desire to keep it as low as possible through the synergy of activities and the delegation of skills possessed by all the partners involved, so as not to have a major financing requirement. The aim is to take stock of the competences of all three communities of the communes and reallocate them if necessary. For example, it was envisaged to endorse 3 technicians (1 from each commune) who could meet once in a fortnight to monitor the progress of the project on which they would work for a few hours a week. The aim is to list the forces already working on similar tasks to optimize costs (e.g., use the territory’s digital advisors to avoid having to outsource site management and so on).

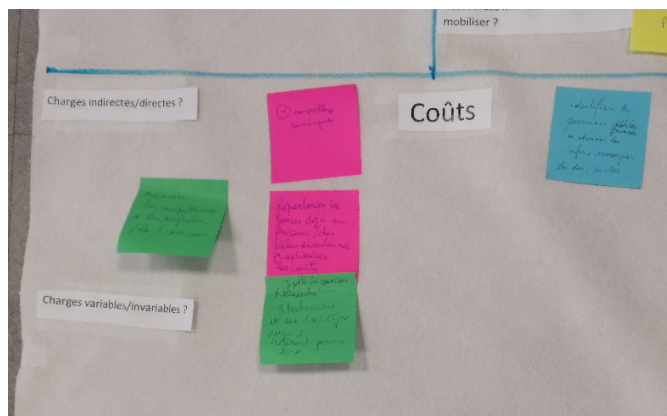


Figure 12: Cost structure

**Income sources**

As far as revenue is concerned, given that this is a public service product, the aim is not to make a profit, but to be able to finance the service with the help of local authorities (through the provision of staff) and subsidies. Subsidies may come from Europe, if the project is in line with a relevant European theme (e.g. Alpine Space program), from the French government, if it is in line with a current or future national strategy, or from the region or the department, if the local authorities see it as the concrete implementation of a beneficial tool for the region. It has therefore been proposed to integrate it into a LEADER project. In all cases, it should be emphasized that this is an experimental project, and of interest to all the communes in the area. So, the idea of proposing it as a project for “Espace Valléens” came up (see picture below).

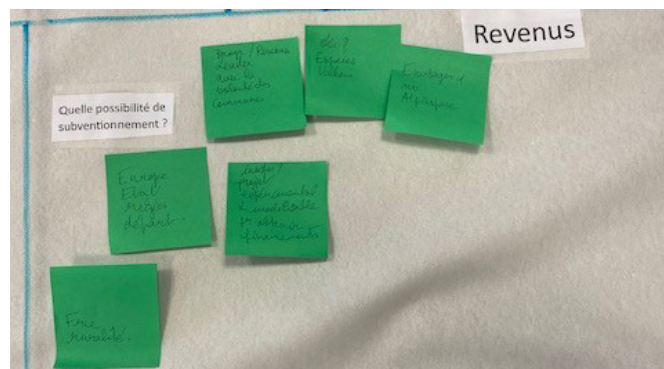
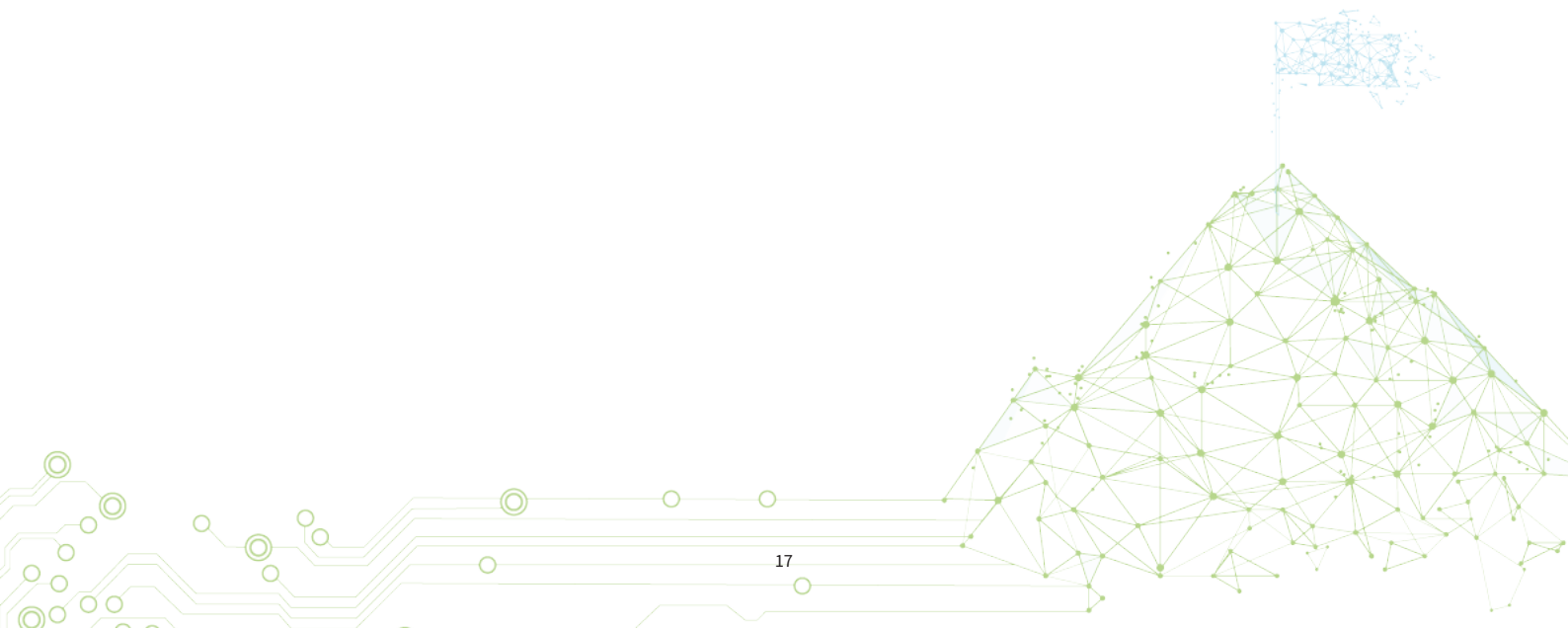


Figure 13: Income structure, revenue

**3.1.3 Conclusion**

In the end, the participants agreed that a team needs to be set up (consisting of agents from the communities of communes) to carry out the project that would validate the model, under the coordination of the PETR and in agreement with the communes. Soon, the elected representatives will be meeting to discuss the feasibility study and the various reports produced, to plan their next steps.



### 3.2 Austria

In order to ensure the transferability of the solution to other regions, the entire feasibility and impact study has been designed as a framework or set of guidelines that can be followed. Instead of solely evaluating our solution and presenting the results, we illustrate the evaluation process itself. This approach allows anyone interested in designing a similar solution to easily follow the steps and implement it in their own way. The following pages are structured as follows: First, we formulated clear goals built on the value proposition defined during the solution design process. Subsequently, we integrated and constructed a business model canvas based on these goals. The business model canvas provides an initial overview of the various factors that need to be considered when designing a similar solution. Next, we present a comprehensive study on the feasibility of various resources, important factors, and channels. The focus is on showcasing the diverse resources required for implementing the solution. We have included a scale that measures the level of necessity for each factor, along with a column indicating the interconnection between different resources. To provide an overview of the financial feasibility of the solution, a simplified cost-benefit analysis has been developed. The emphasis is on making users aware of possible costs and benefits the solution might entail, with less focus on specific numbers, as these depend on the specific use case. To conclude the framework, a SWOT analysis and a risk analysis have been created. While both analyses are strongly connected to the solution in Austria, suggestions and proposals for improvement have been incorporated to enhance its transferability to other regions.

#### 3.2.2 Throwback: proposed solution in the region Vorarlberg

The Austrian solution is centred around Doren but can be scaled up or down for other rural areas in the Alps. The blueprint begins with establishing a vibrant community, serving as a cornerstone for a coworking space. The vision of the solution is to cultivate a dynamic community life centered around this space. The goal is to give people yet more reasons to walk past this space in the village center and tie them more tightly to the municipality. Three main pillars support this:

- Pillar 1 – Services: Offering diverse services within and around „Klein Wien“ creates a multifaceted environment, attracting a wide audience. Workshops, coworking, events, and external services enhance the conveni-

ence and accessibility.

- Pillar 2 – Digitalization of the Community: Focuses on advancing the digital landscape and providing support to residents. An accessible website, a knowledge base platform, and the concept of „Digital Fit“ ensure residents are prepared for the digital age.
- Pillar 3 – Project „Digital Fit“: Addresses making digitalization more accessible, assisting older individuals, sensitizing people to digitalization, integrating remote work, and benefiting the entire community. It includes a designated contact person, training for community services, and making technology an omnipresent topic.

The synergy of these pillars creates a dynamic, inclusive, and technologically adept environment in and around „Klein Wien,“ fostering community engagement and laying a strong foundation for a thriving coworking ecosystem in Doren and the broader Bregenzerwald region.

*For more detailed information check the deliverable 1.3.1.*

#### 3.2.2 Business Model Canvas

The business model canvas is a framework to visualize and structure a business model or a business idea (originally from Osterwalder & Pigneur, 2011). It is especially useful to pin down concrete ideas and still maintain an overview of the overall situation. Through its structured design, it helps in keeping track of all the necessary factors that need to be considered when tackling a new project. We chose to fill out the canvas to gain a comprehensive view of the whole project. Through the Business Model Canvas (BMC), we have also been able to identify several stakeholders, resources, as well as channels and segments we might not have otherwise thought of. One of the most crucial fields to fill out is the value proposition. Every idea, project, or business model needs to provide some type of value to the customer; otherwise, it will not be sustainable. In our case, customers are primarily citizens, and even though they do not technically “buy” the solution or part of it, they still consume it, making them customers.

As we progress through the steps of the feasibility study, we consistently revisit aspects previously highlighted in the BMC. Each analysis goes deeper into one of the fields of the BMC. The feasibility chapter focuses on all the resources identified in the model and explores them in more detail. Additionally, some of the channels and key activities are analysed through this method. The cost and revenue structure are examined through the cost-benefit analysis, with a greater emphasis on the benefit part of the analysis.



## Business Model Canvas

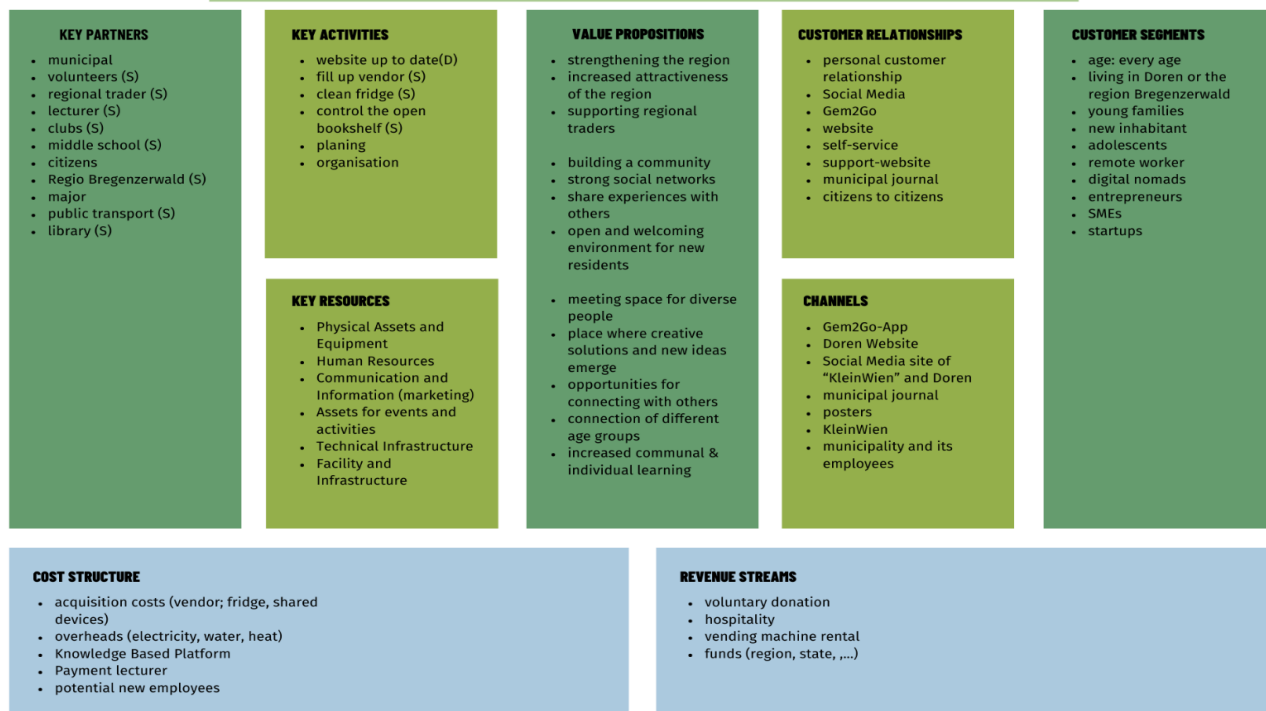


Figure 14: Business Model Canvas Services and Digitalisation

The heart of a Business Model Canvas is the value proposition. Its main purpose, as mentioned above, is to explore deeply the value that the project/idea brings to the customers. It is important to have a clear understanding of what the whole project actually has to offer. If the goal and its effects are not clearly statable, then the entire solution/idea/project should be reevaluated. In our case, we identified three main streams of value for the citizens and other potential customers/stakeholders. The first category describes several benefits connected to the region. If the solution gets implemented, we expect that people will benefit from a strengthened region, as more service offerings, a community/coworking space, and increased digital skills will result in a more attractive region. The more a region has to offer, the more people want to work and live there. This not only benefits consumers but also companies and entrepreneurs in the region. They gain professional workers, more innovative people (especially in a coworking space), and a stronger population that increasingly consumes products from the region.

The community can also derive considerable value from the entire solution. Through additional services and a coworking/community space, people have huge possibilities to network and communicate, strengthening social ties. Through all these measures, an open and welcoming environment is created, which is a huge benefit not only to local citizens but also to new residents. Building a community can be seen as one of the biggest results/values of the proposed solution. Just because there are people living together in a municipi-

ality does not automatically mean that there is a caring and engaged community in place. By implementing the proposed solution, it becomes possible to reactivate the sense of community and, as a result, also strengthen its resilience. The third value stream that we could identify is connected to social ties and the connection between citizens. The proposed solution is designed around a community space, providing a room where people can meet. All other services and projects are located in or around that space. This helps bring people together, fostering connections between different age groups and increasing communal and individual learning.

### 3.2.3 Feasibility

In order to assess the feasibility of the solution and its various proposed scopes, a comprehensive list of all the required resources has been compiled. While gathering these resources, a clear scheme of categories emerged, encompassing physical assets and equipment, human resources, communication and information flow, technical infrastructure, and facility infrastructure. These categories align more or less with typical cost categories.

#### What has been done?

The implementation of the proposed solution with its several services requires various resources. A list of necessary resources has been compiled.

