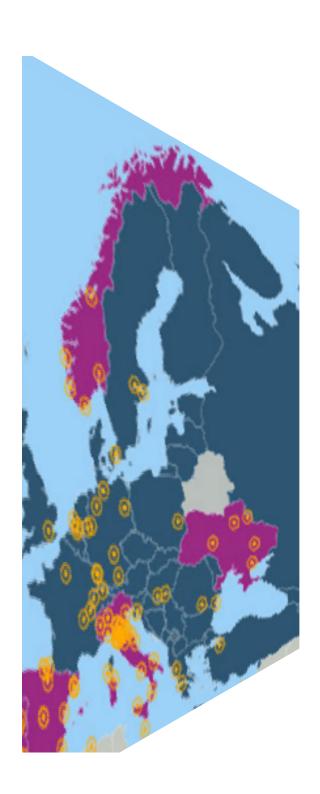


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QUANTITATIVE COMPARABILITY STUDY of the ICC INDEX and THE QUALITY OF LIFE DATA

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### Introduction

The Intercultural Cities' Index (ICC Index) is a benchmarking tool that has been used by the ICC Programme member cities for almost a decade "to explore the potential of an intercultural approach to integration in communities with culturally diverse populations." The ICC Index data have been collected and updated for ten years from now with 3-year frequency for each Programme participating city. So far, more than 80 cities from 28 countries around the world have been ICC Index tested based on a common questionnaire, in certain cases translated into the language of a country. These data offer a good basis for meaningful scientific enquiries and comparisons involving benchmarking tools, indicators and statistical data developed and collected by different international actors in the fields of social integration, social inclusion, quality of life, diversity management, urban and economic development, and others.

The Eurobarometer survey on the "Perception of Quality of Life in European Cities" is conducted every three years since 2004. The most recent "Quality of Life in European Cities 2015" was published in January 2016 and covered the population of more than 40,000 people in 83 cities. This survey is unique in its focus on the quality of services such as education, cultural and sport facilities, urban safety, air and noise pollution, public administration and transportation services, and whether migration is perceived as an asset.

Since the policy dimensions, the focus areas, and the sample size of the ICC Index is in line with the areas of the most recent Quality of Life Survey, the latter was chosen for the first comparative study of the ICC benchmarking tool to compare their quantitative data, indicators, cities' ratings, and identify possible relations and/or common trends.

This report presents findings of the study that compared the ICC Index data with the indicators (variables) of the most recent Eurobarometer survey on the Quality of Life in the European Cities. The identified in the course of this enquiry relationships between the ICC Index and Eurostat data – such as different degrees of association, causality and trends, – as well as the methodological steps undertaken are presented and explained in detail in the sections that follow. A set of important new findings and conclusions obtained as a result of this analysis are provided at the end of this paper together with the conclusions about the role the Council of Europe's Intercultural Cities Programme in the development of the European urban communities.

<sup>&</sup>lt;sup>1</sup> ICC Index and Benchmarking Tool can be found here seehttps://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016804902dc

<sup>&</sup>lt;sup>2</sup> Can be found at http://ec.europa.eu/regional\_policy/sources/docgener/studies/pdf/urban/survey2015\_en.pdf

# Methodology

A range of statistical models have been designed and tested within the framework of this study, following a simple correlation analysis as initial step. This was done to trigger any possible trends, and/or relationships and to assure robustness of the enquiry. These models featured different groups and compositions of ICC Index entries and indicators – such as commitment, education system, neighbourhoods, public services, business and labour market, cultural and civil life policies, public spaces, mediation and conflict resolution, language, media, international outlook, intelligence or competence, welcoming, governance (14 total), and 'intercultural lens' as a separate indicator – and the relevant variables from the Quality of Life (QoL) survey.

It should be pointed out that the study employed all available ICC Index indicators and a set of relevant entries from the QoL Survey database. More precisely, the QoL Survey indicators included residents' opinion on the efficiency of the administrative services provided by their city, easiness to find a job, their attitudes towards the presence of foreigners in the city and their integration, overall satisfaction with city life, public and green spaces, availability of the retail shops, feeling of safety in the city, importance of housing, education, employment, social service, as well as urban safety. To start with, a database containing indictors for all ICC Index tested cities<sup>4</sup> (across all 14 ICC policy areas) and the above listed QoL Survey indicators was created. Furthermore, the data/indicators for all the cities under consideration were pooled together from the ICC Index and the Eurostat databases (the latter representing the survey results for 2015). Next, the data were examined and classified by their type and comparability features. Finally, the data were coded for statistical testing and modelling.

For instance, 33 relevant indicators were identified for the purpose of this study in the QoL Survey database. Only positive answers/indicators in each QoL Survey category were taken into account and coded (i.e. some variables were created comprising two Survey entries/answers) for comparability purposes.<sup>5</sup> As a result of this process, 14 variables were identified for further analysis,<sup>6</sup> including, for example 'foreigners well integrated', 'foreigners' presence is good for the city', 'effort to find a job in the city', 'feeling of safety in the city', 'importance of the social services for the quality of life in the city,' 'importance of housing for the city', etc.

<sup>&</sup>lt;sup>3</sup> It should be noted that "intercultural lens" represents a separate measurable dimension of the ICC Index and comprises the following six indicators - education system, neighbourhoods, public services, business and labour market, cultural and civil life policies, and public spaces.

<sup>&</sup>lt;sup>4</sup> 76 for the time of the study.

<sup>&</sup>lt;sup>5</sup> The ICC Index does not contain negative values, so the statistical decision was made to consider only the positive value entries from the QOL Survey data.

<sup>&</sup>lt;sup>6</sup> It is important to note that the complete data for all the ICC Index and the QOL indicators were available only for 19 cities, making them totally comparable across the two databases. These cities are: Amadora, Barcelona, Bucharest, Copenhagen, Dortmund, Dublin, Geneva, Hamburg, Lewisham, Lisbon, Munich, Neukolln, Oslo, Reykjavik, Rotterdam, Strasbourg, Turin, Valetta, and Zurich. Yet, all the ICC Index tested cities (for the time of the study) were included in the modeling of this study to assure statistical significance of the results.

