European destination regions and social exclusion challenges

Antonio Paolo Russo, Universitat Rovira i Virgili, Department of Geography, GRATET research group.

Riccardo Valente, Universitat Rovira i Virgili, Department of Geography, GRATET research group.

[this is a pre-print of a paper published in International Journal of Tourism Policy 12(4): 372-391. DOI: 10.1504/IJTP.2022.128133]

Abstract

This paper explores the relationships between regions that are diversely attractive, and different dimensions of social exclusion which the literature associates to the intervention of such mobilities in the social and physical fabric of places. It so does by developing a typology of European regions according to the type, mix and magnitude of human mobilities attracted over the 2008-2018 period, tourists being one of them, but extending to the related movement of different cohorts of migrants. For each regional type so identified it then measures a large number of indicators which hint at forms of social exclusion affecting different collectives, with a focus on urban areas. Significant associations between regional types and social trends are then interpreted in the light of potential factors affecting these outcomes, hinting at three major challenges which are faced by diversely attractive groups of regions. In a stage of reignition of tourism activity after the COVID-19 crisis, these insights are meant to contribute to the recovery debate, informing about key social issues and vulnerabilities which, in specific regional contexts, could have been amplified by the current crisis.

Keywords

Tourism mobilities, Attractiveness, European regions, Social Exclusion, Policy Challenges

Acknowledgements

Research for this paper has received funding from the H2020 SMARTDEST project (ref. 870753). The authors acknowledge the contributions of Susan Vermaelen (Erasmus University Rotterdam), Francesco Milone (Polytechnic of Turin) and Fiammetta Brandajs (Universitat Rovira i Virgili) in data management and mapping that was used for this paper.

1. Introduction

The consequences of place attractiveness for resident communities have been explored in depth by the literature, focusing for instance on the nexus of tourism and migration flows (Servillo et al., 2012; Provenzano, 2020), and its related dynamics in terms of labour markets (Gialis et al., 2017; Gourzis et al., 2021) or social reproduction (Janoschka and Haas, 2013; Salazar, 2020). This literature can be positioned within a broader framework examining social exclusion as a by-product of tourism development (Cole and Morgan, 2010), and employment transitions driven by the 'smartisation' of tourism (Cañada, 2018; Robinson et al., 2019), reproducing and exacerbating avenues of marginalisation

along lines of gender, ethnic membership or age. In recent years, there has been a surge of research on 'overtourism' and the exclusionary power of tourism pressure on resident populations (Milano et al., 2019; Salerno and Russo, 2020). Some of these recent works tackling the exclusionary impacts of tourism are significantly influenced by the literature on mobilities, and most remarkably by, among others, Manderscheid (2009), Hannam (2011) or Jensen (2010), examining how material practices of mobility and temporary dwelling unfold as unevenly empowered forms of negotiation over place and urban assets. Most of this research though is based on individual case studies, while accounts of the social impacts of the attraction of tourism flows that may affect a wider set of regional contexts are much scanter (exceptions may be Niavis et al., 2021; Llorca-Rodríguez et al., 2021).

This paper tackles this gap by looking at the enmeshment of mobilities and social trends in 164 EU regions, using data from EUROSTAT's regional statistics, the EU-SILC and the Labour Force Survey. The research on which this paper is based has been developed as part on the initial stages of the EU-funded project SMARTDEST, whose main objective is to "examine, understand and translate into both theoretical frameworks and practical conversations, the processes through which tourism mobilities and mobile dwelling in all its diverse forms, contribute to urban transformation and social exclusion" (SMARTDEST, 2020). The concerns for tourism as an engine of place transformation that could derive in specific forms of social exclusion was very vivid at the onset of the project in January 2020. Three months into the project, the sanitary emergency of COVID-19 has not only 'immobilised' the world, but also opened new avenues of inequality and exclusion (Florida et al., 2020; Clouston et al., 2021) which may reproduce and magnify pre-existing trends in a post-COVID context. This paper thus intends to contribute to the debate on post-pandemic recovery trajectories (Rastegar et al., 2021), identifying the most significant challenges to social inclusion in different types of places which policy needs tackling, from the EU to the local scale.

