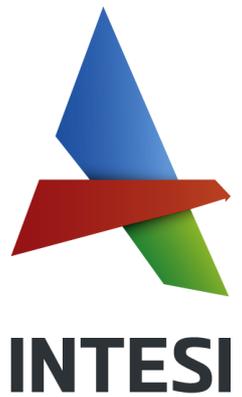


Interreg Alpine Space



WP-T2

ASSESSMENT REGIONAL REPORT
Deliverable 3.7.2 Eurac Research

Synthesis Report

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Abbreviations

D	Deliverable
GIS	Geographic Information System
INTESI	Integrated territorial strategies for services of general interest
PA	Pilot activity
Pays A3V	Pays Asses-Var-Vaïre-Verdon
SGI	Services of general interest
TA	Test area
WP	Work package

1 Introduction

Vital and more ingenious goods and services are part of our everyday needs, consequently safeguarding public services is understood as a prerequisite for a high quality of life and attractiveness especially in rural regions. However, this right of service availability, which forms a precondition to lead a self-determined life, is increasingly in the discourse at European, national and regional level.

Services of general interest (SGI) can be categorised into economic services (Services of General Economic Interest / SGEI) and non-economic services of general interest (Non-Economic Services / NSGIs) as well as social services of general interest (SSGI)¹.

The supply of social services is particularly affected by disparities between rural and urban areas, especially in the alpine space. The main challenges in the Alpine area affecting the supply of SGI are the aging society through demographic changes, the moderate inhabitant density, as well as depopulation associated with shrinking and de-growth processes. These developments impact, that basic services are endangered of no longer being supplied. Moreover, various authorities and service providers at different administrative levels are responsible for providing SGI. The difference in the service supply depends on the available financial resources between municipalities, which affect the quality of service provision. According to the EU competition law, SGI are fundamental for the population and must principally be supported through public means, especially public basic services, like kindergarten, schools and public transport services so that they can be supplied on the market. Thus, at national, regional and local level SGI will be granted state aid. In the sense of economic services the private business sector is responsible of providing private basic services. Usually more than one service provider within a SGI sector supplies these services, which fosters competitiveness e.g. in telecommunication, energy, pharmacy, transport.² Furthermore, the structure and compactness of settlements, as well as the geomorphology of rural alpine areas have a big influence on the delivery, distribution, and accessibility of SGI. SGI above all guarantee social security, quality of living and location attractiveness. Their supply, quality, accessibility and affordability are crucial for overcoming social exclusion.³

¹ Gløersen, E. et al., Research for REGI Committee- Services of General Interest in the Funding Period 2014-2020 (Study). European Parliament, Directorate-General for Internal Policies, 2016.

² Clmenz, G., Dewatripont, M., Motta, M., Neven, D., Seabright P., Zemplerova, A. (2006): Services of General Economic Interest Opinion Prepared by the State Aid Group of EAGCP, Online unter: http://ec.europa.eu/competition/state_aid/legislation/sgei.pdf, Zugriff: 07.07.2016.

³ Rauhut, D., Smith, C., Humer, A., Ludlow, D., and Borges, L. (2013): SeGI Indicators and perspectives for services

Previous studies (BMVI 2015a, BMVI 2015b, Ortwein, S. et al 2013, Burgdorf, M. et al. 2015) have already analysed or defined benchmarks for services of general interest. The MORO study from Germany analysed the pressure of SGI in rural areas, and developed appropriate indicators and benchmarks for SGI to compare the situation in German territories and other north-European countries. To find new ways and possibilities of ensuring service delivery, the Interreg Alpine Space Project INTESI was initiated in 2016, which deals with integrated territorial strategies for services of general interest in the alpine space. In peripheral alpine municipalities, the problem of accessibility and delivery of SGI is growing. This problem is grounded among other in the fact that authorities at different levels regulate the delivery and design of SGI and service providers as well as the legal framework generally have adopted a strictly sectorial approach. The mostly isolated solutions for SGI delivery do not take advantage of the possible benefitting, potential synergies that better horizontal and vertical coordination of SGI and the integration in territorial strategies would provide.

The INTESI project focuses on 10 TAs located in five alpine countries (Austria, Italy, Switzerland, France and Slovenia). The TAs were selected explicitly to be able to provide a realistic and explorative first overview situation of differences and similarities regarding the provision and regulation of SGI across the Alpine area.

The objective of the project is to overcome the sectoral approach of SGI delivery and assure the delivery of SGI in the long term by promoting integrated territorial strategies (analysed in WP-T1 by the Slovenian partners) in the alpine space. For this purpose Eurac researchers of the Institute of Regional Development, responsible for WP-T2, designed regional profiles to compare the current SGI delivery of the TAs according to their availability (GIS maps), accessibility (spatial-statistics) and service quality (workshops and interviews). These, together with elaborated scenarios for the population forecast, serve to identify future challenges and provide a demand-orientated service delivery.

The preliminary findings show a strong regulation of services by sectoral legislation in the TAs however an increasing cooperation between the administrative levels, municipalities and the sectors is given. Especially in the education sector, a good supply of services is provided in the TAs due to the traditional attitude of each municipality having its own church, school and post office. Furthermore, tourist destinations are better supplied with services of general interest in comparison to the other municipalities of the TAs. Additionally municipalities in Italy

of general interest in territorial cohesion and development. In: ESPON Final Report Version 25/5/2013. ISBN 978-2-919777-28-0, Online: http://www.espon.eu/main/Menu_Projects/Menu_AppliedResearch/SeGI.html, Zugriff: 06.07.2016.

and Tyrol, as mentioned by the interview partners, try to hinder the merging of municipalities even if this implies financial savings. Contrary, in the TA of Switzerland there are several municipalities that have merged due to their own initiative and not from the top down. Regarding the health sector, the use of telemedicine is taken into account due to the demographic developments as well as the increased demand for mobile nursing and care services for the elderly. A prerequisite for this is the patient awareness, good communication infrastructure (broad band and fibre internet) and close cooperation between the telecommunication and health sector.

2 Method

There are 10 partners from five alpine countries involved in the project, which allows the exchange of best practice and stimulates the discussion on SGI delivery in the alpine space.

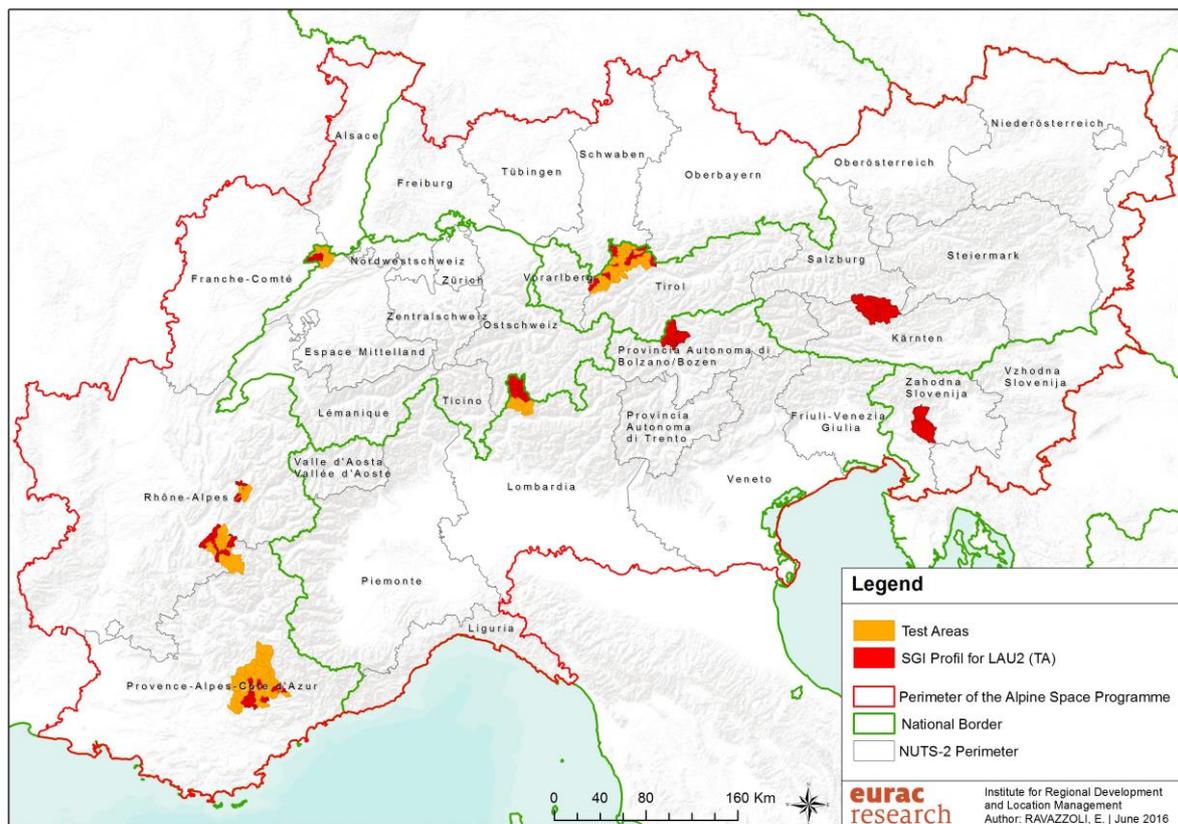
The activities of WP-T2 include:

- 1) **D.3.1.1:** Elaboration of a template to survey existing SGI and socio-economic data in the TAs.
- 2) **D. 3.3.1:** Provide a demographic forecast based on previous demographic changes and the current population status and analyse the population change in the TAs.
- 3) **D. 3.6.1:** Design regional profiles of SGI, which are mapped in GIS by establishing the status quo of SGI in the 10 TAs focusing on the accessibility and quality of the services in remote areas. Conduct qualitative interviews or workshops to allow to detect the challenges, needs, potentials in relation to SGI.

It has to be noticed that accessibility, which is an important parameter for SGI is not the only one. The availability and affordability are also crucial regarding SGI. The supply level (e.g. hospital beds per 1.000 inhabitants, number of kindergarten places for children etc.) often is foreseen in legal or planning documents or strategies. However, such standards are not homogenous between the TAs and clear definitions would be necessary.

Moreover, the quality of SGI, the care satisfaction of SGI users as well as the variety of different services available, from which citizens can choose are important to measure the quality of SGI.

Country	Test Area	Municipalities	Selected municipalities
Italy	South Tyrol	Val Passiria	5
Italy	Lombardy	Valchiavenna	12
France	1. Pays Asses-Var-Vaire-Verdon 2. Alpes Sud Isère 3. Pays de Maurienne	193	15
Switzerland	Porrentruy - Canton of Jura,	23	6
Austria	Carinthia	Lieser-/ Maltatal	5
Austria	Tyrol	Reutte/Ausserfern	37
Slovenia	Nova Gorica	Idrija, Cerkno	2



2.1 Deliverable 3.1.1 – Template to describe existing SGI and socio-economic framework

For the survey on the status quo of SGI in the TA, a common standardized template was designed. The **template** includes eight SGI sectors: general, transport, telecommunication, energy, basic goods, health, social care and education, where each project partner compiled the address of the existing SGI in the selected municipalities of the TA, always focusing on the idea, that if a service is not available in the analysed municipality the next closest service also if located in another municipality outside the TA should be inserted in the template. Besides the SGI sectors the template further includes information on geographic aspects, spatial information, demography, social capital and economic aspects of the TA.

2.2 Deliverable 3.3.1 – Demographic forecast based on previous demographic changes and the current population status

The demographic forecast (D. 3.3.1) plays an important role when considering the delivery of SGI. The different cohorts of demography (age groups, female, male, fertility and death rate, migration) are relevant indicators for making decisions on which infrastructures for services are needed within the TA. However, due to the large differences in numbers of inhabitants living in the municipalities, large municipalities have a strong impact on the population forecast, if the TAs were seen as a homogenous unit. Therefore, it was necessary to divide the TAs in “statistical areas”.

In **Italy**, we could not find a common classification of peripheral municipalities based on the size of the population. The classification according to “aree interne” provides a division into six different classes of the municipalities in the whole Italian territory. Thus, peripheral municipalities are classified according to their distance to the next centre, which offers a certain range of essential services. According to this classification, the two test areas Val Passiria (South Tyrol) and Valchiavenna (Lombardy) are divided into peripheral and ultra- peripheral units. This typology is difficult to apply to other test areas. (agenzia per la coesione territoriale)

The statistical agency of **Austria** defines municipalities according to their size, based on the size of the population. In 2016 the following classes were used as classification: “<500”, “501-1.000”, “1.001 – 1.500”, “1.501- 2.000”, “2.001- 2.500”, “2.501- 3.000”, “3.001- 5.000”, “5.001- 10.000”, Etc.

In the territorial review for Slovenia of 2011, written by the **OECD**, five classes based on the population size were defined. The perimeter of the categories was set at 2.000, 5.000, 10.000 and 20.000 people (OECD, 2011: 176).

A study from the **Council of Europe** on the size of municipalities and their efficiency compares France, Italy, Switzerland and Austria with other European countries. The classification for the municipalities covers five classes, that are based on the population size: “less than 1.000”, “1.001-5.000”, “5.001-10.000”, “10.001-100.000”, “100.000+” (Council of Europe 1995:12).

Switzerland has a common system for classifying municipalities according to the number of inhabitants, which is applicable also for small entities on a detailed scale (ARE, regiosuisse 2011).

The peripheral rural landscape is subdivided by four classes:

- 1 - peripheral centre (5.000-10.000 inhabitants)
- 2 - peripheral small centre (2.000-5.000 inhabitants)
- 3 - peripheral rural areas (500 – 2.000 inhabitants)
- 4 - peripheral and sparsely populated areas (up to 500 inhabitants) (ARE, regiosuisse 2011).

For the demographic forecast task of WP-T2 we decided to define a common classification based on the existing classification models found and described above, to be able to compare the 10 TAs and their municipalities. The classification used is based on the categories of Switzerland, as they are the most appropriate, due to their peripheral context for the test areas of the INTESI- project.

Because there are only a few municipalities in the INTESI project with more than 5.000 inhabitants, we decided to merge the first two Swiss categories to one category naming it: “peripheral centre”. The other two categories from the Swiss classification remain the same for the INTESI-project.

For the demographic forecast, the municipalities of the 10 TAs were classified according to the following three categories:

- 1 - peripheral centre (≥ 2.000 inhabitants)
- 2 - peripheral rural areas (501 – 2.000 inhabitants)
- 3 - peripheral and sparsely populated areas (≤ 500 inhabitants)

Data set

For the INTESI demographic analysis, the in-house statistical expert of Eurac Research received nine data tables for each TA, whereby Idrija and Cerknò were considered as one TA. Each data table contains the following variables:

- **Year** – points of time series data; years from 1995 to 2015. The project partners delivered the requested demographic parameters for the years from 1995 to 2015, (where these were available otherwise only for the years available) in the socio-economic template. In the single reports the demographic forecast (D. 3.3.1) was depicted in charts referring to the change between the years 2000-2030.

- **Classification** – three categories of the municipalities:

1. peripheral centre (≥ 2.000 inhabitants),
2. peripheral rural areas (501 – 2.000 inhabitants),
3. peripheral and sparsely populated areas (≤ 500 inhabitants).

- **Demographic variables**

The data of the demographic variables (described below) represent the **mean of values of the municipalities** included in the particular category of the municipalities. Some data sets are not complete (missing values were codified as -999).

Total – Total population

Inhabitants_0_14 - Number of people ages 0-14

Inhabitants_15_64 - Number of people ages 15-64

Inhabitants65 - Number of people ages ≥ 65

Female_total – Total number of women

Fem_Inhabitants0_14 - Number of women ages 0-14

Fem_Inhabitants15_64 - Number of women ages 15-64

Fem_Inhabitants65 - Number of women ages ≥ 65

Male_total - Total number of men

Male_Inhabitants0_14 - Number of men ages 0-14

Male_Inhabitants15_64 - Number of men ages 15-64

Male_Inhabitants65 - Number of men ages ≥ 65

Tot_Birthrate - Number of births

Tot_Deathrate - Number of deaths

Immigrants – Number of immigrants (local and foreigners)

Emigrants – Number of emigrants (local and foreigners)

Life_expectancy_male – Male Life Expectancy

Life_expectancy_female - Female Life Expectancy

Tot_Nr_Households – Total number of Households

Foreign_Resident_Population – Total Foreign Resident Population

Female_Inhabitants_15_49 - Number of women ages 15-49 (this variable has been used only for Fertility calculation)

For the aim of the analysis we calculated additionally the following variable:

Fertility - General Fertility Rate calculated as the number of live births per 1.000 women aged 15-49 in a given year.

$$Fertility = \frac{Tot_Birthrate}{Female_Inhabitants_{15_49}} \times 1000$$

There were several problems regarding the data set:

- For the following variables: Life_expectancy_male, Life_expectancy_female, Tot_Nr_Households, Foreign_Resident_Population the yearly data was not available so it was impossible to conduct time series analysis and to forecast the future values.
- In the case of the TAs: Alpes Sud Isère, Pays A3V, Pays de Maurienne for the variables Total Inhabitants_0_14, Inhabitants_15_64, Inhabitants65 data was only provided for the year of 1999 and then from 2006 to 2013. In order to improve the performance of the model we considered the data for 1999 as missing and the model has been created based on the data from 2006 to 2013. In the case of the variables: Immigrants and Emigrants data was only provided for three years: 2012, 2013, 2014. Due to the missing data it was not possible to create the model and provide a forecast.
- In the case of the test area: Canton Jura for Inhabitants_0_14, Inhabitants_15_64, Inhabitants65 (in Total, Female, Male) the data was only provided for 2000 and then from 2010 to 2015. In order to improve the performance of the model we considered the data for 2000 as missing and the model has been created based on the data from 2010 to 2015. For the other variables this problem was not an issue so the relative models are based on more information. Therefore it is difficult to compare and combine the results of the forecast of these variables with the results of variables where only few values were provided. The data for the indicator fertility is missing so it was impossible to analyse this aspect.

Modelling

ARIMA models represent family of autoregressive integrated moving average models and they are a generalization of an autoregressive moving average (ARMA) model. These models are fitted to time series data either to better understand the data or to forecast (predict future points in series). In the ARIMA models the purpose of the three features AR, MA and I is to make, the model fit the data as well as possible. The AR part indicates that the evolving variable of interest is regressed on its own lagged (i.e., prior) values. The MA part specifies that the regression error is actually a linear combination of error terms, which values occurred contemporaneously and at various times in the past. The I-"integrated" specifies that the data

values have been replaced with the difference between their values and the previous values. This differencing process may have been performed more than once.

In order to model the data for the time series we used the R package “forecast” Version 7.3 (Title: Forecasting Functions for Time Series and Linear Models, October 13, 2016). The analysis was based on the function `auto.arima`. This function returns best ARIMA model to univariate time series according to either goodness of fit values AIC, AICc or BIC. The function conducts a search over possible models. If there was a necessity to explore the model more in depth the function `Arima` was used. `Arima` function fits ARIMA model to univariate time series. The main difference to the function `auto.arima` is that this function allows to control different model aspects manually (i.e the AR order, the degree of differencing, and the MA order, the presence of linear drift, order, a drift term, lambda - Box-Cox transformation parameter). For the residuals of each model an estimate of the autocorrelation function (function `Acf` (Autocorrelation Function Estimation)) was computed and plotted and the null hypothesis of independence in the given time series (`Box.test` {in package `stats`}) statistically tested. Subsequently, the prediction of future points in the series were conducted by using the function `forecast` and the accuracy of the forecasts was checked (function `accuracy`). After comparing goodness of fit values, results of residuals’ independence test and forecast accuracy values of different models the most appropriate one was chosen.

In some cases, we encountered the problem that the forecast points had negative values. In order to overcome this problem we tried to model the data by using `Arima` function with the lambda parameter equal to 0 (in general it worked). When it did not work, the negative values were replaced with 0 (only in 6 cases).

Outputs

The outputs of forecasts contain point forecasts and interval forecast at two confidence levels 0.8 and 0.95. For plotting the forecast points or reporting the values, we recommend using intervals at 0.95 confidence level. These outputs are original outputs printed by R. In the case of peripheral and sparsely populated areas for Val Passiria (variable `Tot_Deathrate`), Val Chiavenna (variable `Tot_Deathrate`), Alpes Sud Isère (variable `Tot_Deathrate`) and Pays Asses-Var-Vaire-Verdon (variables `Tot_Birthrate`, `Tot_Deathrate` and `Fertility`) the low limits of confidence intervals will contain negative values that we recommend to replace with 0. In the case of Slovenia for the variable `Emigrants`, we recommend to report only the point forecast because the confidence intervals are too vast.

The file “Forecast_completo” is an extraction of all output files. It contains the predicted future values for 2020, 2025 and 2030 for analyzed demographic variables for all municipality

categories of the eight test areas. The results are reported with two decimal points. In this table, the data is reported considering all the recommendation highlighted above.⁴

2.3 Deliverable 3.6.1 – SGI Maps (GIS) visualising the availability of SGI

The template for SGI profiles (existing SGI and socio-economic framework) of the TA (D. 3.1.1) provided the basis for visualising the SGI in GIS maps (D. 3.6.1). Furthermore to analysis the accessibility the benchmark for accessibility of SGI of the MORO Study (BMVI 2015) was selected, that provided a basic orientation of time values to access SGI by car and public transport.

For the **accessibility** analysis the distance and travel time by car and public transport were calculated from every settlement to the nearest service. Basically, several online route planners were used to get the shortest route and travel time. In this way, a detailed data set of the distances and travel times were generated. Thus, three of four indicators (availability, distance, travel time by private and public transport and frequency) were analysed by the researchers to simplify the analysis. Based on this the descriptive statistical evaluation was provided.

In order to create this data set all source and destination locations had to be referenced geographically. The project partners provided the addresses of each service location. Furthermore, the partners listed the settlements of each municipality. For the principal location the address of the municipality was used as center. For scattered settlements, located outside the key settlement area the geographic center was used as reference point. In this way all services were able to be located as final destination and all settlements as starting point.

The distances as well as travel time by car and public transport were principally calculated with the Google route planner. An online tool was used for the automatic calculation on the following website, which uses a personal API address on Google's route planner: „<https://www.doogal.co.uk/DrivingDistances.php>“. The input of the final destination and starting location was based on the table in the form of addresses. The output could be exported in tabular form. In some exceptions, the online route planner of local transport companies were used, as the data on the public transport lines were not fed into Google. For the TA Val Passiria the rout planner of the local transport company SAD - Nahverkehr A.G. (<https://www.sad.it/de>),

⁴ Agnieszka Elzbieta Stawinoga and Julia Bodner from the statistical experts of Eurac Research supported us with the demographic forecast and wrote the methodology used for the forecast.

for the French TA Alpes Sud Isère und Pays A3V the comprehensive global trip planner “Rome2rio” (www.rome2rio.com/); for the TA Pays de Maurienne the project partner provided the travel times with public transport. For the TA Valchiavenna simply some single bus routes to remote settlements of the online route planners of the local transport company Societa Trasporti Pubblici Sondrio S.p.A. - STPS (<http://www.stps.it/trova-itinerario/1079/1054/05122016/1506t>) were used. A settlement was generally considered as unavailable for public transport, if the closest stop was further than 15 minutes walking time.

Besides the **quantitative** information, i.e. the addresses of SGI in the TA, **qualitative** information regarding three categories – quality of the service (strengths and weaknesses), presence in legal documents and strategies and future investments was collected. The project partners (in the case of Slovenia and Tyrol together with Eurac) conducted qualitative workshops or interviews (face to face or via telephone) with a selected group of stakeholders e.g. majors, service providers, local representatives to find out major challenges, strengths and future investments for every service sector (basic goods, education, health & social services, transport, telecommunication and administration). As the second category of qualitative questions, presence in legal documents and strategies was already dealt with in the first WP-T1 (by the Slovenian project partner University of Ljubljana) these set of questions were not asked by each project partner in the interviews or workshop.