# Analysis and Key Findings

As mentioned previously, this study started from a simple correlation analysis to see if there are any significant and worth our attention trends and/or associations between the variables of interest from the ICC Index and the QoL Survey data pool.

The most meaningful observation at that stage was that the *Intercultural Lens* – which represents a separate measurable dimension of the ICC Index and comprises the following six indicators: education system, neighbourhoods, public services, business and labour market, cultural and civil life policies, and public spaces – demonstrated distinct and statistically significant positive relationship (of a moderate strength) with the people's positive perception (as reported by the QoL Survey) regarding *easiness of finding a good job in their city, their feeling of safety, efficiency of administrative services*, about the degree of *foreigners integration* and the advantage of *their presence in the city*.

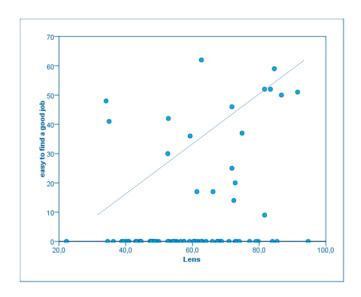
In other words, we could say that, in general, people in the cities that score higher on the ICC Intercultural Lens – above 65 points on ICC scale – are more likely to approve the statement that it is easy to find a good job in their city (see the scatterplot Graph 1); they are more likely to believe that the administrative services in their cities are efficient (this was actually one of the strongest positive associations identified by the study, see Graph 2); they tend to agree that they feel safe in their city (Graph 3), that the foreigners in their municipalities are well integrated (see Graph 4), and that the presence of foreigners is advantageous for their cities (Graph 5).

It is noteworthy, that positive statistically significant but a much weaker relationship was identified between the cities' ICC Index ranking and such QoL Survey variables as *easiness to find a good job, feeling of safety, efficiency of administrative services, satisfaction with the city's life and green space* (see related scatterplots in Appendix 1, p.25).

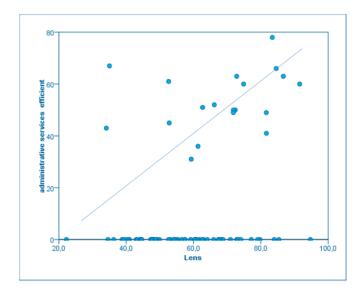
At the same time, we were able to observe that the higher the ICC Index score of a city, the more positive is its residents' opinion regarding such aspects of city environment as *easiness to find a good job, feeling of safety, efficiency of administrative services, satisfaction with the city's life and green space.* From analytical point of view, further examination of these relationships is advisable to verify whether or not the Intercultural Lens (composite variables) influenced the relationship and to what extent.

The fact that the Intercultural Lens is a part of general ICC Index ranking may explain similarity in the associations of the Intercultural Lens and the ICC Index variables with similar variables of the QoL Survey. Statistical verification of this assumption (i.e. answering the question 'why?') is beyond the objectives and the scope of this study. Yet, the established associations within this enquiry remain valid and constitute *Finding 1* of the study.

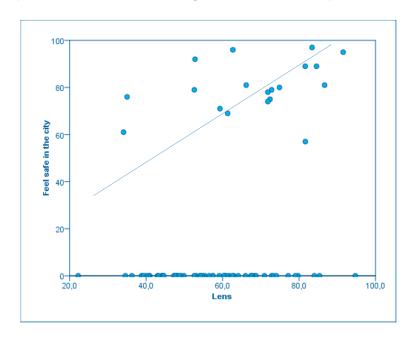
Graph 1. Positive association between the 'Intercultural Lens' and 'it is easy to find a good job in the city' variables (r = 0.33, p < 0.004). Moderate strength of the relationship.



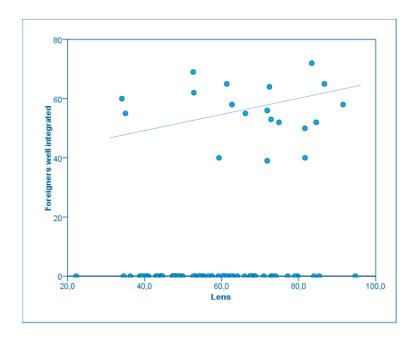
Graph 2. Positive correlation between the 'Intercultural Lens' and 'city administrative services are efficient' variables (r= 0.34, p< 0.003). Moderate strength of the relationship.



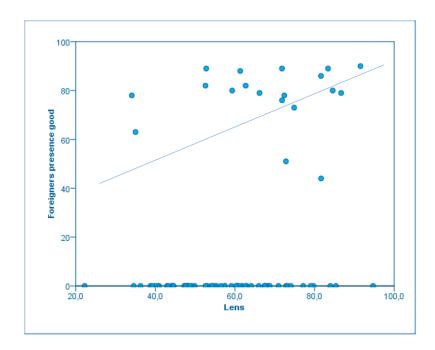
Graph 3. Positive relationship between the 'Intercultural Lens' and 'I feel safe in the city' variables (r = 0.35,  $p = \le .002$ ). Moderate strength of the relationship.



Graph 4. Positive association between the 'Intercultural Lens' and the 'Foreigners well integrated' variables (r = 0.30,  $p \le 0.008$ ). Moderate strength of the relationship.



Graph 5. Positive association between the 'Intercultural Lens' and the 'Foreigners presence is good for the city' variables (r= 0.33, p< 0.004). Moderate strength of the relationship.



In *Appendix 1* (p. 25) to this study you will find more graphs that demonstrate positive associations between the Intercultural Lens and other QoL Survey variables.