2. Methodological approach

The objective of this paper is to examine trends of social exclusion across different clusters of European regions throughout Europe, characterised as sites of enmeshment between different social groups and 'mobile' populations. These are tourists, but also workers that are pulled by employment opportunities in buoyant tourism economies, or lifestyle migrants that value highly the amenities typically offered in tourist places. To this end, we constructed a database combining 95 NUTS2 regions and 69 NUTS1 regions. Different geographies were needed to retrieve social indicators from the Labour Force Survey and the EU-SILC, which are often available at the greater scale of NUTS1 only. As a result, our sample is of 164 EU regions.

Indicators of tourism and related mobilities are used to extract clusters of regions according to the degree of attractiveness of different mobilities directly or indirectly related with tourism. These included measures of tourism movement in space and in relation to the resident population (intensity and pressure indexes), for international and domestic markets. Whenever possible and relevant, these indicators have been stratified for areas with different degrees of urbanisation. We also considered net migration rates by age groups, which the literature relates with different motivations for displacement (Champion, 2012; Findlay et al., 2015); the mobility of Erasmus students as a proxy of young people temporary mobility unrelated to work; and a measure of the penetration of Airbnb supply in relation to the total population, accounting for an emerging form of leisure mobility generally not accounted for in official tourism statistics. All these indicators are calculated in stocks, taking 2018 as the most recent year for which there is an almost complete data cover, and in change rates, taking

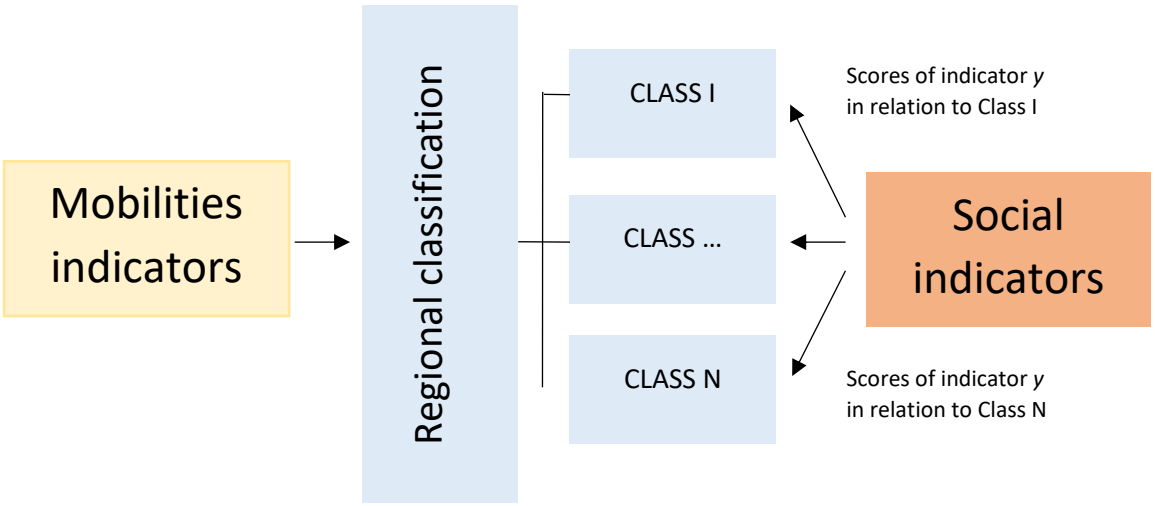
values in 2008 and 2013 as denominators. After some iterations that led to discard indicators with a poor statistical score in terms of clustering, the list of indicators used in the construction of the regional typology includes:

- Tourist movement, calculated as overnight stays of international and domestic visitors in all forms of accommodation and hotels, and the respective rates of change
- Share and change rates of the international market
- Pressure indexes of tourist movement with respect to space (stays per root square of km) and to population (stays per 1,000 head of resident population)
- No. of bed places in hotels and other forms of accommodation
- Overnights stays in active Airbnb listings per thousand inhabitants
- Share of multi-hosting in Airbnb
- Migration rates (crude and by age bands over the 2013-2018 period) – these have been calculated through a population model using EUROSTAT data on residents by age bands, deaths and births over 5-years periods
- Erasmus students in regional universities and other occupation centres (ERASMUS program).
- Whenever relevant, the above indicators have been calculated for areas within each region classified from their level of urbanisation as DEGURBA 1 (urban areas, or CITY), 2 (intermediate level of urbanisation or TOWN) or 3 (sparsely populated areas or RURAL)

These indicators were used to run *k*-means clustering, with pairwise deletion. Following the outputs displayed in the iteration history, a 4-cluster structure was retained after observing a zero-change in cluster centres after 9 iterations. Based on the results of the cluster analysis, the cluster membership number was saved and used as the factoring variable in one-way ANOVA tests, as graphically shown in Figure 1. Each cluster was assessed in relation to its performance in the following social domains:

- Self-reported health status, in line with the assumption that tourism development could have direct income effect on healthcare systems, until possibly a saturation effect is reached, and that other tourism-related externalities, as traffic, overcrowding and noise, can have adverse effects on health.
- The perception of quality of housing, financial access to housing and rent values. Drawing from the tourism-led gentrification literature, we can assume that tourism development can become a source of social polarization making housing scarce and unaffordable to long-term residents.
- Poverty and deprivation, self-reported conditions of dependency, lack of access to basic commodities and consumption. These aspects are related to social polarization and social stress picking up in areas that are subject to strong pressure towards population and commercial change.
- Labour and work conditions, especially pointing at the dimension of regional employment in the tourism sector.

Figure 1: Analytical framework of responses of regional types to social exclusion



3. Results: a regional typology and key social exclusion issues

Table 1 presents the values taken by the different indicators used in the clustering procedure, ordering them on a scale from "Very High" (above the average) to "Very Low" (below the average), while values around the mean are classified as "Moderate". The numerical scores of association measures and significance tests (ANOVA) are included as Table A in Annex. The resulting geographical configuration is illustrated in Figure 2.

Table 1 - Characterisation of regional types in terms of scores of indicators used in 4-means clustering

