PORTFOLIO

Post-carbon sustainable communities (Atelier)

Evaluation methods and decision making approaches 2022-2023

Digital Skills for Sustainable Societal Transitions

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Digital innovation and research hub developmen

Marzieh Mirzaei

Digitalization and related technologies offer the potential for economic development and innovative urban planning and it empowers and engages citizens to shape their urban environments through digital democracy. In order to expand the current policy scope in urban digitalisation, efforts to include issues such as poverty, education, and social diseases in marginalized areas need to be taken into account.

Workshop 1 - Idea Canvas

13.12.2022

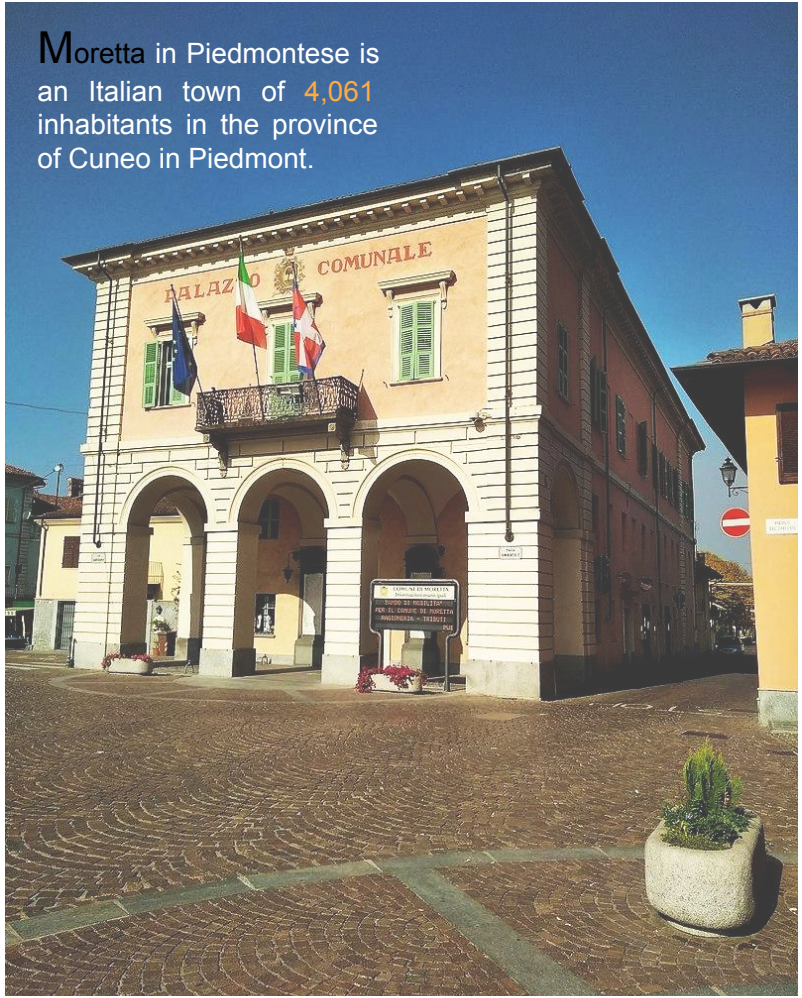
Municipality of Moretta

Municipality of Moretta

Many hypotheses have been made on the origin of the toponym Moretta.

According to some historians, it derives from the term *moreta* , which used to designate land with mulberry plantations (in Piedmontese *moré* , pr. muré), once widespread in the area because it was closely linked to sericulture , the rearing of silkworms

(*Wikipedia*).



A1 PROBLEM

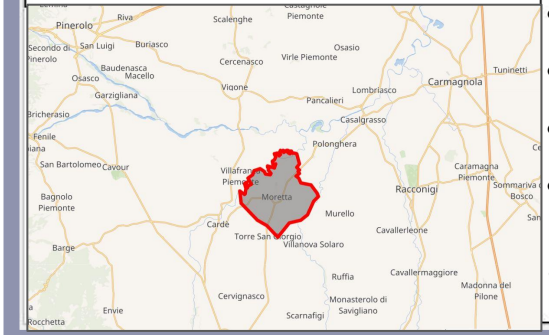
(Which problems and challenges are you going to tackle?)

Regenerate small marginal cities

A2 CONTEXT

(territorial context you are going to work on)

Municipality of Moretta



B1 SOLUTION

(Which innovative solution can you develop to tackle the problem?)

Digital innovation and research hub development

- Enhancing economic productivity
- focusing on digital agriculture
- using smart mobility(electric vehicle, smart sharing ,...)
- strengthen smart destinations on Tourists industry

B2 ACTIVITIES

(Which are the key activities for the development of your solution)

- Digitalize sustainable economy chain within moretta and other 9 villages around
- digitalizing harvesting/planting procedure chain
- Enhancing and creating smart agriculture transportation
- training elderly people to use digital equipment
- investing on technological upgrading and innovation on the tourism aspects of Moretta
- creating integrated application for selling and introducing local product

C1 STAKEHOLDERS

(Stakeholders that should be engaged for a successful development of the project)

- Local residences (farmers, retailers, eldery people...)
- Government
- Turist
- Education ministry
- IT experts

C2 RESOURCES

(What kind of resources are you going to use?)

- Agricultural Lands
- Human Resources
- CAP strategic plan(Common Agricultural Policy)
- Digital Platforms

C3 DISSEMINATION

(How can you disseminate your initiative?)

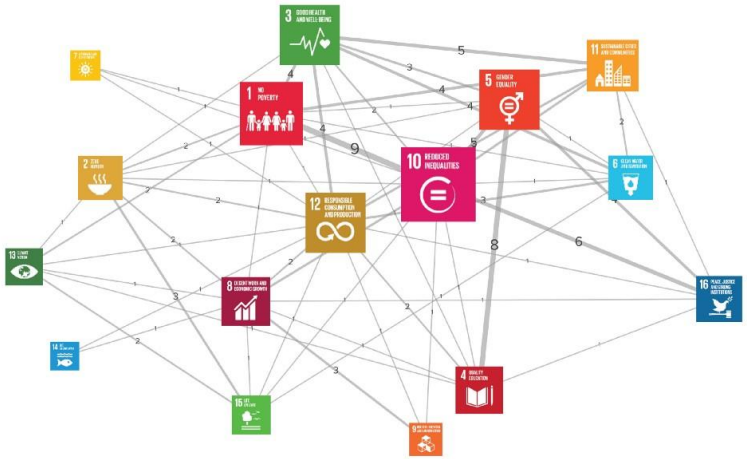
- Meeting with stakeholders and involve them.
- event and campaign
- training residents.
- Using incentives

D2 IMPACT ON SDGs

(Which SDGs could be affected by your project?)

Workshop 2 - SDG interaction

13.12.2022



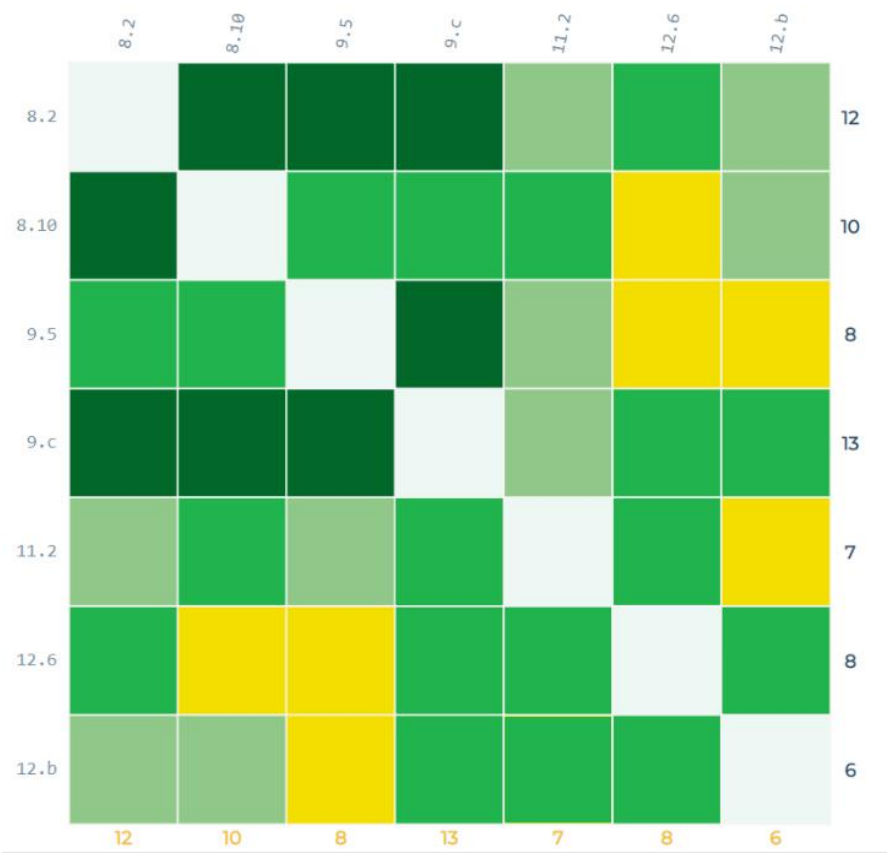
SDG Interconnection

The report examines the interactions between the various goals and targets, determining to what extent they reinforce or conflict with each other. It provides a matrix to help us implement and achieve the Sustainable Development Goals (SDGs) in our project .

Selected SDG Targets

Num.	Targets	Descriptions
1	8.2	Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
2	8.10	Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all
3	9.5	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries.
4	9.c	Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries
5	11.2	By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport.
6	12.6	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.
7	12.b	Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.

Resulting Matrix



it shows how much is important to have an upgrade economical sector to help creating digital societies . targets of goal 8 are in close relationships with targets of goal 9.

Increasing the capacity of technology in industrial sector is helpful to accelerates the growth of digitalization.
As a result it is important to focus on the effect of the target 9.c on 8.2 and take advantages of this synargy

Some targets are related to sustainable tourists(b.12) some are are related to increasing the capacity of industrial sector (9.5) so they are not completely in the same way so they don't have specific effect on each other.

Workshop 3 - PCM and Stakeholders Analysis

03.11.2022

Analysis Phase

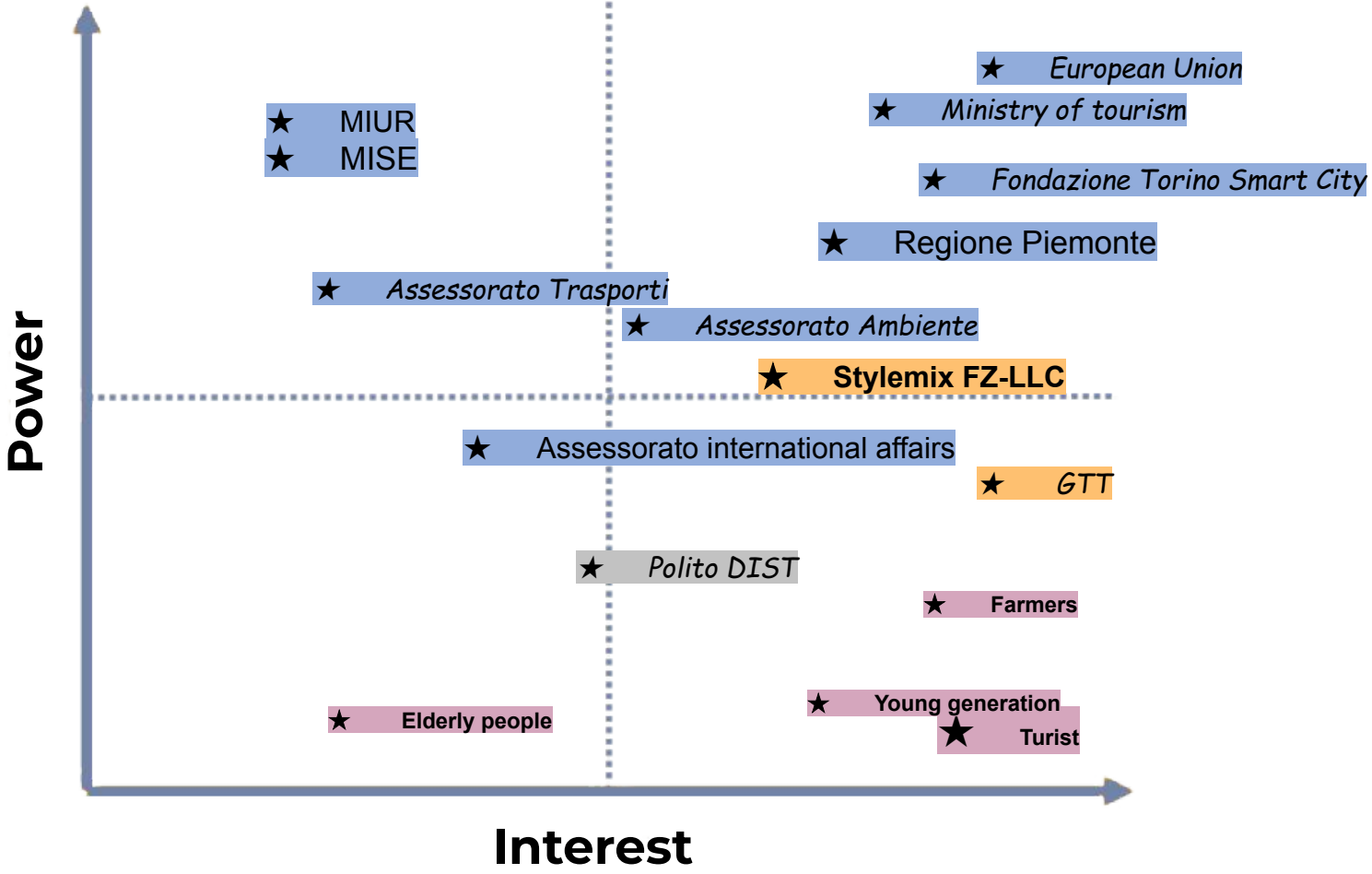
Stakeholders Analysis and PCM (Log frame Approach)

Stakeholder analysis is one of the phases of the analysis phase carried out in the PCM methodology. This stage examines the existing situation, to develop a vision of the desired situation in the future and to choose appropriate strategies that will help achieve project goals.