Of course, correlations can only tell us that there is an association between the variables but they cannot unveil what kind of relationship it is, and whether or not there is any causality in such associations. In other words, if there is a correlation between the variables, it does not mean that there is a casual relationship; or just because results show a correlation, there is no proof of an underlying causality. Causality is the relationship between something that happens or exists and the thing that causes it.<sup>7</sup> The essence of causality is the generation and determination of one phenomenon by another. In this respect, causality differs from other kinds of relationships such as sequence of phenomena or the regularities of accompanying processes.

While correlation analysis focuses on the strength of the relationship between two or more variables, regression analysis assumes a dependence or causal relationship between one or more independent and one dependent variable. Multiple Linear Regression analysis is usually used to identify causal relationships, to forecast an effect or a trend between the variables.

Hence, in order to verify if there are any causality relationships between the ICC Index and QoL Survey variables that had demonstrated positive and statistically significant associations in preliminary testing, this study employed Multiple Linear Regression analysis. The scatterplots obtained as a result of it indicated a linear relationship between the dependent variable Intercultural Lens and the independent variables easy to find a good job in the city, feeling of safety, efficiency of administrative services, foreigners are well integrated and foreigners'

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<sup>&</sup>lt;sup>7</sup> http://www.merriam-webster.com/dictionary/causality.

presence is good for the city. Nevertheless, no significant trends or effects of causality between the group of independent variables and the dependent variables *Intercultural Lens* or *ICC Index* (these two variables tested separately in two different models) were found.

This 'no causality' conclusion as a result of the Multiple Linear Regression analysis is a good finding and not surprising, as one of the assumptions of the Multivariate Linear Regression analysis is that the data must be normally distributed. However, this is not the case with our data. It is for the reason that many QoL Survey responses are missing for the ICC Indexed cities. In other words, as of today, the ICC Index and the QoL Survey databases have approximately 20 cities in common, i.e. cities for which the data are available in both databases. Yet, this fact does not prevent us from running a robust analysis and producing reliable results and conclusions.

More advanced statistical techniques and modeling allow us to do so. The Generalized Linear model was identified as the one that fits best the characteristics of our data (since it covers a number of complex multilevel models for non-normally distributed data) and further employed by this study.

#### **Testing Causality Relationships**

The application of the Generalized Linear model revealed the most interesting and valuable findings of this analysis. *The causality relationships were identified between the QoL Survey indicators and the ICC Index.* 

The model summary below shows the 'hierarchy' of causality<sup>8</sup> between the dependent variable 'ICC Index' and the QoL Survey variables 'foreigners well integrated', 'foreigners' presence is good for the city', 'most important in the city is education', 'most important in the city is safety', 'administrative services in the city are efficient', 'it is easy to find a good job in the city', 'most important in the city is unemployment', 'satisfied with the public space,' 'I feel safe in the city', and 'most important in the city is housing'.

Among the above listed variables, only the first six shown a rather modest but statistically significant causality relationship with the ICC Index. It is noteworthy that significant causality relationship was observed only when all six variables were included in the model. When considered together, these variables predict almost 20% of the ICC Index score for a given city (see Model Summary 1 below). This represents one fifth of the ICC Index value, which is an impressive degree of causality (prediction) as for the variables representing two completely independent datasets: the ICC Index of the Council of Europe Programme and the Quality of Life Survey (Eurobarometer).

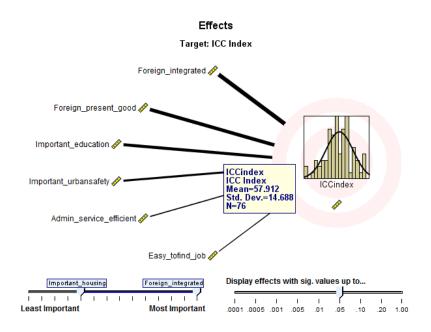
Note: If we test any of these six variables separately (not together in a group), none of them shows any significant trends or predicts/causes any change in the ICC Index. This fact indicates

<sup>8</sup> The model lists the independent QoL Survey variables in descending order (from top to bottom) based on their importance and significance as predictors of the dependent variable ICC Index.

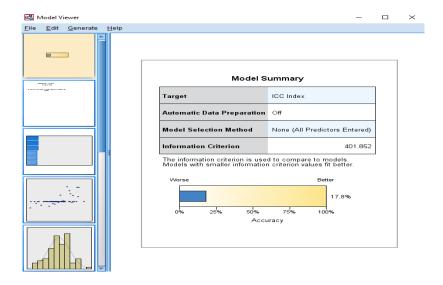
the importance of the between-the-variables relationships (and not so of any individual variable) for this particular model in terms of if accuracy or 'prediction power'.

Consequently, *Finding 2* of this study is: those cities where people believe that the foreigners are well integrated and their presence is good for the city, that the most important in their city are education and safety, that the administrative services are efficient, and that it is easy to find a good job in the city will score higher on the ICC Index.

Graph 6. Six identified QoL variables-predictors of the ICC Index



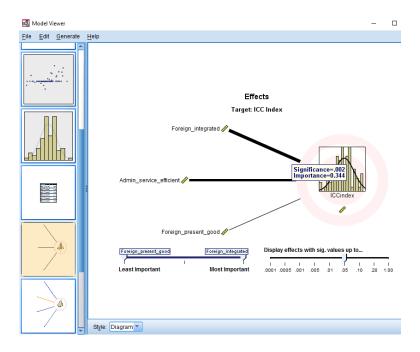
Model Summary 1. Six QoL variables predict up to 20 % of the variance in the ICC Index



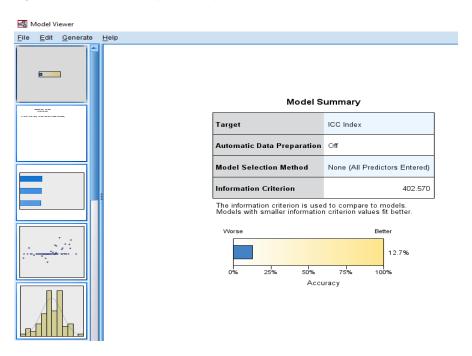
Different models and variable combinations were tested continuously within the framework of this study in order to exhaust all the possibilities to establish any kind of relationships between them. This exercise confirmed that the top three – i.e. most important – predictors of the ICC Index are 'foreigners well integrated', 'foreigners' presence is good for the city', and 'administrative services in the city are efficient'. This formed Finding 3 of this study. However, these three variables can foretell only 13% change in the ICC Index (see Model Summary 2), which is much lower prediction if comparing to 20% accuracy of the model that included six variables (Model Summary 1). Hence, we can conclude that in the ICC Index forecast, the relationships between the predicting variables in the model are no less important than the variables themselves.