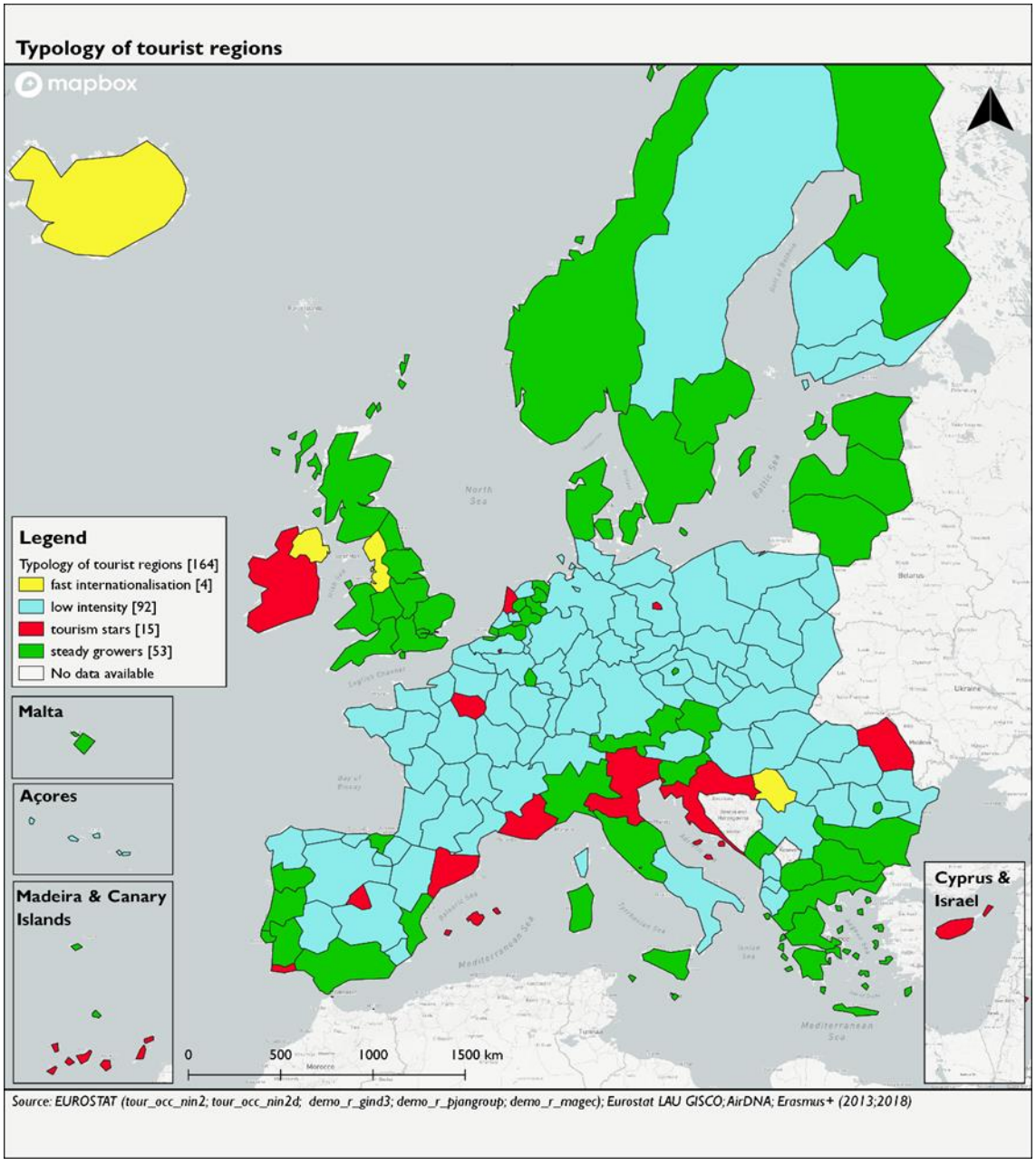
	Type 1 regions: FAST INTERNATIONALISATION (4)	**Type 2 regions: LOW INTENSITY (92)**	**Type 3 regions: STEADY GROWERS (53)**	**Type 4 regions: TOURISM STARS (15)**
Characterised by				
General tourist attractiveness	MODERATE	LOW	HIGH	VERY HIGH
Growth of attractiveness	VERY HIGH	LOW	HIGH	MODERATE
Tourist pressure in urban areas	VERY HIGH	LOW	LOW	LOW
Growth of tourist pressure in urban areas	LOW	HIGH	MODERATE	VERY HIGH
Tourist pressure in rural areas	VERY HIGH	LOW	MODERATE	HIGH
Growth of tourist pressure in rural areas	VERY HIGH	LOW	HIGH	MODERATE
Tourist pressure in intermediately urbanised areas	VERY HIGH	LOW	LOW	MODERATE
Growth of tourist pressure in intermediately urbanised areas	LOW	HIGH	MODERATE	VERY HIGH
Share of international mkt	VERY HIGH	LOW	MODERATE	HIGH
Growth of international share 10-y	VERY HIGH	LOW	HIGH	MODERATE
Penetration of Airbnb	LOW	HIGH	MODERATE	VERY HIGH
Erasmus students per 1,000 inhab.	MODERATE	LOW	VERY HIGH	HIGH
Crude migration rate	HIGH	LOW	MODERATE	VERY HIGH
Migration rate 15-24	VERY HIGH	LOW	MODERATE	HIGH
Migration rate 25-49	MODERATE	MODERATE	LOW	VERY HIGH
Migration rate 50-64	LOW	MODERATE	MODERATE	VERY HIGH
Migration rate 65-79	LOW	MODERATE	MODERATE	VERY HIGH

The first cluster, labelled FAST INTERNATIONALISATION, includes 4 regions (Iceland, Northern Ireland, the North-West of England, and the north of Serbia). These have made a scale jump in the 2008-2018 decade of the share of international tourists, presenting themselves as attractive destinations especially for their rural and small and medium-sized towns. Yet, they are also relatively unattractive as a site of migration for more senior cohorts but boast high crude migration rates for younger migration cohorts.