#### Structure of the table

The table (see annex) consists of the attributes "Resource,"



“How necessary is it?”, “Description”, “What is necessary for the feasibility?” and “Connection to other resources”. In the “Resource” attribute, individual resources required for services or projects are listed. The “How necessary is it?” column indicates the importance of each resource, rated on a scale of 1 to 3. A rating of 1 signifies that the resource is highly essential for implementing the services or the project, while a rating of 2 suggests it is necessary for providing a specific service. A rating of 3 signals that the resource is not strictly necessary but would still be desirable. The “Description” column explains the meaning of each resource and why it is needed. In the “What is necessary for the feasibility?” attribute, the requirements for implementing each resource are specified. Some resources are interconnected, meaning they are related to each other. The “Connection to other resources” column indicates relationships with other resources. For example, setting up vending machines may require a ground-level space with a roof. This list serves as a checklist to provide an overview of the required resources and to check off those already available. The resource list is attached in the annex.

**Why we developed a list**

Resources are indispensable for the execution and provision of services. Depending on the type of service, the required resources may vary. Both specific resources needed for a particular service and overarching resources have been taken into account. These resources are essential not only for developing and allocating the services but for the entire solution, including the implementation of the projects “Digitalization of the Community” and “Digital Fit”.

The list serves as a guide and is adaptable. It is not intended to be a checklist where one must tick off each point before considering everything fulfilled. The list functions more as a guideline and specifies in detail which resources are necessary for which purposes. The idea is that the service concepts are interchangeable, and one can, for example, freely choose whether to install a vending machine or a parcel station.

**Resource Categories**

For better understanding and a comprehensive overview, all identified resources have been categorised and listed accordingly.

- **Physical Assets and Equipment:** This section outlines the necessary equipment for each service, including the setup for a coworking space.
- **Human Resources:** In addition to physical resources, people are required to oversee various areas, such as web developers for the website or facility managers to maintain facilities. Volunteers are also crucial, for instance, to assist with workshops or bake cakes for the card game café.
- **Communication and Information Flow:** This list specifies the resources needed to communicate the solution with its services and projects to the public, as well as means to engage community members with the projects and services.

Technical Infrastructure: Technical resources required

for digital aspects, have been considered, including fast internet connectivity, technical equipment such as computers, and a database for centralized data storage. These resources are needed for both the “Digital Fit” and “Digitalization of the Community” projects, as well as for the services.

- **Facility and Infrastructure:** This section encompasses general resources, including a well-developed public transportation infrastructure, as well as basic necessities like electricity and water. The maintenance of these resources is also included in this list.

**3.2.4 Costs and Benefits**

- Costs	+ Benefits
<ul style="list-style-type: none"> <li>• Physical Assets and Equipment</li> <li>• Facility and Infrastructure</li> <li>• Human resources</li> <li>• Events and activities</li> <li>• Other intangible costs</li> </ul>	<ul style="list-style-type: none"> <li>• Social Connectivity</li> <li>• Community Cohesion</li> <li>• Region Appeal and Sustainability</li> <li>• Trust and Community Dynamics</li> <li>• Engagement and Participation</li> <li>• Safety and Support</li> <li>• Economic Growth</li> <li>• Resource utilization</li> <li>• Talent Attraction and Retention</li> <li>• Innovation and creativity</li> </ul>
Technical infrastructure	Cultural enrichment

A typical and widely spread method for obtaining an overview of potential costs is the cost-benefit analysis. This approach is particularly suitable for projects in a non-profit environment, governmental institutions, or community projects. Instead of merely listing potential costs against potential earnings, special focus is placed on benefits. This way, factors that are challenging to quantify in real numbers are also considered. In the table above we listed costs as well as benefits. The costs have been extracted from the several resources that were identified in the chapter feasibility (especially the list in the annex). The benefits have been singled out during the whole process of the project. Especially when working on the term social capital many not so obvious benefits could be determined.

**Social connectivity**

The benefits of social connectivity are often hidden, as people tend to focus on their own social circles rather than the broader connections within a community. The establishment of a coworking space, along with the surrounding services that encourage people to frequent the area, leads to increased social connectivity. Citizens meet more frequently, fostering greater interaction and communication. Working together or alongside each other in a coworking space increases the likelihood of forming partnerships. Having

people from different companies in the region also promotes networking between companies and individuals, leading to the formation of new alliances. In general, when more people have a reason to linger in public spaces in the municipality, stronger social networks are built. Most people tend to initiate conversations, ask questions, and show interest, contributing to increased information sharing. All of these factors contribute to the growth and strengthening of social networks.

### Community cohesion, trust and community dynamics

A region, municipality, or community that offers various services aims to meet the needs of its local residents. When community members feel engaged and included, they develop a stronger sense of belonging, both to the region and the community. People feel cared for, and in turn, they also care about what happens around them. The sense of belonging and community is often an underrated benefit of a region, despite being the building blocks of a well-functioning, strong, and resilient community. A resilient community is better prepared to adapt to changes, various catastrophes, and is more open to innovation and new ideas. Moreover, individuals who feel welcomed, safe, and part of a community that helps them when needed are more willing to reciprocate and contribute. Volunteerism is more likely to thrive in such communities. All these factors serve as strong foundations for any future projects the municipality may undertake. Important characteristics of a community with high social capital are trust and reciprocity (Portes, 1998). Drivers for trust in this context often include extensive engagement in volunteering, membership in political groups, and various forms of community action (OECD, 2018).

Establishing trust is crucial in gaining the confidence and support of local residents for the development of a coworking space. By building a strong community and addressing its needs, trust is cultivated, contributing to the thriving of the community.

### Engagement and Participation

For a coworking space or similar institution to sustainably establish itself in the region an accepting and active community is beneficial. Also, other initiatives and projects evolving need baseline acceptance within the community in order to fully and strongly develop. By actively working on new services for the citizens and newcomers, a community infrastructure as well as digital tools that support the strengthening of the community, a more open community will arise. This will foster higher acceptance for new initiatives but at the same time also encourage the citizens to participate. An encouraged and invested community supports projects of all different kinds, helps one another and is interested in maintaining community cohesion. A community that cares and is interested in what is going on is more resilient and acts on problems and challenges.

For a coworking space or a similar institution to establish itself sustainably in the region, an accepting and active community is beneficial. Likewise, other initiatives and projects

evolving need baseline acceptance within the community to fully and strongly develop. By actively working on new services for the citizens and newcomers, a community infrastructure, as well as digital tools supporting the strengthening of the community, a more open community will emerge. This will foster higher acceptance for new initiatives while simultaneously encouraging citizens to participate. An encouraged and invested community supports projects of all kinds, helps one another, and is interested in maintaining community cohesion. A community that cares and is interested in what is going on is more resilient and acts on problems and challenges.

### Safety and support

By establishing parts of the suggested solution, a stronger community will be built up and social capital will accrue. This has positive effects on safety and support systems in the region. If people know one another and are familiar with most members of the community distress and crime is less likely to arise. This phenomenon can be observed in many community projects (e.g. (Glover, 2004)) in which people mention the increased feeling of security they gained after participating actively in the community. The same is true for support systems, which are established as more people communicate and interact with one another. Support systems prove to be crucial factors, as people, no matter what age, need help in all sorts of situations. The municipality itself, however, is not always able to provide help to everyone in each situation; that is where a strong and active support system comes in handy. Supporting the citizens in capacity building so that the community is able to organize itself is an ultimate goal.

### Region appeal and sustainability

A region/municipality that invests in services and the construction of a coworking and community space makes the region itself more attractive to newcomers as well as local residents. Many rural areas face significant difficulties because more and more young people are moving to bigger cities. By providing a coworking infrastructure and a flexible, attractive service environment, the need to relocate decreases. For digital nomads and remote workers, only a region that provides the necessary infrastructure becomes interesting. Especially rural areas are a paradise for all people who love nature and a less stressful life. However, a minimum of services offers and infrastructure need to be in place for the region to be attractive enough. As seen in our portfolio of resources, many services are not substantial purchases tied to endless costs, but services that offer more flexibility and simplicity to the people. Another positive side effect of a more attractive region is the shift from being a classical tourist destination to encouraging long-term stays. This, in turn, leads to increased spending in the region, fostering economic growth and wealth.

### Economic Growth

Establishing a service infrastructure and a coworking/community space not only incurs costs but also stimulates eco-

conomic growth in various areas. Coworking spaces often support startups, freelancers, and small businesses due to their flexible and relatively affordable infrastructure, resulting in job creation within the region. This means that even without attracting new companies to the region, new jobs and workplaces are generated. This, in turn, positively influences other factors such as talent attraction, retention, and regional appeal. By catering to startups, freelancers, and SMEs, coworking spaces become hubs for entrepreneurial activities in the region, fostering new business ventures and supporting the growth of local businesses. The increased population in the region also leads to higher spending. Regional companies benefit not only from a larger pool of potential workers but also from increased spending and stronger purchasing power. More money earned and spent in the region has a positive impact on the entire regional economy. It allows for the development of better infrastructure (health care, local amenities, restaurants, education, connectivity, mobility, etc.), the creation of more public spaces (from playgrounds to restaurants), and the emergence of a robust service infrastructure. A region that experiences positive development also becomes an attractive destination for tourists, further boosting the local economy.”

### Resource utilization and sustainability

Besides the numerous positive social and economic effects, having a coworking/community space, as well as some of the suggested services, fosters efficient resource utilization. By sharing resources such as office equipment, meeting rooms, and amenities, coworking spaces optimize space utilization, making it cost-effective for businesses and reducing the need for individual infrastructure. Services like shared devices, vending machines, or the parcel station also contribute to the shared economy trend and lead to more efficient use of public space. Developing and promoting a shared economy approach also fosters a more sustainable region. Sustainability is becoming increasingly important and is therefore an inherent part of new projects. There are several factors that positively affect the sustainable development of a region when coworking spaces are installed. A local and convenient coworking space can help reduce or completely eliminate commuting distances for individuals. This not only lowers carbon emissions but also eases traffic congestion and supports the development of more sustainable transportation options.

As also mentioned in our solution, coworking and community spaces often host events and initiatives focused on sustainability and community engagement. This can include workshops on eco-friendly practices, waste reduction campaigns, or partnerships with local environmental organizations. Such activities foster a sense of environmental responsibility within the community. Another important factor is that supporting local businesses is inherently sustainable. It reduces the carbon footprint associated with long-distance supply chains. Through coworking and community spaces, collaborations with local suppliers and businesses contrib-

ute to the sustainability of the regional economy.

### Talent Attraction and Retention

Regions with vibrant coworking spaces possess a compelling appeal to professionals seeking collaborative environments. Therefore, regions with an intact coworking space and an engaged community augment the local talent pool with skilled individuals. It's important to note that not only people from foreign places get attracted to come to the region but also local citizens no longer feel the need to leave rural areas in search of better work. Consequently, by fostering such spaces, regions not only retain their local talent but also attract and retain skilled professionals, fortifying the local workforce and enhancing the overall economic landscape.

### Innovation and creativity

Not only do innovative companies, as well as individuals, find a place in a coworking space where they can be creative, but local residents also get inspired to break out from their daily work routines. A coworking space is often designed in an open and inviting way and situated in special places. Especially in the region Vorarlberg, many coworking spaces are not built from scratch but are developed in existing buildings. These buildings are often historical houses, farms, or traditional structures, still representing important customs and practices from the region. This contributes to inspiring the people working there and fuelling their creativity. While the first thing that comes to mind when talking about a coworking space is typical desk work in a shared space with people from different companies, it is becoming more common to develop coworking spaces for industrial purposes as well. These places are often called fab labs or think tanks and specialize in offering different devices to inventors. The idea behind this is to make particularly expensive devices and machines like 3D printers, laser cutters, CNC machines, etc., which one normally does not have at home, available. The access to professional technology is another strong driver for creativity and also innovation, giving people the possibility to try out new things.

### Cultural enrichment

By welcoming experts from various cultural backgrounds and industries, these environments nurture lively exchanges of ideas and viewpoints. This diversity brings together people with different perspectives, skills, and cultural backgrounds, creating a rich tapestry of experiences within the workspace and the region. This mix leads to comprehensive and inclusive business solutions, promoting both economic expansion and heightened employee productivity. A space that welcomes people from different cultures is also a space for learning. The collaborative nature of coworking spaces encourages knowledge sharing and collaboration among members and the community. This exchange of ideas, skills, and expertise provides individuals with exposure to different industries and practices, contributing to cross-cultural learning and enrichment.



### 3.2.5 SWOT and Risk Analysis

<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• Establishment of a community</li> <li>• Increased resilience</li> <li>• Unique offer in the region (USP)</li> <li>• Open community &amp; collaborative atmosphere</li> <li>• Networks</li> <li>• Support of local economy</li> <li>• Facilitation of services, communication, information flows</li> <li>• No individuals are excluded (attention also on older generation)</li> <li>• Independent learning</li> <li>• Independence</li> <li>• User-friendly experience</li> <li>• Acknowledgment of different perspectives</li> <li>• Sense of belonging to the region</li> <li>• Interconnectivity of the region</li> <li>• Central location</li> <li>• Flexible space for different purposes</li> <li>• Diverse programs</li> </ul>	<p><b>Weaknesses:</b></p> <ul style="list-style-type: none"> <li>• Space constraints, Infrastructure KleinWien             <ul style="list-style-type: none"> <li>• relatively small space and shares it with a library</li> <li>• Weak public transport connections</li> </ul> </li> <li>• Knowledge:             <ul style="list-style-type: none"> <li>• “One person” is responsible for the project “Digital Fit”</li> <li>• Knowledge at one place</li> <li>• The establishment of a knowledge database requires a significant amount of time and continuous care</li> </ul> </li> <li>• New employees are needed</li> <li>• Not a one-off thing</li> <li>• Limited resources (money, time, people)</li> <li>• High dependency on volunteers</li> <li>• Lack of visibility (poor marketing)</li> <li>• ...</li> </ul>
<p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• Building a resilient community</li> <li>• People get to know new individuals</li> <li>• New residents find it easier to connect</li> <li>• A well-functioning Community Space lays the foundation for a coworking space</li> <li>• Reaching more people (information and transparency)</li> <li>• Independence</li> <li>• Makes digitalization an omnipresent topic</li> <li>• Connection of different age groups</li> <li>• Business opportunities</li> <li>• Attractiveness of the region</li> <li>• Building trust</li> <li>• Increasing number of skilled worker in the region</li> <li>• New partnerships (local businesses, organizations, municipality, start-ups, freelancer, ...)</li> <li>• Education and skill development</li> <li>• Grants and funding possibilities</li> <li>• Technology integration</li> <li>• Cultural exchange and diversity</li> </ul>	<p><b>Threats:</b></p> <ul style="list-style-type: none"> <li>• No acceptance from the community</li> <li>• The services are not utilized by the citizens</li> <li>• There is no demand (falsely quantified)</li> <li>• Not enough volunteers</li> <li>• The platform is not used by the citizens</li> <li>• Platform does not get updated enough</li> <li>• Things are not explained clearly enough</li> <li>• The person in charge is leaving the community, and there is no one to fill the position</li> <li>• Not enough awareness of the project</li> <li>• Costs:             <ul style="list-style-type: none"> <li>• Acquisition costs</li> <li>• Costs of the Knowledge-Based Platform</li> </ul> </li> <li>• For every event, a responsible person from the „Digital Fit“ project must be present</li> <li>• Economic downturn (increasing prices, less housing, ...)</li> <li>• Gentrification</li> </ul>

The SWOT analysis summarizes a comprehensive overview of the project’s internal capabilities and external prospects. The strengths underscore a commitment to community building, resilience, and innovation, fostering an open, inclusive environment that supports independent learning and interconnectedness. Moreover, the emphasis on user-friendly experiences and acknowledging diverse perspectives enhances the project’s appeal. However, inherent weaknesses like infrastructure limitations, space constraints, and weak public transport connections pose challenges. Knowledge centralization and the need for continuous care of a knowledge database, alongside the requirement for new employees, highlight operational hurdles. Additionally, the project’s ongoing nature brings its own set of challenges, demanding sustained effort and resources.