It is worth mentioning that, when the model with only a few top predictors was tested, the 'administrative services efficient' outpaced the 'important for this city is safety' and 'foreigners' presence is good for the city' indicators becoming more important predictor of the ICC Index. This again, points out to the importance of the relationships between the variables in the model design. In practice this means that when forecasting the ICC Index, accounting for six characteristics of the city environment altogether (all listed in Graph 6) would give us more accurate prediction than taking into consideration only the top three of them (see Graph 7).

*Graph 7.* Top three statistically significant predictors of the ICC Index (accuracy of predictors - 13% of the ICC Index variation)



*Model Summary 2.* Three variables predict up to 13 % of the variance in the ICC Index.



One of the assumptions regarding why these three factors come out together as the most important determinants of the ICC Index may be that, if city administrations are timely and responsive in their service provision and addressing their population requirements, the

residents are satisfied with the city administration's work, hence, they do not buy into the argument of 'the lack of service' due to newcomers or over-population of the city. Hence, the people in these cities tend to be more open to foreigners or newcomers and to see them as an advantage.

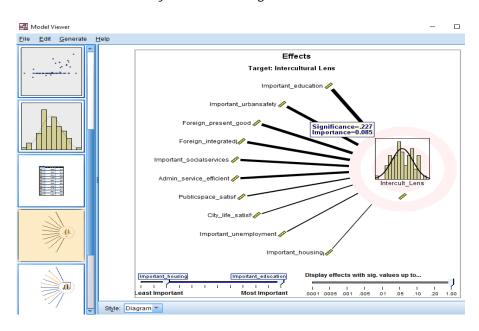
The ICC Programme, by definition, works with city administrations assisting them in urban intercultural model implementation by means of relevant strategies and activities development utilization. These strategies and activities cover a range of administrative policies and services across different city departments, the performance of which advances in general – not only along the ICC diversity management goals – as the city works along the CoE Programme guidelines. Moreover, this improvement is tracked by the ICC Index. Therefore, the ICC Programme creates preconditions for a good quality administrative services in the ICC member cities, which are positively perceived by their residents.

From this point of view, Finding 3 can be interpreted as a proof of the ICC approach efficiency: implementing intercultural integration model in urban communities via city administrations contributes to the satisfaction with the quality of life and the appreciation of diversity advantage (or presence and integration of foreigners) in these cities.

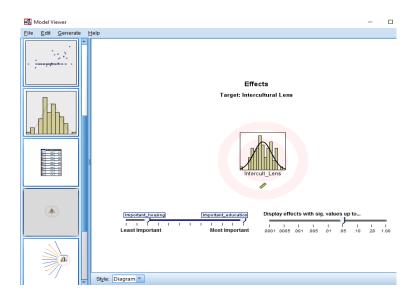
Next, causality relationships were also established between the QoL Survey (independent) variables and the dependent ICC variable Intercultural Lens.

Nevertheless, initially, including all relevant QoL Survey variables in the model (Graph 8) produced no significant results, i.e. none of these variables were found to be statistically significant predictor of the Intercultural Lens at  $p \le .05$  level (see Graph 9). This means that contrary to the observation regarding the ICC Index, where the relationships between the predictor variables in the model reinforces the degree of impact (predictability) of the ICC Index, the relationships between the same QoL variables have absolutely no effect on forecasting the Intercultural Lens, as the ICC Index dimension.

Graph 8. No effect of the QoL Survey variables altogether on the Intercultural Lens

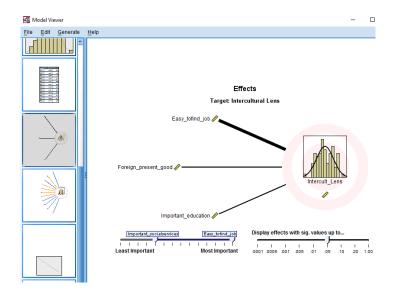


Graph 9. None of the QoL Survey variables is a significant predictor of the Intercultural Lens



Further testing of different models and variable combinations revealed that the top three predictors of the Intercultural Lens include variables 'it is easy to find a good job in the city', 'foreigners' presence is good for the city', and 'the most important for the city is education' (Graph 10). These are moderate but statistically significant individual predictors that foretell altogether less than 10% of variation in the Intercultural Lens variable.

