



SHERPA
Rural Science-Society-Policy
Interfaces

A VISION FOR RURAL AREAS

MAP Position Paper



LONG-TERM VISION FOR RURAL AREAS: CONTRIBUTION FROM 20 SCIENCE- SOCIETY-POLICY PLATFORMS

MAP POSITION PAPER

MAP TUSCANY

ITALY

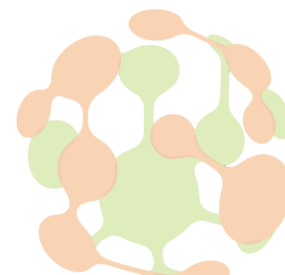
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1. Headline message

Tuscany is one of the most advanced regions in Italy and has been enjoying since decades a comparative advantage at national and European level, thanks to an efficient economic-productive structure and a valuable and distinctive landscape, which have brought the region to good levels of well-being and wealth. However, economic crises, changes in the international scenario and demographic trends (population aging) pose important challenges to the future of Tuscan rural areas. Factors as the lack of generational change in agriculture, depopulation and hydrogeological instability threaten rural areas, while the need increases for ensuring the management of natural resources through human activity (against re-naturalisation processes and the uncontrolled spread of wild animals). An entrenched lack of services negatively affects rural areas in Tuscany, now exacerbated by the partial lack of material and immaterial infrastructures for digitalisation (broadband coverage, facilities, devices) and low rates of digital literacy and propensity for digital innovation.

One key message from the MAP Tuscany is that rural areas should be valued for their specificities with respect to urban lifestyles, namely better quality of life, lower costs of housing, wide availability of green spaces, air and water quality, community social capital. A new pact is envisaged between the city and the countryside, based on the mutual recognition of the contribution to a harmonious and sustainable development, capable of addressing external vulnerability factors and sudden shocks. Such mutual recognition rests on ecosystem services provided by rural areas, urban demand for food, as well as on the need for rural areas to keep up with process and product innovations that emerge and develop in the cities.

The interviewees unanimously recognised that the vision they aim for is difficult to achieve under current conditions and that medium-long term political solutions must be looked for. This is essential to get out of the short-term vision that characterises current rural development programmes and to face the numerous challenges and threats that will impact on rural areas in the next 20 years.

Keywords *Digitalisation; Urban-Rural linkages; Agri-food sector; Tourism; Rural life.*

2. Key scientific evidence

Tuscany is a region (NUTS 2, code ITE1) located in Central Italy and has a total area of approximately 23,000 Km². It has a population of about 3.7 million inhabitants (ISTAT, 2017), unevenly distributed in 10 provinces (NUTS 3). Tuscany is bordered by the Ligurian and Tyrrhenian Seas to the West and surrounded and crossed by major mountain ranges. The region's total area is however mostly hilly (66.5%), while mountains cover 25% of the region and the few fertile plains the remaining 8.4%. The **heterogeneity of the rural landscape** is a major feature of the region – diversified in terms of geomorphological features, settlements, agricultural models, etc. – which makes unlikely that a one-fits-all solution could apply to rural development. Figure 1 shows the distribution of the 273 municipalities according to the EAFRD Italian Partnership Agreement 2014-2020. Following this distinction, it was calculated that rural areas with development problems (RADP) accounted in 2018 for 5.6% of population.

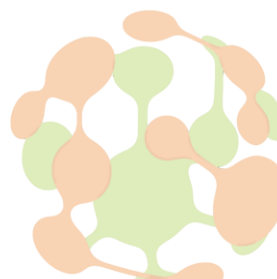
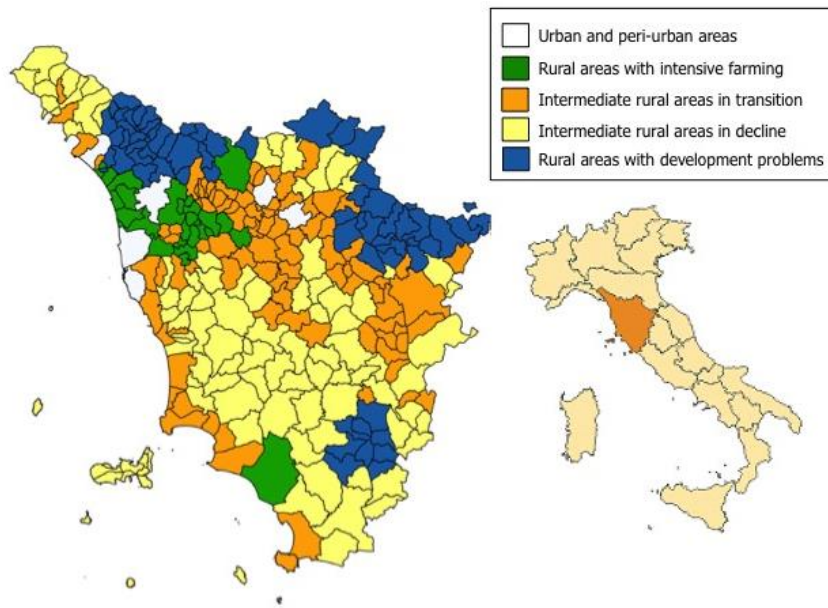