In terms of opportunities, the project presents ways to foster community resilience, connections among residents,

and potentially expand services to attract new residents and businesses. It also has the potential to elevate the region’s attractiveness and promote digitalization as a prevalent topic, bridging different age groups and even cultivating trust.

Yet, through the analysis we also uncovered critical threats. Potential lack of community acceptance or utilization, coupled with limited demand or volunteer support, could hinder the project’s success. Insufficient awareness, inadequate updates to the platform, and key personnel leaving without replacement further exacerbate risks. Moreover, the financial aspects, including acquisition costs and the expenses associated with maintaining platforms and event presence, loom as potential challenges.

In conclusion, while the project exhibits substantial strengths and promising opportunities, addressing weaknesses and mitigating threats is crucial for its sustained success.



**3.2.6 Risk matrix**

A risk matrix is an easy way of structuring and allocating potential risks. The more insight you have into potential future challenges, the better you can prepare for them. In an initial step all possible risks for the proposed solution have been identified and allocated according to their likelihood of occurrence and the impact they will have if they materialise. The category “Impact” is strongly related to consequences that would occur if the event actually takes place, while the category “Likelihood” focuses on the probability of said events occurrence. The “Impact” category is further subdivided into “Negligible”, “Minor”, “Moderate”, “Significant”, and “Severe”. The “Likelihood” category is divided into “Very likely”, “Likely”, “Possible”, “Unlikely”, and “Very unlikely”.

with many associated costs. The risk here is that the costs for the community/municipality might be too high and may not be financially affordable.

Suggestions for avoidance:

- **Prioritize needs:** Identify and prioritize the most critical services and aspects to ensure efficient resource allocation. Focus on high-impact areas that align with community needs and goals.
- **Diversify funding sources:** Explore various funding sources, such as government grants, private sponsorships, partnerships with businesses, or community fundraising initiatives. Diversifying funding streams can reduce reliance on a single source and increase financial stability.
- **Explore financing options:** Investigate financing options, such as low-interest loans or community bonds, to

**Impact**

		Negligible	Minor	Moderate	Significant	Severe
Likelihood	Very likely		No participants		Not enough money Long lasting usage	No person responsible
	Likely	Different interests	Political support	Communication Misunderstandings	Finding volunteers Living costs Maintenance	No users Connection problems
	Possible	The machine doesn't give out enough change	Not enough space	Increased isolation Not enough parking slots	Abuse/vandalism New job Appointment conflicts	Data security
	Unlikely		People won't accept help from "strangers"	Conflicting goals Information flow Blackout	Complicated No trust Fire in KleinWien	No acceptance
	Very unlikely			Wrong usage	Uncooperative people Pandemic	No openness for newcomers

Figure 15: Risk analysis Services and Coworking Space

The values located in the red section are both highly likely and associated with significant impacts if they occur. As evident from the risk matrix, the values falling into the red area include “Not enough money”, “Long-lasting usage”, “No person responsible”, “No users”, and “Connection problems”. The following offers a more detailed explanation of these points. There will be no in-depth discussion of values in the green areas since they either have a low probability of occurrence or a low impact.

**Not enough money**

As mentioned earlier, the individual services and the projects “Digital Fit” and “Digitalization of the Community” require specific resources for implementation, which come

bridge funding gaps. Ensure that any financing arrangements are sustainable and align with the long-term financial health of the community.

- **Community engagement:** Engage with the community to raise awareness about the importance of the services and projects. Garner support from residents, local businesses, and other stakeholders who may contribute resources or funds.
- **Grant applications:** Actively pursue grants from government agencies, foundations, and other organizations that support initiatives aligned with the goals of the services and projects.

**Long-lasting usage**

Long-term usage of a service refers to the service being continuously utilized over an extended period of time. This

implies that users do not only use the service once or only occasionally but engage with it over a prolonged period. The risk lies in the possibility that services may be well-received and used consistently initially, but over time, the demand may decrease significantly, eventually leading to non-utilization.

Suggestions for avoidance:

- Market research and feedback: Conduct market research to stay informed about industry trends and evolving customer preferences. Collect feedback from users to understand their evolving expectations and make adjustments accordingly.
- Partnerships and collaborations: Form partnerships with other organizations or businesses to enhance the service's value proposition. Collaborate with entities that can bring additional resources, expertise, or user bases to the service.
- Diversification of offerings: Consider diversifying the service offerings to cater to a broader audience or adapt to changing market demands. Explore complementary services that can extend the overall appeal and utility of the offerings.

### No person responsible

The services and projects require a contact person who is available to address all sorts of questions. There is a risk that there may be no or not enough individuals willing to take on such a responsibility and organize tasks. Targeting several employees reintroduces the issue of costs.

Suggestions for avoidance:

- Clearly define roles and responsibilities: Clearly define and communicate the roles and responsibilities of individuals involved in the services and projects. Ensure that potential responsibilities are well-understood before individuals commit to taking them on.
- Recognition and incentives: Recognize and reward individuals who take on responsibilities and contribute to the success of services and projects. Implement incentive programs that acknowledge and appreciate individual efforts.
- Create a supportive environment: Foster a supportive and collaborative work environment where individuals feel encouraged to step up and take on responsibilities. Encourage open communication and feedback to address any concerns or challenges people may face.
- Succession planning: Implement succession planning to identify and prepare individuals who can step into responsible roles in case of unexpected changes. Ensure that there is a pipeline of people ready to take on responsibilities and tasks when needed.
- Rotational assignments: Implement rotational assignments that allow different individuals to take on responsibilities at different times. This approach can prevent burnout and ensure that a diverse set of people gain experience in leadership roles.

Collaborative decision-making: Involve individuals in the

decision-making process, allowing them to feel a sense of ownership and responsibility. Encourage collaboration and collective responsibility for the success of services and projects.

- Clear communication channels: Establish clear communication channels to inform individuals about the importance of their roles and the impact they can make. Regularly communicate the value of their contributions to maintaining engagement.
- Flexible work arrangements: Consider flexible work arrangements that accommodate individuals' schedules and personal commitments, making it easier for them to take on responsibilities.
- Create a positive culture: Foster a positive organizational culture that values and prioritizes individual contributions. Cultivate an environment where people feel a sense of pride and fulfilment in taking on responsibilities.

### No users

"No users" refers to a lack of demand. Consequently, the services and projects are not utilized, leading to the absence of community formation.

Suggestions for avoidance:

- Market research and user analysis: Conduct thorough market research to understand the (additional) needs, preferences, and behaviours of potential users. Analyse user demographics and psychographics to tailor services and projects to their specific requirements.
- Collaborations and partnerships: Collaborate with influencers, organizations, or businesses that can amplify the reach and appeal of services. Form partnerships that enhance visibility and credibility within the target community.
- Feedback mechanisms: Establish feedback mechanisms to continuously collect input from users. Act on user feedback to make iterative improvements, demonstrating responsiveness to user needs.
- Incentives and rewards: Introduce incentives or rewards for early adopters or active community participants. Recognize and appreciate user contributions to encourage continued engagement.
- Education and awareness programs: Conduct education and awareness programs to inform potential users about the benefits and significance of the services and projects. Address any misconceptions or barriers that may hinder user adoption.
- User onboarding processes: Develop user-friendly onboarding processes to make it easy for new users to understand and start using the services. Provide tutorials, guides, or support to assist users in maximizing the value of the offerings.

### Connection problems

"Connection problems" refer to a typical problem that is still a risk in the alps. Since lots of smaller municipalities are spread everywhere in the alps they are often not connected

with fiberglass and therefore suffer from significant performance issues.

Suggestions for avoidance:

- Invest in infrastructure improvement: Advocate for and invest in the expansion of fibreoptic infrastructure in the region. Collaborate with local authorities, telecommunication companies, and government agencies to bring high-speed internet connectivity to underserved areas.
  - Explore alternative technologies: Consider alternative technologies such as satellite internet, fixed wireless broadband, or mobile networks to provide connectivity in areas where laying fibreoptic cables is challenging or expensive.
  - Community networks: Encourage the creation of community networks where residents contribute to building and maintaining local internet infrastructure. This approach fosters a sense of community ownership and can help overcome geographical challenges.
  - Government grants and subsidies: Seek government grants or subsidies aimed at improving internet infrastructure in rural or underserved areas. These funds can support the deployment of high-speed internet solutions.
- Public-Private Partnerships and regional collaboration: Collaborate with private entities to form public-private partnerships or neighbouring municipalities. This can involve sharing the costs and responsibilities of infrastructure development, making it more feasible for both parties.
  - Mobile Hotspots: Introduce mobile hotspot programs that bring temporary connectivity solutions to specific locations. This can be particularly useful in community centres, schools, or public spaces.
  - Utilize mesh networking: Implement mesh networking technologies that allow devices to connect with each other, creating a decentralized network. This can be beneficial in areas where traditional infrastructure is challenging to deploy.
  - Leverage smart technologies: Explore smart technologies that optimize network usage, such as dynamic bandwidth allocation and traffic management systems.



### 3.3 Italy

The main objective of this activity is to evaluate the economic feasibility of the realization of three coworking spaces in the *Unité des Communes valdôtaines Evancon*, one for each part of the Ayas Valley:

- Upper valley (municipalities of Ayas and Brusson),
- Middle valley (municipalities of Challand Saint-Anselme, Challand Saint-Victor, Emarese)
- Lower valley (municipalities of Arnad, Champdepraz, Isogne Montjovet, Verres)

There are no coworking spaces in the *Unité des Communes valdôtaines Evancon*. Therefore, this would represent a pilot experiment of settling and running coworking spaces.

In order to conduct such assessment, our methodological approach will focus first on the analysis and the estimation of the market potential (potential demand) of three coworking spaces, exploiting all the relevant available data concerning the segments / groups potentially interested (e.g., long-distance commuters, tourists, etc.). To make these estimates, we will examine the results of the research conducted in the context of activity 1.2.1 (“Remote work in the Alpes: Readiness, opportunities and barriers”): they will be used to estimate the interest in using coworking spaces and the willingness to pay for these services. In addition, the views and expertise of some stakeholders and privileged observers will also be taken into account. The assessment exercise finally will also include the estimation of the standard operational costs required to run a coworking space.

The structure of this chapter is as follows. In Section 2, we will conduct a swot analysis of the *Unité des Communes valdôtaines Evancon*, with respect to the realization of these three coworking spaces. We will identify and describe the geographical, socio-economic and institutional characteristics of the *Unité des Communes valdôtaines Evancon* which represent locational advantages (strengths) or disadvantages (weaknesses) with reference to the establishment of coworking spaces. Next, we will identify and illustrate the threats and opportunities arising from these investments. In Section 3, we will present and describe the raw data about the segments / groups that could potentially be interested in using coworking spaces. Section 4 is dedicated to the presentation of the methodology designed and applied to evaluate the economic feasibility of three coworking spaces in the *Unité des Communes valdôtaines Evancon*, one for each part of the Ayas valley, as mentioned above. Thus, the results of our estimation of the market potential and costs concerning coworking spaces are presented in Section 5, where also the final evaluation of the economic feasibility of these coworking spaces will be presented and discussed. Last but not least, Section 6, is devoted to some estimates

about the possible direct impacts of the coworking spaces on the local economy.

#### 3.3.1 The context where to settle new coworking spaces: SWOT analysis

The *Unité des Communes valdôtaines Evancon* is part of the Aosta Valley, a tiny high mountain region in the Italian Alps. According to the latest data, the population of the *Unité des Communes valdôtaines Evancon* amounts to 11.360, and it has been decreasing in recent years.

The *Unité des Communes valdôtaines Evancon* presents many geographical, economic, social, institutional, and cultural factors, which might enhance the establishment of coworking spaces. However, it also presents some weaknesses in this respect, which should be taken into consideration as they can daunt and make the settlement of a new coworking space fail.

#### Strengths

As far as the strengths are concerned, we first refer to the natural asset, i.e., the unique high mountain environment and landscape, and the air quality<sup>8</sup>. The *Unité des Communes valdôtaines Evancon* is at the foot of the Monte Rosa massif, one of the highest mountains in Europe (Punta Dufour: 4.634 mt), together with other mountains in Aosta Valley, like Monte Bianco (4.808 mt), Cervino (4.478 mt.) and Gran Paradiso (4.061 mt). These assets may be a crucial factor for attracting coworkers who, as previously seen, prefer a place where the quality of the environment and landscape is high. These unique natural assets are so important that are usually assumed to be the drivers of the high level of tourist attractiveness of this area: in 2022, the *Unité des Communes valdôtaines Evancon* registered almost 110k arrivals and more than 310k overnight stays<sup>9</sup>. Winter tourism, mostly based on skiing, and summer tourism are the most important segment of tourism in the *Unité des Communes valdôtaines Evancon*. Clearly, these types of tourism, highly seasonal, concern especially the upper part of the valley. This relevant amount of tourist flows incoming in the *Unité des Communes valdôtaines Evancon* might represent a market potential for the services provided by coworking spaces. With concern to tourism, it is important to point out that other types of tourism, not seasonally characterized, like sport tourism (other than skiing), green tourism, food, and wine tourism, etc., are increasing in the Aosta Valley and in the *Unité des Communes valdôtaines Evancon*. Even cultural tourism, thanks to the several cultural assets (e.g., the numerous and well-preserved castles, the roman archeological sites in the city of Aosta), is on the rise. The same *Unité des Communes valdôtaines Evancon* hosts some important castles (Verres and Graines) and important cultural sites, like the gold mines in Brusson. These increasing tourist flows might represent a potential demand for coworking

<sup>8</sup> See: [https://www.arpa.vda.it/images/stories/ARPA/news/2023/20230519\\_reportQA\\_completo/Report\\_QA2022\\_completo.pdf](https://www.arpa.vda.it/images/stories/ARPA/news/2023/20230519_reportQA_completo/Report_QA2022_completo.pdf)

<sup>9</sup> By the way, the entire region, especially places close to the highest Valdostan mountains, is extremely attractive for tourism. According to Istat (dati.istat.it), in 2022 in Aosta Valley there were about 1.2 million of arrivals and more than 3.3 million of overnight stays.



services in the *Unité des Communes valdôtaines Evancon* as well, helping to “adjust” the “risk” of high seasonality.