Test area	Qualitative method
Val Passiria	Interviews by Eurac Research
Valchiavenna	Interviews by project partner
Pays Asses-Var-Vaire-Verdon, Pays de Maurienne, Alpes Sud Isère	Interviews by project partner
Canton of Jura	Interviews by project partner
Lieser-/ Maltatal	Interviews by project partner
Reutte/Ausserfern	Interviews by Eurac Research as part of the workshop
Idrija, Cerkno	Workshop by Eurac Research and project partner

Data used for the GIS maps, the calculation of accessibility as well as socioeconomic aspects were collected by each TA individually based on a common template designed by Eurac Research. For a better understanding and elaboration of the graphs and where it was necessary Eurac Research harmonised and rounded the data.

3 Comparative Analysis

Eurac researchers analysed eight SGI sectors (administration, telecommunication, transport, energy, basic goods, health and social care as well as education) whereby in the final output five services (supermarket, chemist shop, kindergarten, primary school and doctor) as well as five regional services (airport, train station, hospital, provincial capital and motorway) have been evaluated and compared in detail. The benchmarks of the MORO study provide the orientation for the comparison.

Generally the TA Pays A3V, which is one of the three TA in France has the best accessibility of the selected five services by car and also by public transport, while most of the population of the municipalities of the TA Lieser- / Maltatal have difficulty in accessing the services within the foreseen benchmarks. At this point it has to be mentioned, that the TA of France has not all settlements included in the analysis, but only the central municipalities.

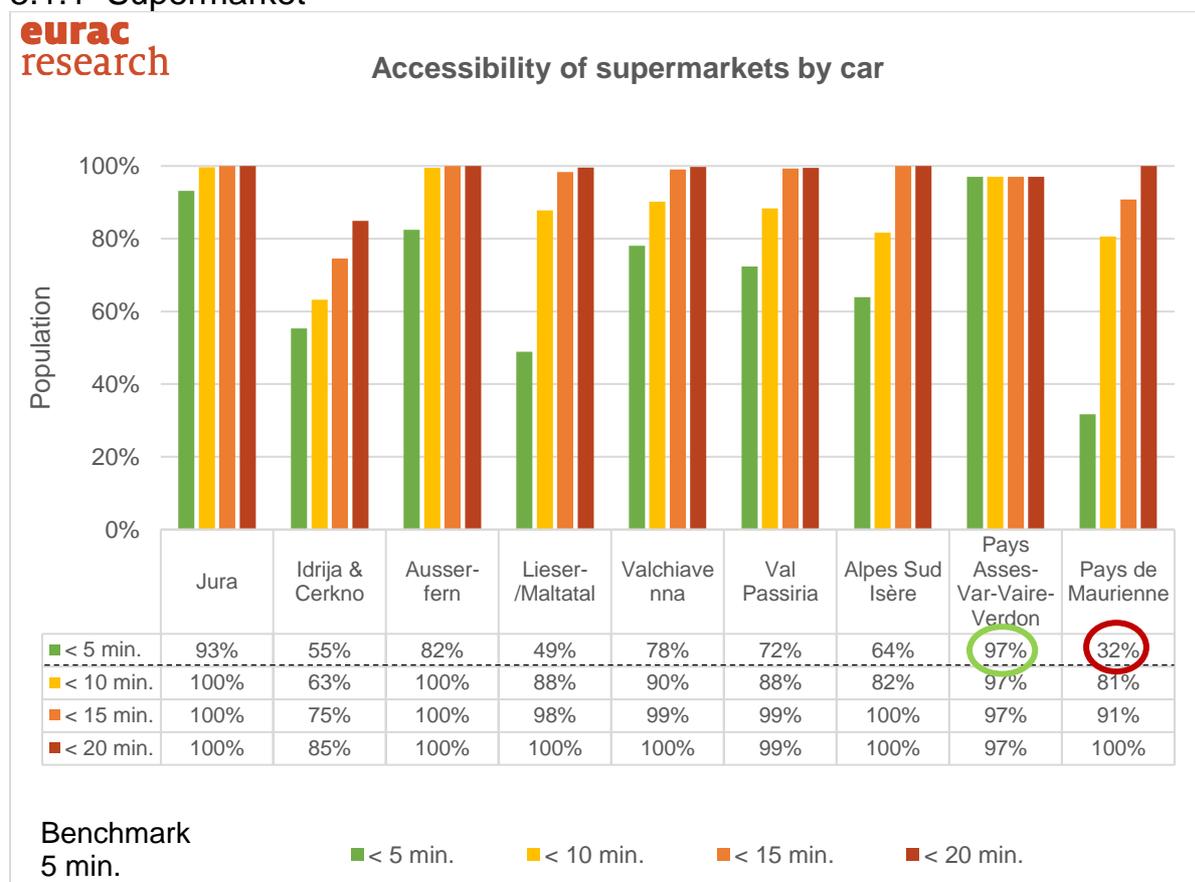
The educational services such as kindergarten and primary school are accessible by car for over 90% of the population and even for the entire population of the TAs Jura, Ausserfern, Pays A3V, Pays de Maurienne. Only in Idrija and Cerknò less than 90% of the population has access within the benchmark of 15 minutes (kindergarten and school) 20 min (doctor) to these services.

According to the comparison the highest percentage of the population from the TAs Pays A3V, Jura and Ausserfern have accessibility to the public transport to reach the services within the specific benchmark, while the accessibility of services by public transport for the population in Lieser- /Maltatal is the most difficult compared to the other TAs.

3.1 Accessibility of selected SGI

The accessibility analysis builds on the benchmarks (shown in a dotted line in the excel charts) of the MORO study (BMVI 2015b), whereby it has to be considered, that these benchmarks refer of the German case and not the single selected TAs of the INTESI project. The possibility of creating own benchmarks should be dealt with in a follow-up project.

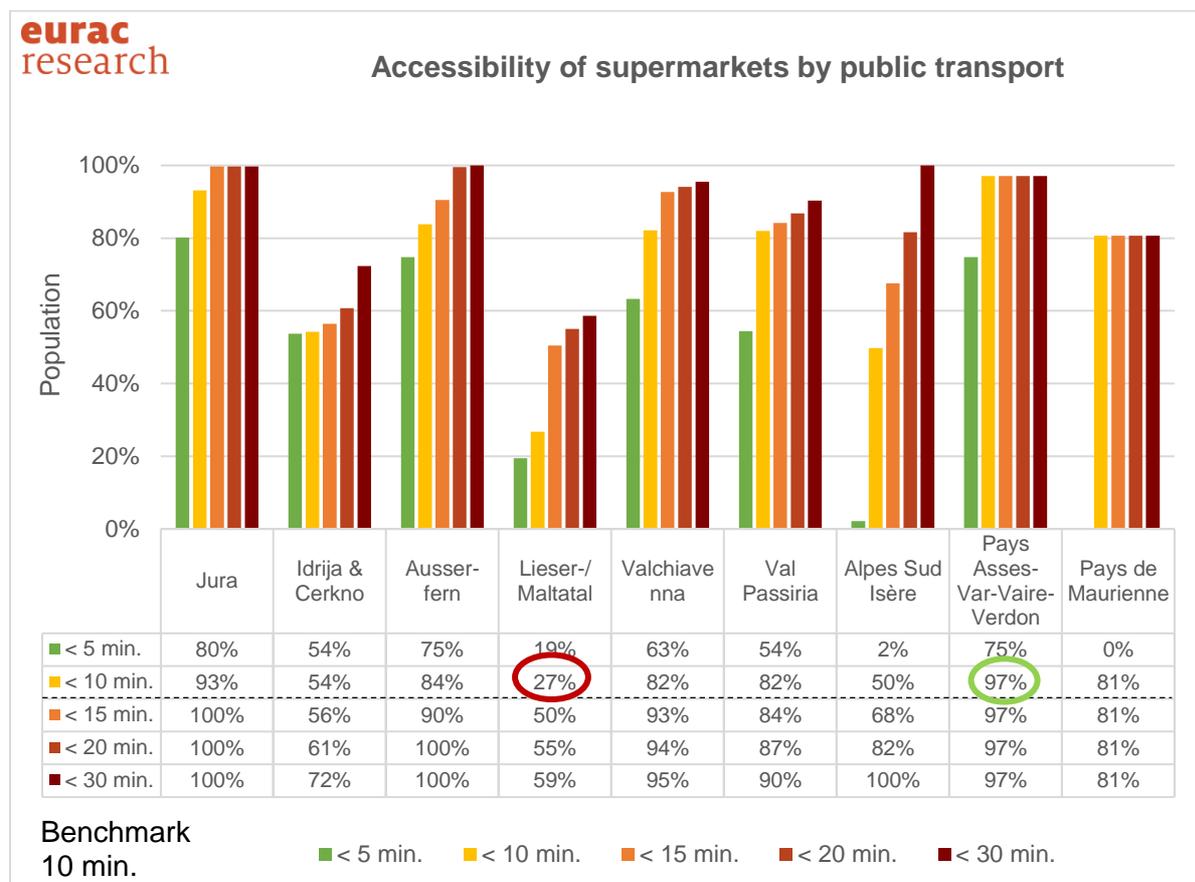
3.1.1 Supermarket



Accessability of the next supermarket in min by car

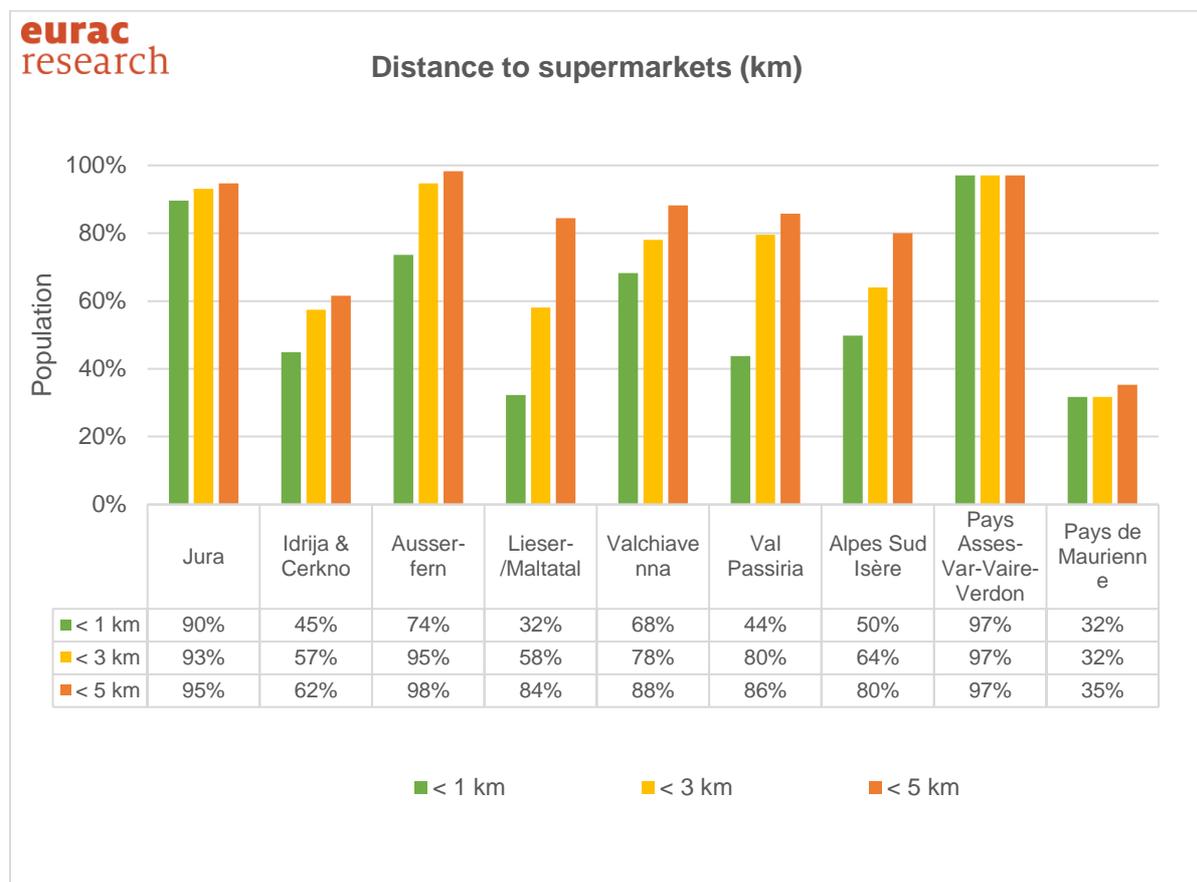
Comparing the accessibility of supermarkets by car of the different TAs, in the TA of Pays-Asses-Var-Vaire-Verdon only 3% of the population does not have access to a supermarket within five minutes as foreseen by the benchmark. Contrary, 68% of the population of the TA Pays de Maurienne does not have access to a supermarket within 5 minutes.⁵

⁵ The green circle highlights the highest percentage of people of the selected municipalities in the TA, who have access to the service and the red circle highlights lowest percentage of people, who have access to the service.



Accessibility of the next supermarket in min by public transport

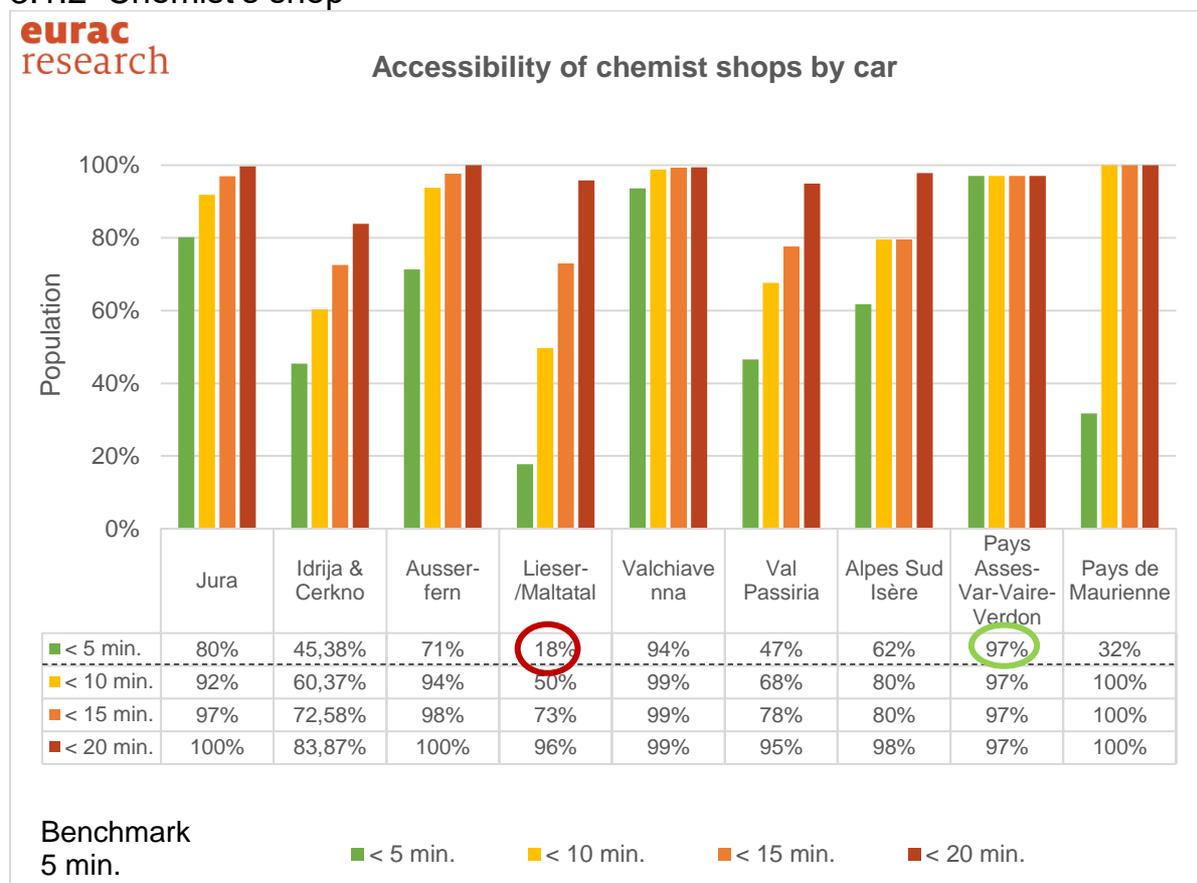
Comparing the accessibility of supermarkets by public transport of the different TAs, in the TA of Pays A3V only 3% of the population does not have access to a supermarket within ten minutes as foreseen by the benchmark. Contrary, 73% of the population of the TA Lieser-/Maltatal does not have access to a supermarket within 10 minutes.



Distance to the next supermarket in km

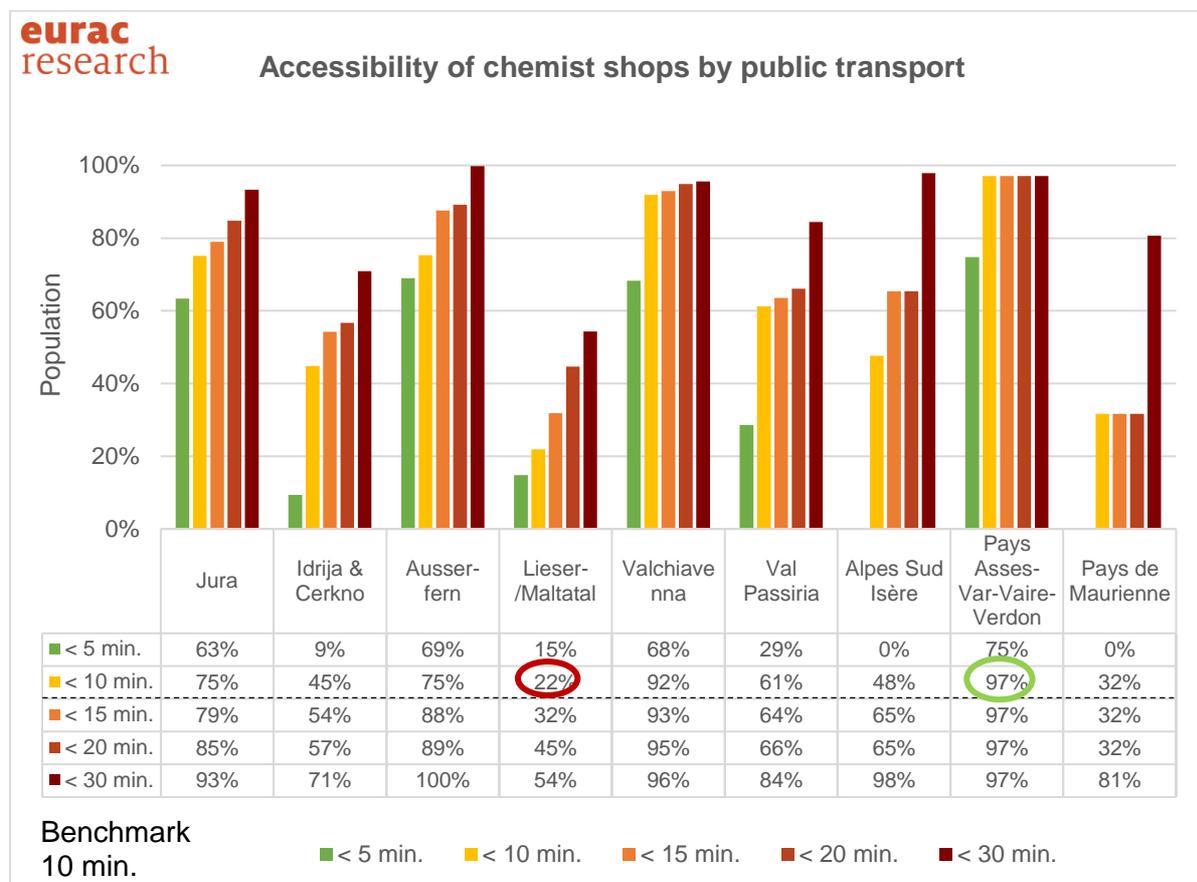
Comparing the distance to supermarkets of the different TAs, in the TA of Pays-Asses-Var-Vaïre-Verdon only 3% of the population cannot reach a supermarket within 1 km. Contrary, 68% of the population of the TA Lieser-/ Maltatal and the TA Pays de Maurienne cannot reach a supermarket within 1 km.

3.1.2 Chemist's shop



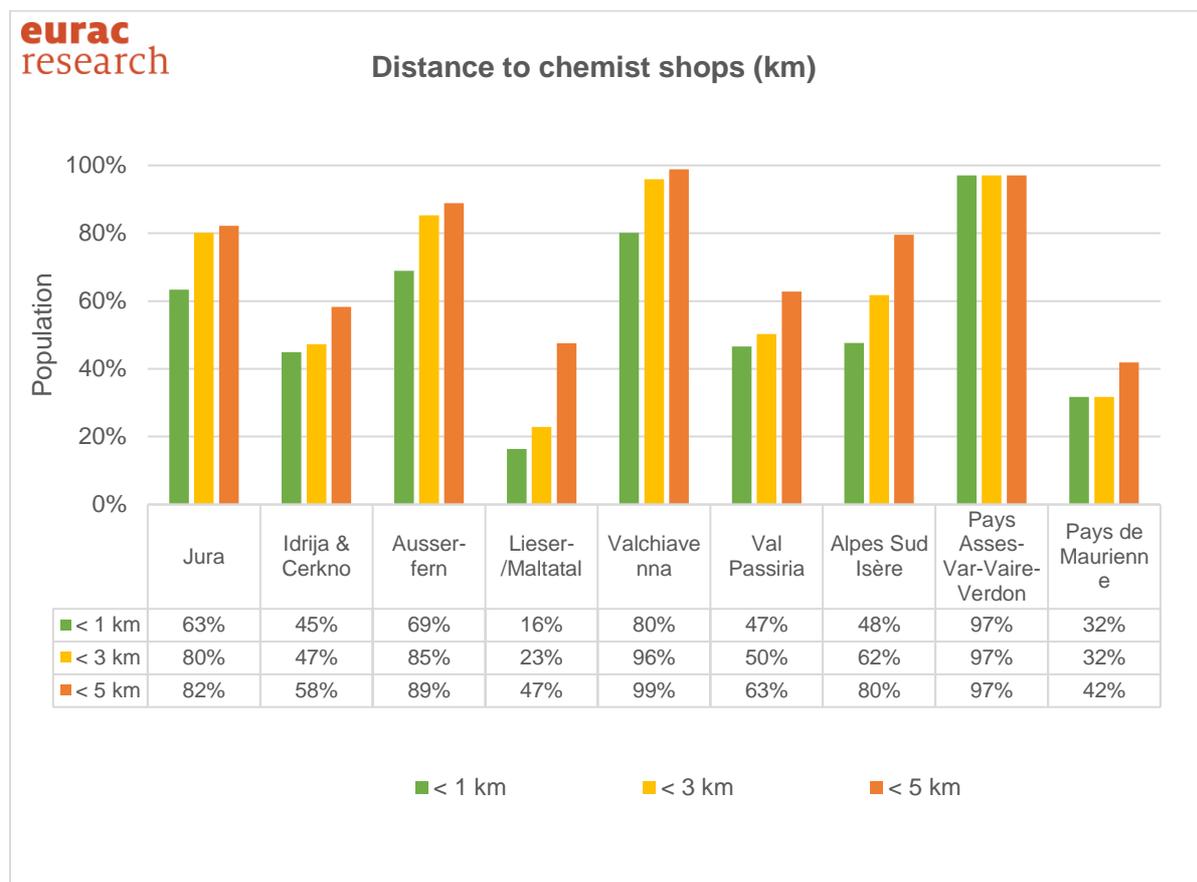
Accessibility of the next chemist's shop in min by car

Comparing the accessibility of chemist shops by car of the different TAs, in the TA of Pays-Asses-Var-Vaire-Verdon only 3% of the population does not have access to a chemist's shop within five minutes as foreseen by the benchmark. Contrary, 82% of the population of the TA Lieser-/Maltatal does not have access to a chemist shop within 5 minutes.