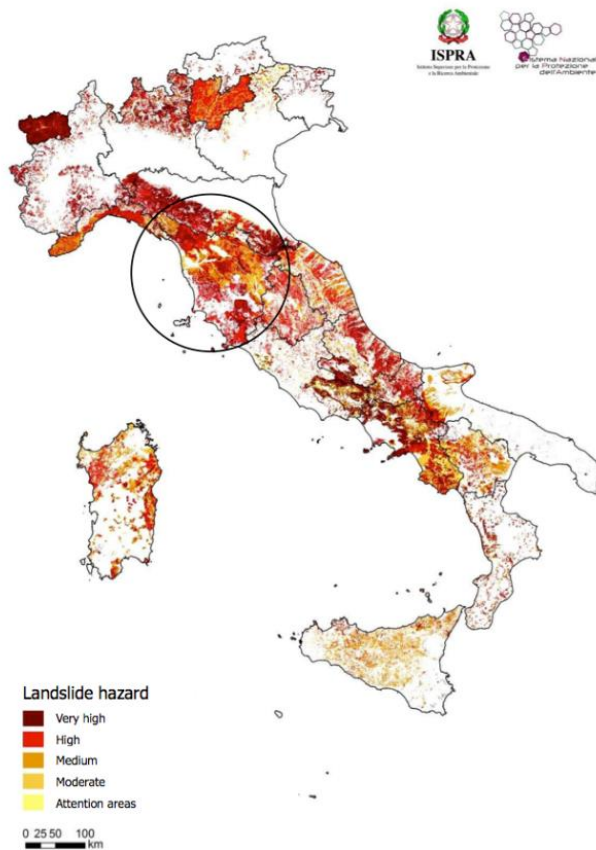
Figure 1. 2014-2020 EAFRD areas.



Source: Authors' own elaboration on Rural Development Plan Tuscany

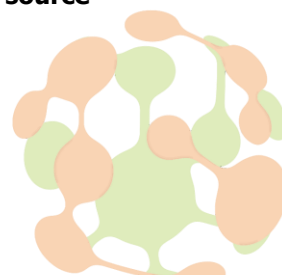
Tuscany is, among Italian regions, the one with the highest share of landslide hazard areas, affecting 89% of municipalities and 47.2% of the regional area (Trigila et al., 2018). Besides a high level of **hydro-geological vulnerability** (Figure 2), earthquakes are likely to occur in most of the region, but particularly in the areas close to the Tuscan-Emilian Apennine.

Figure 2. Landslide hazard areas.



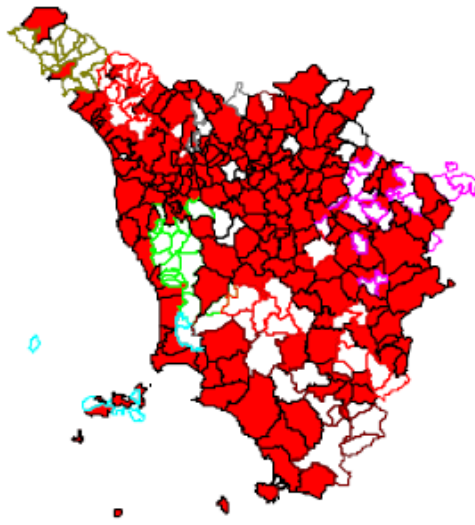
The need to protect agricultural land and forests from hydrogeological instability, landslides, floods and desertification processes, largely explained by climate change, is highlighted. In relation to this, the Regional Government has been paying much attention to **agro-biodiversity conservation**, resulting in the establishment of 149 natural parks and 199 Natura 2000 sites. On the other side, the uncontrolled spread of **wildlife** has been causing significant damages to agriculture and husbandry in the last years (agricultural losses were estimated as 4 mln EUR/year), particularly in relation to the widespread presence of wildboars.

Digitalisation is a priority for rural areas in order to fulfil objectives ranging from the efficiency of agricultural supply chains to the monitoring and management of natural resources and access, by rural communities, to basic public services. RADP are particularly lagging in terms of broadband coverage, digital skills and services. Available data for Tuscany confirm a substantial poor coverage of broadband connectivity and infrastructure in rural municipalities (**Error! Reference source not found.**).



Source: Trigila et al. (2018).