An additional, and relevant, source of demand for coworking spaces related to tourism, originates from the high availability of unoccupied dwellings (about 70% of the total existing dwellings in the *Unité des Communes valdôtaines Evancon*), mostly used as second homes. On the one hand, these dwellings could put on the market for coworkers; on the other hand, the unofficial tourist flows associated with them, which is reasonably very high, (most of these dwellings are owned by people coming from outer areas and from other regions, like Lombardy and Piedmont) can represent a demand for coworking spaces.

However, these (natural assets, official and unofficial tourist flows) are not the only factors which can boost the development of a coworking space in the *Unité des Communes valdôtaines Evancon*. Another source of market potential for coworking spaces comes in fact from commuting flows. In the *Unité des Communes valdôtaines Evancon* there is a considerable number of commuters travelling daily to other municipalities (both inside and outside the region). These flows mainly originate from the lower Ayas valley, having as main destinations the city of Aosta and its surrounding municipalities, and Turin (Piedmont). These commuters may find it convenient to work, even occasionally, remotely, using coworking spaces placed not so far from their homes. Lastly, some social, cultural, and institutional factors might be strengths for the project of building coworking spaces.

The availability of social infrastructure is important, as they are important factors for families interested in moving permanently to the *Unité des Communes valdôtaines Evancon*. See for example the presence of kindergartens, elementary schools, and middle schools in most of the municipalities<sup>10</sup>. In addition, the quality of the Public Administration in Aosta Valley is good. According to the European Quality of Government Index<sup>11</sup>, in 2021 Aosta Valley was the sixth NUTS2 region in the ranking of the Italian regions. Bureaucracy is known to be an important factor of attractiveness based on other studies: the more efficient bureaucracy is in a place, the better it is for companies which necessarily have to interact with it frequently<sup>12</sup>.

Last but not least, as far as the cultural factors are concerned, proximity of relationships is typical of small communities, together with the cultural similarities with France, one of the bordering countries, might be relevant factor (French language is largely spoken in Aosta Valley). Particularly, the latter can play a role in attracting German speaking coworkers, as emerged in the cases investigated previously in this research.

## Weaknesses

Nonetheless, the *Unité des Communes valdôtaines Evancon* also presents several weaknesses, which might daunt the development of coworking spaces. First, some of the municipalities of this area present shortages in terms of ICTs infrastructure: this is a well-known crucial factor for developing successfully coworking spaces. In fact, in two of the municipalities of *Unité des Communes valdôtaines Evancon*, Challad Saint Victor and Challand Saint Anselme, broadband optical fiber is not available.

Secondly, some limitations concern the geographical characteristics and transport services. The geographical shape of *Unité des Communes valdôtaines Evancon* is very elongated, and there are considerable differences in altitude between different points. The altitude in the lower municipalities (e.g., Verrès) is about 390 mt, while in the upper municipality (Ayas) is about 1.700 mt. The road distance between them is 25 km (it takes 36 min to go from one point to another).

In addition, there is a lack of an adequate local public transportation network connecting the municipalities of *Unité des Communes valdôtaines Evancon*, and them with other places in Aosta Valley. Mobility is mostly based on the use of private cars. The geographical location and the shortages in terms of transport connections cause a low accessibility to basic services like health services: if on the one hand all municipalities have a “Guardia medica” (doctor on call) active 24/7, it is also true that the main and most important hospital in the region, located in the city of Aosta, is far from 30 to 70 mins by car (depending on the part of the valley one comes from), using the motorway A5 and paying the toll (otherwise, the journey time would be higher). Clearly, the upper part of the valley is the one suffering the most from disadvantages in terms of accessibility.

Thirdly, in the upper part of the valley, i.e., Ayas and Brusson, due to the high tourist attractiveness, and the high tourist pressure, there are high costs for housing and rentals, especially during the peak season. This is clearly a disadvantage when it comes to attracting coworkers from outside.

Fourthly, in relation to the same factor (the high tourist attractiveness), but not only, the *Unité des Communes valdôtaines Evancon* presents a lack of spaces / services such as cafeterias, pubs, bars, restaurants. This is true, especially during low seasons. You should consider, in fact, that the attraction of coworkers could be countercyclical compared to tourist flows: they would also move to such places even outside the peak seasons. This can exacerbate the scarcity of social relationships or cultural initiatives, with a sense of isolation, particularly in the winter season, which is typical of mountain regions<sup>13</sup>.

As a fifth critical point, we can point out an exogenous mac-

<sup>10</sup> See <https://www.gu.se/en/quality-government/qog-data/data-downloads/european-quality-of-government-index>

<sup>11</sup> See <https://eqi-map.qog.gu.se/>

<sup>12</sup> See Musolino D., Silveti A. (2020), Are Mountain areas attractive for investments? The case of the Alpine provinces in Italy. *European Countryside*, Vol. 12 (4), pp. 469-493, December.

<sup>13</sup> See also deliverable 1.2.1, specifically 3.3.

ro-factor, climate change. This factor might in some respects be a strength, considering the potential “push-out effect” that it can exert in the plain surrounding regions during the summer. However, in other respects it might be a weakness, if we consider that climate change is likely to affect negatively winter tourism which is a relevant pool of potential coworking spaces users.

### Opportunities and threats

It is hard to think about possible threats associated with the settlement of new coworking spaces. Considering that no new building will be constructed (therefore, no further land consumption can be envisaged), and that the use of private cars should be minimized due to the realization of three coworking spaces, it is an activity with no expected environmental impacts. At the same time, there are no predictable concerns either in terms of safety and security, or in terms of other possible negative impacts, i.e., social, and economic. However, if we think about possible negative effects, we can mention the risk of losing typical characteristics of the mountain environment: silence, tranquillity, etc.; the risk of low interest in these investments by the residents and the tourists; the risk of not being able to integrate socially and culturally coworkers.

Instead, the opportunities might be considerable. First, the potential attraction of new people, new inhabitants (i.e., the retention for longer periods of tourists or of second homeowners) can counteract the risk of depopulation of the area. As far the demography is concerned, the attraction and retention of coworkers may rebalance the age structure of the local population, of which in 2021 about

25% are older than 65 years.

The success of coworking spaces might increase demand on a local scale for services and local products (retailers, restaurants, personal services, food products, etc.). Especially, this might happen in off-seasons. In the best-case scenario, this could foster new forms of local business, stimulating the start-up of new businesses that in turn help to attract a further population.

The attraction of coworkers, which not necessarily are seasonal incoming flows, can contribute to adjusting the tourist inflows in the area, which, as said above, are too tied to the winter and/or summer seasons.

Another opportunity derives from the possibility to reduce pollution levels thanks to the reduction of the numbers of commuters outside the *Unité des Communes valdôtaines Evancon*. In this respect, not only the coworking spaces are unlikely to have any negative environmental effect, but they can have positive ones instead.

In relation to the potential reduction of commuting flows out of the area to other Valdostan municipalities, there is also the opportunity for Aosta Valley companies to reduce structure and management costs. A further opportunity concerns the possibility to renovate part of the unused/abandoned housing stock.

Lastly, should the coworking spaces be successful as a “pilot project”, there is the strategic possibility to diversify the economic specialization of the *Unité des Communes valdôtaines Evancon*, focused on the core business (winter tourism), and then to enhance the territory (if necessary, to “brand” it) for new “tourist” segments.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• All municipalities of <i>Unité des Communes valdôtaines Evancon</i> are connected to the broadband network (they have the fiber optic) except for the municipalities of Challand Saint Victor and Challand Saint Anselme.</li> <li>• High attractiveness due to the unique high mountain environment and landscape and the high air quality. The <i>Unité des Communes valdôtaines Evancon</i> is in one of the valleys at the foot of the Monte Rosa massif, one of the highest mountains in Europe.</li> <li>• After-work activities outdoors (winter sports, hiking, etc.) and in the fresh air.</li> <li>• Highly touristic area, both in terms of winter tourism (ski resorts such as Champoluc) and summer tourism → demand for coworking spaces.</li> <li>• Remarkable commuting flows towards outer areas (both inside and outside the region), who may find it convenient to work, even occasionally, in coworking spaces.</li> <li>• High availability of unoccupied dwellings (about 70% of the existing dwellings), mostly used as second homes, which could put on the market for coworkers.</li> <li>• Availability of homes generally surrounded by greenery and the quietness typical of mountain areas, particularly suitable for families (new housing demand by coworkers).</li> <li>• Proximity of relationships typical of small communities.</li> <li>• Availability of freshly made food products (particularly, cheese, milk, yogurt, beef meat) and fresh drinkable water.</li> <li>• Geographical and cultural proximity with France, à Attraction of French-speaking coworkers.</li> <li>• Increasing attractiveness of high mountains due to climate change: temperature rise might cause increasing people outflows from plain (Padana region) to mountain areas.</li> <li>• Presence of kindergartens, elementary schools, and middle schools</li> <li>• Opportunity to attract different segments of coworkers, thanks to three different coworking spaces projects.</li> <li>• Good quality of Public Administration (bureaucracy)</li> </ul>	<ul style="list-style-type: none"> <li>• In two of the municipalities of <i>Unité des Communes valdôtaines Evancon</i> (Challad Saint Victor and Challand Saint Anselme), broadband optical fiber is not available.</li> <li>• High costs of housing and rentals, especially during the peak season.</li> <li>• Geographical location and shape of <i>Unité des Communes valdôtaines Evancon</i>, which is very elongated and with a considerable difference in altitude. The altitude in the low municipality (Verrès) is about 390 mt, while in the upper municipality (Ayas) is about 1.700 mt. The road distance between them is 25 km (it takes 36 min to go from one point to another).</li> <li>• Lack of an adequate local public transportation network, connecting the municipalities of <i>Unité des Communes valdôtaines Evancon</i> and them with other places in Aosta Valley; mobility heavily based on the use of private cars.</li> <li>• Lack of spaces / services such as cafeterias, pubs, bars, restaurants (especially during the low seasons).</li> <li>• Seasonality: low season periods where most services, shops and restaurants are closed for rest.</li> <li>• Scarcity of social relationships or cultural initiatives, with sense of isolation, particularly in the winter season.</li> <li>• Relevant distance from the main hospital in the region, placed in the city of Aosta (from 30 to 90 mins by car).</li> <li>• For foreign workers, one of the major obstacles preventing employees of non-Italian companies from working remotely depends on the kind of work contract.</li> <li>• Climate change is likely to affect negatively winter tourism (particularly in mid-mountain territories) which is a relevant pool of potential coworking spaces users.</li> <li>• Political instability at the regional government level.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Attraction of new people, new inhabitants, which can counteract risk of depopulation.</li> <li>• Possibility to rebalance the age structure of the local population (Coworkers are obviously people of working age).</li> <li>• Possibility to increase demand on a local scale for services and local products (retail, restaurants, personal services, food products, etc.), even in off-seasons (this could foster new forms of local business, stimulating the start-up of new businesses that in turn help to attract further population ...).</li> <li>• Possibility to reduce pollution levels thanks to the reduction of the numbers of commuters out of the <i>Unité des Communes valdôtaines Evancon</i>.</li> <li>• Possibility to reduce structure and management costs for Aosta Valley companies that allow their employees (resident in <i>Unité des Communes valdôtaines Evancon</i>) to work remotely.</li> <li>• Seasonal adjustment of inflows in the area, which are too tied to winter and/or summer tourist flows.</li> <li>• Possibility to enhance the territory (if necessary, to „brand“ it) for new “tourist” segments.</li> <li>• Possibility to renovate unused/abandoned housing stock.</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of losing typical characteristics of the mountain environment: silence, tranquillity, etc.</li> <li>• Risk of increasing the level of air pollution, due to traffic increase caused by the settlement of the coworking spaces.</li> <li>• Risk of low interest in these investments by residents and tourists.</li> <li>• Risk of not being able to integrate socially and culturally coworkers.</li> </ul>



### 3.3.2 The potential segments interested to coworking: the raw data

The next step of our work has been the identification of the market segments potentially interested in using the coworking spaces in the *Unité des Communes valdôtaines Evancon*, followed by the collection and the description of the related raw data.

Based on the description of the strengths of this project, we have identified three groups that might be potentially interested in using the three coworking spaces (one for each part of the valley: lower, middle and upper valley):

1. Commuters travelling daily out of the *Unité des Communes valdôtaines Evancon*. Istat (Istituto Nazionale di Statistica) collects and releases data at the municipality level about origins and destinations of daily commuting flows.
2. Tourists incoming in the *Unité des Communes valdôtaines Evancon*. Based on the same source (Istat), data about the tourist flows in terms of arrivals and overnight stays are available at the municipality level.
3. Owners of second homes (or tenants of their second homes). Here we will focus not only the census data released by Istat about second dwellings, but also on the database held by the *Unité des Communes valdôtaines Evancon*, built-making basis on the local taxes paid by the owners of second homes.

For all these three groups / segments, the abovementioned raw data are available at the most detailed geographical level, the municipal level. This feature enables us to conduct separated analyses for each of the three geographical sub-areas of the *Unité des Communes valdôtaines Evancon* (upper valley, middle valley, and lower valley). These data are therefore used to make the estimates of the market potential for the three coworking spaces presented in the next paragraphs.

Clearly, beyond these three groups, there might be other groups interested in using the coworking spaces placed in the *Unité des Communes valdôtaines Evancon*, possibly moving there. Think for example to digital nomads living in other regions (or abroad). The point is that, differently from the three groups mentioned above, there are no data at all about other segments (neither at the municipality level nor at more aggregate scales) which could be used to make estimates. However, we will try to take this bias into account in the estimates in the next paragraph.

Here, we describe the main characteristics of these three groups / segments using the relevant raw data.

#### Commuters

According to the Istat census data, in 2019 in the *Unité des Communes valdôtaines Evancon* there were more than 3.600 people commuting out of the municipality of residence. Almost 2.670 commuted for work, the rest for studying. The great bulk of the commuters (77%) came from the lower valley. Only 14% come from the middle valley, while 9% were

from the upper valley. Thus, clearly, they might represent an interesting potential market segment particularly for the lower valley coworking spaces.

Table 1: People resident in one of the municipalities part of *Unité des Communes valdôtaines Evancon* commuting to other municipalities, divided by sub-geographical area (abs values and %; 2019)

	Upper valley	Middle valley	Lower valley	Total
Work	212	352	2.112	<b>2.676</b>
Study	113	163	650	<b>926</b>
All	325	515	2.762	<b>3.602</b>
Work	7,9%	13,2%	78,9%	100,0%
Study	12,2%	17,6%	70,2%	100,0%
All	9,0%	14,3%	76,7%	100,0%

Source: our elaborations on Istat data. Commuting flows out of the *Unité des Communes valdôtaines Evancon* are included.