The second cluster, LOW INTENSITY, includes 92 regions characterised as poorly attractive for tourism and other migrations but subject to a rising tourist pressure in cities and towns, with a low and decreasing share of international tourism, and a moderate offer of Airbnb. The domestic market is the driving force of tourism development and, wherever they have been experiencing some growth, this has been mostly accompanied by an expansion of non-traditional forms of hospitality like short-term rentals in Airbnb. It is noteworthy that in spite of their relatively low tourist dimension, these regions can be moderately attractive for working age adults and senior migrants, maybe precisely on account of the 'low pressure' to which they are subjected. The geographical scope of these regions varies to a great extent, from the European core (as in Germany, France, Belgium and Switzerland as

well as Southern Holland) to inland and predominately rural areas of Spain, the Eastern periphery (Poland, Slovakia, Romania), the south of Finland, north of Sweden, the Italian South and Albania.

Figure 2 - Clusters of tourist regions



The third cluster, STEADY GROWERS, includes 53 regions that have grown in tourism attraction at a moderate but steady pace throughout the last decade, reaching the highest pressure levels in rural areas. They feature a high foreign student population in relation to their size, and a high and growing share of international tourism. These regions are mostly situated in the Mediterranean coastal and island regions (including almost the whole of Portugal), the Atlantic archipelagos except the Canaries; and extend to regions in Great Britain, the inner part of the Netherlands, Luxembourg, most Scandinavian and Baltic regions, and almost the whole of Greece, plus some capital city regions like

London, Prague and Bucharest. These are mature destinations for tourism that have not stopped growing and becoming more internationalised in the last decade, registering the highest pressure in non-urban areas. Also, they are poorly attractive for working age younger adults, but moderately attractive for other migrations including under 25 and over-50-year-old workers.

The fourth cluster, TOURISM STARS, includes 15 regions that stand out as very attractive for tourism and more generally for all related migrations. They experienced a moderate growth in tourism concentrated in towns and cities, and have experienced a substantial penetration of Airbnb during the timeframe considered. These areas include some of the most visited destinations in Europe. Yet, in general, the attraction of tourism is decelerating, for having possibly met some capacity thresholds. These regions include Catalonia, Madrid, the Balearic and Canary archipelagos, the Algarve region of Portugal, Paris and the South of France, the northeast of Italy, the whole of Croatia and Ireland, and two other capital city regions, North Holland (the region of Amsterdam) and Berlin.

The next step involved assessing the social performance of the four clusters, according to a selection of social indicators retrieved from EU-SILC and Labour Force Surveys. Table 2 summarises the results from ANOVA tests, narrowing the focus on indicators for which differences are statistically significant at p values < 0.01. The relative magnitude of the association parameters (from Highest to Lowest) is included in each cell together with numerical values of means and standard deviations. It must be noted that valid cases in this stage of the analysis are only a share of the sample used in the clustering exercise as values of the social indicators are often not available at the relevant geographical scale. The implications of this shortcoming are noted at the end of Section 3.