Accessibility of the next chemist's shop in min by public transport

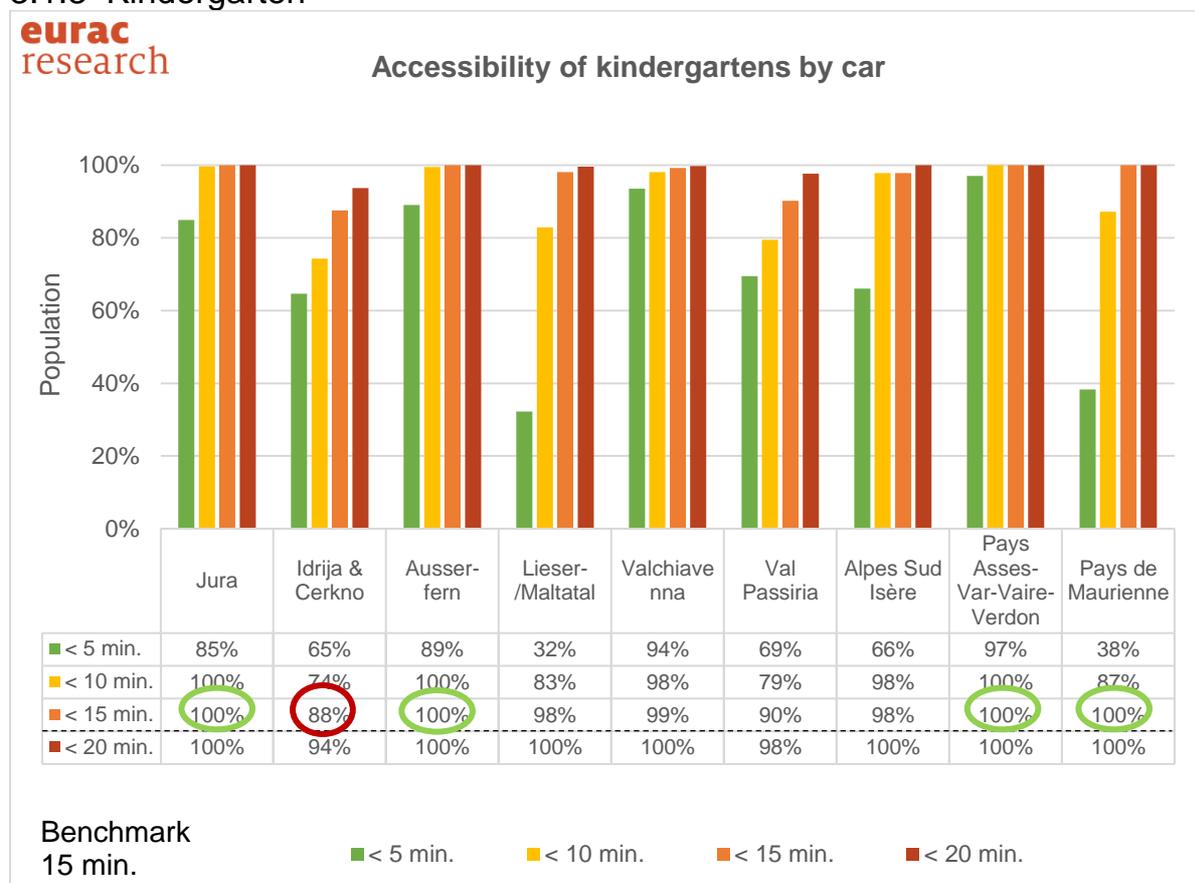
Comparing the accessibility of chemist shops by public transport of the different TAs, in the TA of Pays Asses-Var-Vaïre-Verdon only 3% of the population does not have access to a chemist's shop within ten minutes as foreseen by the benchmark. Contrary, 78% of the population of the TA Lieser-/ Maltatal does not have access to a chemist's shop within 10 minutes.



Distance to the next chemist's shop in km

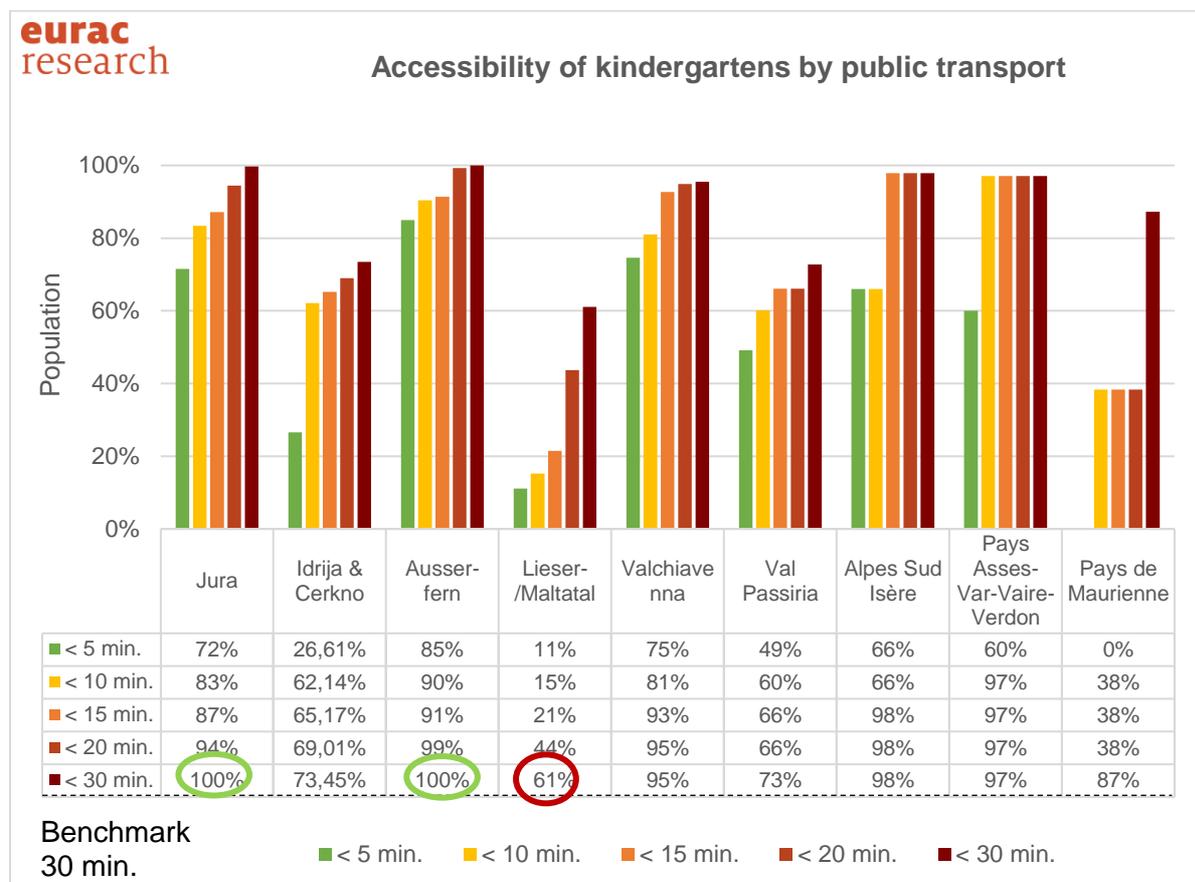
Comparing the distance to chemist shops of the different TAs, in the TA of Pays-Asses-Var-Vaïre-Verdon only 3% of the population cannot reach a chemist's shop within 1 km. Contrary, 84% of the population of the TA Lieser-/ Maltatal cannot reach a chemist's shop within 1 km.

3.1.3 Kindergarten



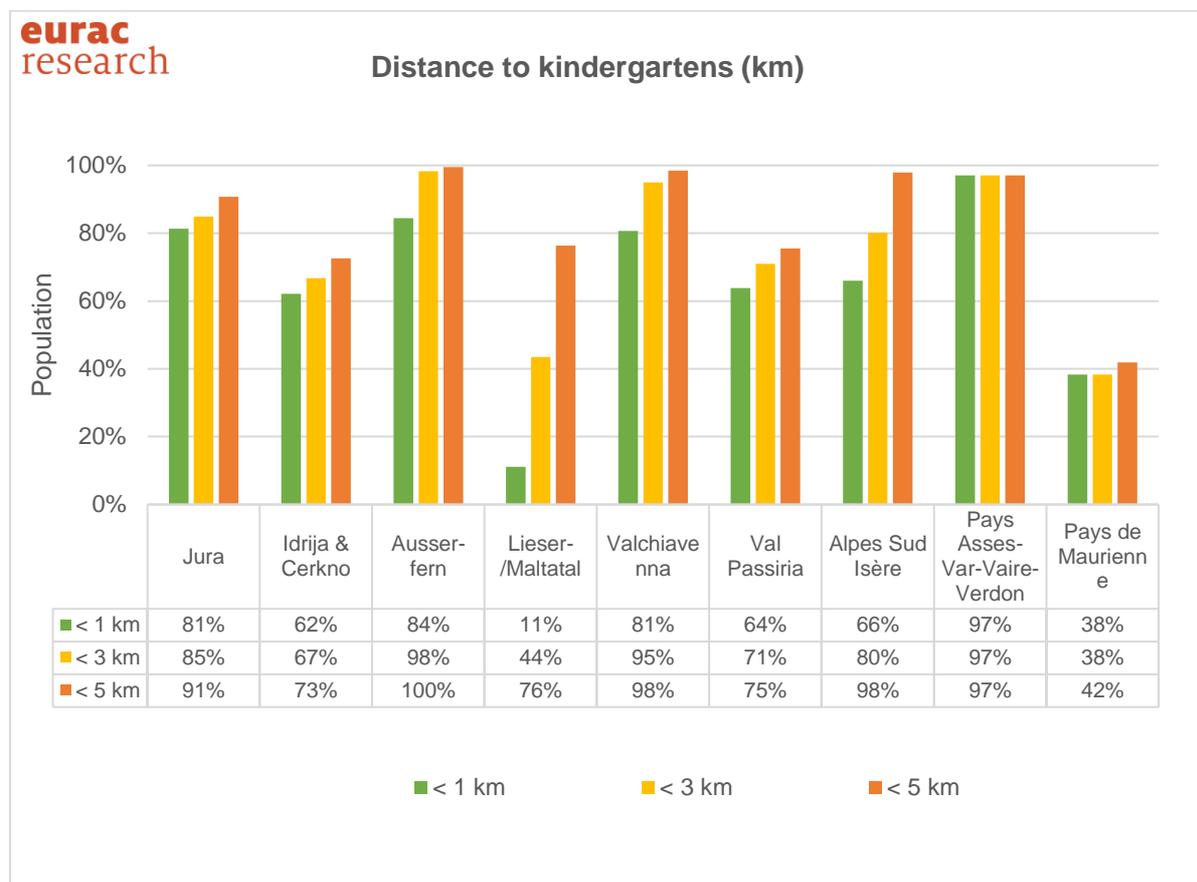
Accessibility of the next kindergarten in min by car

Comparing the accessibility of kindergartens by car of the different TAs, in the TAs of Jura, Ausserfern, Pays-Asses-Var-Vaire-Verdon and Pays de Maurienne 100% of the population does have access to a kindergarten within fifteen minutes as foreseen by the benchmark. Contrary, 12% of the population of the TA Idrija and Cerkn does not have access to a kindergarten within fifteen minutes.



Accessibility of the next kindergarten in min by public transport

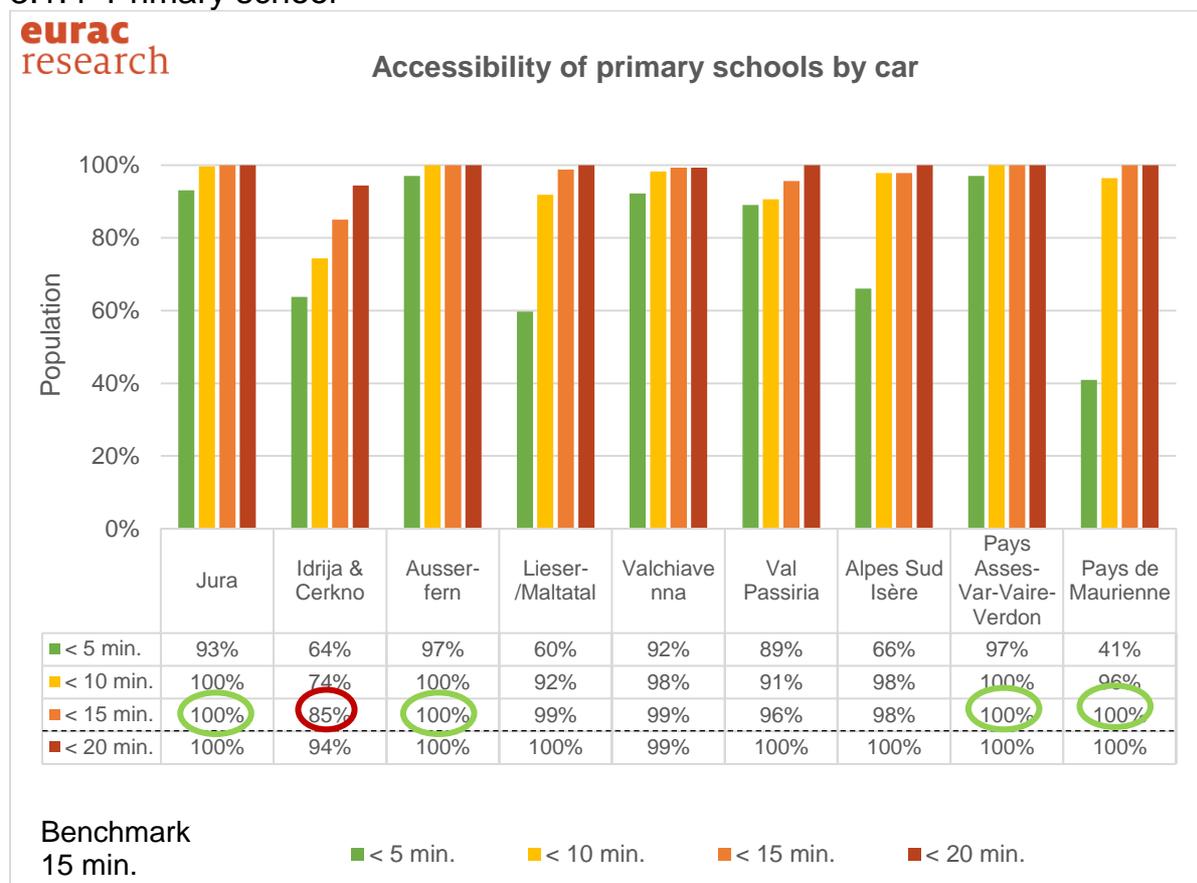
Comparing the accessibility of kindergartens by public transport of the different TAs, in the TA of Jura 100% of the population does have access to a kindergarten within thirty minutes as foreseen by the benchmark. Contrary, 39% of the population of the TA Lieser-/ Maltatal does not have access to a kindergarten within thirty minutes.



Distance to the next kindergarten in km

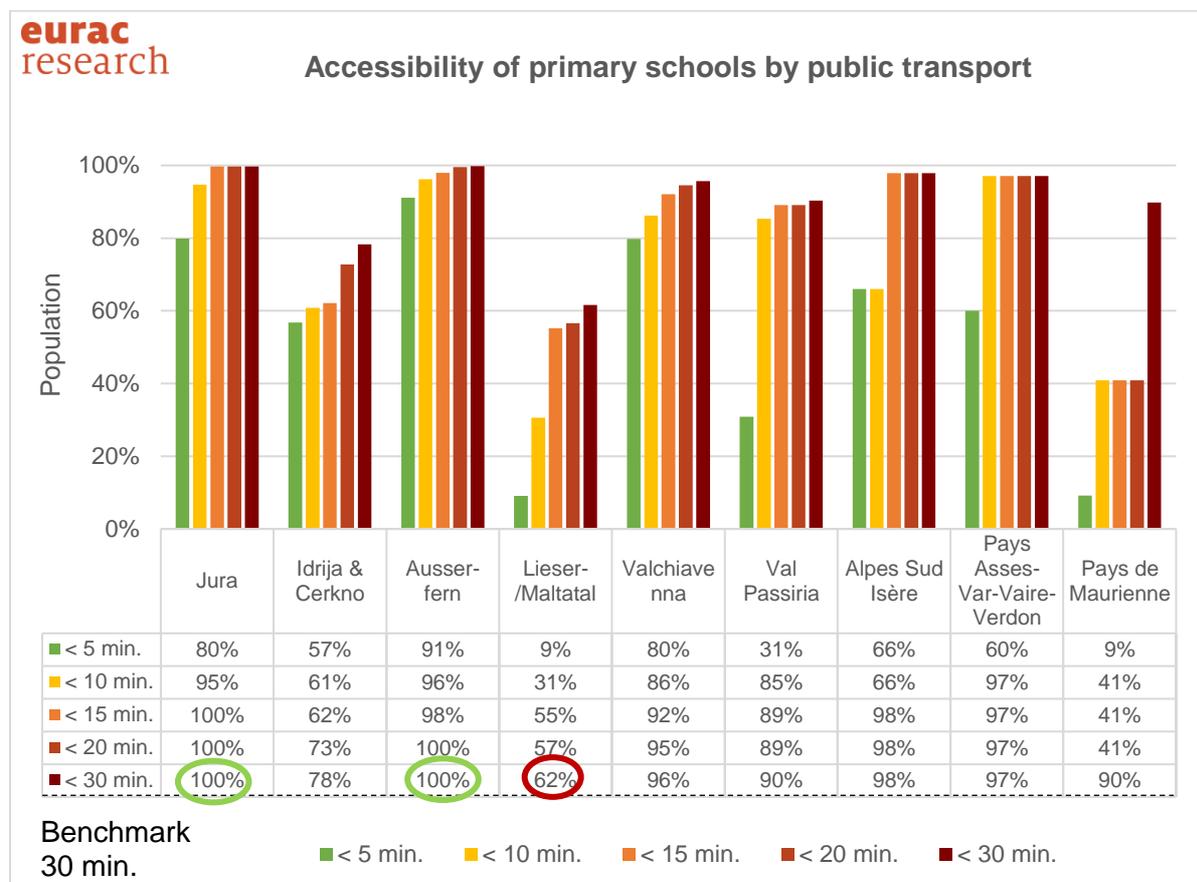
Comparing the distance to kindergartens of the different TAs, in the TA of Pays-Asses-Var-Vaïre-Verdon only 3% of the population cannot reach a kindergarten within 1 km. Contrary, 89% of the population of the TA Lieser-/ Maltatal cannot reach a kindergarten within 1 km.

3.1.4 Primary school



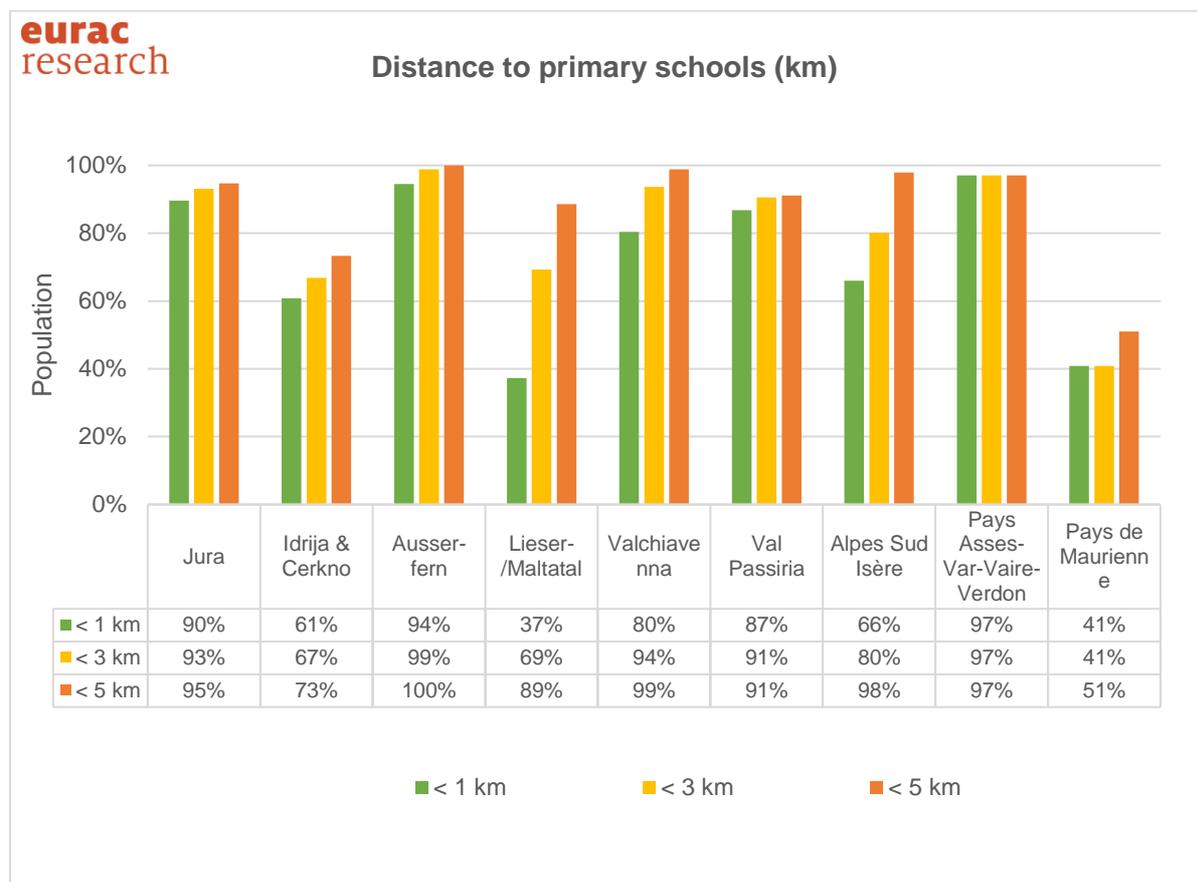
Accessibility of the next primary school in min by car

Comparing the accessibility of primary schools by car of the different TAs, the TAs of Jura, Ausserfern, Pays-Asses-Var-Vaire-Verdon and Pays de Maurienne 100% of the population does have access to a primary school within fifteen minutes as foreseen by the benchmark. Contrary, 15% of the population of the TA Idrija and Cerknò does not have access to a primary school within fifteen minutes.



Accessibility of the next primary school in min by public transport

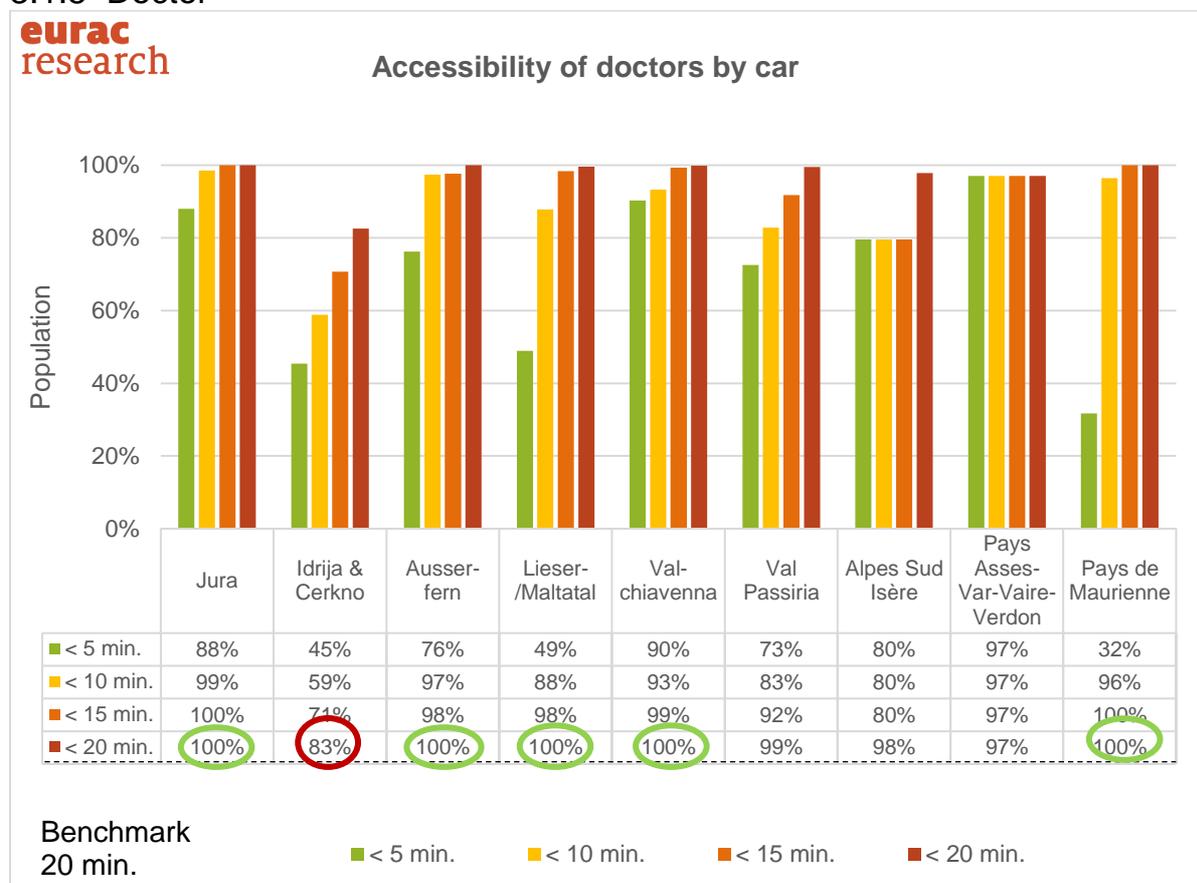
Comparing the accessibility of primary schools by public transport of the different TAs, in the TAs of Jura and Ausserfern 100% of the population does have access to a primary school within thirty minutes as foreseen by the benchmark. Contrary, 38% of the population of the TA Lieser-/ Maltatal does not have access to a primary school within thirty minutes.