Table 2: People resident in upper valley of *Unité des Communes valdôtaines Evancon* commuting for work to other municipalities, divided by area of destination (abs values and %; 2011)

WITHIN AOSTA VALLEY	218	86,5%
City of Aosta	40	15,9%
Upper Aosta Valley	4	1,6%
Middle Aosta Valley	46	18,3%
Lower Aosta Valley *	128	50,8%
OUT OF AOSTA VALLEY	34	13,5%
<b>TOTAL</b>	<b>252</b>	<b>100,0%</b>

Source: our elaborations on Istat data. Commuting flows out of the *Unité des Communes valdôtaines Evancon* are included.

Table 3: People resident in middle valley of *Unité des Communes valdôtaines Evancon* commuting for work to other municipalities, divided by area of destination (abs values and %; 2011)

WITHIN AOSTA VALLEY	672	94,4%
City of Aosta	78	11,0%
Upper Aosta Valley	6	0,8%
Middle Aosta Valley	126	17,7%
Lower Aosta Valley *	462	64,9%
OUT OF AOSTA VALLEY	40	5,6%
<b>TOTAL</b>	<b>712</b>	<b>100,0%</b>

Source: our elaborations on Istat data. Commuting flows out of the *Unité des Communes valdôtaines Evancon* are included.

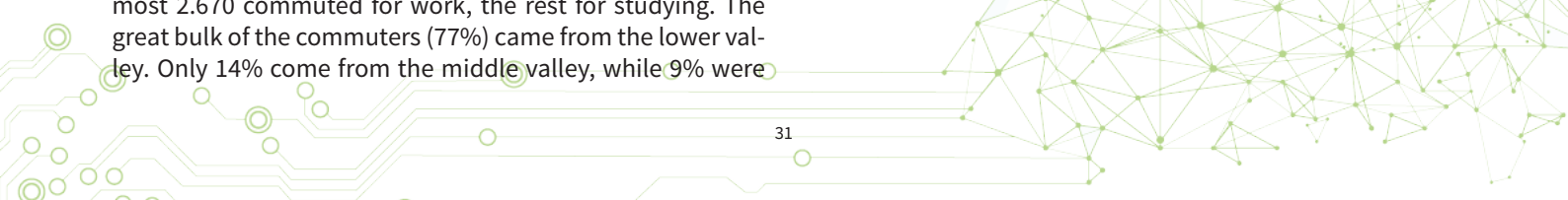


Table 4: People resident in lower valley of *Unité de Communes valdôtaines Evancon* commuting for work to other municipalities, divided by area of destination (abs values and %; 2011)

Area	Abs. values	%
WITHIN AOSTA VALLEY	2.448	92,0%
City of Aosta	448	16,8%
Upper Aosta Valley	48	1,8%
Middle Aosta Valley	1.166	43,8%
Lower Aosta Valley *	786	29,5%
OUT OF AOSTA VALLEY	214	8,0%
<b>TOTAL</b>	<b>2.662</b>	<b>100,0%</b>

Source: our elaborations on Istat data. Commuting flows out of the *Unité des Communes valdôtaines Evancon* are included.

### Tourists

The second group is made up of the incoming tourist flows in the valley. As shown in Table 5, the total average number of arrivals in the last three years (2018, 2019 and 2022)<sup>14</sup> was almost 103,400, about 9% of the total arrivals registered in the Aosta Valley in 2022. The overnight stays were totally 326,600, about 10% the total arrivals registered in the Aosta Valley in 2022. Foreign tourists account for 24.1% of the total arrivals in the *Unité des Communes valdôtaines Evancon*, and for 28.6% of the overnight stays.

The great bulk of tourist coming in the *Unité des Communes valdôtaines Evancon* are attracted to the upper valley. In fact, almost 87% of the overnight stays are registered in establishments located in the upper valley, in places like Ayas, Champoluc and Brusson. The middle valley and the lower valley attract much less, respectively 6% and 7.3% per cent of the total overnight stays of the tourists coming in the valley. Taking into consideration foreign tourists, we can point out that the upper valley is even more attractive: almost 92% of the total overnight stays of foreign tourists in the *Unité des Communes valdôtaines Evancon* are in Ayas or Brusson.

Table 5: Tourist arrivals by origin (2018, 2019 and 2022: average; abs. values and %)

	Domestic	Foreigners	Total
Upper valley	64.764	21.277	<b>86.041</b>
Middle valley	5.480	581	<b>6.061</b>
Lower valley	8.236	3.033	<b>11.269</b>
Total	78.480	24.891	<b>103.371</b>

	Domestic	Foreigners	Total
Upper valley	82,5%	85,5%	<b>83,2%</b>
Middle valley	7,0%	2,3%	<b>5,9%</b>
Lower valley	10,5%	12,2%	<b>10,9%</b>
Total	100,0%	100,0%	<b>100,0%</b>

Source: our elaborations on Istat data

Table 6: Tourist overnight stays by origin (2018, 2019 and 2022: average; abs. values)

	Domestic	Foreigners	Total
Upper valley	197.402	85.586	<b>282.988</b>
Middle valley	18.112	1.565	<b>19.677</b>
Lower valley	17.703	6.242	<b>23.944</b>
Total	233.217	93.393	<b>326.610</b>

Source: our elaborations on Istat data.

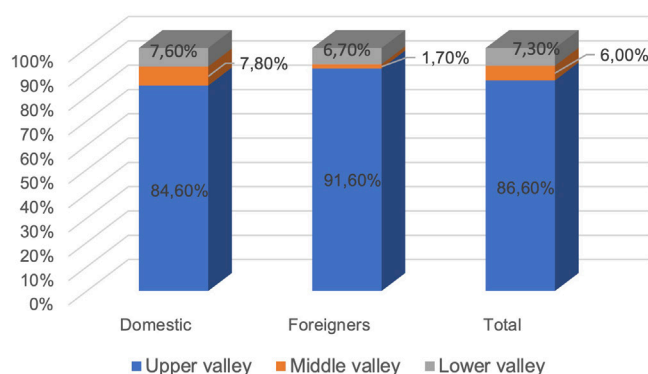


Figure 16: Tourist overnight stays by origin (2018, 2019 and 2022: average; %)

Dividing the tourist flows by type of accommodation, we can point out that about 70% of the tourist flows, measured in terms of overnight stays, choose hotel establishments, while about 30% does not use hotel establishments, but use non hotel establishments like bed and breakfasts, and camping. In the upper valley, the percentage of overnight stays in hotel is even higher (73%), while tourist flows in the lower and middle valley privilege more the non-hotel establishments. Foreign tourists clearly prefer hotel establishments, more than domestic tourists do (86% of the foreign tourists' vs 64% of the domestic tourists).

Lastly, regarding tourist flows, it is interesting to analyse the average length of stay of tourists. In the *Unité des Communes valdôtaines Evancon*, the average length of stay is about 3 days. In the upper and in the middle valley stays are on average longer than 3 days, while in the lower valley about two days. Foreign tourists in the upper valley are those who stay on average stay for longer (4.7 days).

14 We have excluded 2020 and 2021, as in these years tourist industry in Italy had to stop its activity frequently and for long times due to the pandemic.

Table 7: Tourist arrivals and overnight stays by type of accommodation establishment (2018, 2019 and 2022: average; abs. values)

	Hotel Establishments			Non Hotel Establishments		
	Domestic	Foreigners	Total	Domestic	Foreigners	Total
<b>Arrivals</b>						
Upper valley	45.871	15.843	61.714	18.893	5.434	24.327
Middle valley	2.570	352	2.922	2.910	229	3.139
Lower valley	4.376	1.642	6.018	3.860	1.391	5.251
<b>Total</b>	<b>52.818</b>	<b>17.837</b>	<b>70.655</b>	<b>25.662</b>	<b>7.054</b>	<b>32.717</b>
<b>Stays</b>						
Upper valley	131.695	75.118	206.813	65.707	10.469	76.176
Middle valley	8.277	974	9.250	9.835	592	10.427
Lower valley	10.287	3.695	13.982	7.416	2.547	9.962
<b>Total</b>	<b>150.259</b>	<b>79.786</b>	<b>230.045</b>	<b>82.958</b>	<b>13.607</b>	<b>96.564</b>

Source: our elaborations on Istat data.

Table 8: Tourist arrivals and overnight stays by type of accommodation establishment (2018, 2019 and 2022: average; %)

	Hotel Establishments			Non Hotel Establishments		
	Domestic	Foreigners	Total	Domestic	Foreigners	Total
<b>Arrivals</b>						
Upper valley	70,8%	74,5%	71,7%	29,2%	25,5%	28,3%
Middle valley	46,9%	60,6%	48,2%	53,1%	39,4%	51,8%
Lower valley	53,1%	54,1%	53,4%	46,9%	45,9%	46,6%
<b>Total</b>	<b>67,3%</b>	<b>71,7%</b>	<b>68,4%</b>	<b>32,7%</b>	<b>28,3%</b>	<b>31,6%</b>
<b>Stays</b>						
Upper valley	66,7%	87,8%	73,1%	33,3%	12,2%	26,9%
Middle valley	45,7%	62,2%	47,0%	54,3%	37,8%	53,0%
Lower valley	58,1%	59,2%	58,4%	41,9%	40,8%	41,6%
<b>Total</b>	<b>64,4%</b>	<b>85,4%</b>	<b>70,4%</b>	<b>35,6%</b>	<b>14,6%</b>	<b>29,6%</b>

Source: our elaborations on Istat data.

Table 9: Average length of stay (number of days) by origin and type of accommodation establishment (2018, 2019 and 2022: average)

	Hotel Establishments			Non Hotel Establishments		
	Domestic	Foreigners	Total	Domestic	Foreigners	Total
<b>Arrivals</b>						
Upper valley	2,9	4,7	3,4	3,5	1,9	3,1
Middle valley	3,2	2,8	3,2	3,4	2,6	3,3
Lower valley	2,4	2,3	2,3	1,9	1,8	1,9
<b>Total</b>	<b>2,8</b>	<b>4,5</b>	<b>3,3</b>	<b>3,2</b>	<b>1,9</b>	<b>3,0</b>

Source: our elaborations on Istat data.





### Second homes

As far as the third group is concerned, data available do not refer to the actual incoming tourist flows in second homes in the *Unité des Communes valdôtaines Evancon*. The Istat data available and taken into consideration here regard the stock of unoccupied dwellings (second homes). These are the raw information usually used to estimate the tourist flows using second homes (this is what is done in the next paragraph). From Table 10 and Figure 17, we can highlight that overall there are more than 11.900 unoccupied dwellings (second homes) *Unité des Communes valdôtaines Evancon*, which are more than twice the number of occupied dwellings (about 5.460). This figure obviously can give an idea of the possible relevance of the tourist flows associated with second homes.

The large majority of second homes, almost 7.000, are in the upper valley. The remaining amount of second homes (about 5,000) are equally located in the middle valley (2,400) and in the lower valley (2,550). It is evident that, based on these raw data, reasonably the upper valley is the most attractive part of the *Unité des Communes valdôtaines Evancon*, as it not only concerns “official” tourist flows but also second-home tourism. The amount of second homes in the other parts of the valley anyway should not be disregarded, as it is relevant as well, and might represent a good potential for coworking spaces located there.

Table 10: Occupied and not occupied dwellings (2021)

	Occupied dwellings	Not occupied dwellings	Total
Upper valley	1.074	6.960	8.034
Middle valley	734	2.400	3.134
Lower valley	3.651	2.550	6.201
Total	5.459	11.910	17.369

Source: our elaborations on Istat data

15 They are in fact about 10,700, out of 11,900 estimated using the Istat data. The difference between the two figures can be interpreted as the number of dwellings abandoned.

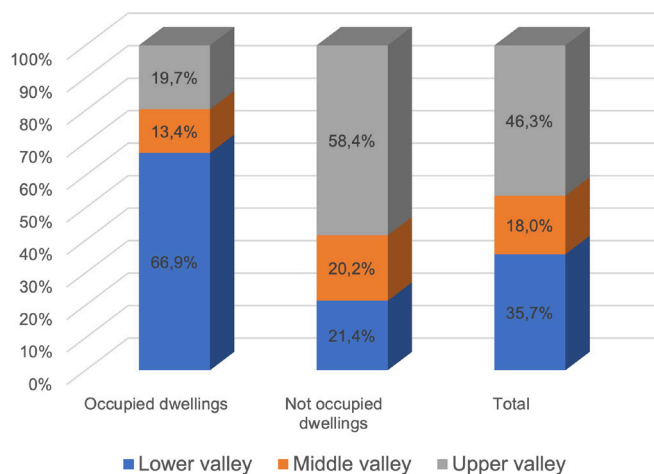


Figure 17: Occupied and not occupied dwellings (2021)

The evidence coming from the Istat is confirmed by the data the municipal level provided by the *Unitè de Communes valdotaines Evancon*, based on the local taxes paid by the owners of second homes. These data enable a more precise estimation on the stock of dwellings actually used (i.e., not abandoned)<sup>15</sup>:

Again, the great bulk of second homes are in the upper valley (see Table 11). Interestingly, they are owned by people residing in other regions (meaning that most of the second-homes tourism is not internal, it comes from other regions).

As the table 11 shows, these data contain even the number of persons occupying them, even if occasionally. It is important to underline that they do not correspond to second homes tourist flows actually occurred. However, they can obviously be useful to estimate the number of days potentially demanded by these types to tourists.



Table 11: Second homes by ownership (2023)

Source: our elaborations on data provided by Unité des Communes valdôtaines Evancon.

	Residents (in Upper/ Middle/ Lower valley)	Residents Evancon municipalities	Non residents	Residents in Aosta Valley	Residents in other regions	TOTAL
UPPER VALLEY	1.368	304	4.948	690	4.258	<b>6.620</b>
MIDDLE VALLEY	539	182	1.613	405	1.208	<b>2.334</b>
LOWER VALLEY	689	248	803	248	480	<b>1.740</b>
TOTAL	2.596	734	7.364	1.343	5.946	<b>10.694</b>

UPPER VALLEY	52,7%	41,4%	67,2%	51,4%	71,6%	<b>61,9%</b>
MIDDLE VALLEY	20,8%	24,8%	21,9%	30,2%	20,3%	<b>21,8%</b>
LOWER VALLEY	26,5%	33,8%	10,9%	18,5%	8,1%	<b>16,3%</b>
TOTAL	100,0%	100,0%	100,0%	100,0%	100,0%	<b>100,0%</b>

Source: our elaborations on data provided by Unité des Communes valdôtaines Evancon.