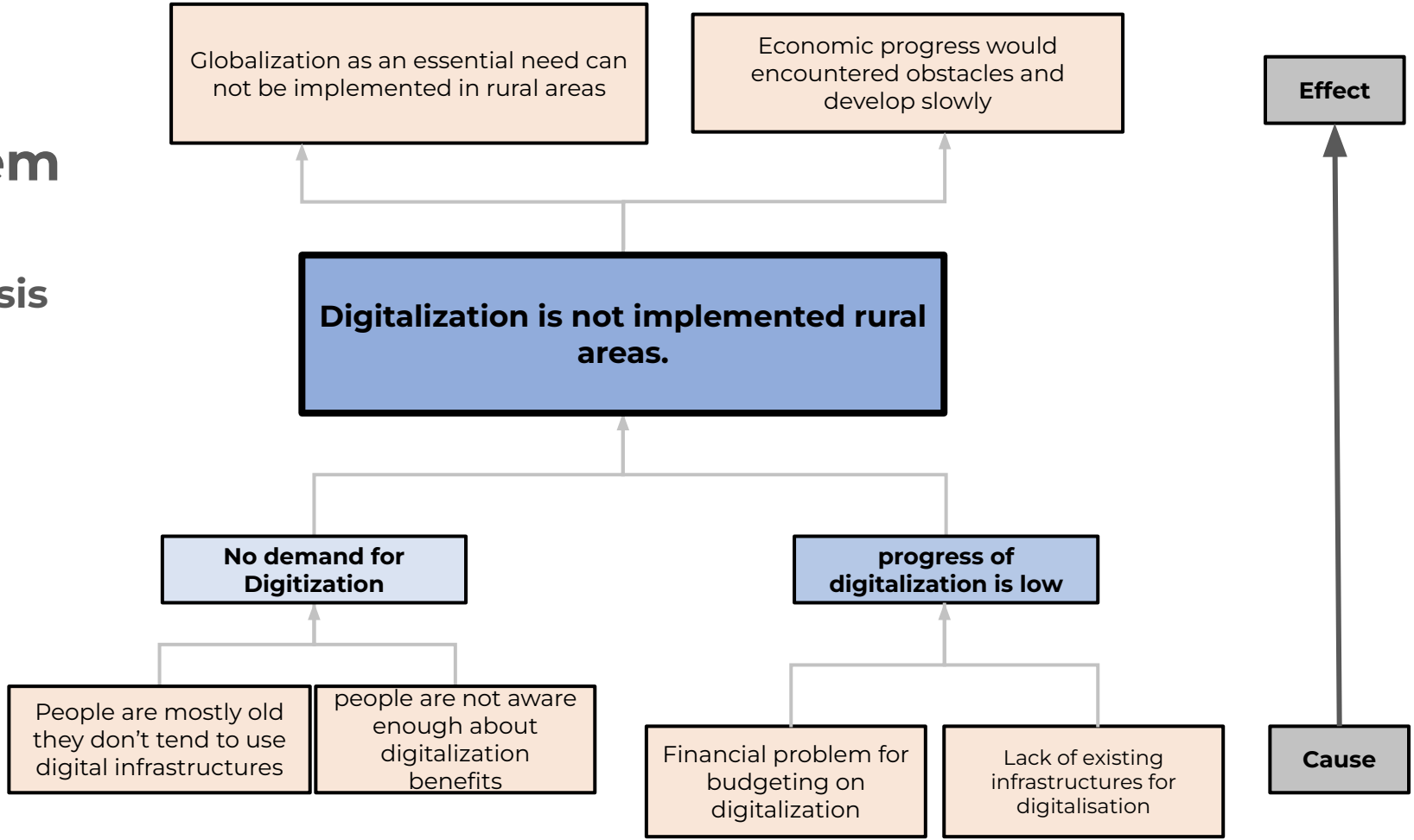
Stakeholder	Cluster	Level (dimension of th interest)	Typology	Resources
_ European Union	public actors	international	special	Economia
_ Regione piemonte		regional	political	Cognitive
_ Assessorato Trasporti		regional	political	Cognitive
_ Mise		national	political	Political level
_ MIUR		national	political	Cognitive
_Assessorato Ambiente		national	political	Cognitive
_Assessorato international affairs		international	political	Cognitive
_ Ministry of tourism		international	general	Cognitive
_ Fondazione Torino Smart City		regional	interest	Cognitive
_ Polito DIST		regional	Educational	Cognitive
_ GTT	**private support actors**	Regional	Specific interest	cognitive
_ Stylemix FZ-LLC		International		cognitive
_ Elderly people	**people Actors**	local	Specific interest	Cognitive
_ Farmers		local		
_ Turist		international		
_ Young generation		local		

stakeholders :

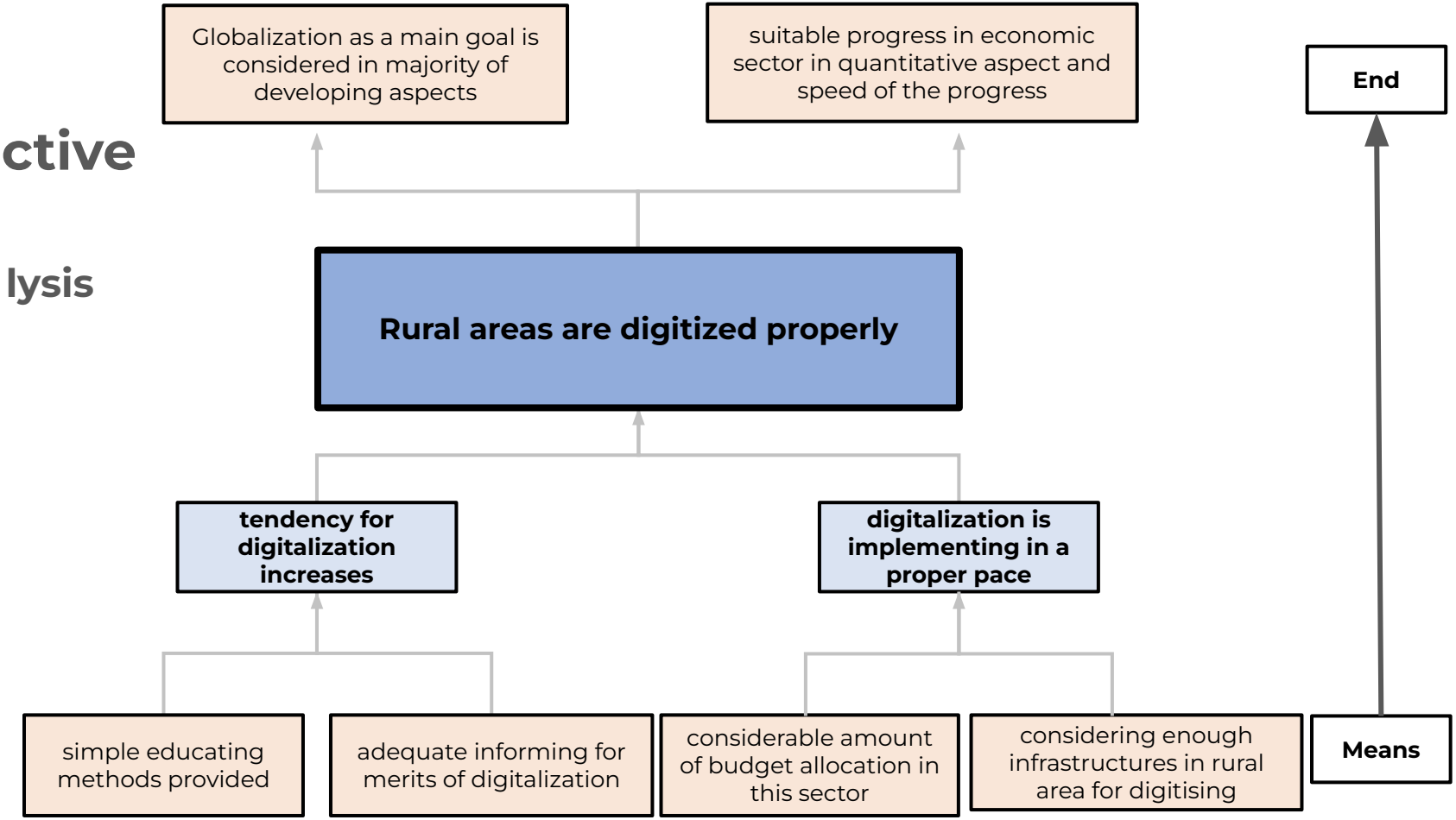
public stakeholders	private stakeholders	people stakeholders
Nima Shahmandi	Marzieh Mirzaei	Atefeh Asad


Power
Interest
★ European Union
★ Ministry of tourism
★ MIUR
★ MISE
★ Fondazione Torino Smart City
★ Regione Piemonte
★ Assessorato Trasporti
★ Assessorato Ambiente
★ Stylemix FZ-LLC
★ Assessorato international affairs
★ GTT
★ Polito DIST
★ Farmers
★ Young generation
★ Elderly people
★ Turist