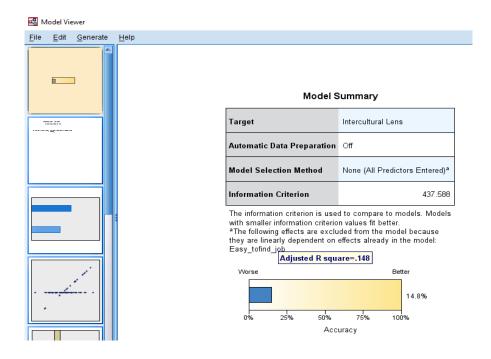
Graph 10. Top three moderate but statistically significant (at  $p \le .05$  level) predictors of the Intercultural Lens variable



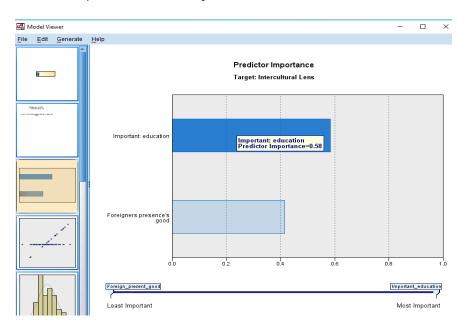
Regardless the fact that the three top predictors of the Intercultural Lens variable are statistically significant individually, the model that comprises three of them does not show the same degree of significance. Hence, in further testing, each of the three variables was excluded from the model one by one to see if any combination of these variables shows better causality relationship with the Intercultural Lens. Indeed, 'the most important for the city is education' and 'the presence of foreigners is good for the city' variables together shown important statistically significant causality relationship with the Intercultural Lens. Actually, only these two variables can foretell up to 15% of variation in the Intercultural Lens. This represents Finding 4 of this study.

Analyzing these predictors' importance individually (Graph 11) produced *Finding 5*: 'the most important for the city is education' variable is the most important statistically significant foreteller of Intercultural Lens variation (up to 9%) if considered in combination with the 'foreigners' presence is good for the city' indicators.

Model Summary 3. Two variables predict up to 15 % of the variance in the Intercultural Lens.



Graph 11. The most important statistically significant foreteller of Intercultural Lens variation (up to 9%) is the 'most important for the city is education' variable



So far, the target variables of this study were the *ICC Index* and the *Intercultural Lens*. They were considered as dependent variables in the designed models that were tested to identify any causality effects of the QoL Survey indicators on the ICC Index ones. This resulted in *five key findings* listed above.

Nevertheless, two-way effects or 'reverse causality' is a common phenomenon in ecosystem as well as in statistics. Hence, this study had also tested a range of models where the roles of the ICC Index and the QoL Survey variables were switched: i.e. the QoL Survey variables were considered as the target ones and the *ICC Index* and *Intercultural Lens* as the independent. This allowed us to verify if the ICC Index caused any effects in the QoL Survey variables.

One of such models considered 'foreigners are well integrated' as a target (dependent variable), and all other relevant QoL Survey variables in combination with Intercultural Lens variable as predictors (independent variables). The model accuracy turned to be very high – more than 99%, which means that the remaining 13 QoL Survey variables and the Intercultural Lens, when considered together, could predict almost entirely any variation in 'foreigners are well integrated'. A closer look at the model revealed that only eight out of 13 variables were statistically significant predictors, but the Intercultural Lens variable was not among them.

Consequently, as a next step, the study tested a model containing only eight out of 13 QoL Survey variables that were found to be statistically significant predictors of the 'foreigners well integrated'. A very high degree of accuracy (90%) of the model was also reported. This means that 90% of variance in the dependent variable 'foreigners are well integrated' can be explained (or caused) by variance in the following eight variables considered together as a group: foreigners' presence is good for the city, administrative services in the city are efficient, it is easy to find a good job in the city, the most important in the city is unemployment, I feel safe in the city, the most important in the city is education, satisfied with the public space, and satisfied with city life. This constitutes Finding 6 of this study.

If we have a look at the variables in this model separately, we can see that the maximum accuracy achieved by an individual variable ('foreigners' presence is good') within this model is 20%. The next variable in rank by its prediction power is 'administrative services in the city are efficient' (18%). This indicates that, if included together with other seven QoL Survey variables in the model, the 'foreigners' presence is good' or 'administrative services efficient' alone may predict up to one fifth of the variation in the 'foreigners well integrated'. This is an important finding, however, the author of this study believes that the reasons of high degree of predictability of the above listed variables requires further examination. The fact that the target variable 'foreigners are well integrated' and the eight predictors are coming from the same QoL Survey database suggests that these variables may have some effects on one another or may possess some common features, which are yet to be identified in future analyses.

Predictor Importance
Target: Foreigners integrated

Foreigners presence's good Admin services efficient Predictor Importance—0.18

Easy to find a job Important unemployment education Public space satisfaction
City life satisfaction
City life satisfaction
Least Important
Least Important

Least Important

Most Important

Graph 12. Eight most significant predictors of the foreigners' integration in the city.

#### Conclusions

The most meaningful initial result (Finding 1) of this study was that the *Intercultural Lens* – which represents a separate measurable dimension of the ICC Index and comprises six indicators - education system, neighbourhoods, public services, business and labour market, cultural and civil life policies, and public spaces – demonstrated distinct and statistically significant positive relationship (of a moderate strength) with the people's positive perception regarding *easiness of finding a good job in their city, their feeling of safety, efficiency of administrative services,* about the degree of *foreigners integration* and the advantage of *their presence for the city*.

Finding 1: People in the cities that score higher on the ICC Intercultural Lens – above 65 points on ICC scale – are more likely to approve the statement that it is easy to find a good job in their city; they are more likely to believe that the administrative services in their cities are efficient; they agree that they feel safe in their city, that the foreigners in their municipalities are well integrated, and that the presence of foreigners is advantageous for their cities.

This conclusion points out to an existing trend in the data and indicates associations between two independent benchmarking tools of international importance – the Council of Europe's Intercultural Cities (ICC) Index and the Eurobarometer's Quality of Life (in European cities). This finding is very important because it *validates the accuracy and consistency of two independent benchmarking tools that monitor cities' performance separately in similar areas of urban* 

European environment. These areas (or policy dimensions) include quality of administrative services, public space, urban safety, public administration and transportation services, etc.

Indeed, the ICC Intercultural Lens accounts for migrant and minority groups inclusion to the labor market and their SMEs development; for the availability and quality of public services in the city, including administrative functions, urban space, safety and education; for civil life and cultural policies favorable to all residents, including migrants and foreigners. It is not thus a surprise but a proof of accuracy that the Quality of Life indicators such as easiness to find a good job in the city, administrative service efficiency, feeling of safety, positive perceptions about foreigners' presence in the city and the degree of their integration are found to be significantly and positively associated with the ICC Intercultural Lens.