Distance to the next primary school in km

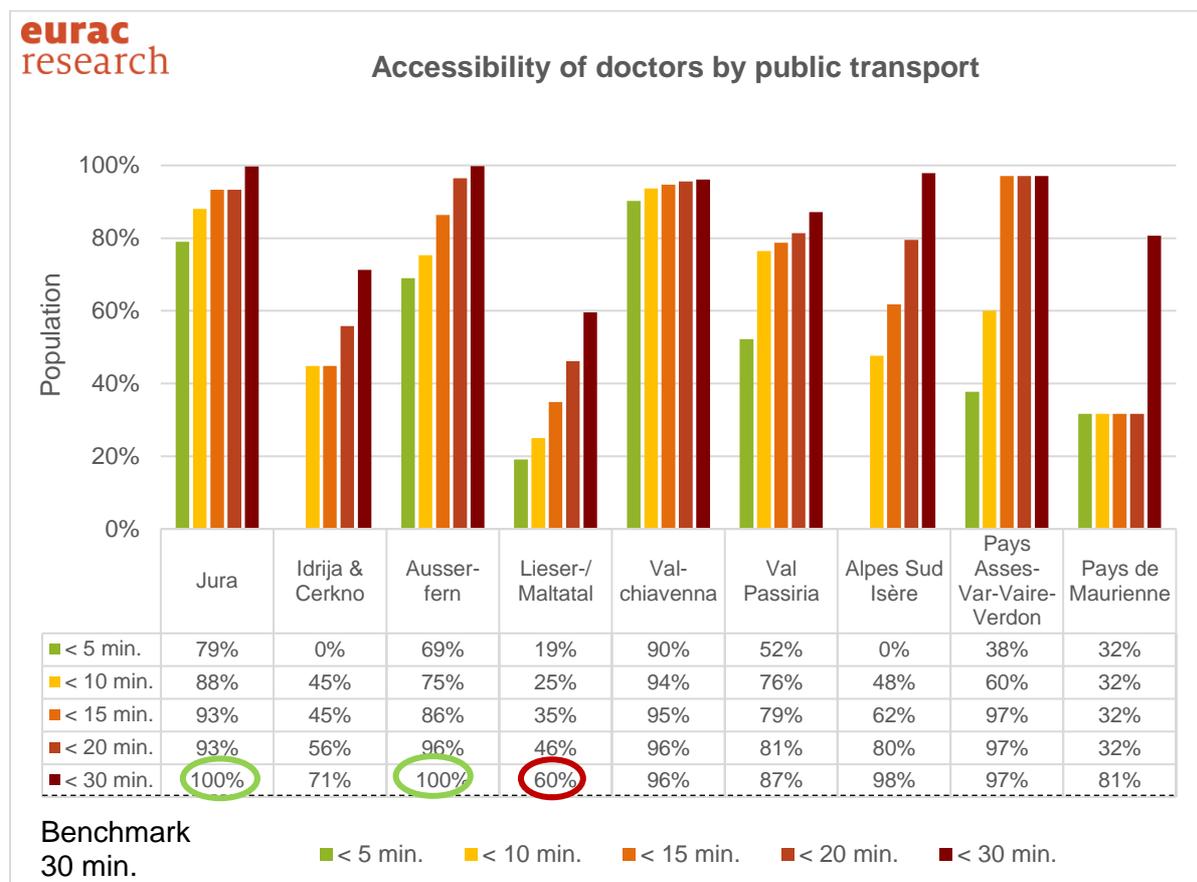
Comparing the distance of primary schools of the different TAs, in the TA of Pays-Asses-Var-Vaïre-Verdon only 3% of the population cannot reach a primary school within 1 km. Contrary, 63% of the population of the TA Lieser-/ Maltatal cannot reach a primary school within 1 km.

3.1.5 Doctor



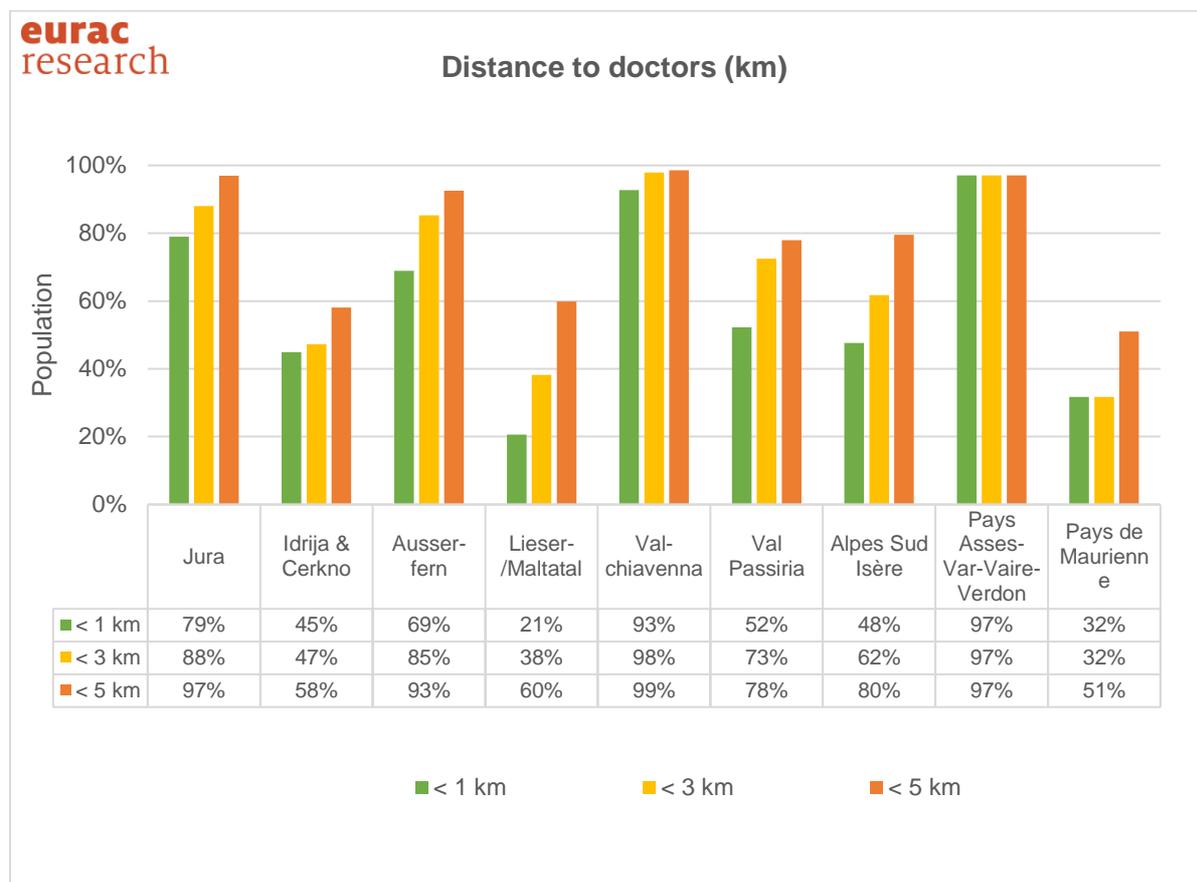
Accessibility of the next primary school in min by car

Comparing the accessibility of doctors by car of the different TAs, in the TAs of Jura, Ausserfern, Lieser-/Maltatal, Valchiavenna and Pays-Asses-Var-Vaire-Verdon 100% of the population does have access to a doctor within twenty minutes as foreseen by the benchmark. Contrary, 17% of the population of the TA Idrija and Cerkn does not have access to a doctor within twenty minutes.



Accessibility of the next primary school in min by public transport

Comparing the accessibility of doctors by public transport of the different TAs, in the TAs of Jura and Ausserfern 100% of the population does have access to a doctor within thirty minutes as foreseen by the benchmark. Contrary, 40% of the population of the TA Lieser-/ Maltatal does not have access to a doctor within thirty minutes.



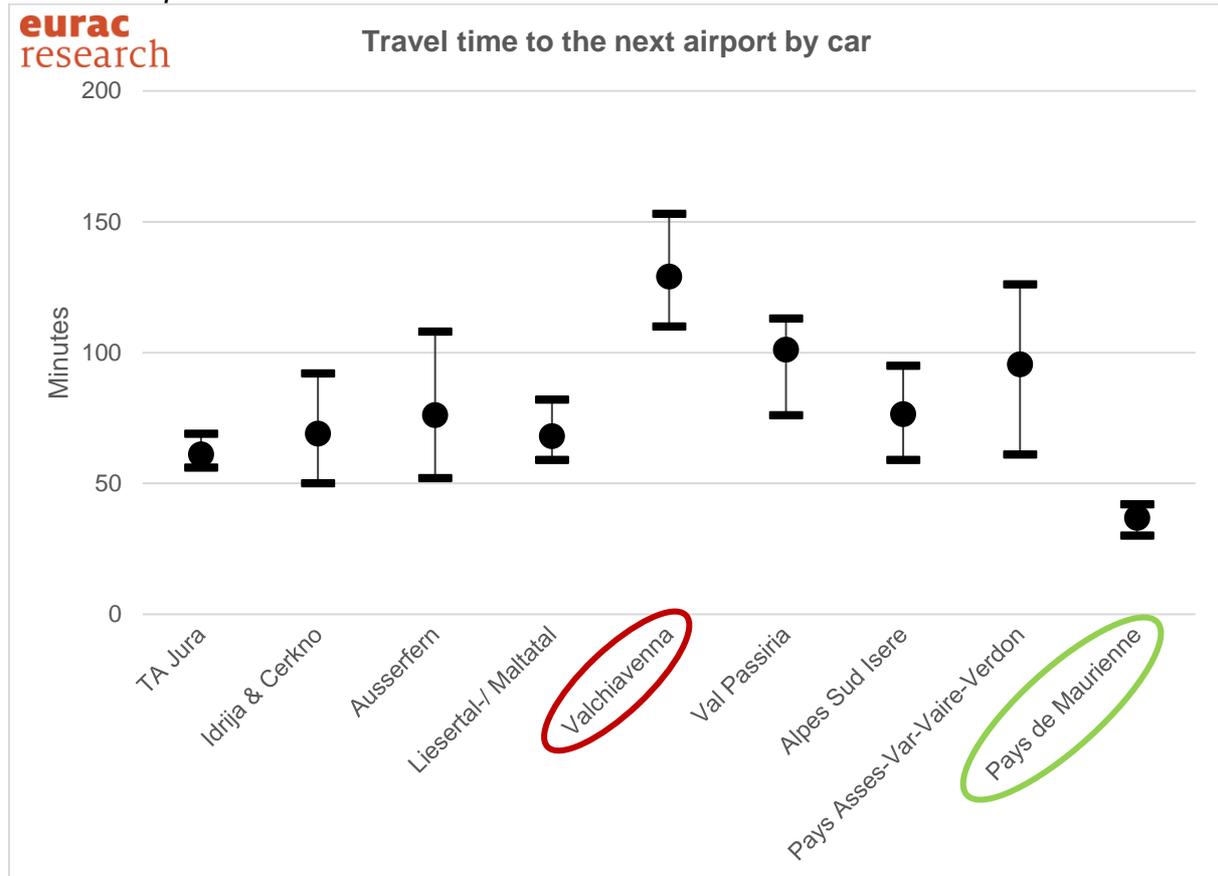
Distance to the next doctor in km

Comparing the distance to doctors of the different TAs, in the TA of Pays-Asses-Var-Vaire-Verdon only 3% of the population cannot reach a doctor within 1 km. Contrary, 79% of the population of the TA Lieser-/ Maltatal cannot reach a doctor within 1 km.

3.1.6 Regional accessibility

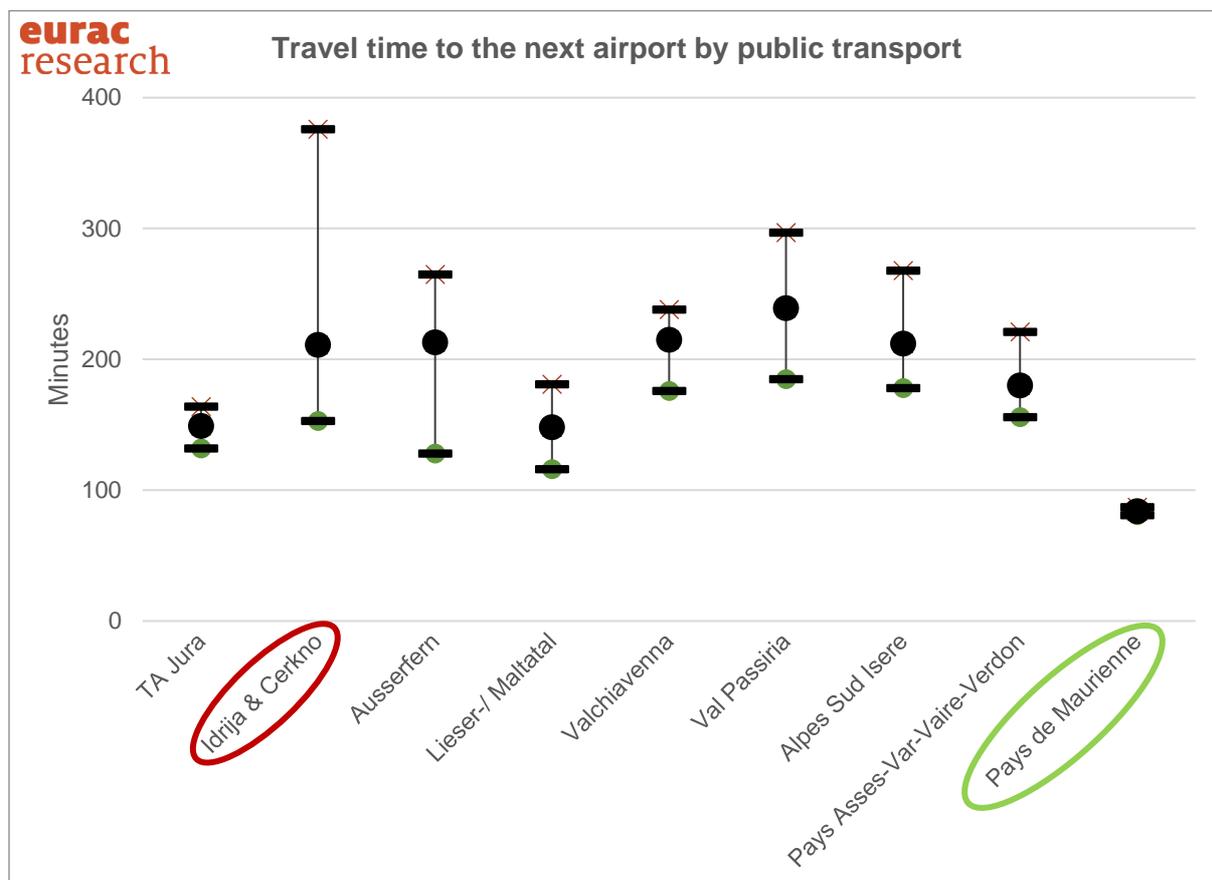
It has to be noticed that the TAs of France only analysed the main places of the municipalities, while all other TAs included all settlements of the municipality. This can be one explanation why the TA of Pays de Maurienne and Pays A3V seem to perform better than the other TAs.

3.1.6.1 Airport



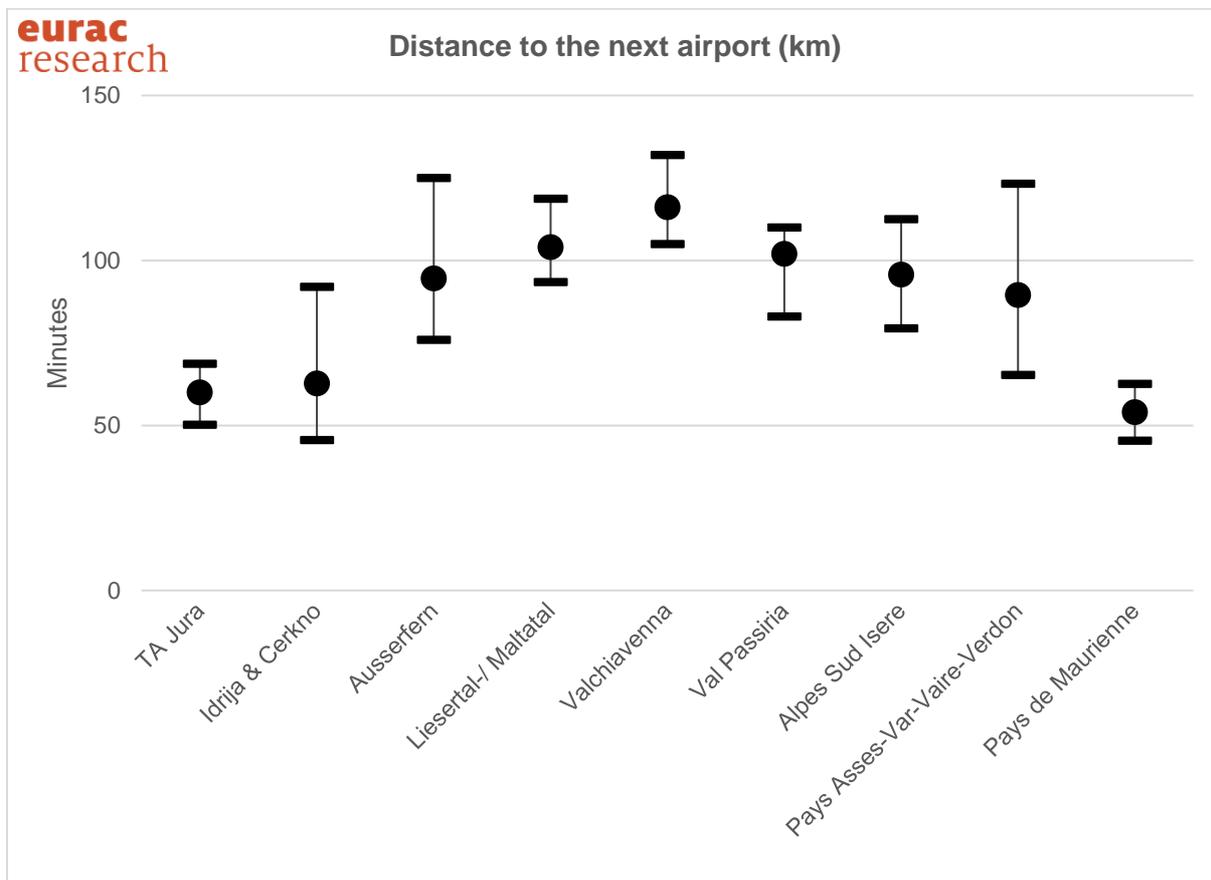
Regional accessibility of the next airport by car

Comparing the travel time to the next airport by car between the TAs, the population from the TA of Valchiavenna (Bergamo/ Orio al serio) takes the longest, 153 minutes, while the population of the TA of Pays de Maurienne (Chambéry Airport from Aiton) takes the shortest, 30 minutes, to reach the next airport. The average time to reach the next airport takes 79 minutes.



Regional accessibility of the next airport by public transport

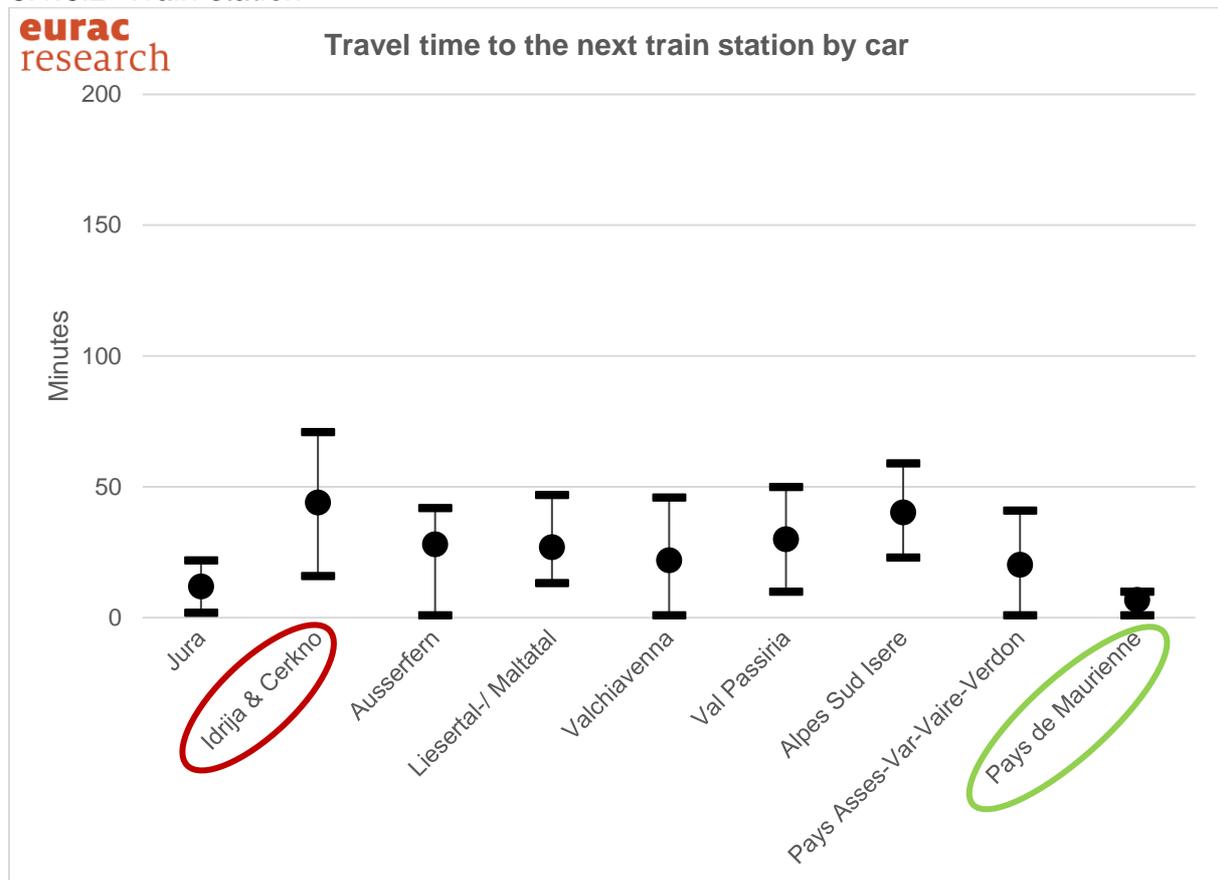
Comparing the travel time to the next airport by public transport between the TAs, the population from the TA of Idrija & Cerkno (Brnik from Gorenja Kanomlja) take the longest, 376 minutes, while the population of the TA of Pays de Maurienne (Chambéry Airport from Aiton) takes the shortest, 81 minutes. The average time of all TAs to reach the next airport takes 183 minutes by public transport.