	Occupiers	Residents (in Upper/ Middle/ Lower valley)	Residents Evancon municipalities	Non residents	Residents in Aosta Valley	Residents in other regions	Total
UPPER VALLEY	1	2	3	27	6	21	<b>59</b>
	2	717	172	2.429	372	2.057	<b>5.747</b>
	3	533	98	1.868	252	1.616	<b>4.367</b>
	4	114	31	623	60	563	<b>1.391</b>
	5 or more	2	0	1	0	1	<b>4</b>
		1.368	304	4.948	690	4.258	<b>11.568</b>

MIDDLE VALLEY	1	1	13	35	17	18	<b>84</b>
	2	310	86	854	208	646	<b>2.104</b>
	3	174	63	554	136	418	<b>1.345</b>
	4	54	20	169	44	125	<b>412</b>
	5 or more	0	0	1	0	1	<b>2</b>
		539	182	1.613	405	1.208	<b>3.947</b>

LOWER VALLEY	1	10	42	98	42	81	<b>273</b>
	2	306	97	286	97	177	<b>963</b>
	3	255	74	283	74	141	<b>827</b>
	4	118	35	136	35	81	<b>405</b>
	5 or more	0	0	0	0	0	<b>0</b>
		689	248	803	248	480	<b>2.468</b>

Table 12: Second homes by ownership and number of occupiers (2023)

Source: our elaborations on data provided by Unité des Communes valdôtaines Evancon.

### 3.3.3 The market potential of coworking spaces: results

Based on the methodology presented above, we have finally estimated the potential demand of coworking services by market segment and by geographical sub-area, i.e. the number of days of coworking potentially demanded by tourists, commuters and second-homes tourist respectively, in the upper, in the middle and in the lower valley.

As far as the breakdown by market segment is concerned (Table 13), as the table below shows, the great bulk of potential demand for coworking in terms of days come from commuters. About 70% of the total days potentially demanded, in fact, comes from this segment. As for official tourists and second home tourist, on the other hand, they account respectively for 2% and 28% of the total number of potentially requested days, respectively.

As far as the breakdown by the three geographical sub-area of the *Unité des Communes valdôtaines Evancon* is concerned, the market potential looks less polarized. More than 50% of the market potential comes from the lower valley, 30% from the upper valley, and about 17% from the middle valley.

Considering the different characterization of the market potential in each of the three parts of the *Unité des Communes valdôtaines Evancon*, we can highlight the following models (Figure 18, 19 and 20):

- The upper valley catches almost all the demand com-

ing from official tourists (it is the only part of the valley where the share of days of coworking days demanded by official tourists isn't almost equal to zero). Most of the demand comes from second home tourists (69%); less relevant is the share of days demanded by commuters. We can define it as a tourist-based model of market potential for coworking.

- The middle valley is predominantly characterized by commuters' demand (65%), but the relevance of the demand coming from second-home tourists is also relevant (35%). Therefore, we can define it as a balanced model of market potential for coworking.
- The lower valley, differently from the other areas, presents a very clear and neat model of market potential for coworking. It is in fact strongly almost exclusively characterized by the potential demand coming from the people commuting to other Valdostan municipalities (or to other regions). About 97% of its potential demand of coworking is in fact expressed by commuters. We can define it as a commuter-based model of market potential for coworking.

Table 13: Estimated potential demand of coworking services by market segment and by geographical sub-area: upper valley, middle valley and lower valley (estimated number of days of coworking potentially demanded by tourists, commuters and second homes tourist; absolute values and percentage values). Source: our elaborations on several sources

	Commuters	Tourists	Second homes tourists	Total
Upper valley	2.491	2.878	7.314	<b>15.234</b>
Middle valley	3.920	216	1.997	<b>6.326</b>
Lower valley	18.755	247	573	<b>19.794</b>
Total	25.166	3.341	9.884	<b>41.353</b>

Upper valley	9,9%	86,1%	74,0%	<b>30,2%</b>
Middle valley	15,6%	6,5%	20,2%	<b>16,6%</b>
Lower valley	74,5%	7,4%	5,8%	<b>53,2%</b>
Total	100,0%	100,0%	100,0%	<b>100,0%</b>

Upper valley	16,4%	35,6%	69,4%	<b>100,0%</b>
Middle valley	62,0%	6,5%	34,5%	<b>100,0%</b>
Lower valley	94,8%	2,4%	3,1%	<b>100,0%</b>
Total	60,9%	15,2%	28,3%	<b>100,0%</b>



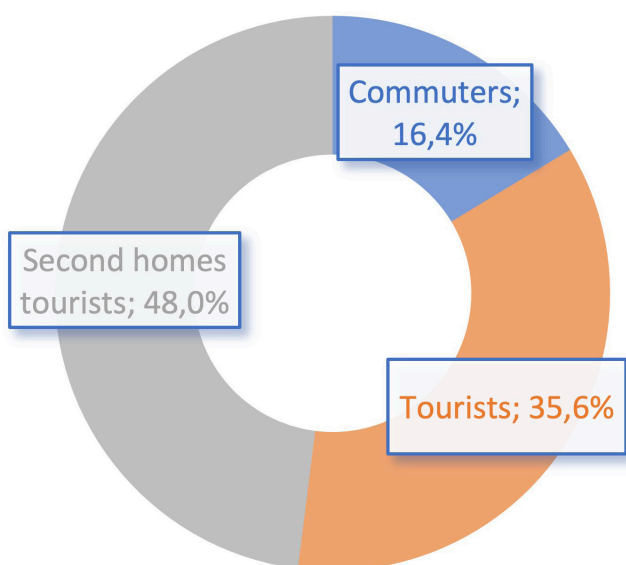


Figure 18: Upper valley: tourist-based model of market potential for coworking space  
Source: our elaborations on several sources.

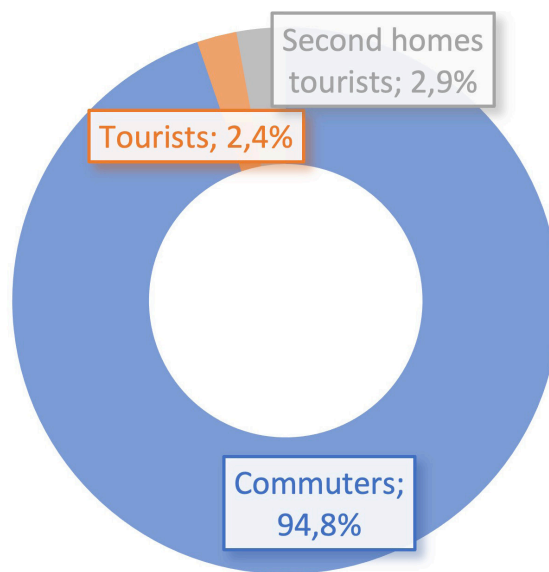


Figure 20: Lower valley: commuter-based model of market potential for coworking space  
Source: our elaborations on several sources.

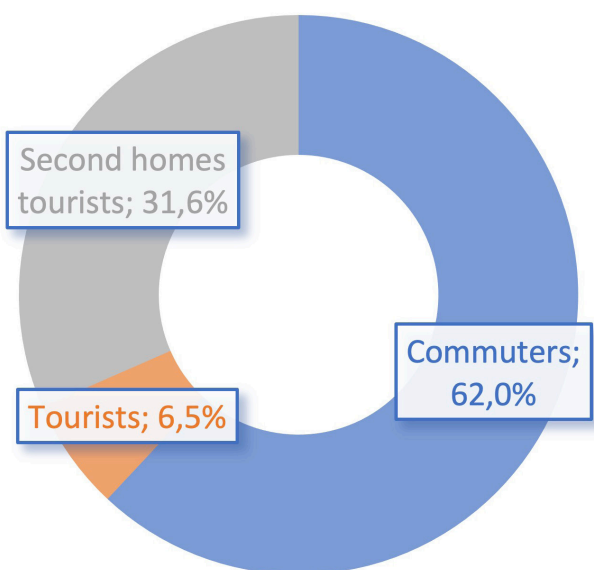


Figure 19: Middle valley: balanced model of market potential for coworking space  
Source: our elaborations on several sources.

### 3.3.4 Feasibility

#### Potential revenues

After having estimated the market potential in terms of days of coworking, the next step is to estimate the potential revenue for each of the three coworking spaces for each segment and for each area of the *Unité des Communes valdôtaines Evancon*.

To do that, we must first build the demand curve for a coworking space in the *Unité des Communes valdôtaines Evancon*. As it was done for the estimate of the market potential, we will make use of the findings of the survey conducted in activity 1.2. Particularly, we will use the responses to the question about the price per day that they would pay to hypothetically use a coworking space. Based on the responses to this question, then we will be able to build the demand curve of a coworking space in the *Unité des Communes valdôtaines Evancon*.

The chart below shows the demand curve. On the vertical axis, the price per day that respondents would pay; on the horizontal axis, the number of respondents available to pay for each price. The negative relationship between the two variables is striking: the lower is the price per day, the higher is the number of respondents interested in using the coworking space.

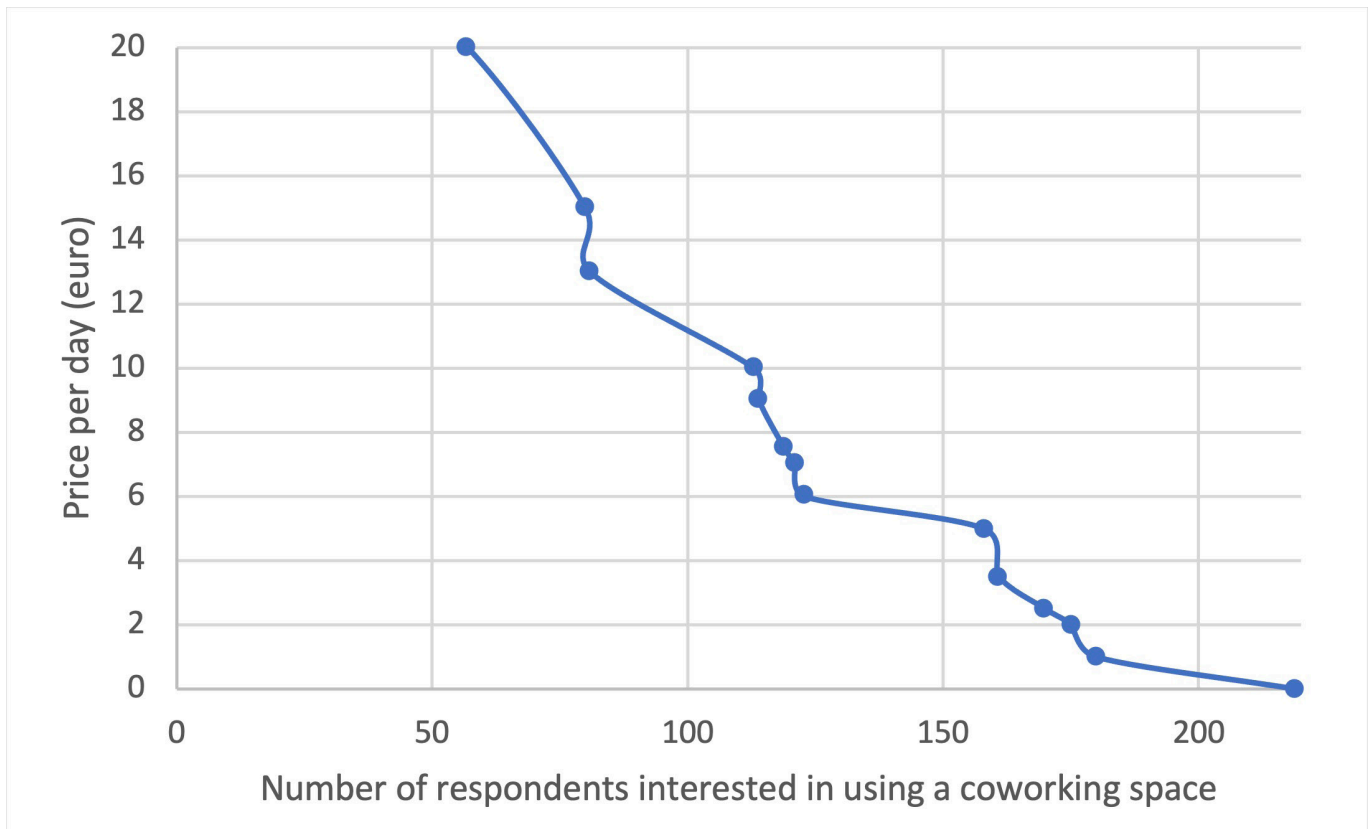


Figure 21: Demand curve of a coworking space in the Unité des Communes valdôtaines Evançon

Assuming that normally the average price per day paid for coworking is euro 12,00<sup>16</sup>, we will only take into consideration the share of respondents available to pay at least that price, and we will use this share to estimate the number of days that could be actually demanded.

The respondents available to pay at least euro 12.00 are 113 out of 219, accounting for 51.6% of the total respondents. This means that we will count only 51.6% of the total days of coworking estimated in table 13. See the table 14 below, showing the estimated potential demand of coworking services (in terms of days of coworking) willing to pay at least 12 euro per day, by market segment and geographical sub-area.

	Commuters	Tourists	Second homes tourists	Total
Upper valley	1.285	1.485	3.774	<b>6.544</b>
Middle valley	2.023	112	1.030	<b>3.165</b>
Lower valley	9.678	127	296	<b>10.101</b>
Total	12.986	1.724	5.100	<b>19.810</b>

Table 14: Estimated potential demand of coworking services (number of days of coworking) willing to pay at least 12 euro per day by market segment and geographical sub-area.

Secondly, we must estimate the number of potential desks needed to host all the demand of coworking (in terms of days) expressed by commuters, official tourists and second-home tourists, and then we must multiply for euro 12.00.

To estimate the number of potential desks, we must divide the number of yearly days of coworking demanded, as in table 14, by:

- the yearly number of working days (220 days), with regard to the commuters.
- the yearly number of occupancy days of the accommodations (we assume 180 days per year), with reference to tourists, both official tourists and second-home tourists.
- We assume that the yearly number of working days (220 days) for commuters, are approximately complementary with the yearly number of occupancy days of the accommodations (180 days).

The table below (table 15) shows that, to satisfy the estimated potential demand, the total number of desks available in the Unité des Communes valdôtaines Evançon should be slightly more than 80: 29 desks in the coworking space in the upper valley; 9 desks in the one in the middle valley; and 44 desks in the one in the lower valley (the figures presented in table 15 have been rounded down, as it does not make sense to have a non-integer number of desks). Of course, for each of the coworking spaces, we have taken into consid-

<sup>16</sup> This assumption is taken considering the cases of other coworking spaces in the Alpine, like Luceo, the one in Briacon (France). <https://www.pole-luceo.com/>

eration the highest number between the number of desks required for commuters and the number of desks required for official and second-home tourists.

Table 15: Estimated number of desks needed for each segment and for each of the three coworking spaces: upper valley, middle valley and lower valley.

	Commuters	Tourists	Second homes tourists	Number of desks required
Upper valley	5	8	21	<b>29</b>
Middle valley	9	-	5	<b>9</b>
Lower valley	44	-	1	<b>44</b>
Total				<b>82</b>

Lastly, to estimate the potential revenues, we must multiply the number of desks required, as from table 15, for the average price per day paid for coworking (euro 12.00) and for either the yearly number of working days or the yearly number of occupancy days of the accommodations. Specifically, we must apply the following formulas.