Problem Analysis

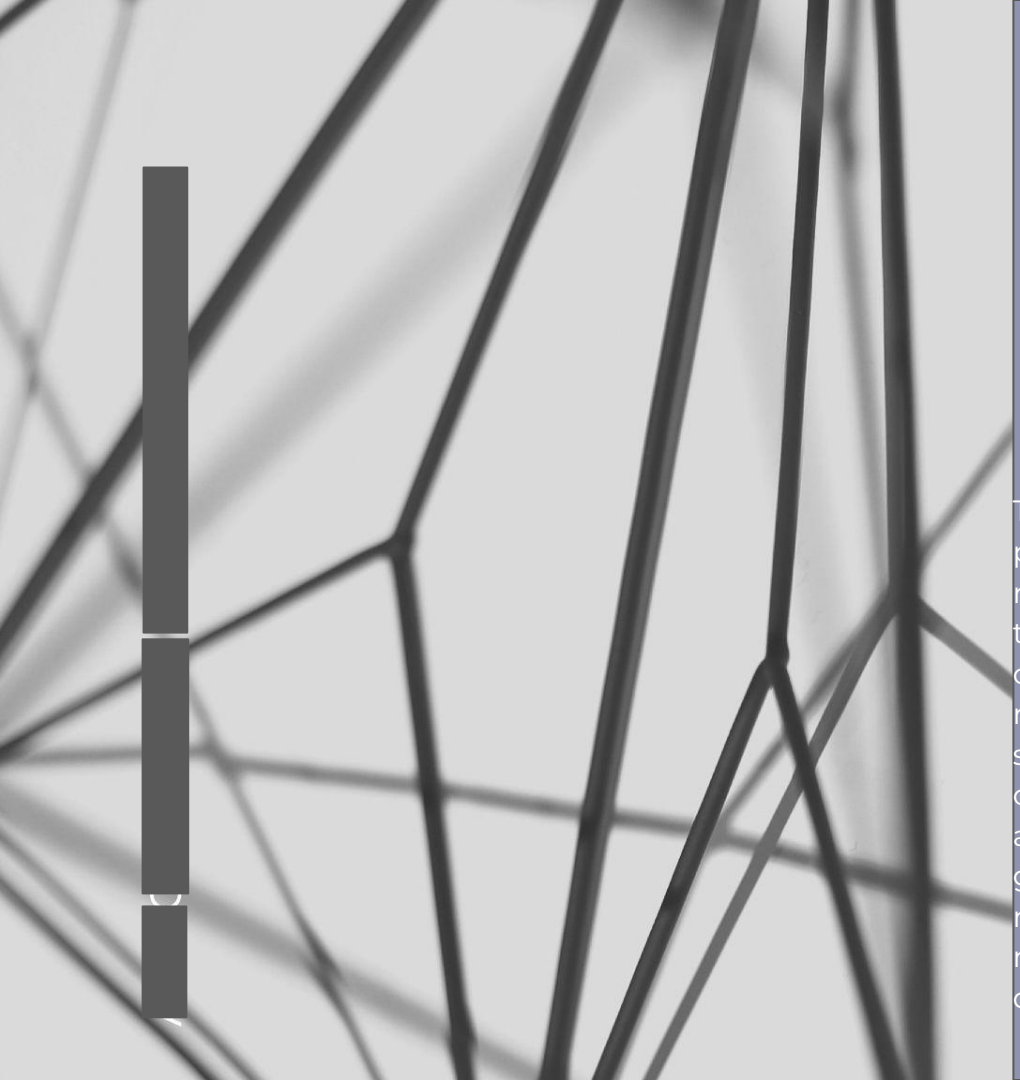


Objective Analysis



Workshop 4 -
Indicator and weight Criteria Selection

10.11.2022



Indicator Selection

Delphi method

The **Delphi method** is a process mostly used in research and economics, that aims to collect opinions on a particular research question or specific topic, to gain consensus. The opinions are collected from a group of experts that are not physically assembled, normally through questionnaires.

List of indicators GROUP 4

Stakeholders: (insert typology of stakeholders whom each student in the group has interpreted)				
Num	**ISSUE**	**Indicator**		**Modify**
1	**PEOPLE**	Age range of population	%	The percentage of different age range of the population .(0-29 years, 30_54 years, more than 54)
2	**Urban system**	Territory for agricultural use	%	
3	**Economy**	Number of shops, restaurants and tourist facilities selling local products (KM0) (or The variety of agricultural products and the volume of products)	%	
4	**PEOPLE**	(Net migration)	%	

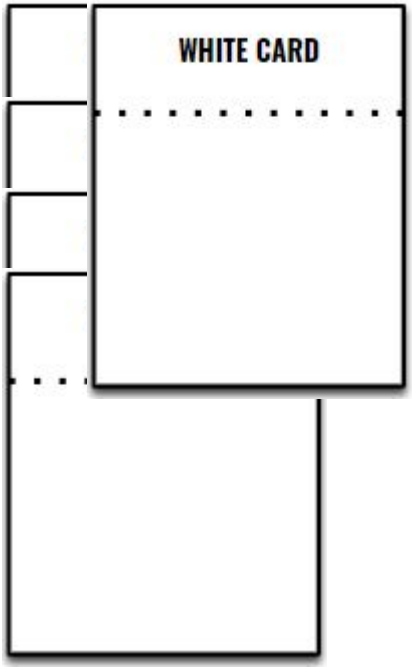
List of indicators GROUP 4

5	**Accessibility/Mobility**	Variety of territorial infrastructure	N	
6	**Accessibility/Mobility**	Accessibility to urban and logistical nodes	average journeys/year for every 1000 inhabitants	
7	**Accessibility/Mobility**	Innovative services for sustainable mobility(ACCESSIBILITY AND MOBILITY)	N	
8	**Digitalization**	Accessibility to Wifi	%	Percentage of population who has proper access to Wifi
9	**Digitalization**	Use of e-commerce by businesses	%	
10	**Culture and Tourism**	Number of places included in the tourist offer	N	
11	**Facilities**	Number of social associations involved in local activities	N	
12	**Facilities**	Training institution platform		Number of recreational and educational facilities in the area

Weight's Criteria Selection

Playing Cards

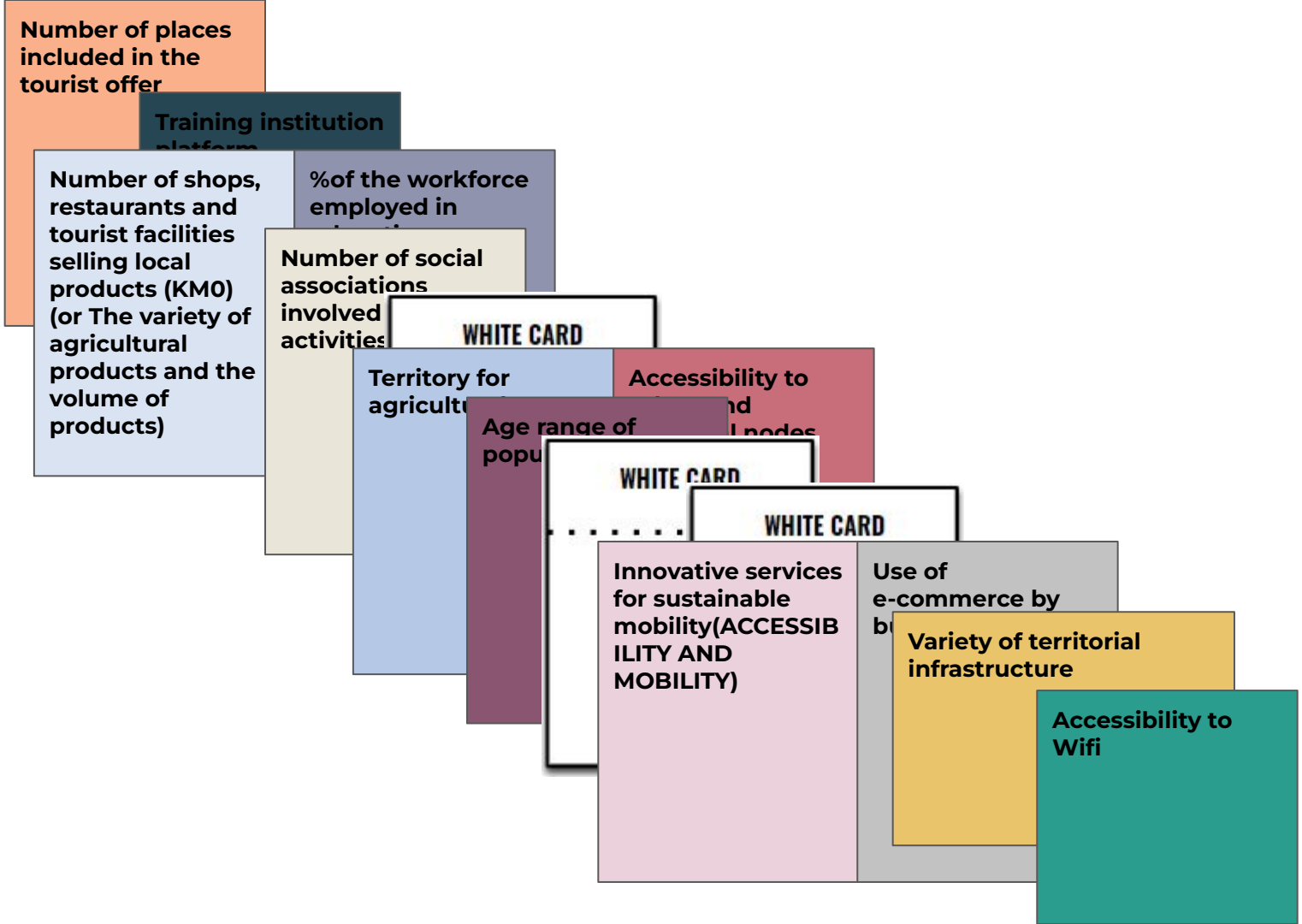
PART



Number of shops, restaurants and tourist facilities selling local products (KM0)(or The variety of agricultural products and the volume of	%of the workforce employed in education, agriculture,tourism,transport,local business	Number of social associations involved in local activities	Number of places included in the tourist offer
Territory for agricultural use	Accessibility to urban and logistical nodes	Age range of population	Training institution platform
Accessibility to Wifi	Variety of territorial infrastructure	Innovative services for sustainable mobility(ACCESSIBILITY AND MOBILITY)	Use of e-commerce by businesses

less Important

more Important



Excel Link: Group 04 - Playing Cards

Rank	indicators and white cards	Number of cards	Position	Non-normalized weights	Normalized weights	Total
1	Accessibility to Wifi	1	1	1	1.010	1.01
2	Variety of territorial infrastructure	1	2	2	2.020	2.02
3	Use of e-commerce by businesses + Innovative services for sustainable mobility (ACCESSIBILITY AND MOBILITY)	2	3,4	3.5	3.535	7.07
4	white card	1	5	0	0.000	0.00
5	white card	1	6	0	0.000	0.00
6	Age range of population	1	7	7	7.071	7.07
7	Territory for agricultural use+ Accessibility to urban and logistical nodes	2	8,9	8.5	8.586	17.17
8	white cards	1	10	0	0.000	0.00

Excel Link: Group 04 - Playing Cards

Rank	indicators and white cards	Number of cards	Position	Non-normalized weights	Normalized weights	Total
9	Number of social associations involved in local activities	1	11	11	11.111	11.11
10	The variety of agricultural products and the volume of products) + %of the workforce employed in education, agriculture,tourism,transport	2	12,13	12.5	12.626	25.25
11	Training institution platform	1	14	14	14.141	14.14
12	Number of places included in the tourist offer	1	15	15	15.152	15.15
SUM		**15**	**99.00**	**74.50**		**100.00**

Workshop 5 -
SWOT Analysis

17.11.2022

Age Classification

population age in Moretta being divided to 12 classes which shows the number of people in various ages. According to the tables and chart below, it is clear each age group represents a certain percentage of the total population.

classes age	males N	males %	females N	females %	Total N	Total %
0_2	40	1.98	41	2	81	1.99
3-5	62	3.07	33	1.61	95	2.33
6-11	126	6.23	92	4.48	218	5.35
12-17	123	6.08	136	6.62	259	6.35
18-24	145	7.17	132	6.43	277	6.80
25-34	197	9.74	223	10.86	420	10.30
35-44	240	11.87	231	11.25	471	11.56
45-54	**350**	**17.31**	**314**	**1529**	**664**	**16.29**