Figure 3. Broadband coverage of Tuscan Municipalities, 30.11.2005



Source: Regione Toscana (2006).

For more detailed data, please refer to the Tuscan MAP Discussion Paper available online.

3. Summary of the outcomes of the Delphi

The DELPHI process was undertaken in the period from 19th of May to 23th of June. Due to COVID-19 restrictions, interviews were carried out online by the MAP facilitator and monitor with the 3 groups composing the MAP Tuscany: Science (5 people), Policy (5) and Society (4). A survey targeting MAP members was launched on July 14th, to identify key challenges and opportunities, enablers and barriers to rural development up until 2040 in Tuscany. The survey was based on previous desk analysis and contributions from the three focus groups. The survey obtained 18 responses, which allowed complying with the requirement to cover at least the number of MAP members (13). Replies include that of some experts in rural matters, identified by the University of Pisa, with whom collaborations have been in place since years. Finally, the Consensus Meeting was held online on the 22nd of September and involved, besides the team UNIPI, 11 participants including MAP members and external experts. The aim of the meeting was to share and validate the findings from previous steps and to enable the finalisation of the MAP Position paper.

Based on the outlined process, a synthesis of the position of the MAP on the future of Tuscany rural areas has been drafted in the following paragraphs.

3.1. Challenges and opportunities in the next 20 years

Lifestyles and Business are the two main domains emerging from the discussion as crucial for the future of rural areas in Tuscany.

As represented in Figure 4, a number of positive/negative/uncertain sub-themes and factors fall within these two main domains of concern. As regards Lifestyles, six sub-themes have been highlighted, that is: services, housing, nature, relationships, leisure and old/new residents. The Business domain included five sub-themes: services, tourism, attraction of investments, jobs in cities and agriculture. Unsurprisingly, services are a cross-cutting theme. In particular, it was emphasised how enabling conditions for the social and economic attractiveness of rural areas depend on the possibility of accessing basic services, e.g., in relation to daily



routines and economic activities, such as schools and social and health services, as well as digital platforms for remote administrative practices and telemedicine. In this regard, one of the biggest challenges concerns the economic sustainability of investments in sparsely populated areas or with very low population density. Indeed, despite the polycentric nature of the region, the gradual concentration of resources and services in urban areas is observed, parallel to the slow dismantling of services and infrastructure in rural areas.

Proximity to green spaces was highlighted alongside better air and water quality and the psychological well-being associated to the closer presence of nature. As a result, urban congestion, higher housing prices and the gradual loss of green spaces increase the demand for housing in rural areas. This poses several challenges and opportunities. For instance, higher air quality could lead to reduce health illness and consequently healthcare costs, but processes of rural re-population might follow different and challenging trajectories. Widespread and scattered residential models might increase the need for autonomous transport and reduce the possibility of creating public transport infrastructures, for the lack of critical mass in focal points. On the other hand, residential models favouring concentration in small towns and villages could potentially jeopardise the distinguishing features of rural areas. Those described are not alternative models, as they will probably coexist in the next 20 years.

Social relations are a further distinguishing factor between urban and rural areas, with pros and cons on both sides (more opportunities but more disperse vs more trust but risk of localism). However, acknowledging the recent trend towards lifestyle standardisation leads to conclude that rural and urban areas should not compete, but rather represent different and complementary characteristics, opportunities and qualities. Cultural events and festival play an important role, attracting people to rural areas, involving residents and potentially impacting the whole territory. Unfortunately, the lack of facilities, investments and resources do not allow local actors to overcome the seasonal character of such events.

The quality of life in rural areas directly affects both current and potential residents. Besides the category of farmers – who will need to get an adequate revenue from their activity – also migrants, retirees, professionals, non-agricultural workers and artists have been identified as potential inhabitants that could animate rural areas. However, attraction factors and needs vary greatly for such diverse categories.

On the Business side, particular emphasis was given to the need to go beyond the agricultural sector and to look at themes such as working in rural areas, tourism and the attraction of investments. COVID-19 has brought forward the social and territorial effects of remote working, opening up new scenarios, especially for rural areas. Private spending, commuting flows, investments in public transport and integrated mobility are factors directly affected by the potential impacts of a large shift to teleworking.

In the agricultural sector, generational turnover is one major challenge, as data show a potentially alarming trend in the next 20 years, alongside the abandonment of rural areas and a general outflow from agriculture to other more profitable sector (with the only exception of the wine sector). The need to look at agriculture in an innovative way was pointed out in relation, in the first place, to its inherent multifunctional character, to be integrated into the wider rural-urban economy. Connections with trade, tourism, food supply chains, city-countryside relations are all to be intercepted. Tourism has been for decades one of the leading sectors of the regional economy (10-12% of regional GDP), but the Tuscany model, reliant on the enhancement of selected elements of indisputable value, is now entering a crisis. Considering the diversity of landscapes and wealth of attraction factors, it will prove crucial to focus on diversification and place-based strategies (e.g. experiential tourism). The issue of value generation in the agricultural sector in rural areas is also raised, in relation to the necessity to move further and pay attention to – and get remuneration from – ecosystem services.