Distance to the next airport in km

Comparing the distance to the next airport between the TAs, the population from the TA of Valchiavenna has the highest, 132 km, to reach the next airport, while the population of the TA of Pays de Maurienne has the shortest, 45 km. The average distance of all TAs to reach the next airport is 86 km.

3.1.6.2 Train station



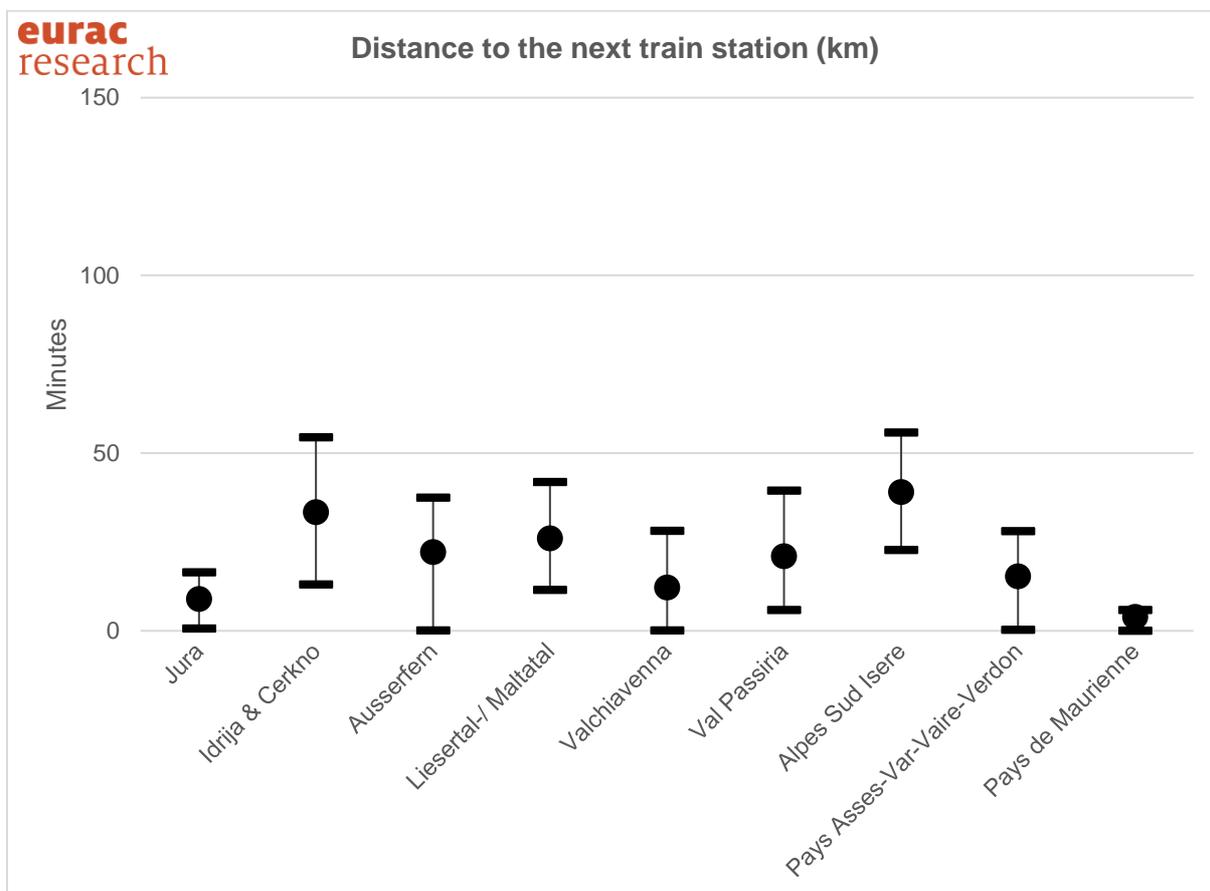
Regional accessibility of the next train station by car

Comparing the travel time to the next train station by car between the TAs, the population from the TA of Idrija & Cerklno (to Ajdovščina, Škofja Loka, Logatec from Zakojca) takes the longest, 71 minutes, while the population of the TA of Pays de Maurienne (Aiguebelle from Aiton), Pays A3V, Valchiavenna (Chiavenna from Chiavenna), Ausserfern (Reutte, Ehrwald and closest in Heiterwang from Heiterwang) take the shortest, 1 minute, to reach the next train station. The average of all TAs time to reach the next train station by car takes 25 minutes.



Regional accessibility of the next train station by public transport

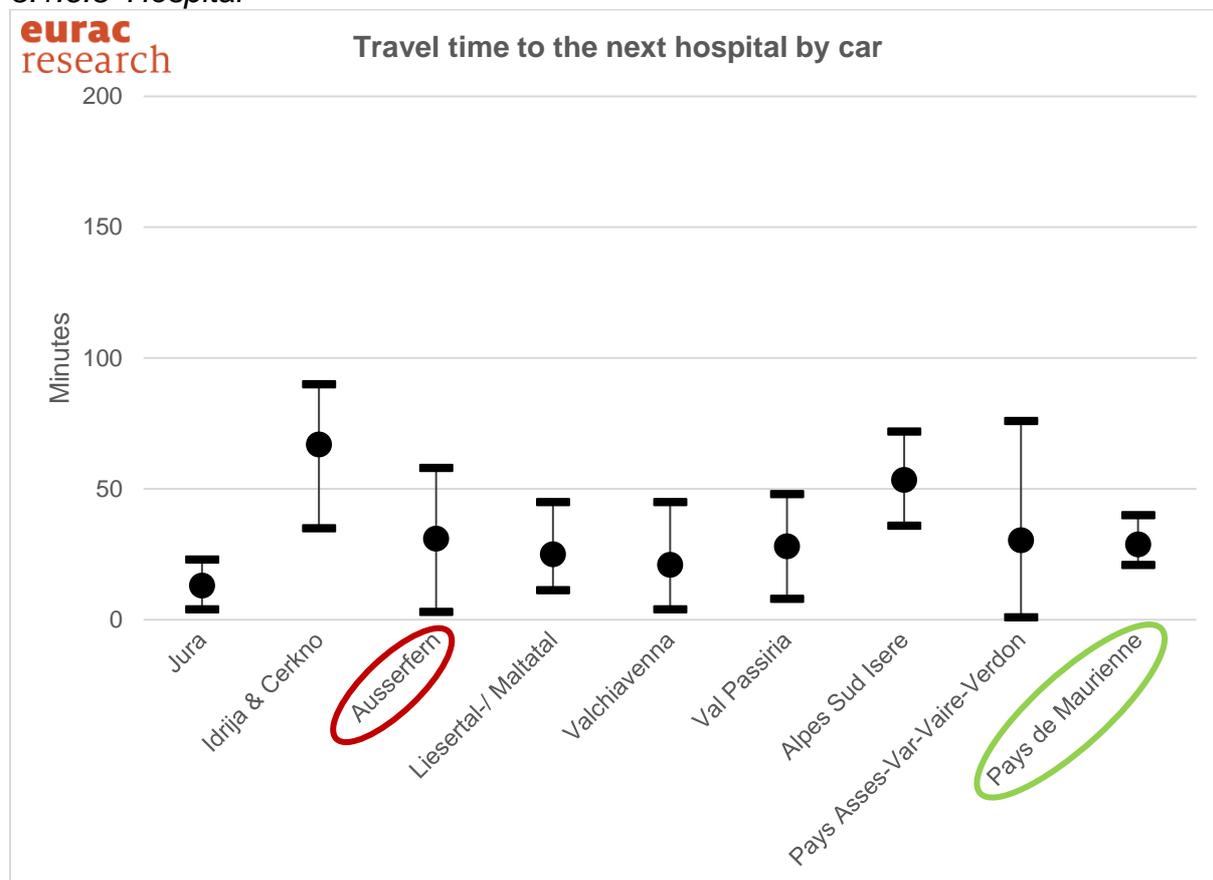
Comparing the travel time to the next train station by public transport between the TAs, the population from the TA of Idrija & Cerkno (from Orehek) takes the longest, 192 minutes, while the population of the TA of Alpes Sud Isère (Jarrie from Livet-Et-Gavet) takes the shortest, 1 minute, to reach the next train station. The average time to reach the next train station by public transport takes 57 minutes.



Distance to the next train station in km

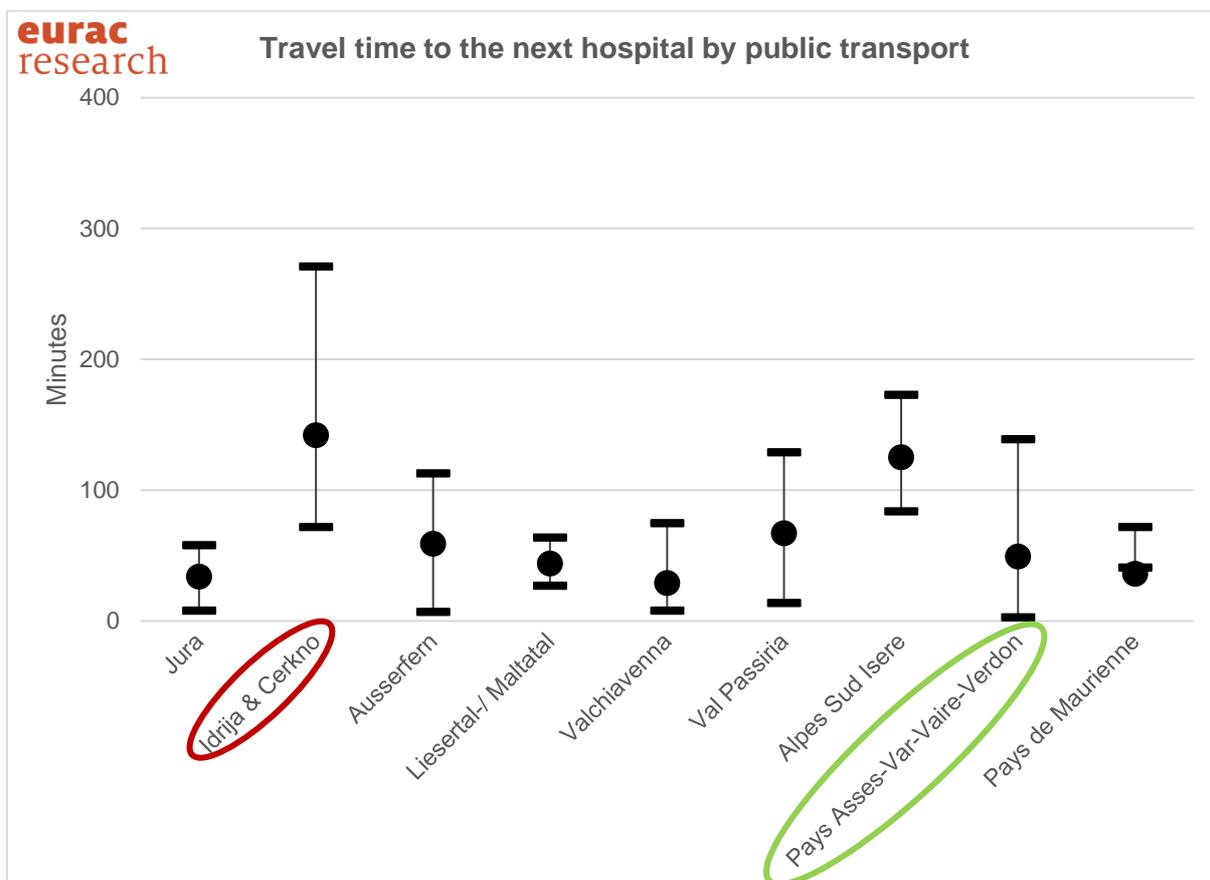
Comparing the distance to the next train station between the TAs, the population from the TA of Alpes Sud Isère has the longest, 55 km, to reach the next train station, while the population of the TA Pays de Maurienne has the shortest, 0,1 km. The average distance of all TAs to reach the next train station is 20 km.

3.1.6.3 Hospital



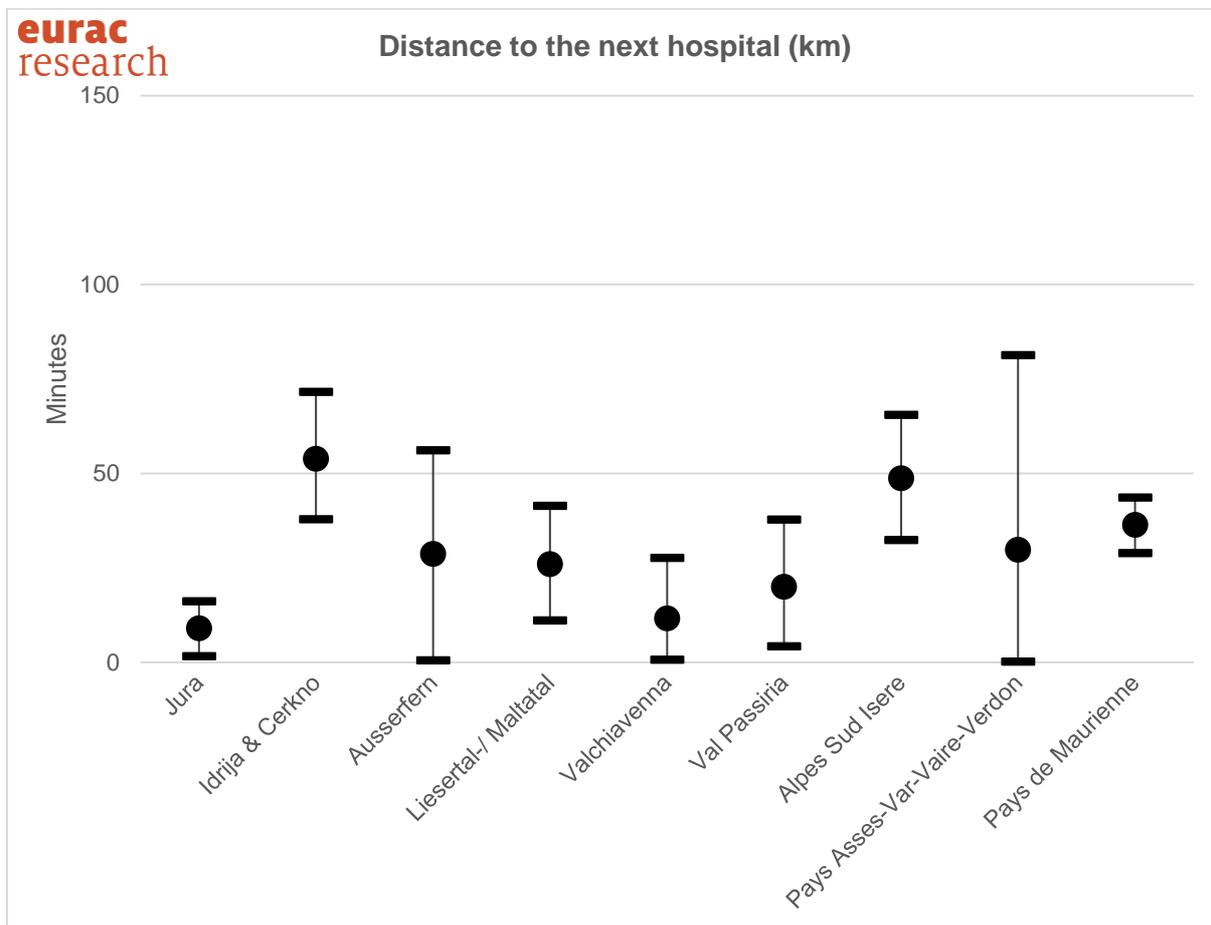
Regional accessibility of the next hospital by car

Comparing the travel time to the next hospital by car between the TAs, the population from the TA of Idrija & Cerkno (Šempeter near Nova Gorica from Gorenja Kanomlja) takes the longest, 90 minutes, while the population of the TA of Pays Asses-Var-Vaire-Verdon (Digne-les-Bains from Entrevaux) takes the shortest, 1 minute, to reach the next hospital. The average time to reach the next hospital by car is 33 minutes.



Regional accessibility of the next hospital by public transport

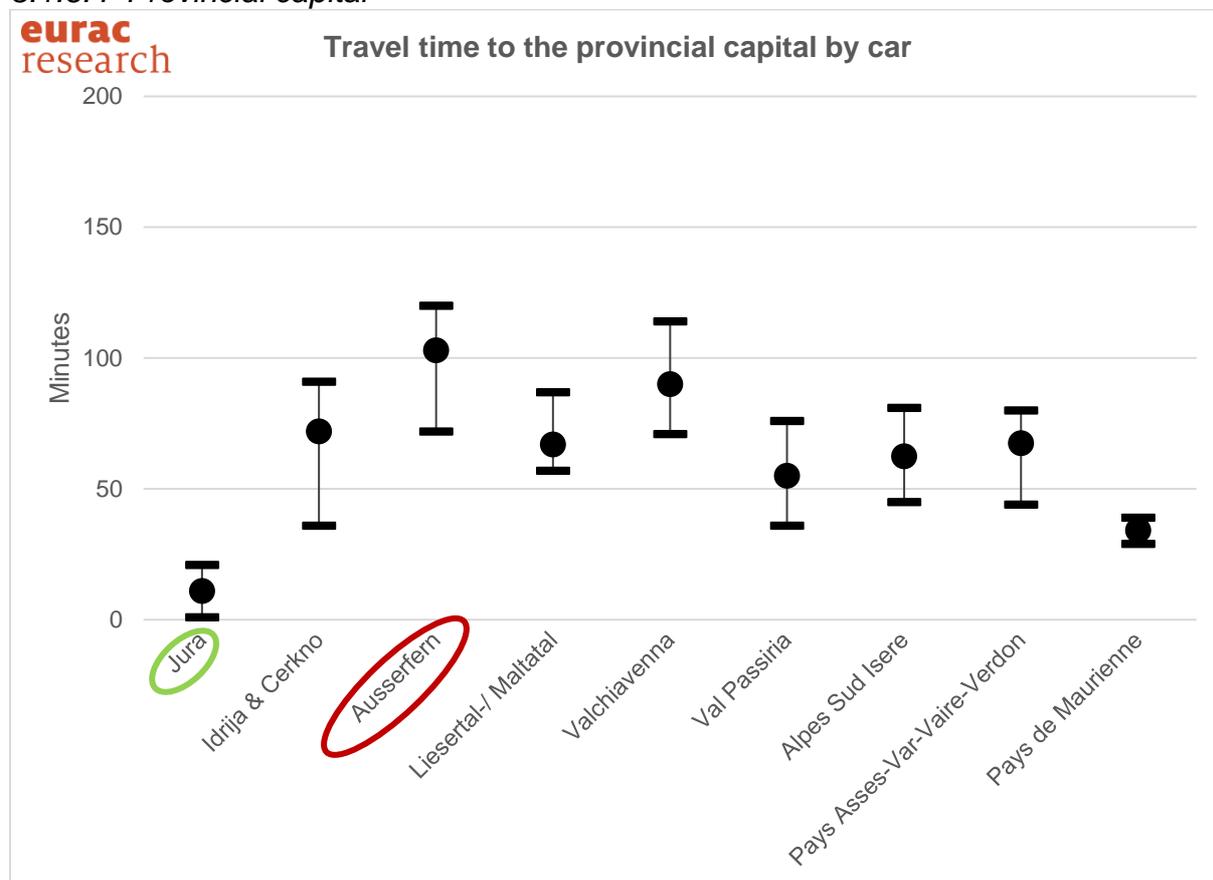
Comparing the travel time to the next hospital by public transport between the TAs, the population from the TA of Idrija & Cerčno (Lublijana from Orehek) takes the longest, 271 minutes, while the population of the TA of Pays Asses-Var-Vaire-Verdon takes the shortest, 3 minutes, to reach the next hospital. The average time to reach the next hospital by public transport takes 65 minutes.



Distance to the next hospital in km

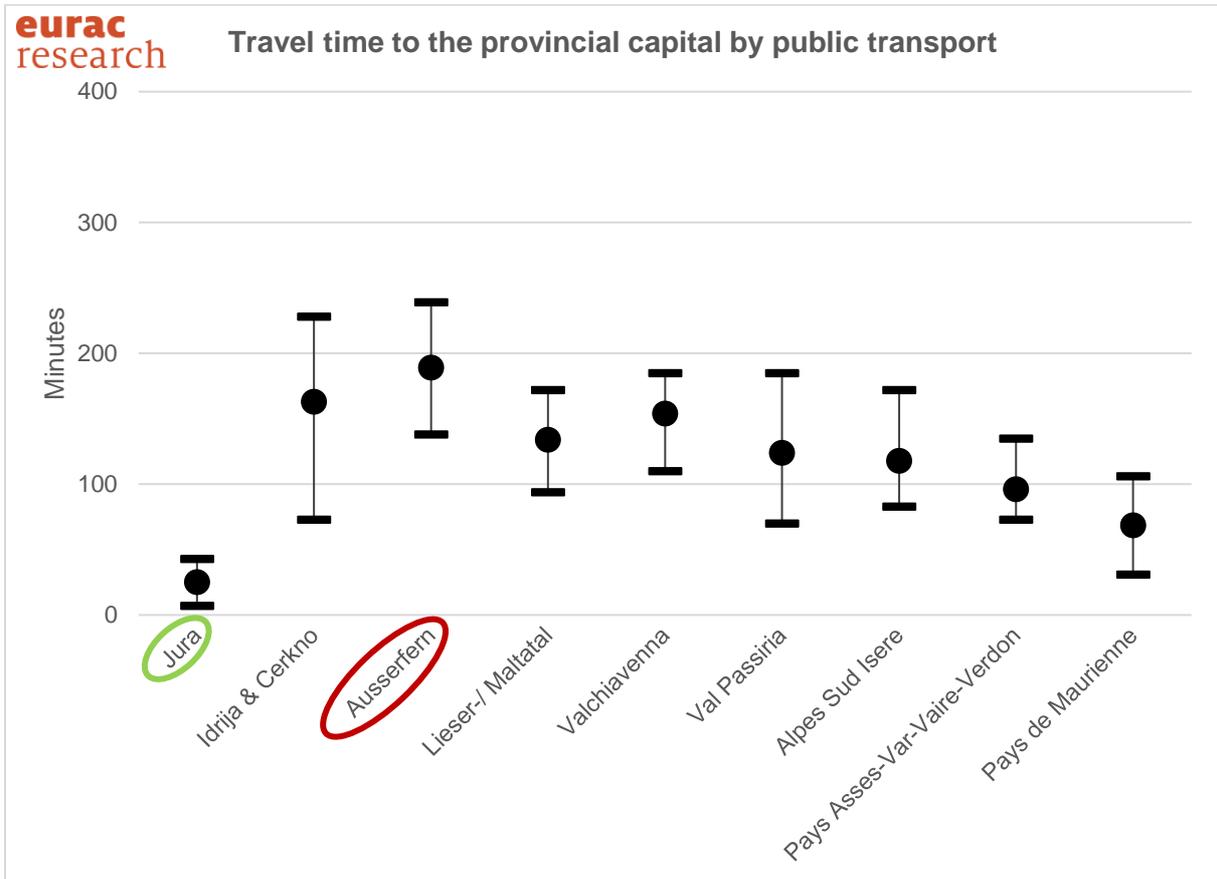
Comparing the distance to the next hospital between the TAs, the population from the TA of Pays Asses-Var-Vaïre-Verdon has the longest, 81 km, to reach the next hospital, while the population of the TA Pays Asses-Var-Vaïre-Verdon has the shortest, 0,25 km. The average distance of all TAs to reach the next hospital is 25 km.