Source: Istat

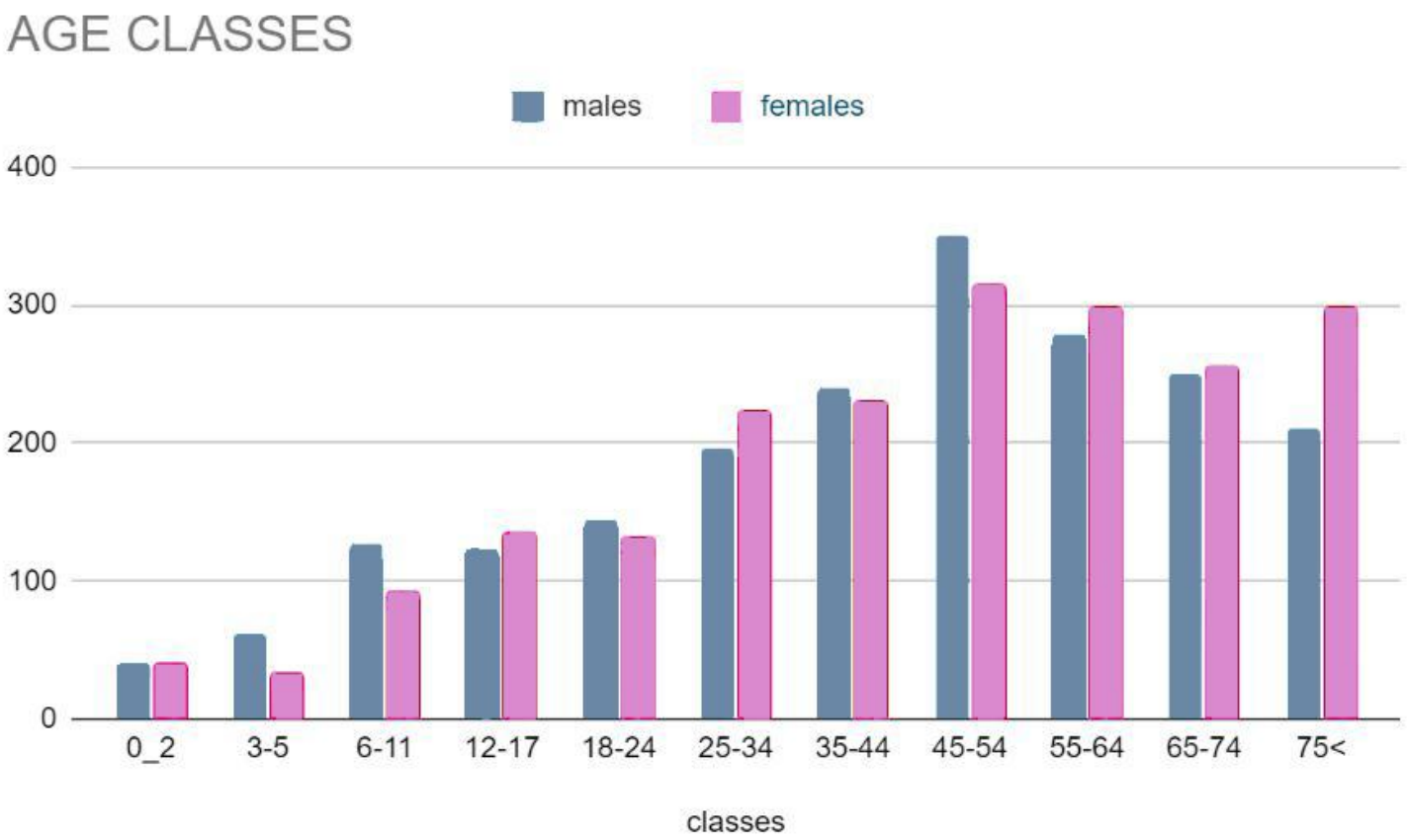
Age Range of Population

classes age	males N	males %	females N	females %	Total N	Total %
55-64	278	13.75	298	14.51	576	14.13
65-74	250	13.36	256	12.46	506	12.41
75<	211	10.44	298	14.51	509	12.49
TOTAL	2.022	100	2.054	100	4.076	100

Source: Istat

Age range of population in Moretta shows the biggest group of people is allocated to class of 45-54 age while the class of age 0-2 is the smallest one.

Age Classes in Moretta



Age Average Classification

In previous table it was shown the classes and now here it is a average age of people by dividing to gender and total and also the amount of old age index is shown 180.28

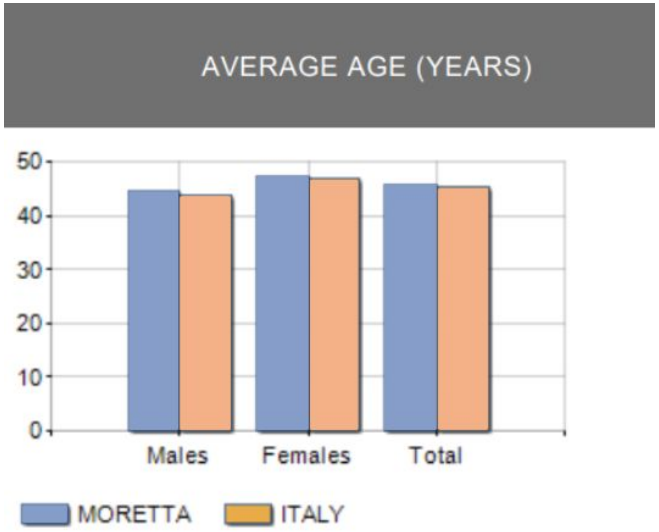
Gender	Male	Female	total
Average age	44.55	47.34	45.96
old age index*	_	_	180.28

ugeo.urbistat.com

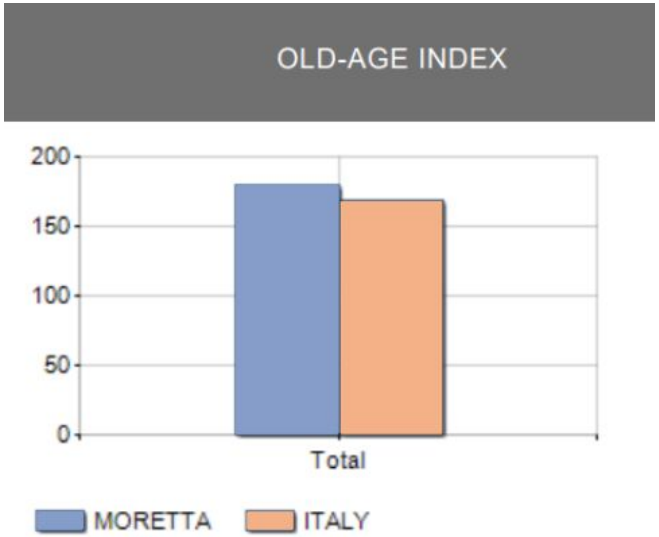
Old age index : inhabitants >65 / inhabitants 0/14 years old *100

Age Rang Compa rison with Italy

The two tables below show the situation of age range in Moretta comparing with Italy.



Age classification comparing with Italy



OLD-AGE comparing with Italy

Source :
ugeo.urbistat.com

Net Migration

One of the important factor for analysing the situation of population in a municipality is considering Population trends, nature and migration balance, birth rate, death rate, growth rate, and migration rate in the Municipality of MORETTA.

Inhabitants on 1th Jan	4,064
Birth	30
Deaths	53
Natural Balance	-23
Registered	135
Deleted	100
Migration Balance	**+35**
Inhabitants on 31th Dec	4,076

Inhabitants (2020)

Year	Inhabitants	variation % on previous year
2015	4.136	-
2016	4.141	+0.12
2017	4.103	-0.92
2018	4.075	-0.68
2019	4.064	-0.27
2020	**4.076**	**+0.30**

Inhabitants variation(2020)

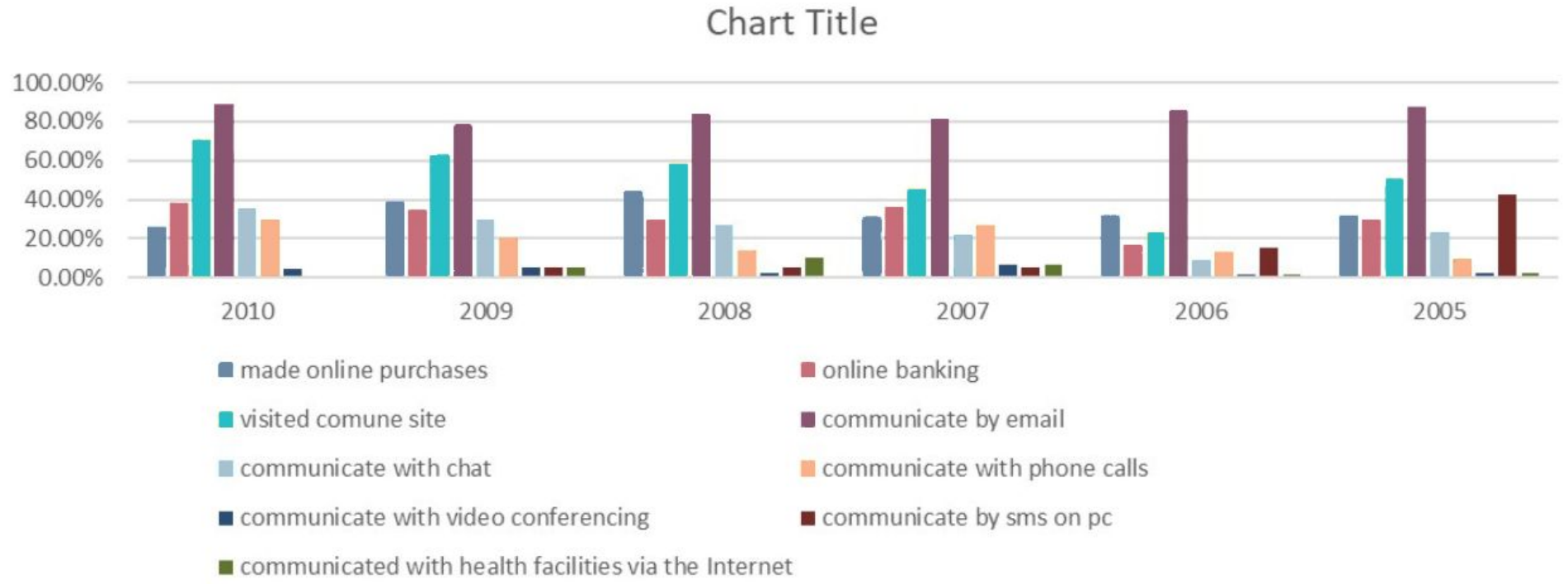
Source:
ugeo.urbistat.com

Cuneo Province- Use of ICT by citizens

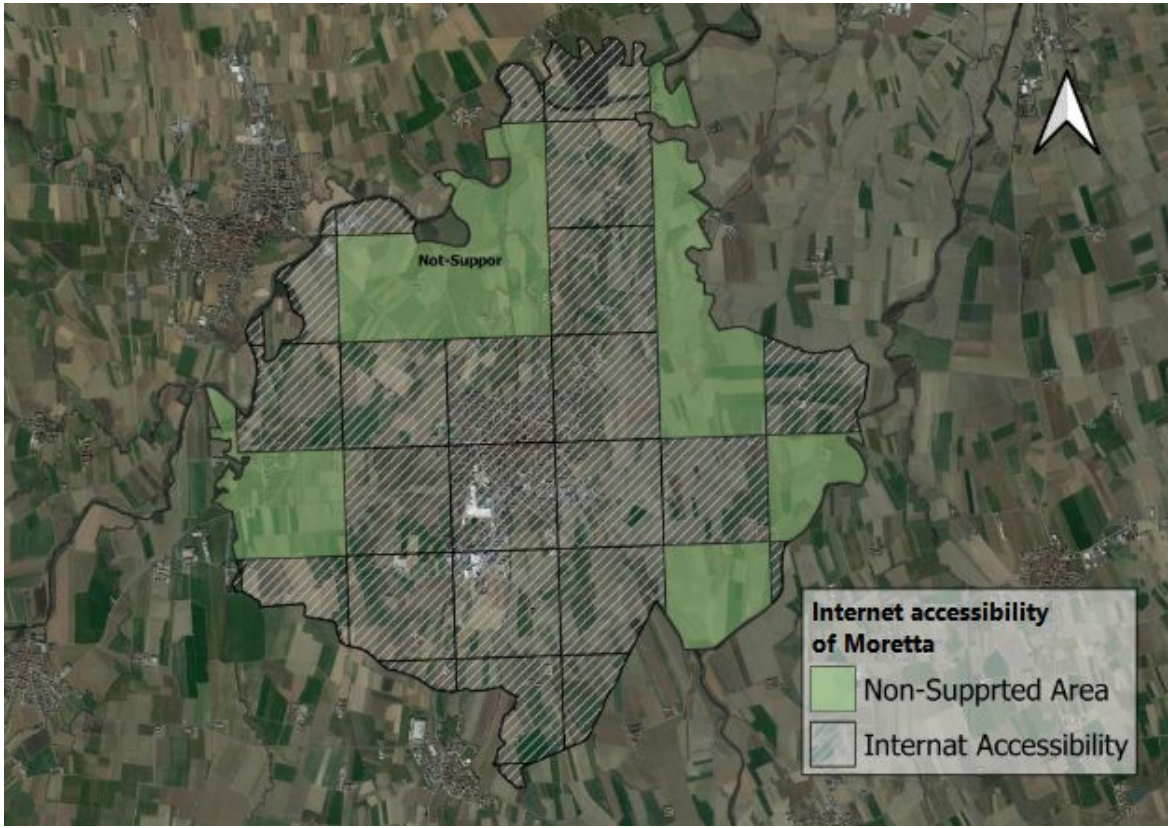
Real-world adoption of ICT services by the general public (e-commerce, home banking, ...) Data on ICT use in Cuneo families is gathered by the regional reusable database. The following data are presented for the years 2005–2010 with province aggregation: - using online banking Utilizing the internet (chat, mail, etc) - utilizing the internet for medical research; - understanding computers The information is shown as a percentage (%) of Cuneo citizens overall who fit the condition.
The data was created by on 12 July 2012.