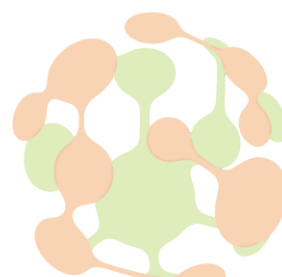
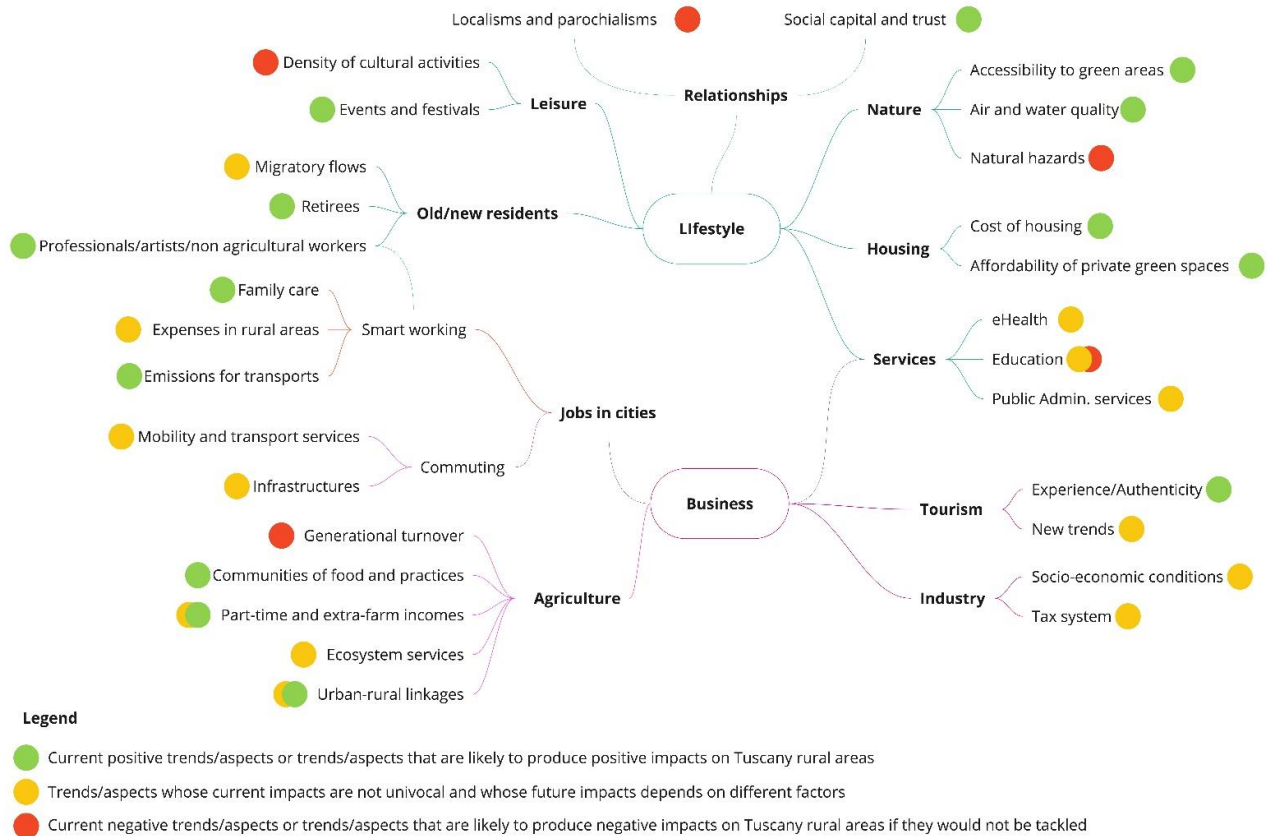


Figure 4. Current challenges and opportunities for Tuscany rural areas.



Source: Own elaboration/MAP Tuscany Discussion paper

3.2. Desirable future for 2040

A premise to be made in relation to the vision concerns one major difficulty encountered in the process: that of imagining a long-term vision for rural areas in a context of short-term policies and programs. In addition, concerns arising from such an unpredictable situation as the COVID-19 pandemic, the long-term impacts of which are hard to predict, are not trivial in terms of envisioning a desirable future.