3.1.6.4 Provincial capital



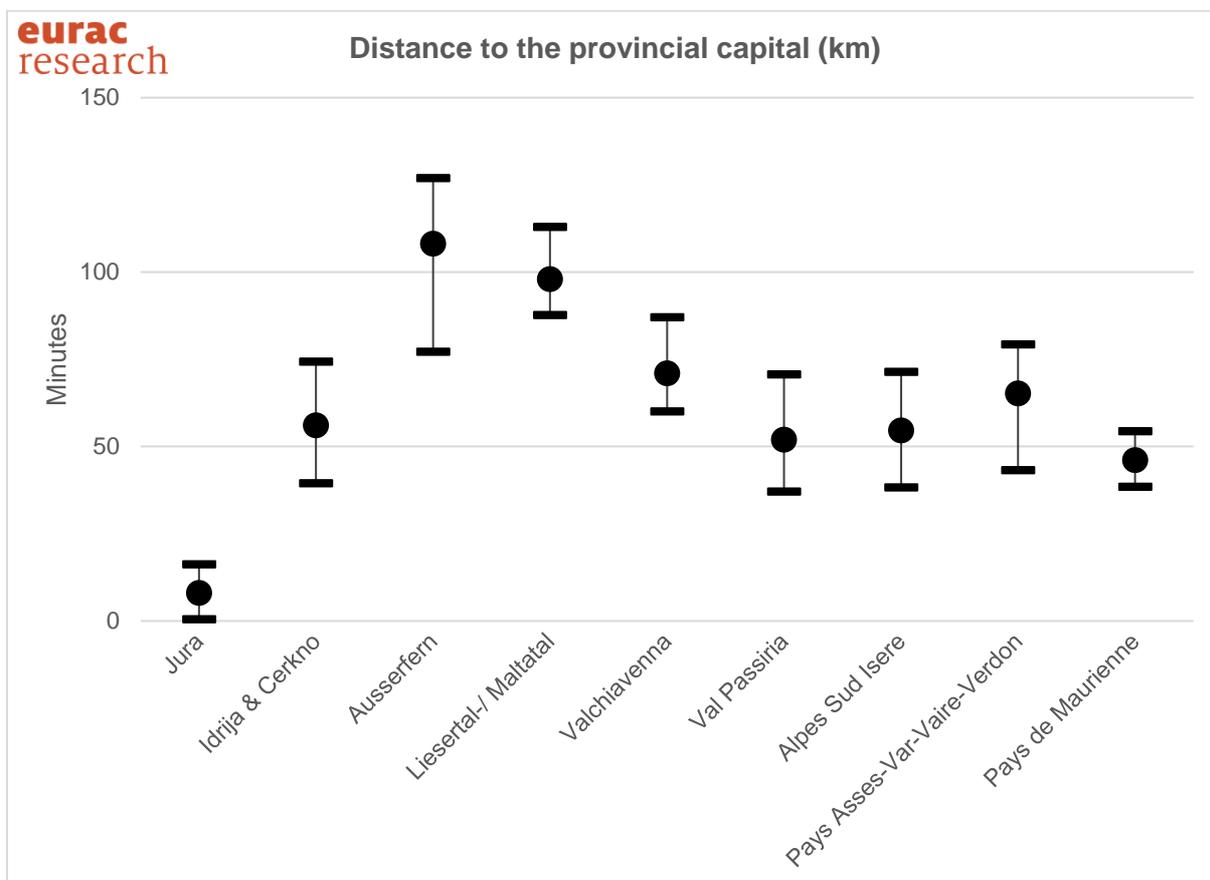
Regional accessibility of the capital by car

Comparing the travel time to the provincial capital by car between the TAs, the population from the TA of Ausserfern (Innsbruck) takes the longest, 120 minutes, while the population of the Jura (Porrentruy) takes the shortest, 1 minute, to reach the provincial capital. The average time to reach the provincial capital takes 62 minutes.



Regional accessibility of the capital public transport

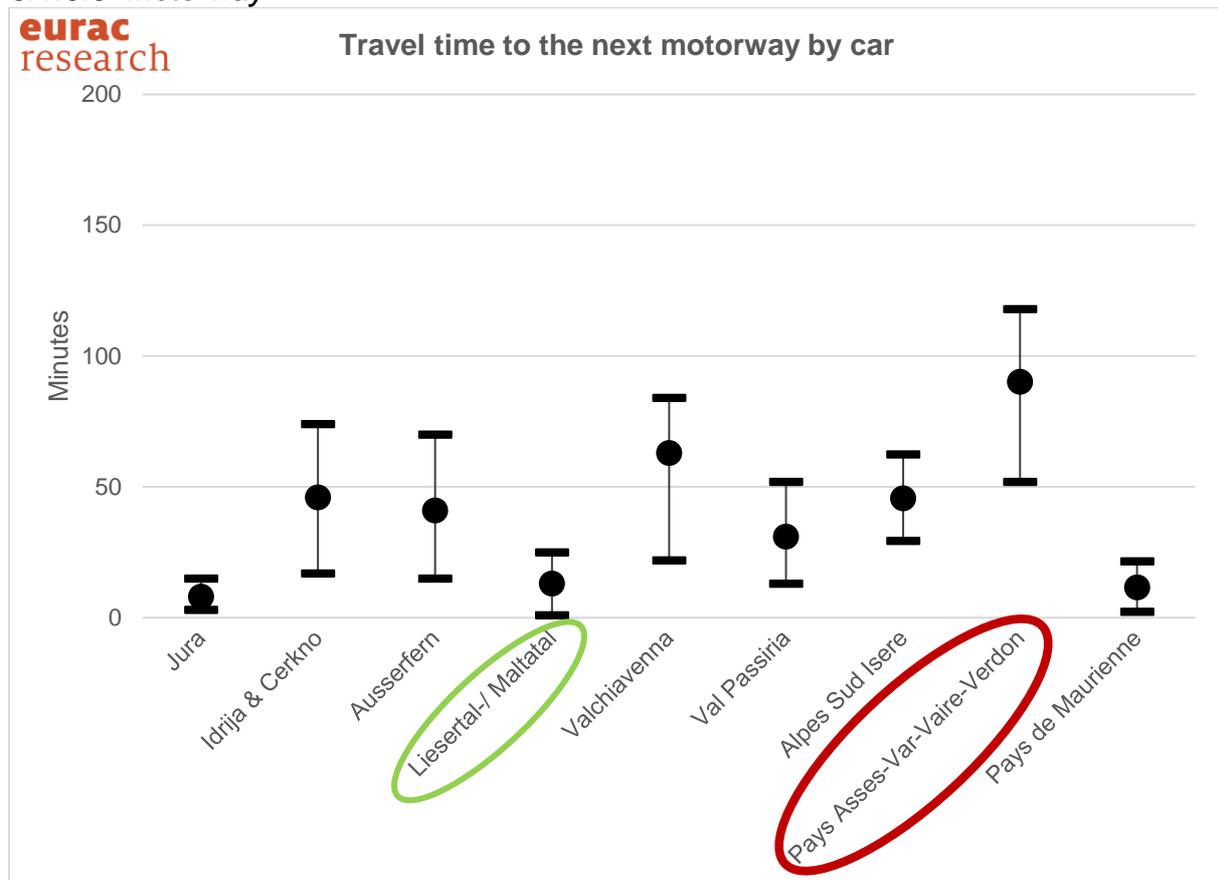
Comparing the travel time to the provincial capital by public transport between the TAs, the population from the TA of Ausserfern (Innsbruck) takes the longest, 239 minutes, while the population of the TA Jura (Porrentruy) takes the shortest, 7 minutes, to reach the provincial capital. The average time to reach the provincial capital by public transport takes 119 minutes.



Distance to the provincial capital in km

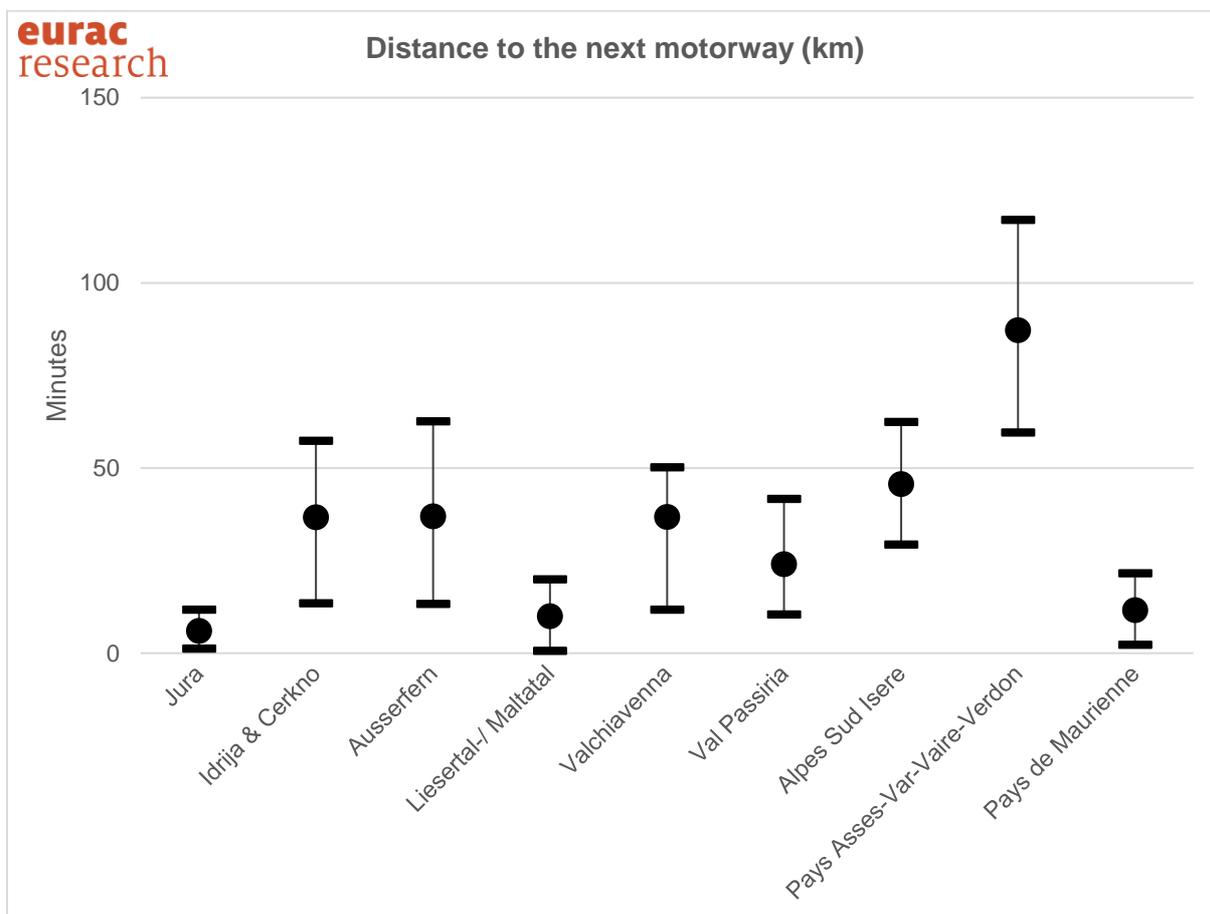
Comparing the distance to the provincial capital between the TAs, the population from the TA of Liesertal-/Maltatal has the longest, 112 km, to reach the provincial capital, while the population of the TA of Jura has the shortest, 0,53 km. The average distance of all TAs to reach the provincial capital is 62 km.

3.1.6.5 Motorway



Regional accessibility of the next motorway by car

Comparing the travel time to the next motorway by car between the TAs, the population from the TA of Pays Asses-Var-Vaire-Verdon (Nice from Allos) take the longest, 118 minutes, while the population of the TA of Liesertal-/Maltatal (Landfraß) takes the shortest, 1 minute, to reach the next motorway. The average time to reach the next motorway takes 38 minutes.



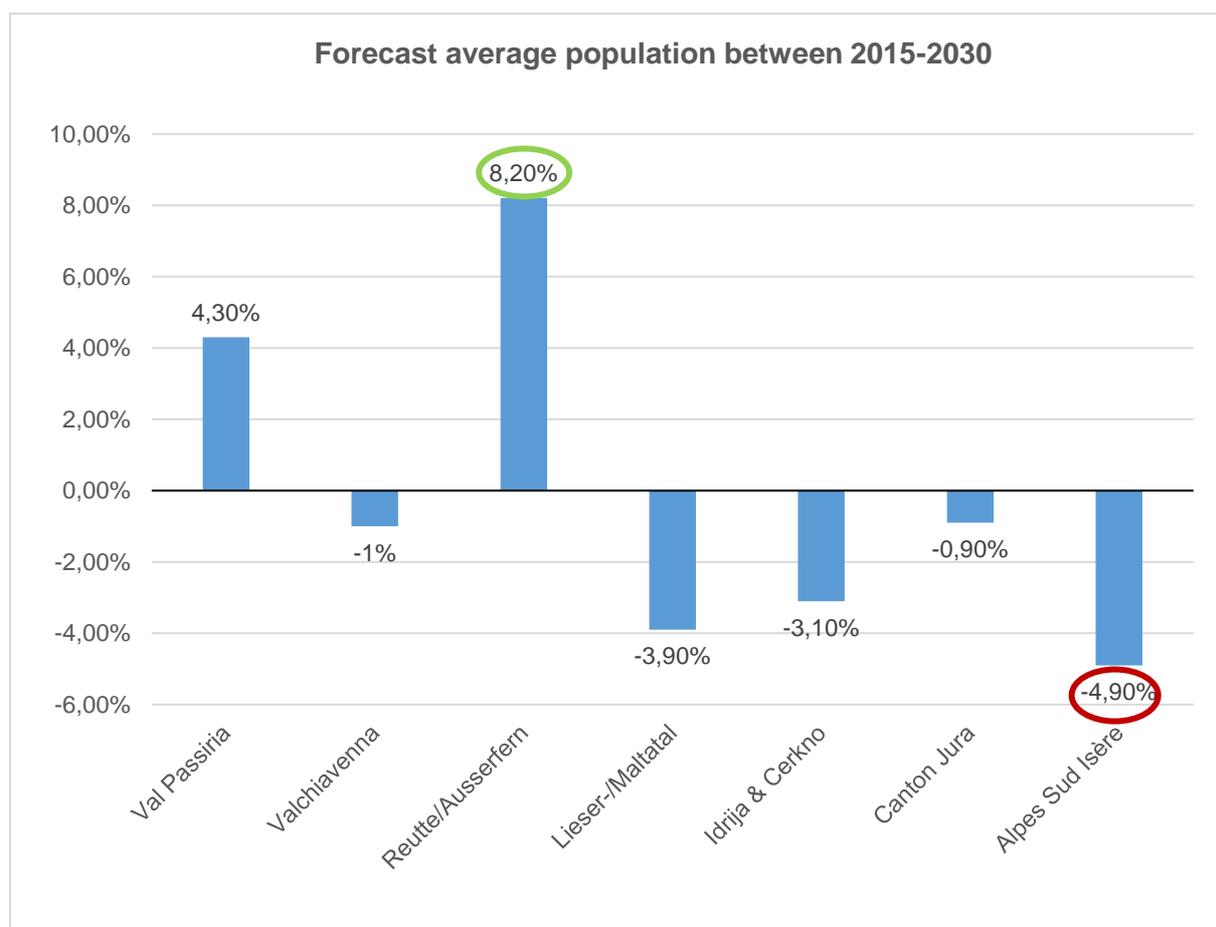
Distance to the next motorway in km

Comparing the distance to the next motorway between the TAs, the population from the TA of Pays Asses-Var-Vaïre-Verdon has the highest, 117 km, to reach the next motorway, while the population of the TA of Liesertal-/Maltatal has the shortest, 0,7 km. The average distance of all TAs to reach the next motorway is 32 km.

3.2 Demographic forecast

The population forecast is based on the statistical data available from 1995 to 2015.

1. Comparison peripheral centers

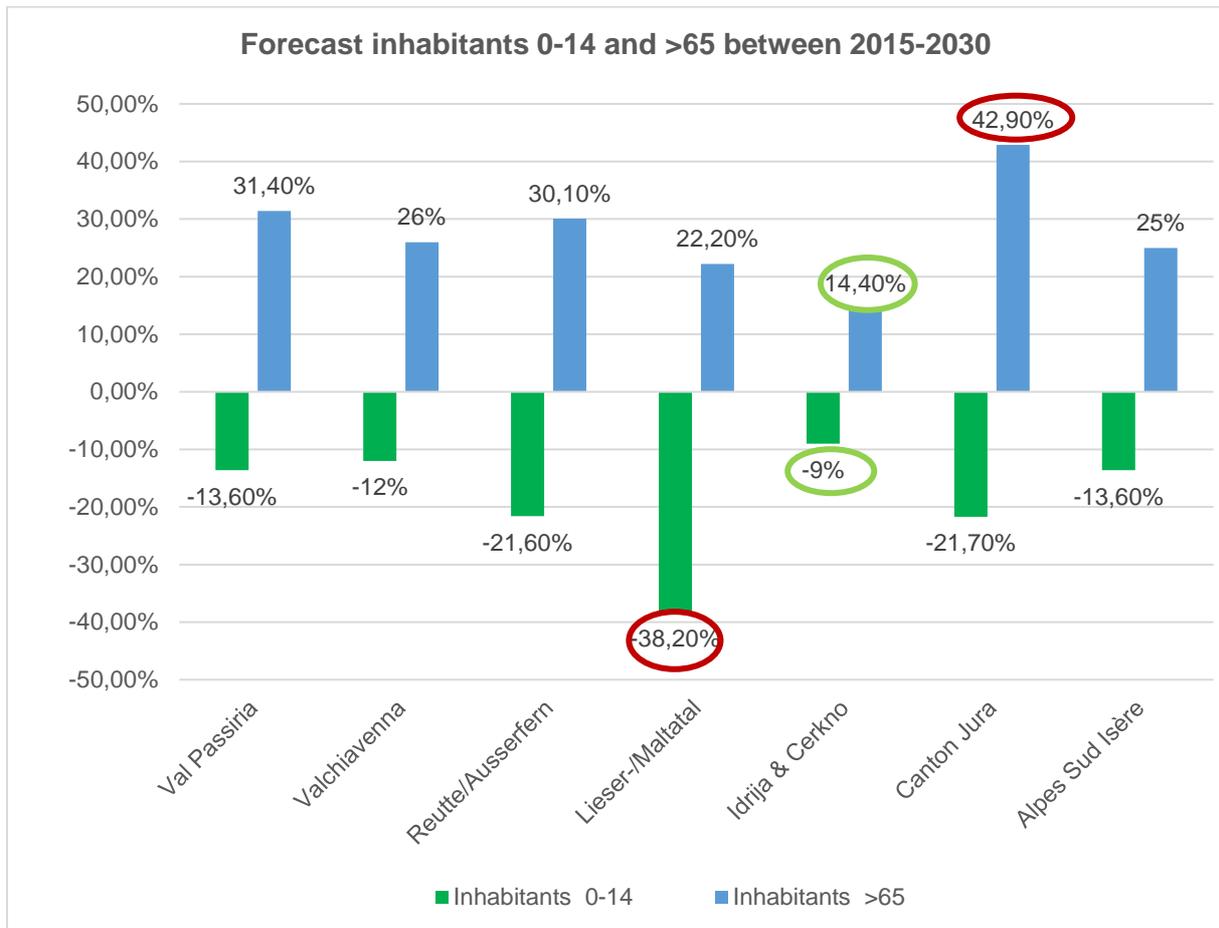


Forecast average population 2015-2030 peripheral centres⁶

Comparing the average population of the peripheral centres, the forecast between the TAs shows that all TAs are expected to experience a slight decrease in the number of average population (between -0,9 - -4,9%) by 2030 except for Val Passiria, which is expected to have a slight increase of 4,30% and Reutte/Ausserfern of 8,20%.

⁶ The TAs Pays de Maurienne and Pays A3V do not have a peripheral center therefore they are missing in the chart.

The green circle highlights the most positive expected demographic population change and the red circle highlights most negative expected demographic population change.

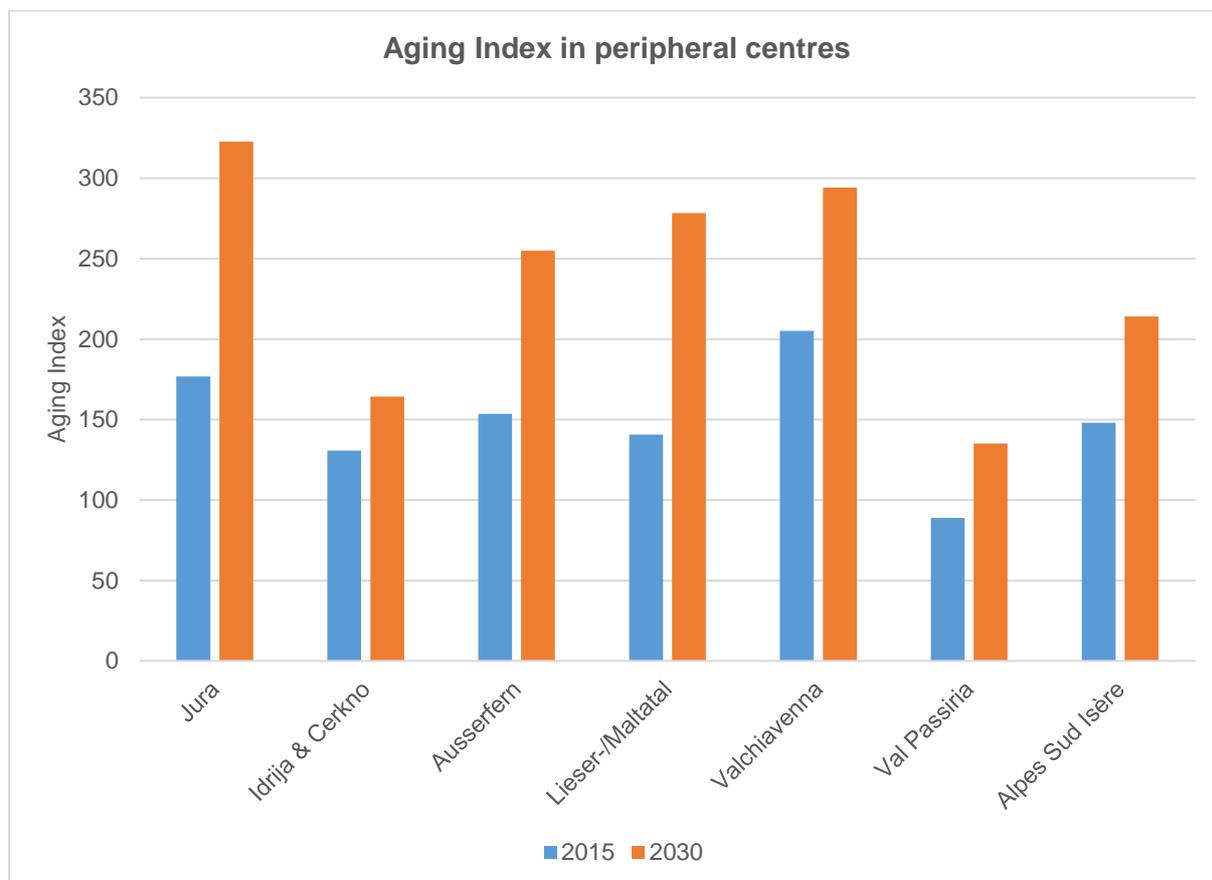


Forecast inhabitants aged 0-14 and >65 peripheral centres⁷

Comparing the inhabitants aged 0-14 of all TAs, it is expected that the number of 0-14 year olds will decrease. This can range from the lowest decrease in Idrija and Cerknjo of -9% to the highest decrease in Lieser-/Maltatal of -38,20% by 2030.

The number of inhabitants above 65 years are expected to increase in the coming years in all TAs between 14,4% in Idrija and Cerknjo to a maximum of 42,9% in the Canton of Jura.

⁷ In the charts on the forecast of the inhabitants aged 0-14 and >65 the green circle highlights the lowest expected change and the red circle highlights the highest expected change of inhabitants in the two cohorts.