category	2010	2009	2008	2007	2006	2005
made online purchases	25.73%	39.00%	43.80%	31.30%	32.10%	31.60%
online banking	38.01%	35.00%	29.90%	36.50%	16.80%	29.60%
visited comune site	70.76%	62.90%	58.30%	45.60%	23.30%	50.40%
communicate by email	88.89%	78.70%	83.40%	81.70%	86.00%	87.00%
communicate with chat	35.67%	29.80%	27.10%	21.70%	8.50%	23.50%
communicate with phone calls	30.00%	20.00%	13.90%	27.00%	13.20%	9.60%
communicate with video conferencing	4.68%	5.00%	2.10%	7.00%	1.90%	2.60%
communicate by sms on pc	—	5.00%	5.60%	5.20%	15.10%	42.60%
communicated with health facilities via the Internet	—	5.00%	10.40%	7.00%	1.90%	2.60%

Cuneo Province- Use of ICT by citizens



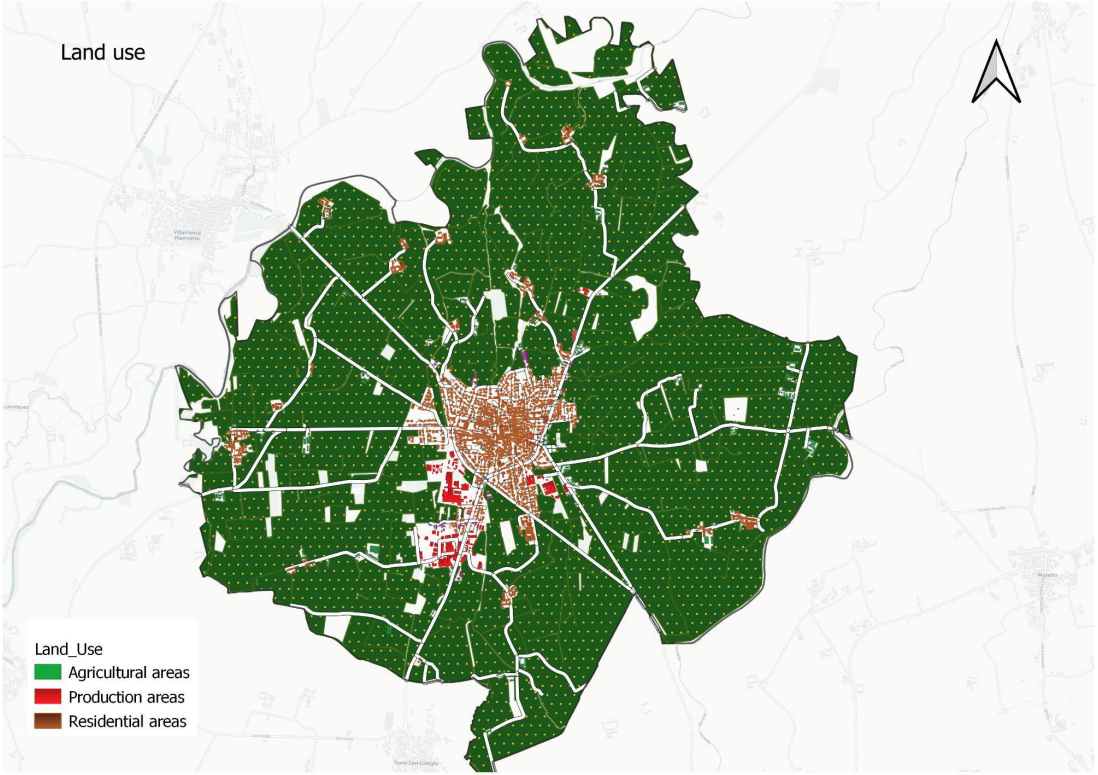
Wifi Accessibility



Almost 70% of Moretta has internet coverage (ADSL, VDSL, EVDSL). Municipality area has good access to the Internet. Most of the areas that don't have access to the Internet are agricultural fields outside of urban area.

Territory for Agricultrul Use

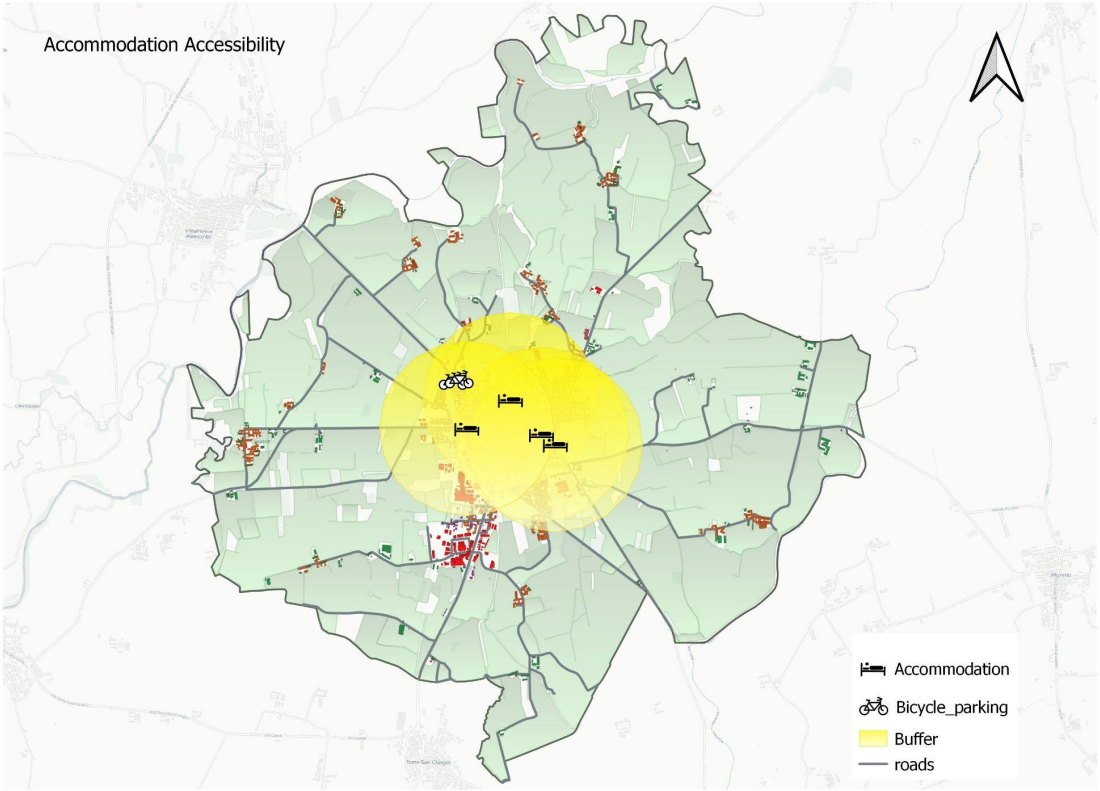
Moretta covers a total area of 24.15 hectares, of which 19.24 hectares are used for agriculture. Corn cultivation is the predominant land use in this area, accounting for more than 79% of the total area. Most of Moretta's agricultural land is covered by it.



Accessibility to Urban and Logistical nodes

Number of places included in the tourist offer

There are 4 accommodation options for tourists in Moretta, all located in the center. Here in Moretta with having very specific agriculture situation accessibility to lands are so important. This map is created based on the ability to access tourist spots within 800m by using buffers at 800m distance.



Swot Analysis _ Internal Aspect

Positive Aspects

Negative Aspects

STRENGTHS

Social

_The existence of sufficient training space for training .

_The positive number of migrated people to Moretta.

Accessibility

_ **proper access to the Internet in the municipality area**.

_ Convenient access to public transportation.

Facilities

_Existing one Amazon hub in the center .

_ having sufficient training center.

_Providing adequate accommodations for tourists

landscape

_ 70% of land are used for agriculture

WEAKNESSES

Social

_Lack of young population for the freshness of urban space.

Accessibility

_ **there is still some areas that don't have access to the Internet.**

_ Lack of sufficient coverage of access to restaurants and bars in the whole city.

Facilities

_Having only one public bike parking in the city

Swot Analysis _ External Aspect

Positive Aspects

Negative Aspects

OPPORTUNITIES

Social

_Proportion of the population in terms of gender.

Accessibility

_The amount of the Internet coverage is sufficient for implementing the infrustructures with the special need to have access for connection .

_The existence of an integrated cycling route to connect the city of Morata to the region.

Facilities

_having various suitable public places for activities.

Landscape

_Having suitable environmental conditions for agriculture in whole of city

_proper planet for harvesting corn specifically .

THREATS

Social

_considerable amount of old population with low ability of using technology .

_The high proportion of the elderly population in Morata compared to the whole of Italy

Accessibility

_Regard to lack of internet access in some parts (mostly agricultural fields) digitalization would encounter with problem .

Facilities

_lack of prepared infrustracter for using innovating transport

Landscape

_The monoculture type of cultivation and the risk of disease transmission to all agricultural areas of the region at the same time.

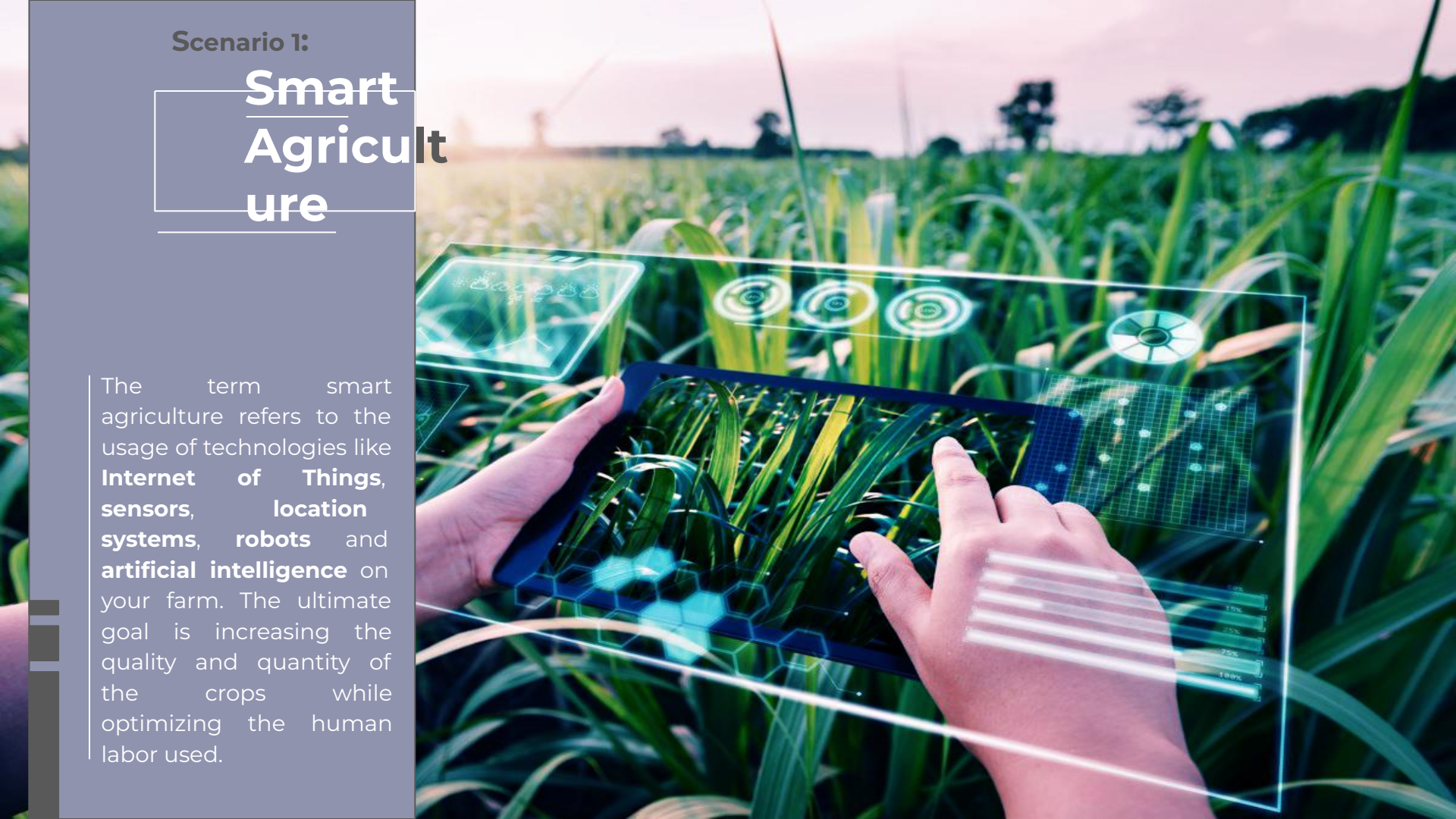
Workshop 6 -
Scenario building: Co-design system thinking

01.12.2022

Scenario 1:

Smart Agriculture

The term smart agriculture refers to the usage of technologies like **Internet of Things**, **sensors**, **location systems**, **robots** and **artificial intelligence** on your farm. The ultimate goal is increasing the quality and quantity of the crops while optimizing the human labor used.