In the first place, **digitalisation** (central topic the MAP) is meant as an instrument to achieve other goals, namely: access to health services, veterinary services, efficient agriculture, smart working, food supply chains organisation and sustainability, industrial chain efficiency, rural-urban connection and technological innovation. Such vision on digitalisation in rural areas by 2040 is consistent with the Smart Villages theme supported by the European Union and encompassing digital technologies among the tools which could benefit rural areas and communities. Areas of intervention where digitalisation may have an impact are summarised in Figure 5, whereas Figure 6 concerns opportunities from digitalisation in relation to the agri-food sector¹.

¹ Both figures show possible applications of digitalisation – in rural areas and the agri-food sector, respectively – which were to some extent touched upon by the MAP, but mostly by the UNIPI team of DESIRA project (H2020, Grant Agreement No. 818194). For instance, the ethical aspects related to digital applications in rural areas and the agri-food sector have not been dealt with yet by the MAP, although the second phase of the MAP will possibly take this topic into account to evaluate risks and opportunities of digitalisation in rural areas.

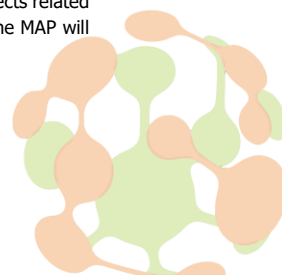
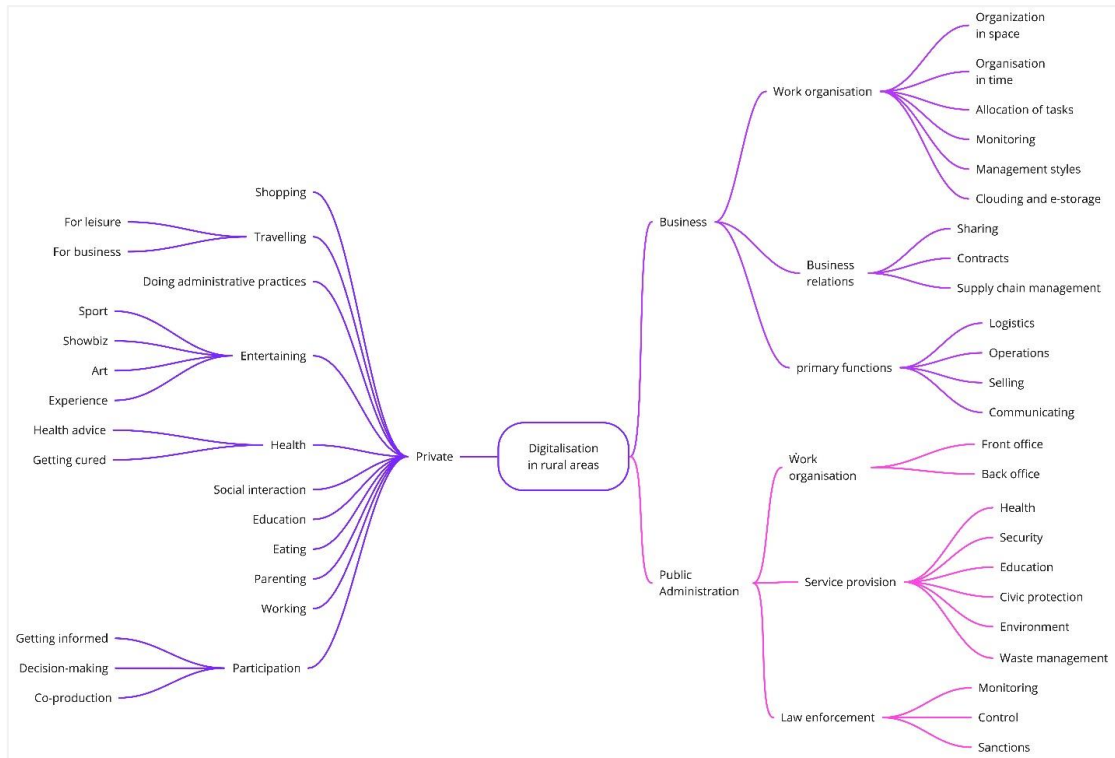
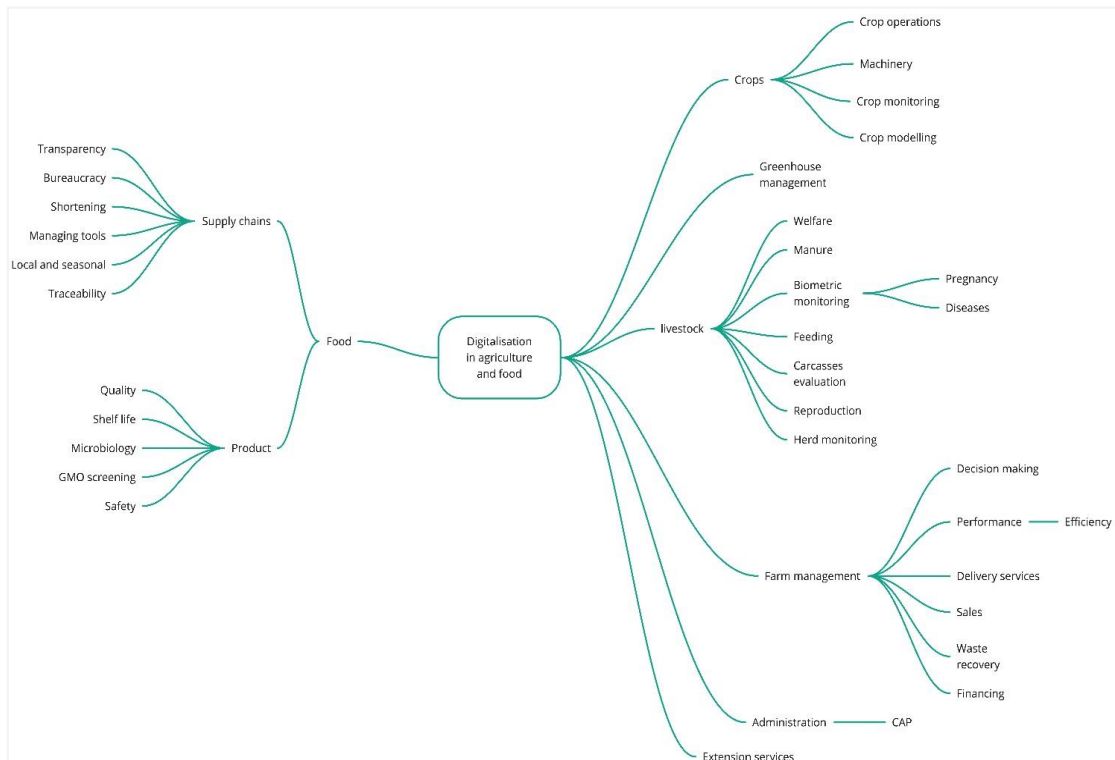