- As far as the upper valley is concerned:  $(5 \cdot 170 \cdot 12) + (29 \cdot 180 \cdot 12)$
- As far as the middle valley is concerned:  $(9 \cdot 220 \cdot 12) + (5 \cdot 130 \cdot 12)$
- As far as the lower valley is concerned:  $(44 \cdot 220 \cdot 12) + (1 \cdot 130 \cdot 12)$

Then we will obtain the estimated potential revenues coming from potential coworkers. See Table 16 below.

Table 16: Estimated potential revenues coming from potential coworkers willing to pay at least 12 euro per day, by geographical sub-area (Euro)

	Total
Upper valley	<b>72.840</b>
Middle valley	<b>31.560</b>
Lower valley	<b>117.720</b>
Total	<b>222.120</b>

Table 16 shows that the estimated total revenues coming from the three coworking spaces amount to more than Euro 222,000,00. As can be imagined from the previous analyses, about 53% of the potential revenues would be earned by the coworking space in the lower valley (about Euro 118,000,00), where most of the demand comes from commuters (commuters-based model). The coworking space in the upper valley, which would follow a tourist-based model, would account for about 33% of the estimated total revenues (about Euro 73,000,00), while the coworking space in the middle valley would earn only about Euro 31,500,00.

### Estimated costs

Once estimated the number of desks needed and the po-

tential revenues of each of the three coworking spaces to be established in the *Unité des Communes valdôtaines Evancon*, we must estimate the costs of each coworking space to finally evaluate their economic feasibility.

We will take into consideration only the estimated operating costs (variable costs), and not the fixed costs (investment costs). We assume that all the fixed costs (location, facilities, equipment, etc.) will be part of an investment funded with public resources (we assume that the companies chosen to manage these spaces would not invest anything to create these spaces and to acquire all the necessary equipment; moreover, they do not have to pay any rent, e.g. these spaces are for example given on loan for use).

We will use as a reference the operating costs of a coworking space which has similar characteristics to those of the coworking spaces which would be established in the *Unité des Communes valdôtaines Evancon*: the coworking Luceo in Briançon (France). It is located in a mountain (Alpine) region and serves segments like tourists and commuters. We will then use it as a benchmark to estimate the costs of the three coworking spaces in the *Unité de Communes Valdôtaines Evancon*. The total operational costs incurred to manage the coworking Luceo in Briançon (France) amount to about Euro 93,000,00 per year, of which the staff cost is about Euro 25,000,00 per year<sup>17</sup>. They can be divided as follows:

Operating costs: Euro 68.000,00

- Water/sanitation: 1%
- Energy: 18%
- Administrative supplies: 1.8%
- Maintenance and supply of small equipment: 3%
- Building maintenance: 7%
- Maintenance of equipment (printer, automatic doors, security, etc.): 7%
- Telephone and internet: 7.5%
- Cleaning fee: 12.4%
- Taxes: 2.5%

Gross personnel cost: Euro 25.000,00

The coworking Luceo hosts 25 desks (including 10 seats/desks available in the meeting room): this means that the average cost per desk is about Euro 3,700,00. Based on this data, we can therefore estimate the potential yearly operating cost for each of the three coworking spaces as follows in table 17.

Table 17: Estimated yearly operating cost of each of the three coworking spaces: upper valley, middle valley and lower valley (Euro)

	Desks needed	Operating yearly costs per desk	Estimated yearly operating cost
Upper valley	29	3.070	<b>89.030</b>
Middle valley	9	3.070	<b>27.630</b>
Lower valley	44	3.070	<b>135.080</b>
Total	82	3.070	<b>251.740</b>



### Feasibility

By comparing the estimated annual costs in Table 17 with the estimated annual revenues in Table 16, we can give an evaluation about the economic feasibility of coworking spaces. We can deduce that the annual revenues would not be able to cover the estimated annual costs for each of them: in all three cases, in fact, the estimated annual operating costs would be slightly higher than the estimated potential annual revenues. This would mean that, to function, these spaces would need additional financial resources (e.g. coming from the local or regional government) to cover the losses accumulated each year.

Alternatively, they might be set up and managed jointly with other structures and services, such as co-living spaces, to get relevant cost savings. For example, the need to have a structure to accommodate seasonal staff working in hotels and restaurants is well known in the upper valley of the *Unité des Communes valdôtaines Evancon*. The two facilities, co-living and coworking spaces, can be part of the same investment, and can be managed jointly, taking advantage of the cost savings resulting from economies of scale.

In addition, you should consider that there might be economies of scale and savings deriving either from the size of these coworking spaces (some costs might not increase proportionally with the number of desks provided), or from the geographical proximity of these coworking spaces, or from a unique ownership and / or management.

This might be the case, for example, with the personnel costs. If we assume that a single employee (a so-called community manager) can manage (on-site and remotely) the three coworking spaces, these might entail a significant cut of the variable costs (see table 18).

Table 18: Estimated yearly operating cost of each of the three coworking spaces: upper valley, middle valley and lower valley (Euro; additional assumption: one community manager for the three coworking spaces)

	Desks needed	Operating yearly costs per desk	Estimated yearly operating cost
Upper valley	29	3.700	<b>107.300</b>
Middle valley	9	3.700	<b>33.300</b>
Lower valley	44	3.700	<b>162.800</b>
Total	82	3.700	<b>303.400</b>

Based on this last additional assumption, we can point out that the coworking space in the middle valley would be feasible, as the estimated yearly operating costs would be lower than the estimated potential revenues. As far as the two other coworking spaces are concerned, although they are still not feasible (i.e. costs are still higher than revenues) it turns out that the difference between costs and revenues would be much lower. In the case of the coworking space in the upper valley, costs would be just 22% higher than the revenues (they were 47% higher based on estimated costs in table 17); in the case of the coworking space in the low-

er valley, they would be about 13% higher (they were 37% higher based on estimated costs in table 17). This means that, if these coworking spaces were managed efficiently, i.e. trying to get economies of scale or to get relevant cost savings, they might become economically feasible. For example, as mentioned above regarding the coworking space in the upper valley, if it is set up and managed together with a co-living space, many of the operating costs might be reasonably reduced significantly, making in the end such structure economically feasible.

### 3.3.5 What impacts might coworking spaces have?

Clearly, these initiatives do not entail particularly relevant investments, which might affect considerably the territorial structure, the economic structure, or the social fabric in the *Unité des Communes valdôtaines Evancon*. Setting up a coworking space is not like building, for example, a new road, that is more likely to affect significantly the economic and social life of a community.

However, these investments might have some effects which deserve to be taken into consideration.

Firstly, there are direct and tangible impacts, in terms of employment. As mentioned above, the establishment of each of these spaces would entail the hiring of a community manager who will be in charge of running it. This means that there might be at least 3 jobs created thanks to the coworking spaces. But there are also other jobs that can be created considering the roles required by the management of these spaces. This is the case for example of the technical staff in charge of the maintenance of the ICTs technologies and equipment, which efficiency, as we know, is crucial for the success of a coworking space. Moreover, at a lower skill level, the need for cleaning and security services might imply hiring new personnel. In our research, at least one person could be hired for technical maintenance, cleaning and security services. This means that it is not far-fetched to assume that at least the three coworking spaces planned in the *Unité des Communes valdôtaines Evancon* might create 6 new jobs.

Secondly, there might be indirect (and tangible) impacts on the local economy, as the existence of these spaces might imply an increase in the local expenditure to the benefit of the local economic activities. If, for example, tourists extend their stay because of the coworking space (for example, they extend their stay by one day, to work from the coworking spaces), this entails an increase of tourist expenditure in terms of accommodation, food, other services etc. It is not possible to estimate the exact extent of these impacts at this stage as, to the best of our knowledge, the multiplier of the economic impact of an additional day of stay of a tourist is not available in the literature. Nonetheless, it is important to keep in mind that the success of these initiatives might have effects on the local economy that should be disregarded.

Thirdly, we should consider the possible positive environmental effects (in terms of lower level of air pollution), due to the decrease in the commuting flows caused by the crea-

tion of the coworking spaces. This is particularly the case of the coworking space in the lower valley.

Fourthly, we should also take into examination the intangible impacts of the establishment of these spaces. These spaces, in fact, might affect social life, revitalizing and giving benefits to the local social capital. By definition, coworking spaces are “social places”, where people go to work together with other people, leaving their homes, and have relationships with other people. This “relational value” of the coworking space is of course something that might involve the local community. Thus, this is an intangible but important impact that the local community can get from the establishment of these spaces.

### 3.3.6 Is a coworking space scalable somewhere else in the alps?

To evaluate if such investment can be scalable to other areas of the Aosta Valley and into other Alpine regions, we must estimate the minimum level of potential demand, in terms of days, above which revenues are higher than variable costs, i.e. which make such investment economically sustainable and feasible.

For example, let's take into consideration the scalability of a coworking space based on a commuters' model of market potential. If we assume for example an average size of 20 desks, given that the annual operating cost per desk is Euro 3,700, this means that the total operating costs on an annual basis incurred by any coworking space of this size serving commuters would be equal to Euro 64,000,00.

Dividing this figure by Euro 12.00 (the average price per day paid for coworking), we will get the minimum number of days above which revenues are higher than variable costs. The threshold in terms of days is 5,333. Dividing this figure by 20 (the number of desks), we will have that each desk should be demanded / used at least for 266 days. Above this threshold, a coworking space based on a market potential made of commuters would be scalable anywhere else in the Alps. For a demand below this threshold, such coworking space would not be feasible, i.e. it cannot be scalable. Note that this number of days (266 days) is not so far from the yearly average working days in a country like Italy.

Notice that these occupation days (266) are quite challenging for tourists but not for commuters. Indeed, this period isn't far from the annual average working days in a country like Italy. Hence, we can assume that in areas with a high demand for coworking spaces by commuters, desk occupancy might exceed 220 days. Indeed, the needs of these workers can complement each other, easily surpassing the 220-day mark. The only area we have examined that fits these criteria is the lower valley. Although further analysis is required, it's plausible to consider that with a maximum potential demand of 44 commuters over 220 days, we could occupy 20 desks over 266 days. This entails an unsatisfied demand, but it would allow revenues to cover the associated costs.

Interestingly, it is finally important to point out, based on the experience of this study and of the case of the *Unité des Communes valdôtaines Evancon*, that any coworking space should fit the local needs, i.e. the features of the local potential demand. As we have seen in this study, three models of market potential arise from our analysis. This entails that the three coworking spaces cannot be the same, but their structural and organizational characteristics should match with the needs of the different segment that each of them satisfies<sup>18</sup>.

### 3.3.7 Concluding remarks and policy implications

As emerged from the analyses conducted and presented in the previous sections, setting up three coworking spaces is not economically feasible. However, assuming that these coworking spaces are managed efficiently to save something, these structures might be feasible.

Taking a closer look to the topic, the feasibility of the coworking space in the lower valley hinges on either implementing a cost-saving strategy or designing it on a smaller scale, in line with our assumptions during scalability analysis. The coworking space in the lower valley can be feasible by introducing a cost-saving strategy alongside a reduction of coworking desks, to leverage the complementarity among the day demands of commuters. Meanwhile, the coworking space in the middle valley presents limited market potential yet boasts the narrowest gap between potential costs and revenues. Hence, with meticulous cost management—such as networking with the other coworking spaces—it could become viable. As for the coworking space in the upper valley, it requires a substantial cost-saving strategy to achieve feasibility. Nonetheless, tapping into additional needs within the hotel industry could, for instance, yield cost savings and economies of scale through collaborative management with co-living spaces. Overall, while currently not economically viable, under specific circumstances, all these spaces might attain feasibility.

The creation of a public-private partnership could be a way to achieve a strategy of substantial cost savings. This might be particularly the case of the coworking space in the upper valley, which can benefit from the public support as concerns fixed costs (location, facilities, equipment, etc.). The local government, for example, can provide a building to place both a coworking space and other spaces, like a co-living space, while the private partner can be in charge of the management of the coworking space.

Clearly, any cost saving strategy should not prevent the provision of all the facilities and the equipment demanded by the potential users of the coworking services (see for example the case of the professionals like architects and engineers who may need to use special printers).

Interestingly, there are several implications for the local (*Unité des Communes valdôtaines Evancon*) and regional economic development coming from the possible realization of the coworking spaces.

<sup>18</sup> See sections 3.3.2 and 3.3.4 of deliverable 1.2.1.

To begin with, they might be an important part of a diversification strategy of the regional economy, particularly with regard to the diversification of the tourist development model. They can enrich the array of tourist services and activities provided to tourists. Considering that coworking is not a seasonal activity, it can even potentially contribute to the reduction of the level of seasonality of the tourists flows, strongly concentrated in winter and summer. As far as the *Unité des Communes valdôtaines Evancon* is concerned, this reflection is particularly true for the upper part of the valley. These spaces can also contribute to increase the levels of environmental sustainability of the regional economic model. In fact, as mentioned above, thanks to them most of the long and medium distance commuters could reduce the number of their daily trips; this is something that clearly would have positive environmental effects. For the *Unité des*

*Communes valdôtaines Evancon*, this reflection is particularly true specifically for the lower and middle valley.

Social cohesion can also get benefit from these spaces. As emerged from the survey and from the qualitative investigations conducted in Deliverable 1.2.1, one of the reasons why they are demanded is that they enable coworkers to work from remote but in a socially stimulating environment. Therefore, they can enhance social and human relationships within a community. They can become places of aggregation, in communities where the level of isolation, the poorness of relationships, is high, particularly in winter seasons.

Moreover, if we assume that these spaces are set up re-using existing but abandoned buildings, this might be a new strategy to recover the abandoned regional housing heritage, i.e. disused buildings.

## 4 CONCLUSION

In conclusion, the collaborative efforts undertaken in France, Italy, and Austria reflect a commitment to addressing the challenges and opportunities presented by remote working and the establishment of coworking spaces. In France, the focus on a shared digital platform for remote workers involved a meticulous feasibility study, utilizing tools such as the Action Sheet and Business Model Canvas. The approach emphasized clarity, collaboration, and a strategic orientation, reflecting a comprehensive understanding of remote workers' needs. In Italy, the economic feasibility analysis for coworking spaces in the Aosta Valley demonstrated a methodical approach, considering operational costs, potential revenues, and a unique estimation of market potential. Despite acknowledged limitations, the study provided a comprehensive assessment, highlighting both opportunities and threats for the *Unité des Communes Valdôtaines Evancon*. Austria presented a solution designed for transferability, offering a detailed framework and guidelines for implementing similar projects. The feasibility and impact study encompassed a SWOT analysis, risk matrix, and a thorough

assessment of resources, costs, and benefits. The proposed solution emphasized not only financial aspects but also the social, cultural, and economic enrichment that such initiatives can bring to diverse regions.