1- Principal Solutions

1- Smart Irrigation System

The system is activated using the application, this is finished using the ON/OFF buttons in the application. Also, this system is automatically activated when the soil moisture is low.

2- Autonomous Agricultural Machinery

vehicle is equipped with a series of hardware and software components. The components work with the existing by-wire, mechanical, or hydraulic control system and link vehicles to a central command station, allowing a single operator to simultaneously manage multiple vehicles throughout a farm operation.

3- Agricultural products virtual Market

The agriculture industry, which has typically relied on traditional methods of advertising and marketing, must embrace digital strategies that focus on increasing visibility, boosting traffic and nurturing relationships with customers to ensure their success.

4- Implement Local Cloud Dataset

Smart agricultural systems are estimated to play an essential role in improving agriculture activities. Cloud based Big data analysis is used to analyze the data viz. fertilizer requirements, analysis the crops, market and stock requirements for the crop. Then the prediction is performed based on data mining technique which information reaches the farmer via mobile app.

2- Equipment Solutions

1- Wifi
accessibility to internet for all regions

2- IoT system (Sensors, dataset, apps,...)
sensor for soil,water, and weather checking

3- Digital Marketing approach
selling and buying agricultural products

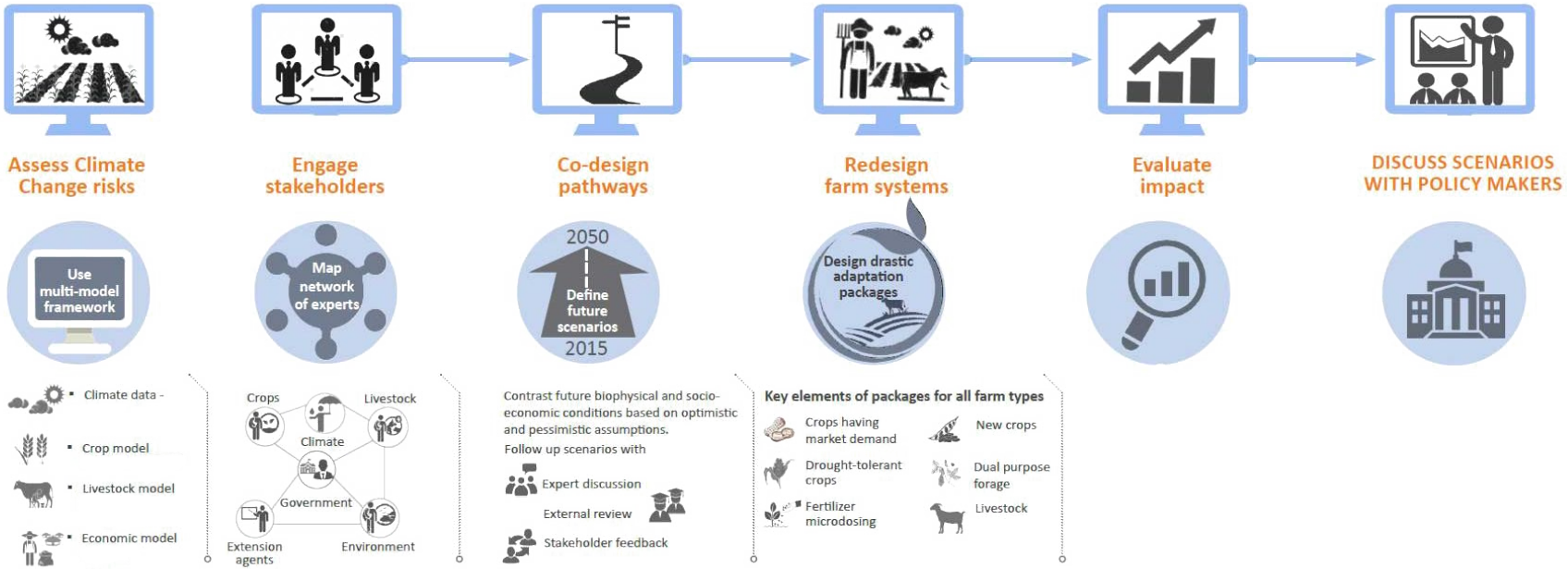
3- Activities Solutions

1-Training
preparing environment for elderly people,farmers,local to absorb learning how to work with

2- Events
making specific time for events related to harvesting, irrigation

3- Digital marketing
Cooperation with companies, brands and websites to introduce the village as a digital village to attract tourists

Smart Agriculture Road Map



Scenario 2:

Smart Tourism

The number of locations using a smart city strategy is now growing quickly. In order to give citizens a more living, employable, and sustainable quality of life, digital technologies are thus becoming more and more integrated into all aspects of municipal life. Visitors and tourists are also reaping the benefits of the growing global smart city movement, which has resulted in a phenomenon known as "**smart tourism.**"

1- principal Solutions

1- Self-guided tourist application
Make self-guided walking and cycling tours so that visitors may explore the city at their own pace. Include interactive maps and geo alert for simple navigation, and incorporate multimedia to immerse visitors in the history and culture of the area.

2- Effective Advertisement
Offering a variety of platforms for the promotion of services and offers:

- **Websites**
- **Social Media**
- **Advertise in Newspapers**

3-Virtual Tour Guide
Create more informative and interactive specific points of interest (POI) for tourists and visitors.

4- Agritourism Culture
organizing visits for foreigners to see the agricultural sector. Agritourism, which includes a variety of activities beyond the more well-known ones like corn mazes and wineries as well as food festivals in addition to educational programs, has a significant role to play in educating and absorbing tourists about the origins and preservation of their food.

2- Equipment Solutions

1- Local Accommodation Vacancy(Tourism)

2- VR/AR Technology
Extend the amount of displayed information and access to relevant data with an AR and VR tourist guide.

3- Social Media (Advertising)
An active social media presence offers businesses a mainstream and trustworthy appearance in the current digital world, which can truly help you attract new tourists.

3- activities Solutions

1- Information Communication

2- Virtual tours for heritage places

3- Agricultural event for tourism(harvesting by themselves)

Scenario 3:

Smart Mobility

An intelligent transportation and mobility network is known as smart mobility. Smart mobility is a redesign of the daily transportation infrastructure that connects numerous technological and mobility elements.

1- principal Solutions

1- Smart Mobility

having integrates all of transportation and infrastructure with using technology such as including mobility as a service. with having smart mobility service we can allow citizens to make their favorite modal choice the most suitable.

2- Parking Area Sharing

rural area with having more than 70% of agricultural landscape doesn't let us to prepare parking for more vehicles,but the opportunity of having big houses in the area give us the chance of sharing local houses parking with tourism cars.

3- Inter-municipality Connection Transport System

with supporting regional transport system and having connected transport facilities with other municipalities we can have integrated transportation system, that can bring opportunities to increase services and visitors.

4- Local Car Sharing

local car sharing can have a new and useful experience, you can share your trip as a tourism with local and get information you need, you can use mobility as an service not only transferring.

2- equipment Solutions

1- Sharing Hub
designing a hub for sharing car, and parking

2- Smart Mobility Application
designing application for providing all the necessary information and alternatives.

3- Parking Area
preparing and collecting data of suitable parking areas

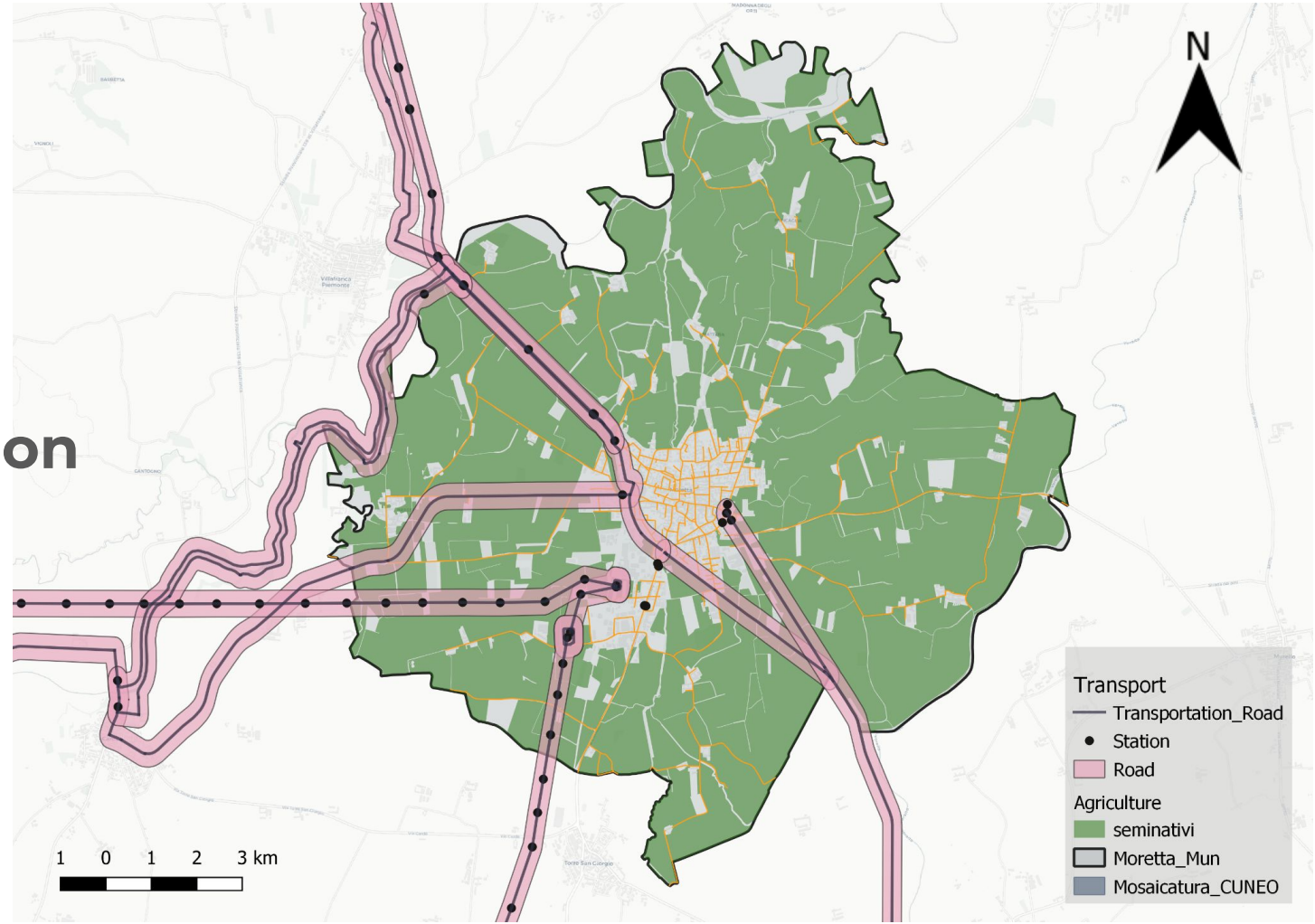
3- activities Solutions

1- Encouraging people to cooperate
Convincing people by letting them know about the positive social, environmental and economic effects for the city and themselves with sharing personal car and parking area