Figure 5. Opportunities of digitalisation in rural areas.

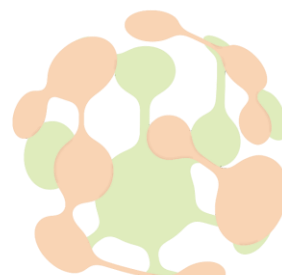


Source: adaptation on DESIRA project output

Figure 6. Opportunities of digitalisation in the agri-food system.



Source: adaptation on DESIRA project outputs



At a glance, the long-term vision for rural areas in Tuscany cannot be separated from ideas of economic, territorial and demographic (re)balance and integration. This is needed in the relationship between rural and urban areas, as the former cannot do without the latter and viceversa; in the difference between the density of population of cities and countryside; in the levels of income earned out of agriculture, as farmers would stay if they could make a living on a farm business, as any other business would do. Finally, rural development policies will require other sectorial policies to be progressively integrated, although without flattening the peculiarities of rural areas.

“Happy communities²” will populate rural areas and live according with principles of mutual trust, on “slower” lifestyles, civic participation and on a pact between residents and businesses. New residents – such as migrants, retirees, professionals, non-agricultural workers and artists – will be attracted to rural areas by improved services and quality of life. An integrated and sustainable mobility model, combining an improved rail transport and shared mobility, will ensure flows of people to move in, out and within rural areas. This will facilitate the integration of novel, more sustainable forms of tourism into traditional models. Sustainability will also inform the agri-food sector, which will deliver high-value and quality products and contribute to biodiversity conservation. A crucial role will be played by those farm businesses – especially family farms – which will be able to adapt the multifunctional model of agriculture to their local context. In relation to this, the provision of ecosystem services will finally get adequate remuneration. Seizing the opportunities of a wise development and use of digitalisation will be needful in working towards such vision.

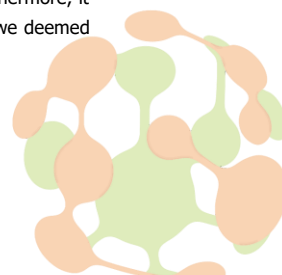
3.3. Enablers to achieve the vision

Digitalisation was identified, from the early stages of the project, as the topic around which the MAP's work would be centred. This was motivated by the desire to promote an interest of the Region on this subject, as well as to disseminate and gather contributions and knowledge, in synergy with the H2020 DESIRA project. In fact, the exchanges with the members of the MAP showed digitalisation is both a goal in the long-term vision and an instrument to achieve a number of other objectives, a catalyst for innovative processes. The survey allowed to expand on this topic and make a few considerations: (1) local governments and administrations, marketing in private companies (including agricultural businesses, especially multifunctional ones), social care and tourism services are the sectors most in need of introducing and/or boosting digitalisation; (2) to date, there are tangible and intangible barriers that must be overcome. As regards the former, the lack of adequate infrastructures should be addressed as a matter of urgency, especially if considering that marginal costs for new facilities are higher in rural contexts; intangible barriers concern cultural attitude towards new technologies, as well as the lack of related skills and competencies.