Within this study, we also observed that the higher the ICC Index score of a city, the more positive is rgw residents' opinion regarding such aspects of city environment as easiness to find a good job, feeling of safety, efficiency of administrative services, satisfaction with the city's life and green space. 9

We might be careful though, when interpreting Finding 1, as it only reveals the existing trend, which indicates the extent to which the tested variables tend to increase or decrease in parallel. Based on this – and in contrast to the causality-relationships findings explained below – we can neither forecast the cities' rankings or their population's behavior in the future nor predict their achievements along the ICC or the Quality of Life indices. This is for the reason that correlation, as a method of analysis, by itself does not imply causation, as there may be many other factors responsible for fluctuations in both variables.

Nevertheless, the findings presented below attest that causality relationships have been identified between the ICC Index and QoL Survey indicators. These relationships allow us – to a varying degree – to predict the ICC Index based on the individual or combinations of QoL indicators.

Finding 2: those cities where people believe that 1)the foreigners are well integrated and 2)their presence is good for the city, that 3)the most important in the city are education and 4)safety, that 5)the administrative services are efficient, and 6)that it is easy to find a good job in the city, score higher on the ICC Index.

The study demonstrated that when considering all these six factors together, we can make almost 20% prediction in the ICC Index score. For a city with the ICC Index ranking 70 e.g., this means that 14 out of 70 points of this ranking can be explained by its residents' positive perceptions about foreigners' integration and their presence in the city, the importance of education and safety, the efficiency of administrative services, and the easiness to find a job.

much less attention in this paper.

<sup>9</sup> Note: the ICC Index (general ranking) demonstrated positive and statistically significant but a much weaker association with the QOL Survey variables, including easiness to find a good job, feeling of safety, efficiency of administrative services, satisfaction with life in the city and green space. Obviously, this relationship deserved

Other 56 out of 70 points in the ICC Index score are explained by other factors. Hence, the more people in a given city favor these six perceptions, the higher will be the ICC Index of the city.

20% is one fifth of the ICC Index value, which represents a considerable degree of identified causality (prediction) as for the variables representing two completely independent datasets – the ICC Index of the Council of Europe and the Quality of Life Survey (Eurobarometer).

It is true though that for causality relations to be identified – as it is the case for this study – some conditions have to exist. One of the conditions for 20%-level of ICC Index prediction is the consideration of – or accounting for – all six (listed in Finding 2) QoL indicators altogether. In other words, if for example, people in a given city are positive about only two out of six listed factors (i.e.  $1/3^{rd}$  of them) and are negative about the other four, this doesn't mean that their ICC Index would improve by  $1/3^{rd}$  or by 20/3 = 6.6%. The ICC Index may not improve at all, as it is the relationships between the QoL survey indicators that are also critical for determining the degree of variation in the ICC Index.

The author of this study believes that the answer to the question *why* causality relationships exist between the residents' perceptions and the ICC Index, can be found in the following consideration, which is similar to the presented above explanation of Finding 1: the ICC Index and the Quality of Life ranking are two independent benchmarking tools, but they are developed to track cities' performance in similar dimensions of urban life, including administration, infrastructure, safety, education, etc. As these two tools succeed to reflect the characteristics and to trace the reality of the QoL surveyed and ICC indexed cities, they trigger similar areas of the cities' life from different angles allowing by this for some observations of causality between them.

More detailed analysis of the established causality in Finding 2 resulted in the next finding.

Finding 3: The three most important predictors of the ICC Index are 'foreigners well integrated', 'foreigners' presence is good for the city', and 'administrative services in the city are efficient'.

These three variables can foretell only 13% variance in the ICC Index, which is much lower than 20% 'prediction power' of the six factors listed in Finding 2. At the same time, Finding 3 identifies the *most important factors* affecting the ICC Index. As a result, we can conclude that the cities, where people believe that the foreigners are well integrated and see them as an advantage for the city, and where the administrative services are good, will rank higher on ICC Index. More precisely, if people's positive believes will increase by 1 unit, the ICC index will increase by 0.13 unit on scale.

One of the assumptions regarding why these three factors come out together as the most important determinants of the ICC Index may be that, if city administrations are timely and responsive in their service provision and addressing their population requirements, the residents are satisfied with the city administration's work, hence, they do not buy into the

argument of 'the lack of service' due to newcomers or over-population of the city. Hence, the people in these cities tend to be more open to foreigners or newcomers and to see them as an advantage.

It is not less important that the ICC Programme, by definition, works with city administrations assisting them in urban intercultural model implementation by means of relevant strategies and activities development utilization. These strategies and activities cover a range of administrative policies and services across different city departments, the performance of which advances in general – not only along the ICC diversity management goals – as the city works along the CoE Programme guidelines. Moreover, this improvement is tracked by the ICC Index. Therefore, the ICC Programme creates preconditions for a good quality administrative services in the ICC member cities, which are positively perceived by their residents.

From this point of view, Finding 3 can be interpreted as a proof of the ICC approach efficiency: implementing intercultural integration model in urban communities via city administrations contributes to the satisfaction with the quality of life and the appreciation of diversity advantage (or presence and integration of foreigners) in these cities.

Finding 4: 'The most important for the city is education' and 'the presence of foreigners is good for the city' indicators shown important statistically significant relationships with the ICC Intercultural Lens. These two variables can predict up to 15% of variation in the Intercultural Lens indicator.

In the course of this study, the *Intercultural Lens* dimension of the ICC Index demonstrated a series of interesting relationships with the QoL Survey variables. The most compelling one is Finding 4 that identifies two most significant predictors of the *Intercultural Lens* – the *importance of education* and *the presence of foreigners as advantage* for the city.