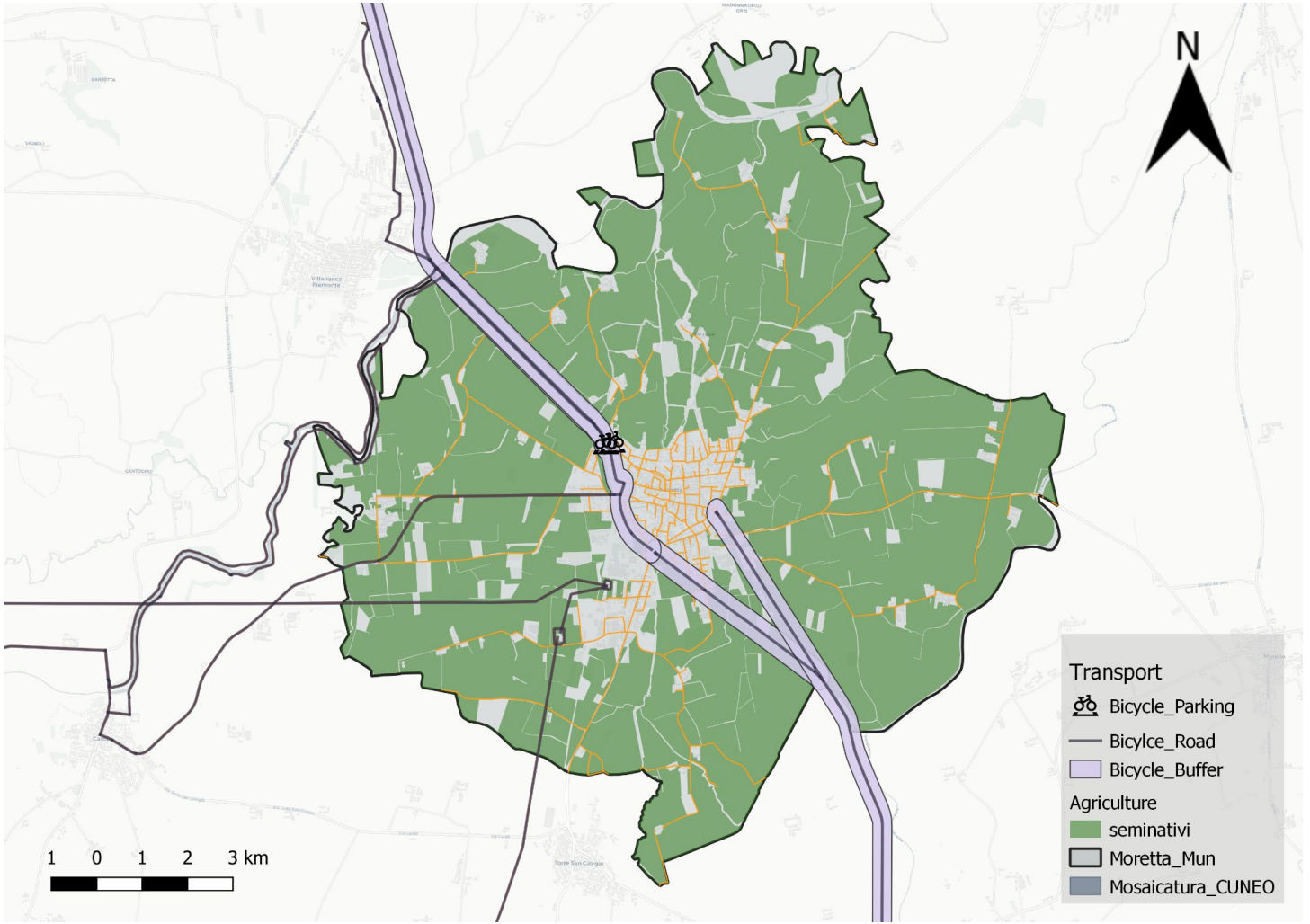
2- Ticket offer
transportation ticket discounts to Moretta from other cities through integrated transportation.

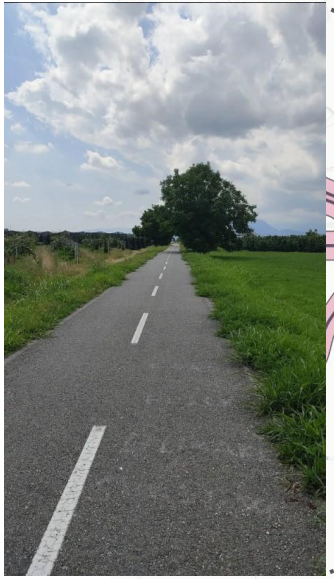
3- discount on application
keep the prices cheaper for using Applications to encourage app using

Transportation Analysing

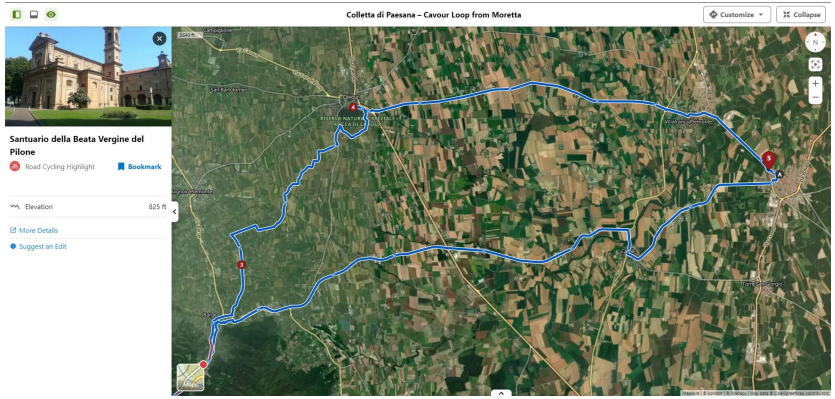


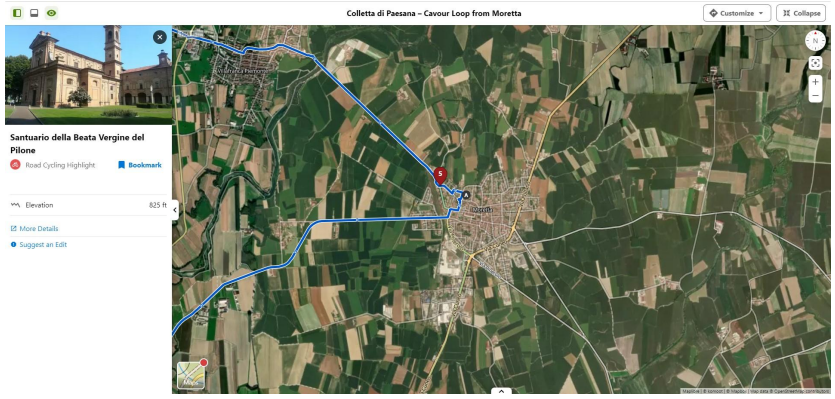
Bicycle Road and Parking





this map shows one of important regional bike path across of moretta that brings opportunity to work more on sustainable transportation



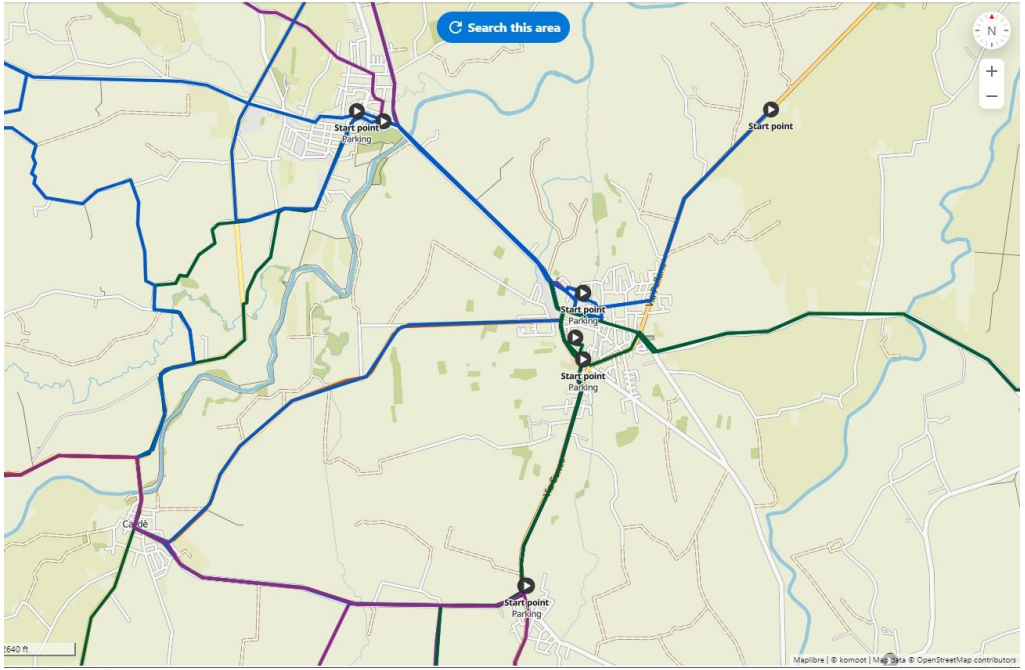


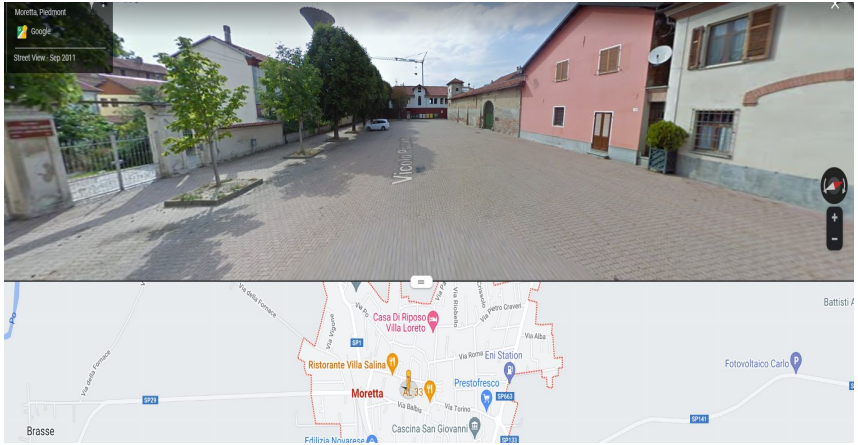
The Two pictures derived from this platform, represent the route that intersects the Moretta. Owing to this analyzing, there are a few parking spots for a traveller. In addition, Moretta can not cover all areas for cycling because of the lack of a route. Therefore, one of the main policies than can be adopted is developing the infrastructure for cycling.

Komoot is a [mobile app] for navigation and route planning. Komoot was founded in 2010 and is based in Germany. The app was launched in 2013.

Thanks to this platform, it can be seen municipality of Moretta is one of the prominent destinations for cycling.

This application provides access to find not only the route for cycling including any related parameters but also we can find the available spot to park or rent the bicycle.





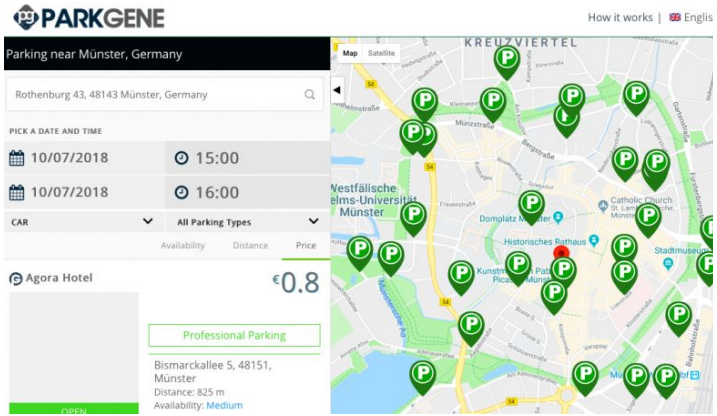
Two suitable places for sharing parking was identified first in public places another in private house.

These apps are examples of parking sharing and finding.

easyPARK GROUP

ParkingRhino SMART DATA PLATFORM

paybyphone



Scenarios selection

The purpose of this part is to implement a multi-criteria analysis to select the best scenario among the 3 previous scenarios.

Analytic Hierarchy Process

The Analytic Hierarchy Process (AHP) is a method that use for handling complicated systems including choosing between a number of alternatives and that compares the possibilities that are being considered (Saaty , 1980).