Each case study exhibited a commitment to efficient management, cost-saving strategies, and the consideration of local needs to enhance feasibility. Among other public-private partnerships were suggested repeatedly as a means to support the economic viability of coworking spaces. The potential impacts on economic diversification, environmental sustainability, and social cohesion were highlighted, underscoring the positive contributions of these initiatives to regional development.

In essence, these initiatives demonstrated a holistic approach, acknowledging the multifaceted nature of challenges and opportunities related to remote working and community/coworking spaces. As regions continue to explore innovative solutions, the lessons learned from these collaborative efforts can serve as valuable guides for future projects, promoting sustainable development, economic growth, and community well-being.



**REFERENCES****Austria:**

Glover, T. D. (2004). The 'Community' Center and the Social Construction of Citizenship. *Leisure Sciences*, 26(1), 63–83. <https://doi.org/10.1080/01490400490272486>

OECD. (2018). *For Good Measure Advancing Research on Well-being Metrics Beyond GDP: Advancing Research on Well-being Metrics Beyond GDP*. OECD Publishing.

Osterwalder, A., & Pigneur, Y. (Eds.). (2011). *Business model generation: Ein Handbuch für Visionäre, Spielveränderer und Herausforderer*. Campus.


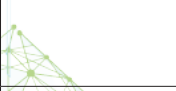


Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24, 1–24.

**Appendix****Austria Resource List:****1: very necessary****2: necessary / exchangeable****3: nice to have**

Physical Assets and Equipment:				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
<b>Devices (computers, screens, mouse, keys, beamer, routers, printers, scanners, ...)</b>	1	To implement the „Digital Fit“ project, technical devices such as a computer, a mouse, and others are required. Additionally, certain technical equipment such as a projector (beamer) is needed for presenters conducting workshops as part of the services.	Money; electricity; enough space; enough sockets; strong WIFI connection, ...	Ergonomic workplace; electricity
<b>Vending machine</b>	2	Vending machine are nowadays available for various types of products. Local products and food can be offered through a vending machine. It is open 24/7 and no additional staff is necessary.	Covered space; electricity; local trader;	Local trader; electricity;
<b>Fridges</b>	2	Fridges are needed to cool drinks and food for the workshops. They are also needed for the service “open fridge”.	Electricity; Roofed space;	Electricity;
<b>Tools/toolboxes</b>	2	The service „Shared Devices“ offers the opportunity to borrow tools from the community that one may not have at home. Examples of tools include a chainsaw, a grinding machine, or a circular saw.	Money; tools; storage room	Shared devices; bikes; games;
<b>Games</b>	2	The „Shared Devices“ service offers the opportunity to borrow games from the municipality that one may not have at home. Examples of games are for example games for the PlayStation but also haptic games like Battleship, UNO or board games.	Money; games; storage	Shared devices; bikes; tools/ toolboxes
<b>Shared devices</b>	2	The “Shared Devices” service allows members of the municipality to access items that are expensive or only needed only temporarily.	Devices like tools, games; ping-pong table; football table	Games; bikes/e-bikes; tools/ toolboxes
<b>Bikes/e-bikes</b>	3	The bikes/e-bikes are for those who do not have a bike and need one to get from one place to another. For example, a remote worker who does not own a bike can use this service to rent one, providing flexibility to travel from point A to point B.	Money; 3-6 bikes/e-bikes; charging station; bicycle garage; electricity; booking system	Shared devices
<b>Charging station</b>	3	If the municipality offers e-bikes for rent, charging stations are required to recharge the bicycles. In addition, guests can also recharge their own e-bikes during their stay in the municipality. This promotes the use of sustainable transportation.	Money; electricity (also solar panel possible); roofed space	Bikes/e-bikes; shared devices
<b>Bookcase</b>	2	The „Open Bookcase“ service allows you to submit books you have read, and others can take them to read. In return, you can choose a new book from the bookcase.	Books; roofed space; bookcase	Fridge
<b>Dishes, glasses, cutlery</b>	1	These items are required for all services that involve catering. Examples of such services include workshops or the card game café. Additionally, the „Shared Devices“ service also offers the option to borrow dishes, glasses, and cutlery for larger events such as a birthday celebration. A coworking space needs some dishes, glasses and cutlery.	Money; storage place; dishes; glasses, cutlery; storage boxes	Shared devices

continues on next page

Physical Assets and Equipment:				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
Ergonomic workplace	1	When operating a coworking space, it is crucial to provide ergonomic workspaces for remote workers. This entails having height-adjustable desks and office chairs that can be adapted. These features have become standard in coworking spaces.	ergonomic chairs; ergonomic table; money; space; electricity; sockets; desk partition wall	WiFi; electricity
Playing cards	2	The playing cards are for the service provided by "Play Cards Café". This café opens once a month, offering an experience where you can enjoy food and drinks while engaging in card games with others.	Cakes; space	Storage boxes; dishes, glasses, cutlery; fridges; furniture
Storage boxes	2	The storage boxes are, to neatly stow away the items needed for the services.	Money; space	Playing cards; dishes, glasses, cutlery; shared devices
Parcel station	2	The parcel station allows for picking up and sending packages around the clock, providing citizens with the flexibility to receive their packages at any time.	Money; electricity (also solar panel possible)	Electricity
Factory canteen	3	The service "Cooking with Grandma" is a cooking course where you learn regional recipes. The idea is that the cooking teacher would be an older woman or man, so the younger generation can learn cooking from the older generation. This service is an opportunity to bring different generations together and prevent regional recipes from becoming extinct.	a dining room; kitchen equipment (for example knives; eggbeater; mixer; cooker,...) recipes; procurement of goods	Dishes, glasses, cutlery; food; drinks;

Human Resources				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
Employees	1	For the 'Digital Fit' project and the digitalization of the municipality, employees are needed who are responsible for these areas and take care of them.	Money; working space	Devices; email; cloud; server; website; website maintenance
Volunteers	1	For the several services, volunteers are needed. For example, there is a need for those who can cater the workshops or bake a cake for the "Card Game Café"	Communication, benefits	food, drinks 
Lecturer	2	At the workshops, a lecturer is invited to give an input on a specialized topic. Examples of topics include: How to file a tax return, what E-services are available, what is social media, etc.	Money; finding some lecturer who are interested	Devices 
Developer	2	To make the website accessible, one needs a developer who takes care of the website.	Money; working space	Devices, WIFI 
Local trader	2	For the "Vending Machine Shop" service, machines are placed in a busy area of the community. Local traders fill these machines with their goods, providing people with the opportunity to purchase all regional products in one place, eliminating the need to visit multiple vendors.	Local trader; agreement on the selling price; standardized selling price for the product type	Vending machines 

Human Resources				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
<b>Designer</b>	3	A designer is needed for the website, posters for the services, posters for the ‚Digital Fit‘ project. Additionally, the designer will also be responsible for contributions in the community newspaper and social media posts.	Communication strategy	Social media; poster; municipal journal
<b>Photographer</b>	3	A photographer is needed to capture moments during various services and events. Additionally, he or she is required so that social media posts or articles can include not only text but also images and impressions.		Social media; posters; municipal journal;
<b>Media manager</b>	2	A media manager takes care of determining the content, specifying which text should be written in each medium. Additionally, he/she is responsible for managing the images that should be included in the posts.		Social media; poster; municipal journal
<b>Computer scientist / IT-expert</b>	1	With the introduction of the projects „Digital Fit“ and „Digitalization of the Municipality,“ more technical devices are required. Specific technical systems are also needed for the services. This necessitates proper maintenance, and in case of issues, a qualified individual is required who is familiar with the subject matter and capable of resolving any problems that arise.		Cloud, server; devices; lock system
<b>Website manager</b>	1	The website manager is responsible for ensuring that the website is accessible and up to date. He or she is also in charge of the knowledge-based platform and must ensure that the information is up to date.		Website, website maintenance
<b>Maintenance Employee</b>	1	For the „Shared Devices“ service, it is crucial that the devices issued are functional and not damaged. Therefore, a person is needed to check the devices upon return and, in case of damage, perform repairs or organize the repair. But also, in the case of other services, the necessary resources such as tables, chairs, shelves, and machines should be inspected and repaired in case of damage. For this, a maintainer is needed to check and repair the resources.		Furniture; lock system; work materials; storage boxes; shared devices





Communication and Information flow / Marketing				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
<b>Posters</b>	2	Posters containing information (topic, date, time, etc.) about the workshops. Also, posters that draw attention to the ‚Digital Fit‘ project. Posters listing the individual services with brief information about each service. The posters should be visible throughout the entire municipality.	Publishing firm, designer; photographer	Social media
<b>Social Media</b>	1	Sites on social media channels such as Facebook, Instagram, Tik-Tok, etc. On these sites, details about each service are showcased, and experiences from the services are communicated. This way, an outsider or a remote worker can recognize that there are activities available in this community.	Social media accounts; media manager; designer; photographer	
<b>Municipal journal</b>	2	In a municipal journal, you will find information about the events that have taken place in the community in recent weeks. The community newspaper also provides the opportunity to advertise the individual services and the ‚Digital Fit‘ project. In addition, impressions from events can be published. Also all the new dates for events will be published.	Publishing firm; Municipal journal	Media manager; photographer; designer;
<b>Citizens service app</b>	2	An example of a citizen service app is ‚Gem2Go.‘ Gem2Go is used in many municipalities in Austria. The app allows the municipality to share information with citizens, promote events, and much more.	Gem2go account	Media manager; photographer; designer;

Technical Infrastructure				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
<b>Presenting devices</b>	3	The service ‚Shared Devices‘ offers various devices. In order for community members to know which devices are available and currently accessible, a page listing all devices along with their availability is necessary. This page can be linked to the community website. Community members should have the option to reserve the devices within 24 hours.	Developer; „Shared Device“ manager;	Developer; Website;
<b>Conference systems</b>	1	A conference system is a technology that facilitates virtual meetings and collaboration across different locations. It integrates audio, video, and often chat functions to enable real-time communication. For example, it plays a role in the „Workshops“ service to facilitate effective communication, interaction, and the exchange of information in real-time, especially when the presenter cannot participate physically in the event.	Computer, Laptops Tablets, Smartphones with an integrated camera and microphone; Conference software or platforms such as Zoom, Microsoft Teams, Skype, etc.; Stable internet connection; Audio and video devices	Devices; Computer scientist;
<b>Wi-Fi</b>	1	Wi-Fi is required for the services and for the projects „Digitalization of the municipality“ and „Digital Fit“.	Router or access point	Parcel station; vending machine; devices

Technical Infrastructure				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
Website	1	As part of the digitization of the municipality, there is a website that is accessible for people with disabilities. Additionally, there is a website offering information on technical questions.	Domain name; web development tools; content; design; SSL certificate; consideration of data protection regulations, imprint obligation, and other legal requirements; maintenance	designer; developer
Website maintenance	1	When searching for specific information on a website, the content should always be up to date. Therefore, it is important to regularly update the website. Especially with a Knowledge-Based Platform, it is crucial to ensure that the technical information is always up to date.	Website manager who controls the content and keeps the website up to date.	Website manager
Email	1	To be able to contact the responsible individuals in each area (project “Digital Fit”, “vendor machine shop”, workshops, etc.), email addresses are needed.	Local-part; Domain-part	Computer scientist
Server	1	A server enables hosting the municipal website. It can be used to provide email services, offering official email addresses to community members and employees. Municipal data, such as citizen registrations, permits, or other administrative information, can be stored and managed on a server. A server can serve as a platform for internal communication within the municipality, facilitating the sharing of documents and information. Servers can be utilized for security monitoring to ensure the protection of municipal data and systems. A server allows the provision of digital services, such as online forms, electronic permits, or payment services, to enhance interaction with the community for residents. Servers play a crucial role in data security. They can also be used for implementing technologies within municipal services, such as managing Smart City applications or other digital services.	hardware; operating system; network connection; server software; security measures; backup solutions; data organization; legal aspects; trained personnel	
Cloud	1	A cloud offers the advantage of flexibility, allowing municipal employees to access the required data at any time and from any location.	Cloud-system,	Computer scientist
Licences	1	For the services in the space, a operational permit is required. It should be noted that in Austria, organizers are obligated to take measures against alcohol abuse and adhere to the relevant health, food, water, and waste regulations. When creating the website and social media posts, it is important to consider the licenses associated with the images. Furthermore, licenses are required for all sorts of software.		
Booking system	1	As many events take place in one space, a booking system is necessary. A booking system provides clear information about the availability of the room.	Booking system software	Computer scientist

Facility and Infrastructure				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
<b>Public infrastructure</b>	1	A well-structured public infrastructure plays a crucial role in ensuring that participants of the offered services can easily reach the events using alternative means of transportation. Especially for remote workers, who typically do not commute by car and primarily rely on public transportation, the quality of the public infrastructure is of great importance.	(Illuminated) bike paths; bus stops; (illuminated) sidewalks	
<b>Public service (electricity, water, heat, maintenance, and cleaning, ...)</b>	1	Public service includes resources that should be available in public facilities. These resources include electricity, water, and heat. It also involves the cleaning and maintenance of the premises.	cleaning agency or cleaning employees	Maintainer
<b>Lock system</b>	2	Due to the fact that many people need to access various rooms for different services, an electronic locking system with a chip is advantageous. Multiple access permissions can be assigned to a single chip, eliminating the need for thousands of different keys. In the context of a coworking space, an electronic locking system with a chip is also necessary, allowing co-workers to enter the space at any time.	Chips or RFID cards; access control software; controllers and readers; cylinders	Maintainer; computer scientist;
<b>Security devices (CCTV)</b>	2	CCTV (Closed-Circuit Television) is used to ensure security in various environments. Through visual surveillance, these security devices allow the recording and real-time monitoring of areas, reducing potential security risks and utilizing recorded information for later analysis.	Security-software, hardware (monitors, cameras, ...)	Wi-Fi;
<b>Furniture</b>	1	For services like workshops or the „Playing Cards Café,“ the space requires furniture such as tables and chairs. A coworking space needs not only an ergonomic workspace but also a comfortable area with furniture. In this area, co-workers can gather, eat, and drink together.	Seats; tables; enough space	Maintainer;
<b>Work materials (whiteboard, marker, flip chart, ...)</b>	2	For workshops, materials are needed so that the presenter can actively engage with the participants. The same applies to a coworking space where materials are also required.	Storage room;	Storage boxes;
<b>Ground-level place with a roof</b>	2	A covered space serves the vending machines to protect them from the weather. Additionally, customers can shop “indoors“ in bad weather.		Vending machines;

Other				
Resource	Necessity	Description	What is necessary for the feasibility?	Connection to other resources.
<b>Drinks (soft drinks, beer, wine, soda, water, coffee, ...)</b>	2	Drinks are needed for hospitality, for example, at the workshops.	Storage room; Supplier; coffee machine	Fridges; Glasses; volunteers
<b>Food (cake, sandwiches, ...)</b>	2	Food is required for catering during workshops or at the “Playing Card Café”.	Storage room; volunteers; supplier	Fridges; Dishes, cutlery; volunteers

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