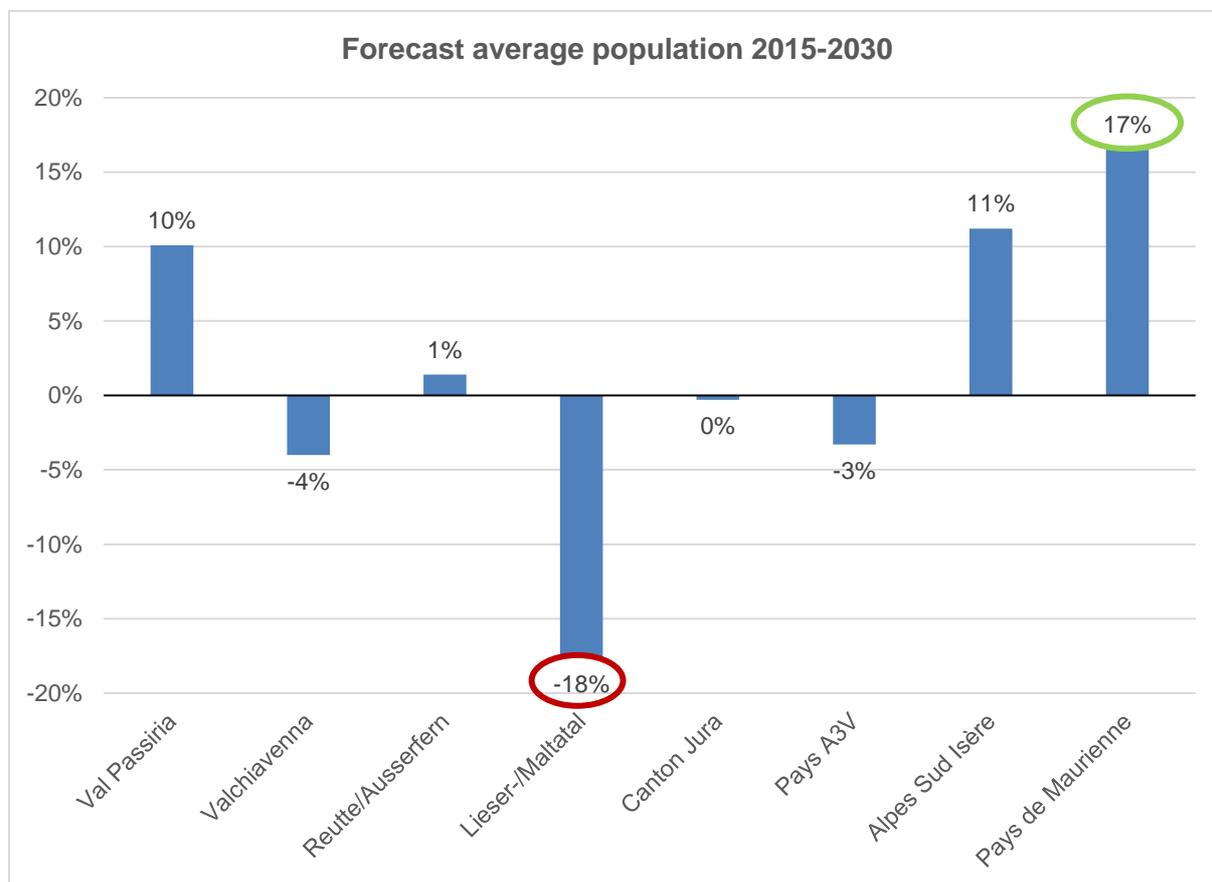


Aging Index in peripheral centres, comparison 2015 to 2030⁸

The Aging Index is calculated based on the number of people older than 65 years old per hundred people younger than 15 years old. The number of old people is rising in every TA. The index shows that in all TAs the balance between old people and young people is estimated to be even more unbalanced in 2030 than it is now. The TA Jura, is expected to have the highest index by 2030, where it is estimated that an average of 675 young people will face an average of 2178 people over 65 years.

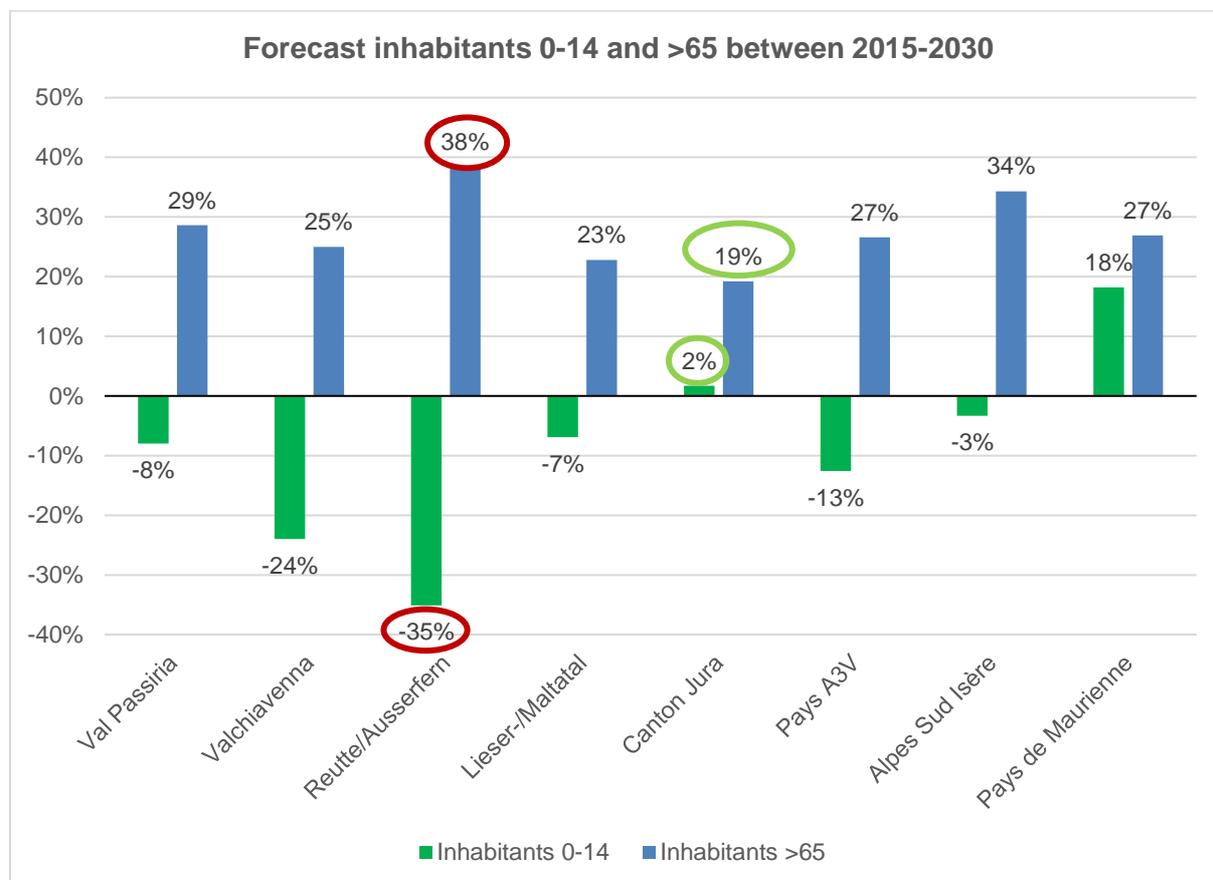
⁸ TAs Pays de Maurienne and Pays A3V do not have a peripheral center therefore they are missing in the chart.

2. Comparison rural areas



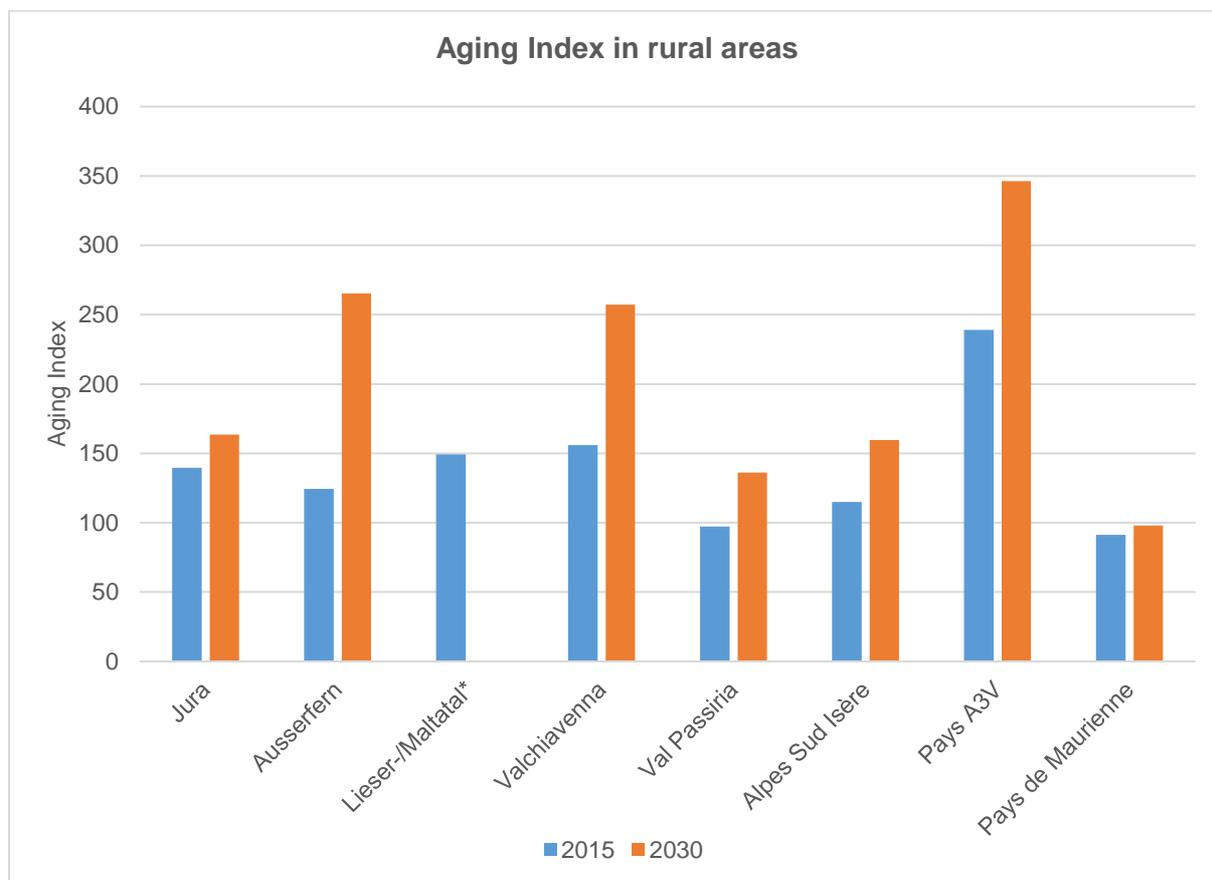
Forecast average population 2015-2030 rural areas

Comparing the average population of the rural areas the forecast between the TAs shows that the TAs Pays A3V, Valchiavenna and Lieser-/Maltatal are expected to experience a decrease in the number of average population (between -3% to -18%) by 2030. The TA of Reutte/Ausserfern, Val Passiria, Alpes Sud Isère, Pays de Maruienne are except to have an increase between 1% to a maximum of 17%. For the Canton of Jura no evident changes are expected.



Forecast inhabitants aged 0-14 and >65 rural areas

Comparing the inhabitants aged 0-14 of all TAs, a decrease is estimated, which can differ from the lowest in Alpes Sud Isère -3% to the highest decrease in Reutte-/Ausserfern of -35% by 2030. The Canton of Jura and Pays de Maruienne are the only two TAs that are expected to experience an increase of young people by 2% (Jura) and 18% (Pay de Maurienne). The number of inhabitants above 65 years are expected to increase in the coming years in all test areas between 19% in the Canton of Jura to a maximum of 38% in Reutte/Ausserfern.

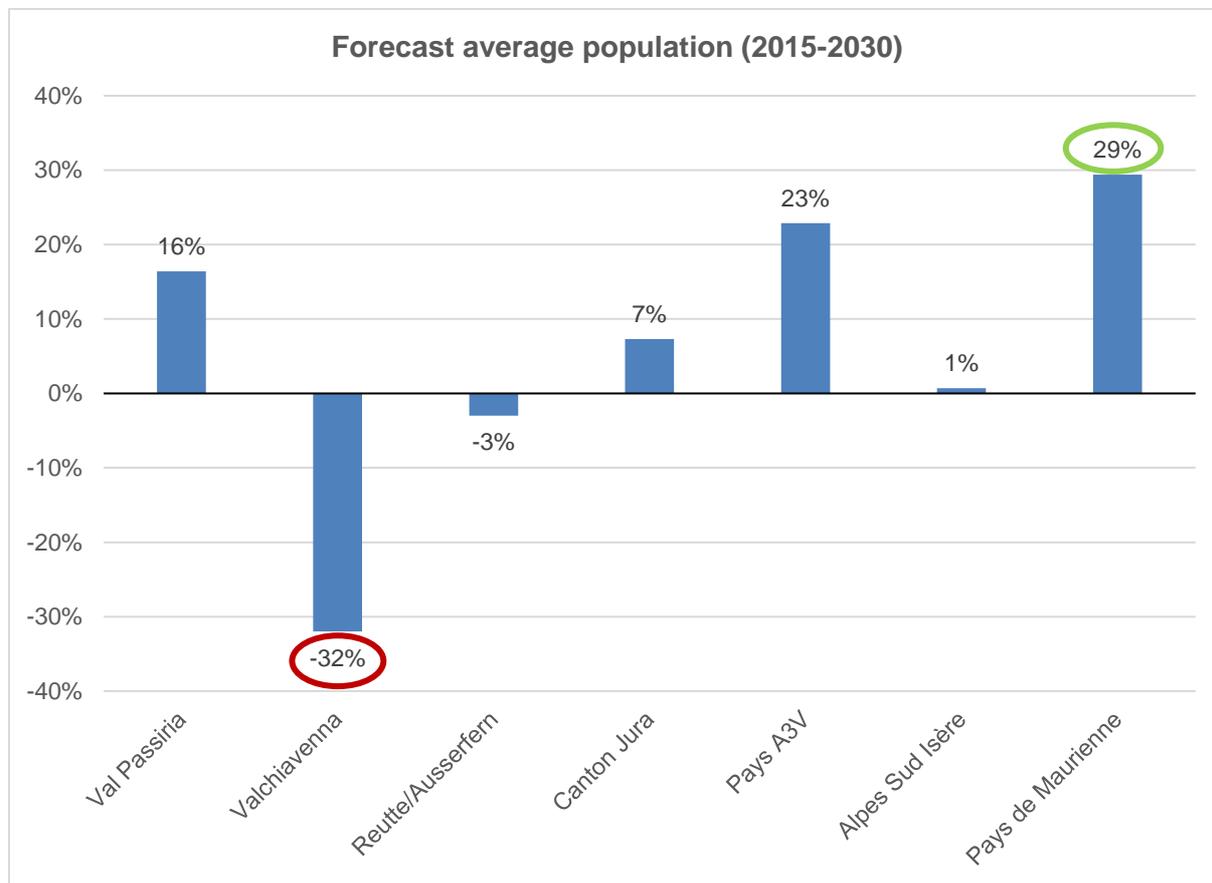


Aging Index in rural areas, comparison 2015 to 2030

*No data available for the predicted future aging index

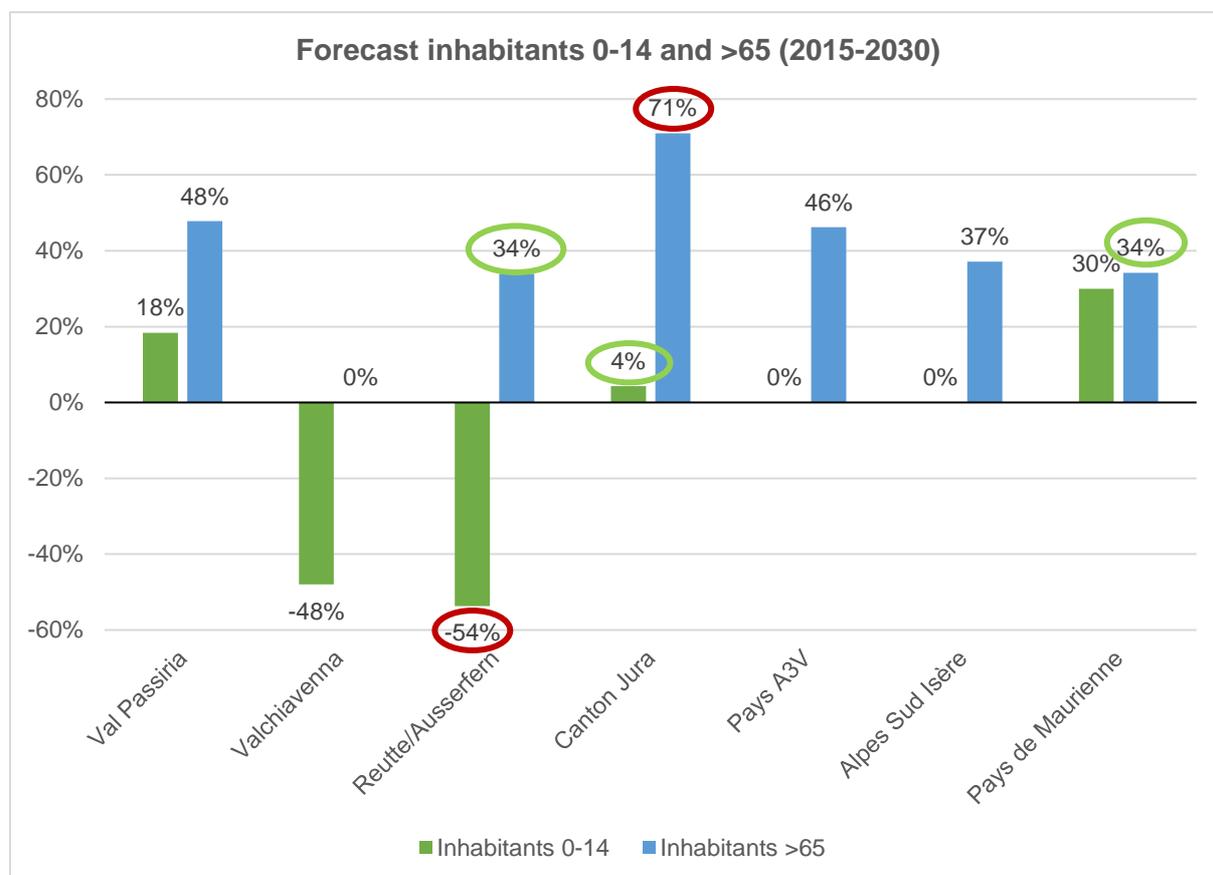
In the category of rural areas Pays A3V has the highest index in 2015 and is expected to have the highest index also in 2030. In Pays de Maurienne the index is predicted to only rise minimally. Although for the TA Lieser-/Maltatal no data is available it can also be expected that the aging index will rise.

3. Comparison sparsely populated areas



Forecast average population 2015-2030 sparsely populated areas

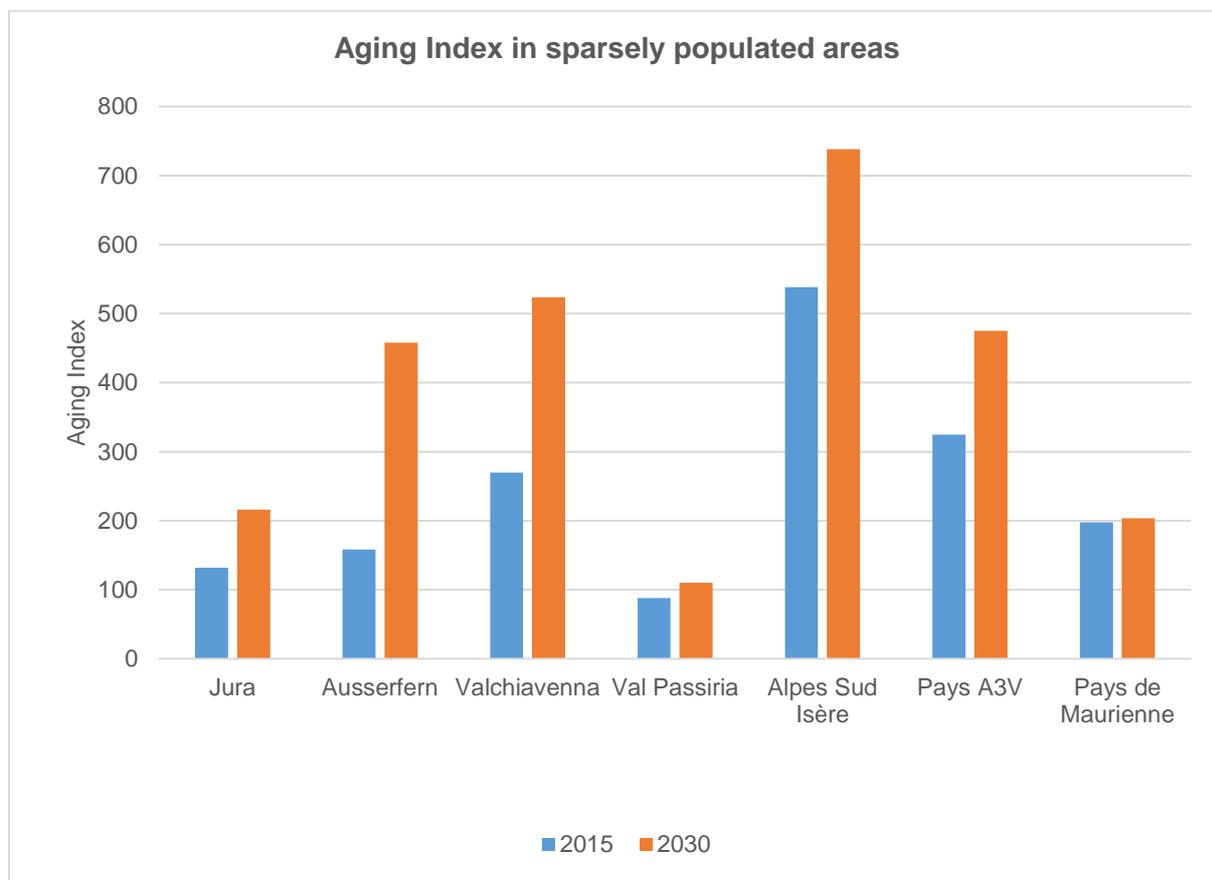
Comparing the average population of the sparsely populated areas the forecast between the TAs shows an estimated increase in the average population number (between 1% and 29%) by 2030. Only Valchiavenna and Reutte/Ausserfern are expected to experience a decrease of the average population number in the sparsely populated area between -3% and -32%.



Forecast inhabitants aged 0-14 and >65 sparsely populated areas

Comparing the inhabitants between 0-14 of the sparsely populated areas the forecast between the TAs shows that only the TAs of Valchiavenna and Reutte/Ausserfern are expected to have a decrease in the number of young people aged 0-14 between -48% and -54%. The TAs Val Passiria, Canton of Jura and Pays de Maurienne are expected to experience an increase in the number of young inhabitants aged 0-14 years which can differ from the lowest in 4% to the highest in Pays de Maurienne 30% by 2030. In Pays A3V und Apes Sud Isère no effective change in the number of inhabitants aged 0-14 is expected as these municipalities count 100 to 123 inhabitants.

The number of inhabitants above 65 years are expected to increase in the coming years in all TAs between 34% Reutte/Ausserfern and Pays de Maurienne to a maximum of 71% in the Canton of Jura. Except for Valchiavenna where there is no change expected in the number of people above 65.



Aging Index in sparsely populated areas, comparison 2015 to 2030

Comparing the other two areas with the sparsely populated areas, the smallest towns and villages show the highest aging index for 2015, as well as for the prediction of 2030. As visible in the graph, the French TA Alpes Sud Isère is expected also to be the most affected in 2030, with 738 old people per 100 young people. The Val Passiria only is estimated to have a slight increase in the aging index, where it is predicted that there will be 110 old people per 100 young people.