It sounds logical that, if city residents consider the presence of foreigners as an advantage, this city would be more interculturally oriented, and the principles of interculturality would be better accepted and established in this city. This may explain the identified causality between the indicated QoL Survey varaibles and the *Intercultural Lens*.

In the *Intercultural Lens* prediction, the importance of education for the city comes first, meaning that the education weights more in determining the ICC *Intercultural Lens* than the people's opinion about the presence of foreigners in the city. Finding 5 of the study confirms this assumption.

Finding 5 The QoL indicator 'the most important for the city is education' is the most significant individual foreteller of the Intercultural Lens dimension (up to 9%), if considered in combination with the 'foreigners' presence is good for the city'.

We may then conclude that the cities, where education is a priority will have more potential to achieve higher degree of intercultural integration (measured by Intercultural Lens).

Coming back to Finding 4 which indicates that, if any given city scores positive on 'the most important for the city is education' and 'the presence of foreigners is good for the city', these two indicators will explain up to 15% of the city's ICC Index value. In practice, e.g. if a city scores 70 on the ICC Index, then 10.5 points of this value is explained by the two QoL indicators mentioned above. On the contrary, if the city residents do not approve these two QoL indicators, we may conclude that 15% of the ICC Index value may be lost for this particular city.

It is noteworthy, that the next (3<sup>rd</sup>) important QoL indicator in the 'hierarchy' of significance for Intercultural Lens prediction is 'it is easy to find a good job in the city'. It is not significant as an individual predictor but only in combination with the two indicators explained above; the predictive power of three taken together is lower though (10%).

At the same time, in this 3-factor model the 'it is easy to find a good job in the city' variable outpaced the 'administrative service is efficient', which means that these indicators are very close in their importance in terms of their effect on the Intercultural Lens. In other words, the Intercultural Lens of the cities, where it is comparatively easy to find a good job, improve.

Two-way causality is not the case for the ICC and the QoL Survey data: while the QoL Survey indicators can predict the ICC Index or Intercultural Lens values to a varying degrees, the ICC Index or Intercultural Lens indicators were not found to cause any variation in the QoL Survey variables.

It is only in a combination with the QoL Survey indicators, where the Intercultural Lens was included as one of predictors of the 'foreigners are well integrated' variable that a high degree of the model accuracy (above 90%) was reported, yet, the Intercultural Lens was not among the significant predictors. This constitutes Finding 6 of the study.

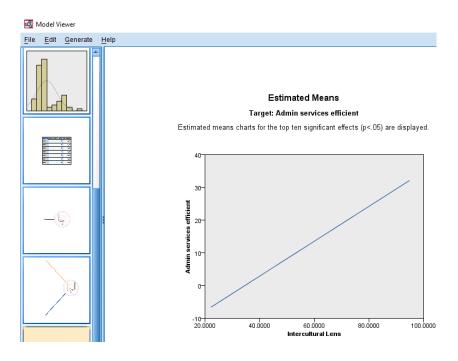
Finding 6: 90% of variance in the QoL indicator 'foreigners are well integrated' can be explained (or caused) by variance in the following eight variables considered together as a group: foreigners' presence is good for the city, administrative services in the city are efficient, it is easy to find a good job in the city, most important in the city is unemployment, I feel safe in the city, most important in the city is education, satisfied with the public space, and satisfied with city life.

This is an important finding, however, the reasons of high degree of predictability of the above listed variables require further examination. The fact that the target variable 'foreigners are well integrated' and the eight predictors are coming from the same QoL Survey database suggests that these variables may have some effects on one another or may possess some common features, which are yet to be identified in future analyses.

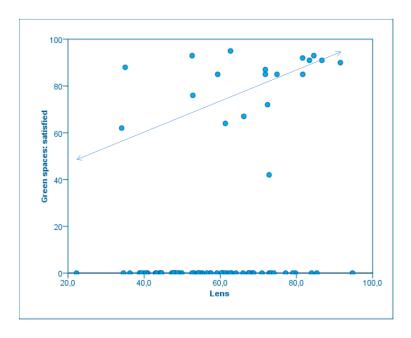
Appendix 1

As the study models tested the relationships between the 'administrative services are efficient' variable and the *Intercultural Lens*. The 'estimated means' Graph 13 provides a handy visualization of a statistically significant association between the two. Essentially, this graph is 'mirroring' the correlation Graph 2 in the main body of this paper demonstrating that for every unit change in the *Intercultural Lens* variable (positive or negative), the 'administrative services are efficient' will change for 0.3 unit.

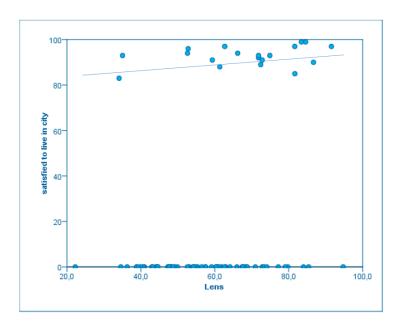
Graph 13. Estimated means, positive correlation between the 'Intercultural Lens' and 'city administrative services are efficient' variables (r= 0.34, p< 0.003).