As highlighted earlier, the main factor for increasing the attractiveness of rural areas and favouring a territorial and demographic (re)balancing between city and countryside is the widespread diffusion of services to rural areas dwellers. In fact, new residents could potentially be attracted only by the presence of, and access to, adequate services to improve the quality of life.

In a context of growing exogenous and endogenous pressures on agricultural areas, re-establishing the relationship between agricultural activities and ecosystems is of the essence. This renewed relationship is expected to bring forward greater attractiveness of the agricultural sector for young farmers, who would see profitable opportunities thanks to the possibility of producing high quality and high added-value agri-food products, while at the same time contributing to sustainability and biodiversity conservation. Achieving such objective requires three main conditions: (1) rethinking the primary sector within the broader food system, wherein agricultural production is a first and fundamental stage and multiple interrelations are woven with the commercial and tourism sectors, the landscape and small/historic villages; (2) integrating policies, tools and resources to create synergies between the different funding sources; (3) fostering innovation and

² During the Consensus meeting held on September 22nd, this idea of “happy communities” was criticised as a “too bucolic” view. Furthermore, it was raised that not only rural areas, but also cities, need happy communities. However, as previously shared by many interviewees, we deemed to keep it in the vision.



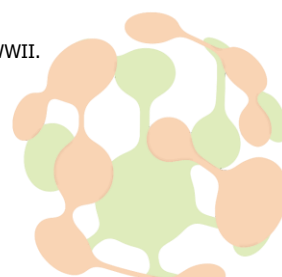
knowledge transfer, investing in new technologies as a means of responding to farmers' needs and integrating the research and administration sectors.

Table 1. Components of the long-term vision and their respective enablers. Source: authors' own elaboration.

Long-term vision	Enabling factors
Rural areas will be " happy communities ", based on mutual trust, on "slow" lifestyles, on participation to civic life and on a pact between residents and businesses	Widespread presence of public services Mix of agricultural and non-agricultural workers
Rural areas will be connected to cities and villages thanks to integrated territorial policies and cooperation	Tools to foster public participation Continuous animation of existing governance tools
Farmers will be remunerated for the Ecosystem Services they provide	Applicable tools for the quantification of ES Integration of reinforced "green" schemes within CAP
Migrants will populate rural areas and will be fully integrated into society	Access and availability of services Recognition of connected socio-cultural diversity
Rural areas will be based on an integrated and sustainable mobility model , from an improved rail transport service to mobility sharing	Solid and efficient public transport service Facilities for slow and sharing mobility
The agri-food sector will be more sustainable , with a key role for family farms, producing high-value and quality products and contributing to biodiversity	Considering the multiple connections of agricultural sector with other economic systems Integration of policies, sectors and funds Innovation and knowledge transfer
Rural areas will be based on a differentiated sustainable tourism system , integrating innovative and conventional models	Getting out of a one-size-fits all vision Intercepting new and evolving touristic trends
Rural areas will seize the opportunity of digitalisation as a wide array of tools to meet residents and businesses' needs, following the framework of the Smart Villages	Infrastructures (broadband and facilities) Institutional/cultural environment

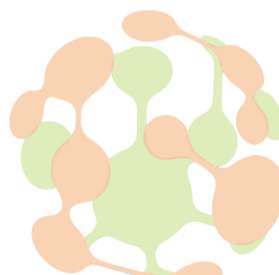
Considering the different types of rural areas that make up the regional territory, the need to establish and strengthen integrated territorial policies was strongly emphasised. These must be able to connect cities, countryside and villages, favouring the recovery of the polycentric model, which for centuries³ has characterised and strengthened the socio-economic fabric of Tuscany. To do this, it is essential to guarantee citizens' participation to collective decisions, to strengthen the community and boost social and institutional capital. In Tuscany, several experiences are already being undertaken in this direction, e.g., community coops, food communities and rural districts. As regards the latter, they were created and are promoted by Tuscany Region, thus benefitting from the necessary institutional support for a successful implementation. Rural districts are well positioned to boost cohesion, act as catalysts for territorial policies and integrate the needs of different categories of producers/users/inhabitants in rural areas into shared territorial projects. However, all such networking and participation tools need to be continuously nurtured and animated.

³ The city-countryside-villages system originated in the 17th century and continued to expand until rural areas were abandoned after WWII.