3.3 Qualitative Information

According to the workshops and interviews held, the results only replicate the subjective opinion of the stakeholders and service providers interviewed and thus do not represent the overall perception of the local population present in the TA. The following points can be summarised:

Selection of interesting results of the analysis

4. Most common conditions/phenomena

- Relevant for SGI delivery is the aspect of tourism in the municipalities. Every TA has at least one municipality where tourism plays a major role for service delivery. **Ausserfern:** Tannheim, Ehrwald and Reutte; **Lieser-/Maltatal:** Rennweg am Katschberg, Krams in Kärnten; **Val Passiria:** S. Leonardo and S. Martino in Passiria; **Valchiavenna:** Madesimo and Campodolcino; **Canton du Jura:** no available data on tourism so we could not make predictions; **Pays A3V:** Castellane and Allos; **Alpes Sud Isère:** Mont-de-Lans; **Pays de Maurienne:** Aiguebelle; **Idrija and Cerkno:** Cerkno. Not only does the tourism sector allow services to remain in place but also new ones to be implemented due to the higher demand. Moreover, the tourism sector can offer jobs, which allows people to remain in the territory and request and use the services. In every TA, there is also a bigger municipality with a principle town, where services are better supplied than in smaller municipalities.
- The geomorphology and topography and the distance of some single households in mountain areas are a common challenge. However, the amount of people that are affected is not as high and these people – according to qualitative data assessment - have mostly accepted and are coping with this disadvantage of lacking accessibility to SGI.
- The quality of high-speed internet is a crosscutting issue and prerequisite for improving the quality of most services and for applying new technologies and tools to improve the access to SGI as well as fostering the viability of a peripheral area as accessibility especially for scattered settlements is often a big issue.

5. Strengths, opportunities

The presence of tourism and close urban centers has been mentioned as strengths in the interviews. These two factors play an important role for the presence of services. In addition, the use of individual transport plays an important role in the peripheral test areas especially for the scattered households.

Basic services

- In the case of South Tyrol basic services are functioning very well, this is on the one hand due to the South Tyrolean autonomy and its special legal competences (e.g. kindergarten, retirement homes, care services, public transport) the province entails as well as the amount of resources it grants for services. For instance the Autonomous

Province of Bolzano signed an agreement with the state for the next three years, so that no post offices will be closed in this period and that the distribution center will reopen in Bolzano. Therefore, the province provided 10 Mio. Euro. (Dolomiten 2017a) (*Val Passiria*). Strategie of “Zukunft 2030” (Future 2030) for the municipal development and inter-municipal collaboration.

- The private energy cooperative (EUM – Energie Umwelt Moos) supports small retailers to maintain the municipal life in settlements. This small retailer is also used as a deposit for express post service, which shows the integrative approach. Basic goods are present and functioning well. There is even a mobile food service for old people provided by volunteers. The food bank is organized inter-municipally. Rifiano and Caines are close to the bigger city of Merano (40.047 inhabitants), which provides all services
- Schattwald and Tannheim operate the post office inter-municipally (*Reutte*)
- Strong association and voluntary work in the municipalities, which helps to deliver services (*Val Passiria, Reutte*)
- Large number of basic services in the center of Gmünd, which is located max. 20 km distance from the other four selected municipalities (*Lieser-/Maltatal*)
- In some smaller municipalities post offices have been integrated in grocery stores (*Canton du Jura*)
- Post office service extended service and improved its service. Mobile shops are important for remote settlements (*Idrija and Cerknò, mobile service also present in Pays A3V*)
- Basic are services well-provided due to the presence of two international skiing resorts (*Alpes Sud Isère*)

Education

- Educational services are organized inter-municipally already e.g. in the TA of Reutte. Also the health and social services have an intercommunal organization, often due to a strategy or plan (e.g. Ausserfern regional structural plan for health care)
- Well supplied and functioning education sector (*Lieser-/Maltatal*)
- Integrated educational system elaborated (*Valchiavenna*)
- Well-functioning and present in the municipalities. Also high school accessibility good due to well-functioning transport. Incentive for parents living in afar settlements to bring children to the kindergarten as they do not pay for the kindergarten (*Val Passiria*)
- Kindergarten highly subsidies by municipalities. Elementary and high school available in the TA as well as school transport (*Idrija and Cerknò*)
- Promoting online training (*Alpes Sud Isère*)

Health and social services

- Well established network of care, medical services, district health and social department. Moreover, there is a strong cross border cooperation with the (federal state hospital) BKH Reutte and hospital of Füssen as well as the Reha-center of Enzensberg. Many interviewed partners mentioned, that the volunteer work is an important resource

- to offer certain social and care services. Further, there exists a regional structural plan for health. Tele-medicine already implemented due to strategy papers (RSG) (*Reutte*)
- Certified as “healthy municipality” due to low environmental burden in the region. (*Lieser-/Maltatal*)
 - Well supplied with general practitioners, social and old age homes organized inter-municipally (*Val Passiria*). In S. Leonardo the old age home will be restructured and the bed capacity will be increased from 42 to 46. For this provincial and municipal financial means of 9 Mio. € are put to disposition (Dolomiten 2017c). Generally, in the province of South Tyrol lack of doctors, it would need approximately 87 doctors per year to replace those doctors that retire. For this reason, a provincial representative proposed the idea to build flats for young doctors that are put to disposal free of charge (Dolomiten 2017d)
 - Well-functioning mobile care also due to good cooperation between service units. Health services functioning inter-municipal. (*Idrija and Cerkno*)
 - Services for care for elderly well served, intergenerational center available, home care services developing and meliorating. Retirement home only in Idrija. Services for disabled and mentally unbalanced as well as young people all present and well developed also working inter-municipally and some services also on voluntary basis (*Idrija and Cerkno*)
 - Mobile patient care and chemist’s shop present as well as integrated approach of medicine delivery (Pays A3V)
 - Social-cultural center in Aiguebelle offering many social services as well as administrative services (Pays de Maurienne)
 - Virtual mountain hospital (Valchiavenna)

Transport

- Good utilization of public transport in tourist areas
- Linear traffic flows, well-functioning public transport for population living along the route (*Lieser-/Maltatal*)
- Alternative transport methods such as care-sharing, (*France, South Tyrol*), micro public transport, call services (*Lieser-/Maltatal*), ride-sharing (*Idrija & Cerkno*)
In Tyrol an old tradition has been reintroduced, giving people a ride with the individual car. This project even won the ARGE ALP 2017 main prize. In remote, mountain areas, orange colored benches have been placed which signalize, the person sitting there needs a ride or lift (Dolomiten 2017e)
- Public transport functions very well and are of high frequency every 30 minutes and during tourist season even every 15 minutes (*Val Passiria*)
- Functioning well and high demand, improve frequency of public transport also during night hours in the *Canton du Jura*. School transport is performed in most cases by postal busses (*Canton du Jura*)
- Well-functioning private school buses in the TA and city bus in *Idrija* (town) better supplied than *Cerkno*. Transport for disabled financed by state for registered users

Telecommunication

- Digitalization and the expansion as well as the implementation of optical fiber is an opportunity to overcome the service divide and thus support the advancing telemedicine, e-shopping, administrative work, which can be organized online. The results of further digitalization leads to more independence in location management. Especially for mountain areas, a further possibility is the internet over radio signals (e.g. *Saltaus Val Passiria*, Eolo in *Valchiavenna*)
- In South Tyrol the Alperia Fiber recently has signed an agreement on ultra-broadband communication with Telekom, where Telekom will use the platform of Alperia Fiber, which offers high-quality digital services (Dolomiten 2017b)
- Due to the tourist destination, many hotels are present and so advanced stage of implemented optical fiber. South Tyrol Digital 2020 strategy (*Val Passiria*)
- Broadband offensive strategy in *Reutte*
- Ultra-broadband infrastructure available and ready to be taking into function (*Valchiavenna*)
- Good signal coverage in some parts. New optical cable connection (Crni Vrh, Godovic). Better use of tele-services (*Idrija* and *Cerkno*)
- Broadband being expanded in the departmental plan for broad-band access (SDTAN) in *Pays de Maurienne & Alpes Sud Isère*

Administration

- Proposal to move provincial administrative services to peripheral areas. However so far greater approach towards centralization in South Tyrol. Rifiano and Caines share the municipal building and parts of administrative staff, which allows to save costs (*Val Passiria*)
- Use the available synergies within the TA and between services to guarantee the service especially of basic goods.
- Most administrative services are already covered in an inter-municipal way and extending e-services (*Idrija* and *Cerkno*)
- SGI house in *Pays de Maurienne* and *Alpes Sud Isère*

6. Weaknesses and threats

Some municipalities on the border of the TA highlighted that cross-border cooperation should be extended and strengthened (e.g. *Reutte*) and qualifications recognized. Small municipalities often have numerous vacancies in the local centers and at the same time, they are lacking affordable rentable apartments for young people.

Basic goods

- Provision of postal service is worsening, opening hours and delivery days has decreased (*Valchiavenna*) and due to the shrinking public budget no new administrative personnel can be employed
- Decline of small retailers due to commuters who do grocery shopping on their way, in big discounters. Low price discounter only in Merano not in the valley (*Schattwald/Reutte*, *Val Passiria*)
- Lacking innovative mix of industries, no big flagship companies (*Lieser-/Maltatal*)

- Bank service moderate quality in *Cerkno*. Short working hours of bank and post office, ATMs could be expanded. Do not use e-connectivity as much as they could.
- Multifunctional grocery stores not available in *Cerkno* only in *Idrija*.
- Basic goods centralized in bigger municipalities (*Pays A3V*), little shops are closing and supermarkets are opening in the periphery (*Pays de Maurienne*)
- Seasonality of opening hours and job opportunities in the tourism centers (Alpes Sud *Isère*)

Education

- Decline of the number of children, fear of the effect on lacking service supply (*Lieser-/Maltatal, Pays A3V e.g. nursery*)
- Risk of losing secondary school due to demographic changes (*Villa di Chiavenna*)
- Rocourt, Fontenais and Granfontaine do not have childcare centers. Small municipalities work together in primary education (*Canton du Jura*)
- Need for further reconstructions of educational buildings. Some specialized branch schools have closed down the abandoned buildings should be used for another purpose and revitalized. No adult education center, only some services offered now and then (*Idrija and Cerkno*)
- High schools located approx. 30 km away. Elementary schools are being merged (*Pays de Maurienne*)
- Difficulty to find professional training facilities (Alpes Sud *Isère*)

Health and social services

- Lack of medical specialists, young doctors and caregivers. And if they are present the only are present once a week, (*Reutte, Valchiavenna, Val Passiria, also the case for Idrija and Cerkno, Pays A3V*)
- Rescue service and general doctors need longer to reach spread, distant settlements and individual farms (*Lieser-/Maltatal*).
- Risk of maternity ward closing in Chiavenna. Need of improving helicopter emergency service (*Valchiavenna*)
- Intermediate services between hospital and home care and assisted apartments, where old people live and still have their autonomy but are assisted in some things such as cleaning etc. are still in progress. Some shortages in social services mainly due to insufficient communication between regional and municipal social service departments. Services beyond basic care are costly, economic accessibility of retirement homes deteriorating (*Idrija and Cerkno*)

Transport

- People are used to the car to reach specific services, therefore also individual traffic choices. There is somehow a low willingness to change to public transport due to convenience. (*Reutte*)
- Limited public transport in evening hours and on weekends, lack of coordination of timetables among different service providers e.g. bus or train (*Reutte, Valchiavenna*)

- In the transit valley high intensive traffic, scattered settlements lacking public transport (*Lieser-/Maltatal*)
- Only one main road (SS36) connects Chiavenna with the rest of Lombardy, hydrogeological problems and lacking alternative road. Connections between Chiavenna and the rest of the region with public transport poor, as sometimes there is a lack of coordination regarding timetables (*Valchiavenna*).
- Transport means overcrowded during tourism season and accessibility of services within the center of Merano longer due to high traffic intensity. Besides the TA has a lot of businesses, which attributes additionally to the traffic intensity (*Val Passiria*)
- Only bus service no train service. Remote areas are not served adequately. Better connection towards Ljubljana than to Nova Gorica. Quite costly; too few lines and frequencies, which are not well scheduled. Bus stops on smaller roads should be sheltered and provided with lights. Dependency on individual transport by car. (*Idrija and Cerkno*)
- The train line is a more touristic route. Information and cost problems of public transport (*Pays A3V*). Only in *Pays de Maurienne* a train station is available
- Public transport is insufficient (*Alpes Sud Isère*)

Telecommunication

- Poor mobile phone and radio reception due to mountainous landscape (*Lieser-/Maltatal, Valchiavenna, TA in France*)
- Lacking financial means for the last mile to the households, which is not always easy to establish due to difficult geological settings and peripheral area. Higher public funds needed for the expansion of optical fiber to fulfil South Tyrol Digital 2020 plan (*Val Passiria*)
- More financial means needed for implementation of optical fiber (*Canton du Jura*)
- 3G mobile internet coverage not available everywhere, as no suitable location can be found and the maintenance is very expensive. Additionally the low number of users due to demographic change in mountainous regions is economically a problem (*Idrija and Cerkno*)
- Problems with broadband access and mobile phone coverage (*Pays A3V*)

Administration

- In the administration sector the biggest weaknesses are the opening hours in smaller municipalities as well as the centralization tendencies of services due to lacking financial resources (*Canton du Jura*)
- The increase of ageing population also triggers new service models and concepts (housing structures, other care structures new competences in care services) for a specific group of people. Moreover, this leads to an increase of higher costs in the health care sector, which can result in a lack of on-site service supply (*Reutte*).
- High administrative costs and often lacking inter-municipal cooperation (*Lieser-/Maltatal*).

- Lacking administrative staff due to the reduction of public financial means in San Giacomo Filippo and small municipalities as well as overwhelming bureaucratic requests (*Valchiavenna*). Some offices also understaffed in Idrija and Cerkno.
- The interviewed representatives from the central municipalities and principal towns were more critical than remote municipalities. The quality of the administrative services meets the needs and demands of the citizens moderately (*Idrija and Cerkno*).
- SGI house in Digne approx. 1 hour of certain places in *Pays A3V*
- Lack of services for psychiatric/mental diseases (*Pays de Maurienne*)

Generally fear that merging administrative powers are losing the independence of the municipality

7. What are the main differences among the TAs?

- The standard of the services is not equal between the TA or within the TA. This depends strongly on the legal framework, resources, strategies, territorial circumstances and demography. All of the aforementioned has to be noticed in the accessibility analysis and mapping of the services in GIS. We used a reference benchmark from the German MORO study; however, in a second step or further following project individual benchmarks for certain SGI should be established or designed from the INTESI Think Thank group.
- In the TA of Reutte there is a need of further development in the service sectors of mobility (eco-, customer friendly and soft mobility), broadband (centers vs. peripheral areas and cost) and energy (hydropower). As well as health care sector for adequate structures and mobile care. It is essential that voluntary services support the existing institutionalized, professional structures
- Lieser-/Maltatal are focusing on energy efficient and health communities.
- Valchiavenna has a mountain community working closely with the municipalities mostly regarding health and social services.
- Val Passiria located in the Autonomous Province of Bolzano still has well-functioning services, as it benefits from the special legal competences of the province. However, integrated approach still expandable, as so far mostly cooperation between the municipalities.
- Idrija and Cerkno stress the need of development in the service sectors of basic goods, and transport as well as a more transparent information flow and horizontal and vertical integration.
- The importance of high quality internet for all territorial areas is a prerequisite for easing the quality of service delivery.
- Also in the TAs of France transport and the quality of high-speed internet play an important role and should be further developed. Moreover, services for people with special needs should be expanded.

4 Conclusion, Discussion and Input for WP-T3

The EU Communication from the Commission on Services of General Interest in Europe (COM(2000) 580 final) of 2000 sets specific basic standards for SGI to promote social and territorial cohesion and so that an overall competitiveness is guaranteed, which effects the quality of the services. Moreover, the EU adopted the Quality Framework for Services of General Interest (SGI) in 2011. It clarifies how EU rules apply to basic services so specific needs are addressed, ensures that essential services are provided for all citizens and it promotes quality in the field of social services. Nevertheless, very country has its unique normative and institutional framework, standards and criteria concerning SGI. Due to the different social and political priorities the analysed countries have different sectoral strategies on SGI. This point has been further analysed in WP-T1 and shows that there is still a lack of sensitivity and awareness concerning the prerequisite of these public service for the quality of life in rural areas and the creation of equivalent living conditions. Furthermore, the definition of services of general interest is not harmonised but varies slightly from country to country. In Austria the municipalities have a special role regarding services of general interest while in Switzerland the canton has responsibilities inherent in the fields of (federal law, education, energy, culture, health, public security, spatial and regional planning, infrastructures, assistance to persons in need). All other competences are part of the federal administration and some are part of the municipalities. In Italy SGI competences are mostly taken on by the regions.⁹

With WP-T2 an analysis of the status quo of SGI in the selected TAs was elaborated considering the benchmarks taken from the MORO study (BMVI 2015b) to derive necessary policy measures for the alpine space and mountain regions in the EU. These benchmarks refer to the situation in Germany. Thus, it would be required to develop adapted benchmarks for the accessibility of SGI in the alpine space taking into consideration the specific conditions and distribution of the settlements (structure, compactness and demography) and landscape (geomorphology). Together with the perception of the service quality from the affected people, these two factors are impacting most the delivery and thus the accessibility of SGI. The different conditions of the TAs pose a challenge for the development of benchmarks and minimum standards, which have to take into consideration demographic change, economic and tourism situation of the TAs.

The preparatory work of WP-T2 and the ongoing pilot activities provide a basis for WP-T3, which will try to draw recommendations on integrated strategies and their implementation as well as the supply of SGI in remote territories for policy makers and members in the Think Tank. Very often, there is a lack of willingness and awareness of the public authorities to promote and develop innovative approaches to emerging problems in the alpine regions. On the one hand, this is due to the lack of a critical mass. On the other hand the affected population in remote areas is not aware of the emerging change. The majority is often not capable of

⁹ Clmenz, G., Dewatripont, M., Motta, M., Neven, D., Seabright P., Zemplerova, A. (2006): Services of General Economic Interest Opinion Prepared by the State Aid Group of EAGCP, Online unter: http://ec.europa.eu/competition/state_aid/legislation/sgei.pdf, Zugriff: 07.07.2016.

anticipating the promptness of those future developments and thus struggles to accept new forms and technical solutions of integrated approaches to regulate the provision of SGI. Thus, WP-T3 will provide necessary recommendations for better implementation of integrated SGI and improvement of strategies. Moreover, WP-T2 provides a starting point for the discussion and exchange within the permanent Think Tank (WP-T4) on the integrated approach of SGI. As in the Slovenian case, the important SGI are concentrated in the principle towns of Idrija and Cerklje. Doctors only exist in these two places. Although peripheral settlements are integrated in the public transport network, the travel time with public transport takes unfortunately too long.

Particular in Lieser-/Maltatal and Slovenia, it seems to be difficult for the local population, to access SGI by public transport. In Lieser-/Maltatal, due to the great number of remote settlements in high altitude, a well-adapted public transport network should be provided that meets those requirements. On the contrary most inhabitants of the TAs in Jura, Ausserfern as well as Val Passiria can access the selected analysed services by public transport. On the contrary, TAs in Slovenia and Pays de Maurienne are located in a wider and more hilly landscape with dispersed settlements, and have thus greater problems with providing public transport. The TA Jura, which is also located in a hillside, however, has a better accessibility with public transport. Besides, only one of eleven analyzed settlements in which 0,3% of the population of the TA live does not have access to public transport.

Particularly, in the TA of Slovenia, Lieser-/Maltatal, Val Passiria and Alpes Sud Isère a big variation in the travel times by public transport is noticeable. From this it can be concluded that the differences in accessing public transport is greatest for the population within these TAs. On the other hand, this is linked in some cases to the fact that the services within the TA are concentrated in a few places and the settlements are widely dispersed, as can be seen, for example, in supermarkets in Slovenia and the Lieser- / Maltatal test area.

In Valchiavenna, the poor public transport service is compensated by the decentralized supply of SGI in the mountain municipalities. The test area of Tyrol, deals with its remote settlements by ensuring a good distributed SGI- supply and connectivity by public transport.

In the TA of Val Passiria, most of the services are concentrated also here in the main centers, where the highest percentage of population is concentrated. Just some of them as primary schools are organized decentral.

The analyzed settlements of the TAs in France are not as dispersed as in the other countries. Therefore, the majority of people can access SGI in a reasonable time by public transport or by foot.

For the accessibility of regional and trans-regional services, it is very important where the TA is located in a supraregional context. If the TA is close to a larger city, it is apparent that important facilities are within easy reach. The Pays de Maurienne test area is, for example, close to the city of Chambéry, which is connected to an airport.

Comparisons of travel times to regional services like airports or the provincial capital by car show that people require between ca. 40 and ca. 125 minutes or longer. Instead, other regional or trans-regional services, like train stations and hospitals and motorways are reachable in about 10 to ca. 75 minutes by car.

Especially for regional and trans-regional services it can be noted that the rarer they occur, the greater the distances and travel times are. Besides this fact, it has to be mentioned that where TAs share national borders, the awareness for transnational administration is lacking. Here it

would be recommended to take advantage of the European cohesion policy and its transnational funding projects as well as the European Grouping of Territorial Cooperation (EGTC).

It also can be mentioned, that the population living in remote settlements grows up with the distance to services and live thus in accordance with the available services also if they are further away. Moreover, digitalization plays a crucial role for the future supply of services in remote areas. Hence, each TA is seeking to install broad band and fiber internet. Most of the areas are struggling with the last mile problem and with finding an appropriate service provider to use these infrastructure facility.

The WP-T2 results should be presented to decision makers, who can consider to what extent and for which catchment area SGI should also be provided in future or how to maintain existing ones that are in danger of being abandoned. It can be summarized that future services will have to respond to the aging population of the TAs and thus consider expanding health and social care services (e.g. telemedicine in Tyrol, Mountain hospital in Valchiavenna), as well as digital services. Of course public transport service will still play a crucial role however there have been new innovative ideas regarding transport service also considering old people (e.g. “Mitfahrbank” in Tyrol).¹⁰ The biggest chance for the development of peripheral alpine areas lies within implementing strategies and the expansion of digitalization. All of the analyzed countries have some existing strategy regarding digitalization as more and more services can be done online and are not bound to a location. Consequently, not all services have to be provided in the urban area but can also be managed in the rural area. A good practice example of this kind already exists in Switzerland “Mia Engadina”¹¹ as a “third place”, where employees can swap their office with home office for a specific period in the peripheral area.¹²

Moreover, the results of WP-T2 help to derive appropriate actions for integrated territorial strategies (vertical or horizontal cooperation) to guarantee SGI in alpine areas, which is the main aim of the project so that best practices are discussed and distributed to create spillover effects in other areas.

¹⁰ <http://mobilitaeterinnen.org/>.

¹¹ See: <https://www.miaengiadina.ch/>.

¹² Deltedesco, M. 2017: Ländlicher Raum muss sich richtig positionieren – Interview mit Thomas Egger. In: WIKU Südtirol, 5. Juli 2017, S. 8.

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Appendix

QUALITY OF THE SERVICE	1	2	3	4	5
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1. Does the quality of the service in general meet the needs and demands of the citizens in the municipality adequately?
2. What challenges, weaknesses and strengths are you aware of regarding this SGI?
3. From your point of view, would it be feasible to share this service commonly with the neighbouring municipalities in an inter-municipal way? If yes list those, for which it could be relevant. Please state the main reasons for your evaluation/ decision.
4. What SGI are not available in the municipality and nearby that would be essential for the quality of life of inhabitants in peripheral Alpine areas?

CONSIDERATION IN POLICIES AND LEGAL ACTS (facultative as this was not always discussed in at the workshop or the interviews)

1. Is this service appropriately anchored in a political strategy/measure or legal act?
2. Is that policy capable of meeting the needs of the inhabitants in peripheral or rural areas?
3. If they have not yet been considered in policy measures, what were the driving forces so far for offering this service?
4. What initiatives need to be considered, to make politicians aware of the need to enhance the accessibility and quality of this SGI in peripheral or rural areas?

FUTURE INVESTMENTS	1	2	3	4	5
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1. Have there been investments in the last 2 years that have improved the SGI delivery?
2. Are future investments required for improving that SGI?
3. Which kind of improvements (e.g. inter-municipal collaboration) are necessary from your point of view?