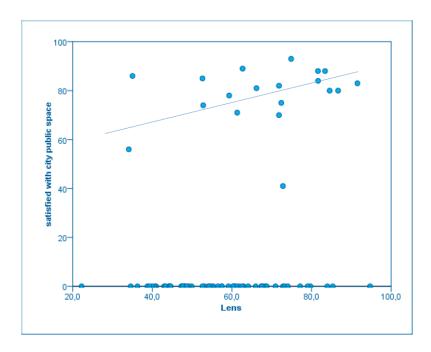
Graph 13. Green Spaces Satisfaction – Intercultural Lens (p= 0,340, P=0,003)



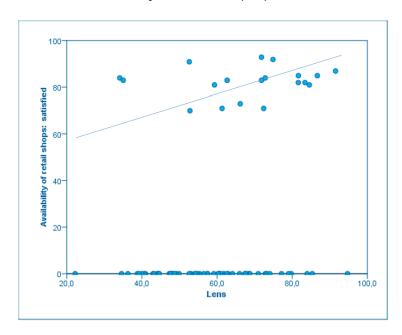
Graph 14. Intercultural Lens - Satisfied to Live in the City (p= 0,340, P=0,003)



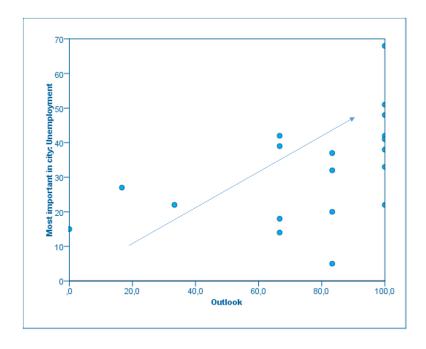
Graph 15. Intercultural Lens - Satisfied with City Public Space (p= 0,335, P=0,003)



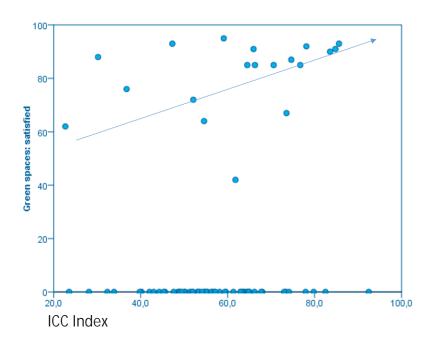
Graph 16. Intercultural Lens - Availability of Retail Shops (p= 0,330, P=0,004)



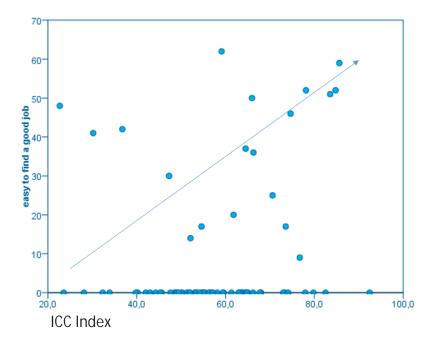
Graph 17. Association between the Intercultural Outlook (ICC Index composite) and 'Most important for this city is unemployment' variable from the QOL Survey (r = 0.57,  $p \le 0.01$ )



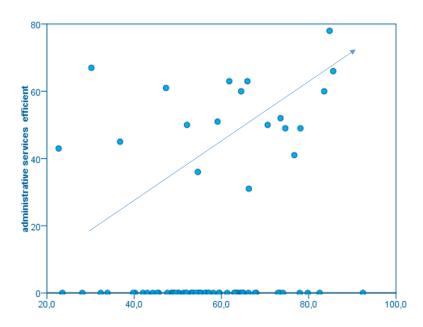
Graph 18. Association between the ICC Index and 'Green space satisfaction' variable from the QOL Survey (r= 0,25, p<0.03)



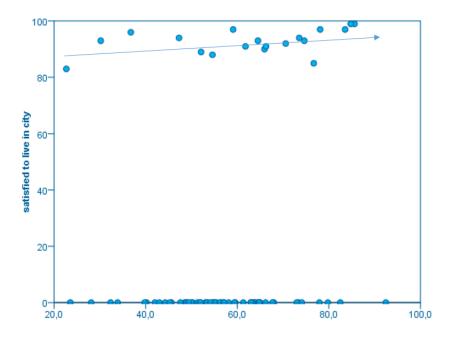
Graph 19. Association between the ICC Index vs easy to find a good job (p= 0,236, P=0,040)



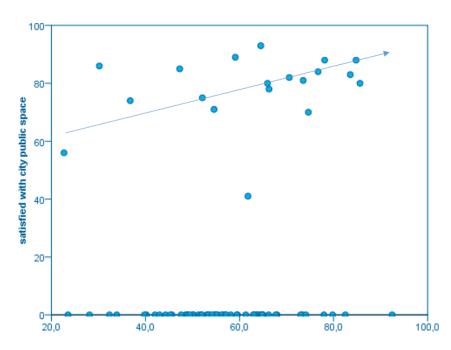
Graph 20. Association between the ICC Index and Administrative Services Efficient (p= 0,229, P=0,046)



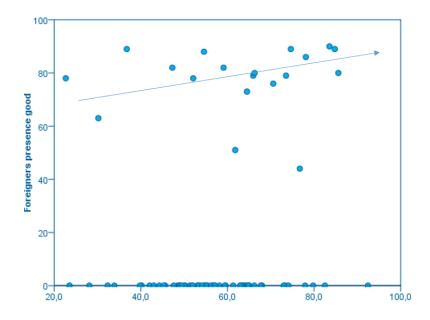
Graph 21. Association between the ICC Index and Satisfied to live in city (p= 0,250, P=0,029)



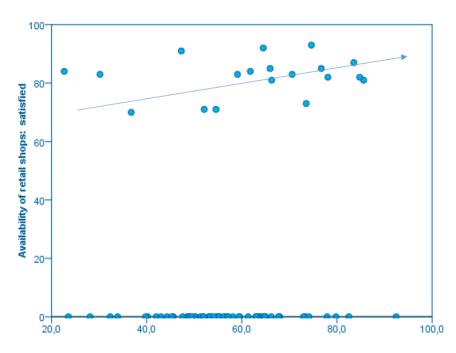
Graph 22. Association between the ICC Index and satisfied with city public space (p= 0,241, P=0,036)



Graph 23. Association between the ICC Index and Foreigners presence good (p= 0,234, P=0,042)



Graph 24. Association between the ICC Index and Availability of retail shops: satisfied (p= 0,232, P=0,044)



Graph 25. Association between the ICC Index Feel safe in the city (p= 0,245, P=0,033)