It is also necessary to bring innovation and knowledge into multi-level governance, to avoid and/or resolve overlaps and conflicts. This appears even more necessary in a context where regional and sub-regional governments have to rely on established mechanisms to coordinate actions in the event of external shocks. Survey results revealed, in this regard, that health emergencies and environmental disasters of industrial origin are the main threats to be prevented, by investing in social and health care and the water and forest systems.

Great attention was also paid to ecosystem services and particularly some perplexities were raised concerning how to build effective quantification tools and the possibility of pact between "sellers" and "buyers". Indeed, it is likely that ecosystem services will be integrated into the remuneration mechanisms of "green" actions in the future CAP, especially considering that recommendation from the European Green Deal (namely: F2F and Biodiversity strategies) will need to be incorporated.



Annex 1. Methodology used in the MAP

Review of key trends

The review of key trends has been performed according to two groups of sources: data collected from official statistics; trends on rural areas detected from the main strategic regional documents. The relevant topics for EU rural areas described in the SHERPA Discussion Paper are addressed horizontally, being them categories or sub-categories of the detected key trends. For each topic, statistics and data from official documents have been reported, in order to show key trends for Tuscany rural areas.

Interviews

The interviews have been conducted in groups composed of four (Science and Society) and five members (Policy), in the period between May 19th and June 23th. Affiliation and roles of MAP members have been described in Table 2. Due to COVID-19 sanitary restrictions in force during this period, interviews were carried out using the *Microsoft Teams* platform. In addition, *Miro* (www.miro.com), an online collaborative whiteboard platform that enables distributed teams to work effectively together, was used by facilitator and monitor during the interviews. The tool proved useful also to allow MAP members to directly write sticky notes and draw connections on a shared whiteboard, although coordinated and guided by the facilitator.

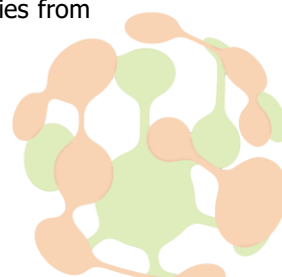
Table 2. Composition of MAP Tuscany

Science (4 members)	Society (4 members)	Policy (5 members)
University – Professor in Food Policy	Business – Food Community	Department of Agriculture and Rural Development of Tuscany Region – Director
University – Professor in Principles of Real Estate Economics and Valuation	LAG – Technical officer	Department of Agriculture and Rural Development of Tuscany Region– Head of the consulting, training and innovation sector
University – Professor in Agricultural Economics	LAG – Technical officer	Department of Agriculture and Rural Development of Tuscany Region – LEADER program management
University – Professor in Economics and Business	Former mayor of a rural municipality	<i>Ente Terre Regionali Toscane</i> (Regional Land Authority) - Director
		Department of Agriculture and Rural Development of Tuscany Region – Secretariat

At the beginning of each meeting, MAP members were briefly illustrated how the long-term vision process is embedded in the Commission's DG Agri activities which will lead to public consultation for the definition of a strategy for EU rural areas. In particular, for each of the four issues that this document intends to address, a brief review of the positions currently expressed by the planning documents and data from desk research was provided.

MAP Survey

The survey was carried out on Google Form and remained open from July 14th to September 15th, 2020. It obtained 18 responses, thus allowing to cover the number of MAP members (13) and 5 extra replies from



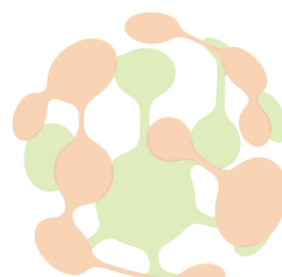
rural area experts identified by the University of Pisa, with whom collaborations of various types had been carried out in the past years.

About half of the interviewees (8) belong to the research sphere, followed by representatives of the public sector at regional level (5), civil society/third sector organisations (2) and public sector at local/sub-regional level. A further response from a private business representative is also included.

As for the age of respondents, 9 are aged between 50-60 and 4 between 40-50. Less represented are people under 40 (2) and over 60 (3).

Consensus meeting

The consensus meeting was held online on 22th September 2020, using the Teams platform. 5 members of the MAP and 4 external experts invited by the University of Pisa attended the meeting. About a week before the meeting, participants were sent a summary of the Position Paper. The meeting started with a presentation of the draft Position Paper. The validation of the Position Paper content and, in particular, the long-term vision and enabling factors required the participants' active contribution. After the meeting, the SHERPA team of the University of Pisa edited the Position Paper on the basis of the comments and opinions emerged.



Annex 2. References

ISTAT (Italian National Institute of Statistics), 2017. <http://dati.istat.it/Index.aspx>. Number of public and private hospitals and other health indicators

Trigila A., Iadanza C., Bussettini M., Lastoria B. (2018). Dissesto idrogeologico in Italia: pericolosità e indicatori di rischio - Edizione 2018. ISPRA, Rapporti 287/2018.

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