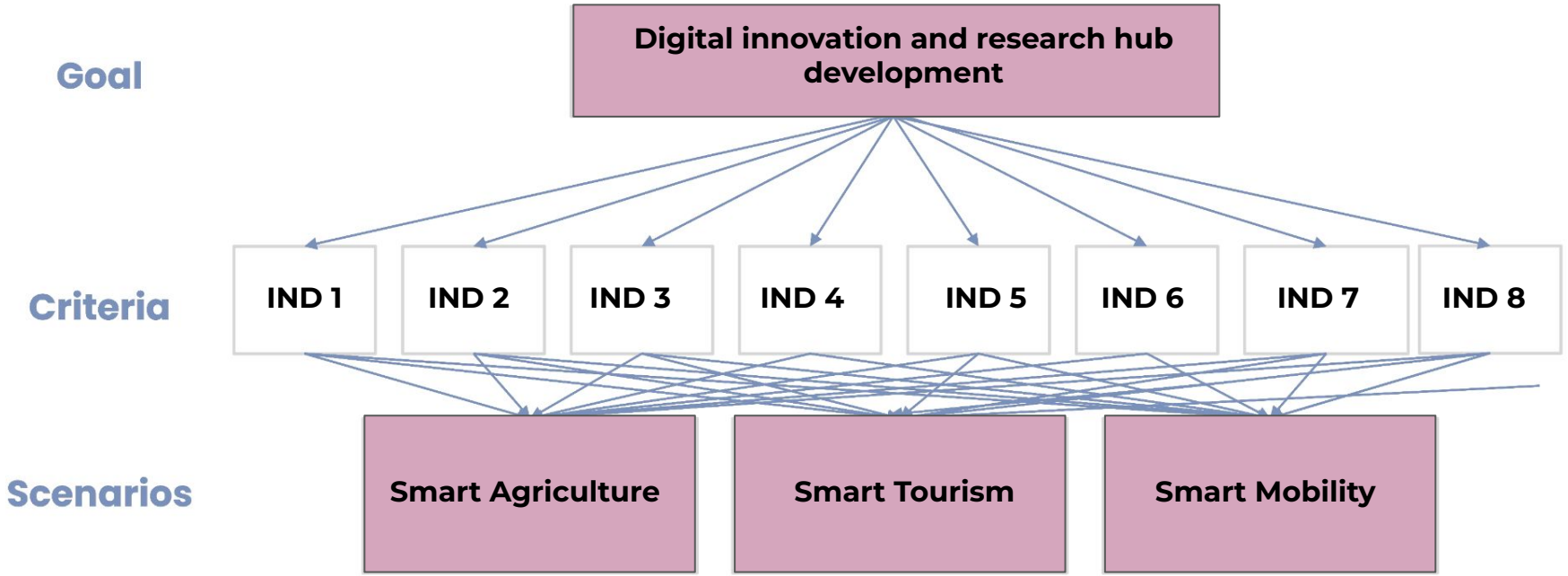
The first step:

In order to create a hierarchy with unidirectional hierarchical linkages within the indicators that have been taken into account, the 8 indicators have selected. These indicators chosen based on scores that they had been taken from playing cards workshop as following order.

Indicator 1	**Accessibility to Wifi**
Indicator 2	**Use of e-commerce by businesses**
Indicator 3	**Variety of territorial infrastructure**
Indicator 4	**Innovative services for sustainable mobility(ACCESSIBILITY AND MOBILITY)**
Indicator 5	**Age range of population**
Indicator 6	**Accessibility to urban and logistical nodes**
Indicator 7	**Territory for agricultural use**
Indicator 8	**Number of social associations involved in local activities**

The second step:

The decomposition is carried out from the top to the bottom, starting from the objective, going on to the criteria, and then to the final alternatives.

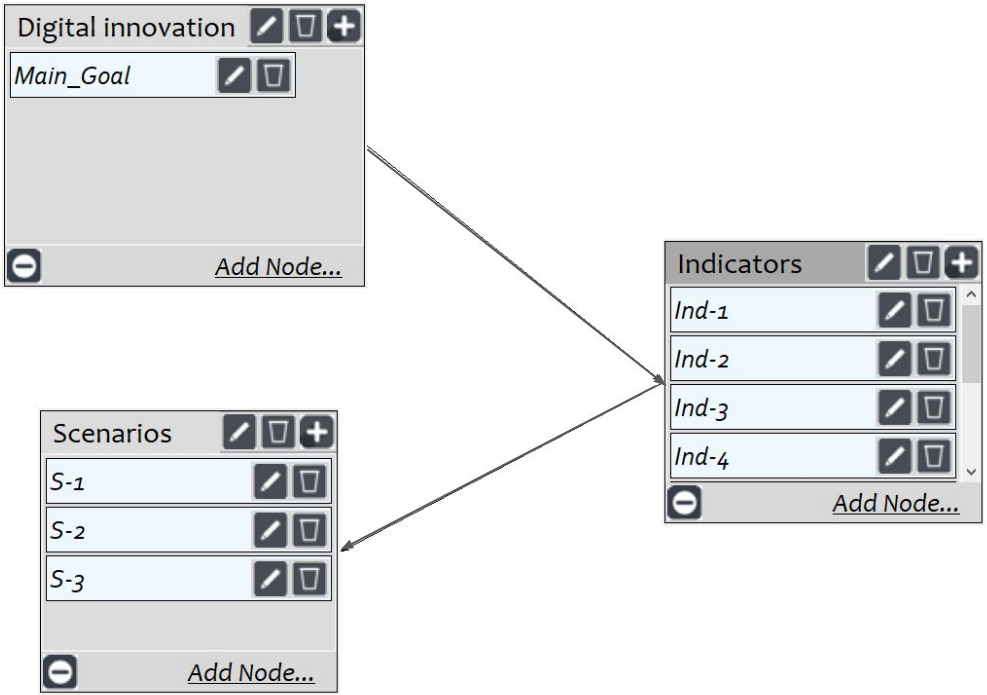


Super decision Framework

Thomas L. Saaty developed the Analytic Network Process (ANP) for decision-making with dependence and feedback in the Super Decisions software. The Analytic Hierarchy Process (AHP) is based on his approach to decision-making in which a problem is broken down into its decision elements, arranged in a hierarchical structure, and judgments are made regarding the relative importance of pair of elements.

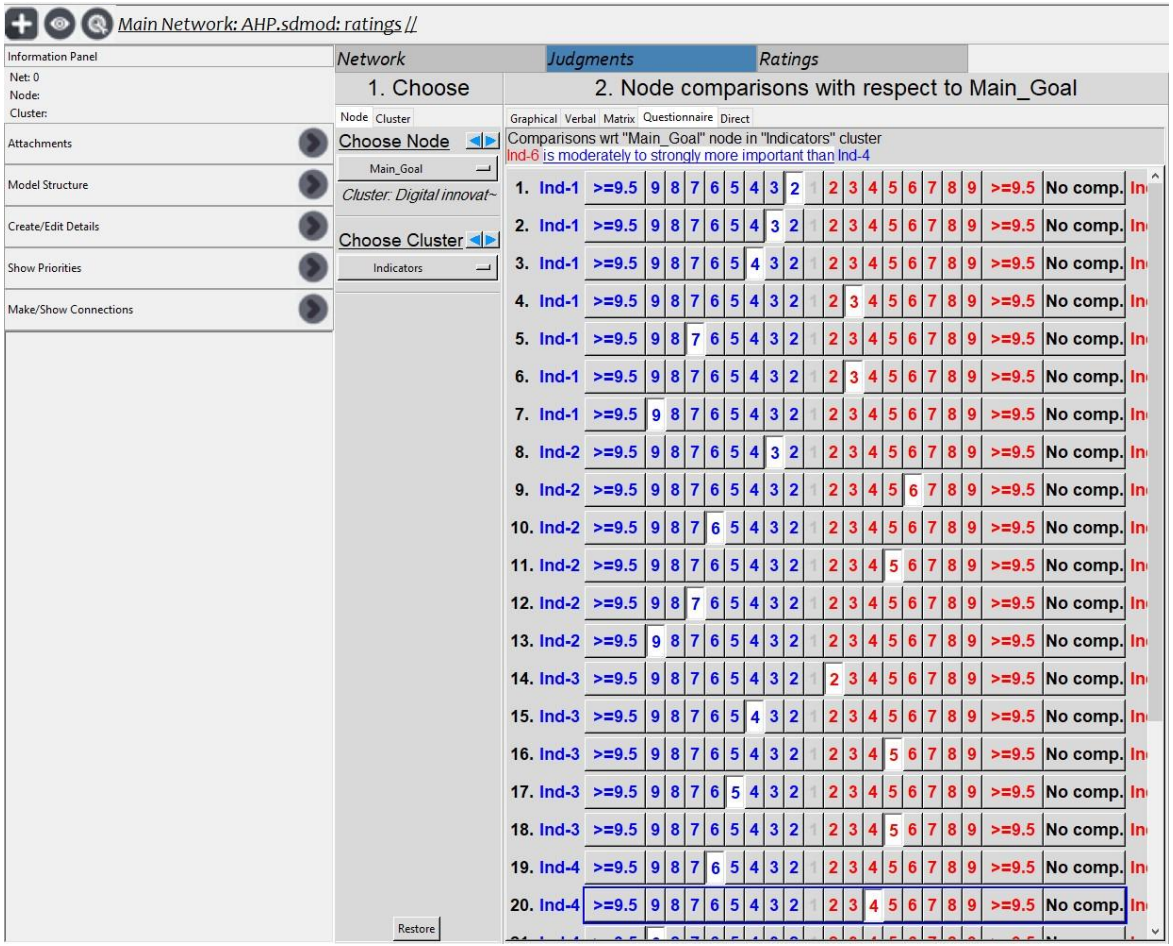
The third step:

The super-decision framework applied as a platform in order to imply pairwise comparisons in which two elements at a time are compared in terms of their contribution. The values are determined on a 9 points scale, which is called " Saaty's Fundamental Scale". The numerical comparison established at each level of the hierarchy make up pair matrixes.



Super decision Framework

Considering based on references to which scenario should be implemented first, the following scores have been implemented through comparison tool in the superdecision software.

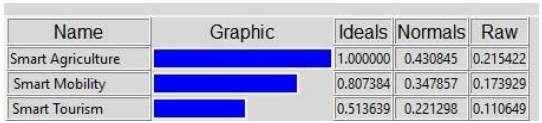


Super decision Framework

Final Result

As it can be seen, the scenario 1 ,which is Smart Agriculture, is chosen as the most proper decision. This result was predictable during the previous steps. More than 70% of Moretta consist of agricultural fields therefore it has a high potential for investing on creation smart agricultural hub including Smart Irrigation System, Autonomous Agricultural Machinery, Agricultural products virtual Market.
During the scoring of indicators we priorities this potential of Moretta therefore it affect the final decision.

Name	Graphic	Ideals	Normals	Raw
Smart Agriculture		1.0000	0.430845	0.215422
Smart Mobility		0.807384	0.347857	0.173929
Smart Tourism		0.513639	0.221298	0.110649



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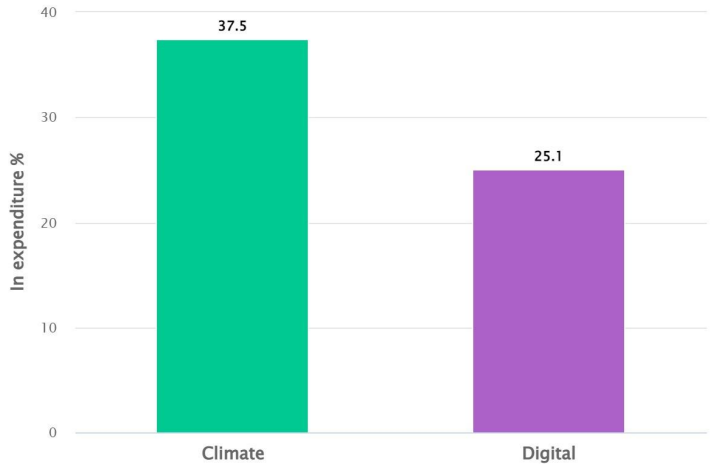
Smart Agriculture Economic Support in Italy

Italy’s recovery and resilience plan

Using a strong recovery plan and ensuring that Italy is future-ready are key components of Italy's recovery and resilience plan. Investing in reforms and strengthening resilience will allow Italy to become more sustainable, resilient, and better prepared for green and digital transitions.

They will be supported by € 68.9 billion in grants and €122.6 billion in loans; 37.5% of the plan will support climate objectives and 25.1% of the plan will support the digital transition.



https://commission.europa.eu/

Smart Agriculture Economic Support in Italy

Italy's recovery and resilience plan

For Italy, digital challenges include improving the skills of its citizens and workforce, accelerating the digitization of businesses and implementing key e-government projects as quickly as possible.

Italy's recovery and resilience plan supports the digital transition with investments notably in:

investment sectors	amount
connectivity, to foster the widespread deployment of very high capacity networks, including 5G and fibre	€6.7 billion
digital transition and innovation of the Italian production system, through incentives for investments in cutting-edge and 4.0 technologies, RDI and Industry 4.0 training activities	€13.4billion
digitalisation of the Italian public administration (PA), through a vast array of investments	€6.1billion

Thanks for your Attention

Post-carbon sustainable communities (Atelier)
Evaluation methods and decision making approaches 2022-2023

Politecnico di Torino

UNIVERSITÀ DEGLI STUDI DI TORINO

Digital Skills for Sustainable Societal Transitions