Table 2 – Mean ($\bar{x}$) and standard deviation (σ) of social indicators by regional clusters

		Type 1 regions: FAST INTERNATIONALISATION (4)		**Type 2 regions: LOW INTENSITY (92)**		**Type 3 regions: STEADY GROWERS (53)**		**Type 4 regions: TOURISM STARS (15)**	
ANOVA (p<0.01)	Valid cases	n		n		n		n	
HEALTH									
Average score of self-reported health from 1 (high) to 5 (low)	121	3	High ($\bar{x}$: -0.36 ; σ: 0.98)	63	Lowest ($\bar{x}$: 0.18 ; σ: 0.70)	43	High ($\bar{x}$: -0.07; σ: 1.25)	12	Highest ($\bar{x}$: -0.57 ; σ: 1.18)
HOUSING									
% of non-EU nationals that have arrears on mortgage or rent payments	78	2	Highest ($\bar{x}$: 1.12 ; σ: 2.61)	34	High ($\bar{x}$: 0.39 ; σ: 1.20)	31	Lowest ($\bar{x}$: -0.39 ; σ: 1.56)	11	Low ($\bar{x}$: -0.12 ; σ: 0.44)
% of residents living in a dwelling where housing costs are considered a financial burden	121	3	Low ($\bar{x}$: -0.01 ; σ: 1.82)	63	High ($\bar{x}$: 0.02 ; σ: 1.96)	43	Lowest ($\bar{x}$: -0.20 ; σ: 1.01)	12	Highest ($\bar{x}$: 0.64 ; σ: 0.74)
%of females in female population living in a dwelling where housing costs are considered a heavy financial burden	121	3	High ($\bar{x}$: 0.03 ; σ: 1.82)	63	Moderate ($\bar{x}$: 0.01 ; σ: 0.96)	43	Lowest ($\bar{x}$: -0.20 ; σ: 1.02)	12	Highest ($\bar{x}$: 0.63 ; σ: 0.75)
% of non-EU nationals living in a dwelling where housing costs are considered a heavy financial burden	114	2	High ($\bar{x}$: 0.60 ; σ: 2.11)	59	Moderate ($\bar{x}$: 0.06 ; σ: 0.98)	41	Lowest ($\bar{x}$: -0.26 ; σ: 1.05)	12	Highest ($\bar{x}$: 0.47 ; σ: 0.51)
% of over 65 living in an overcrowded household	96	1	Highest ($\bar{x}$: 3.54 ; σ: 0.00)	49	High ($\bar{x}$: 0.08 ; σ: 1.08)	36	Low ($\bar{x}$: -0.14 ; σ: 0.77)	10	Lowest ($\bar{x}$: -024 ; σ: 0.67)
% of residents receiving income from the rental of property of land	117	3	Lowest ($\bar{x}$: -1,10 ; σ: 0.21)	60	High ($\bar{x}$: 0.36 ; σ: 1.12)	42	Low ($\bar{x}$: -0.24 ; σ: 0.72)	12	Highest ($\bar{x}$: 0.45 ; σ: 1.02)
% of over 65 receiving income from the rental of property of land	114	3	Lowest ($\bar{x}$: -1.00 ; σ: 0.12)	58	High ($\bar{x}$: 0.15 ; σ: 1.05)	41	Low ($\bar{x}$: -0.34 ; σ: 0.71)	12	Highest ($\bar{x}$: 0.66 ; σ: 1.17)
% of population living in a highly urbanized area receiving income from the rental of property of land	113	3	Lowest ($\bar{x}$: -1.00 ; σ: 0.23)	58	High ($\bar{x}$: 0.11 ; σ: 1.17)	40	Low ($\bar{x}$: -0.18 ; σ: 0.75)	12	Highest ($\bar{x}$: 0.34 ; σ: 0.71)

% of female population receiving income from the rental of property of land	116	3	Lowest ($\bar{x}$: -1.20 ; σ: 0.18)	59	High ($\bar{x}$: 0.13 ; σ: 1.09)	42	Low ($\bar{x}$: -0.23 ; σ: 0.75)	12	Highest ($\bar{x}$: 0.47 ; σ: 1.08)
POVERTY AND DEPRIVATION									
% of over 65 in severely materially deprived household	110	3	High ($\bar{x}$: 0.22 ; σ: 1.55)	58	Lowest ($\bar{x}$: -0.21 ; σ: 0.66)	37	Highest ($\bar{x}$: 0.35 ; σ: 1.39)	12	Low ($\bar{x}$: -0.12 ; σ: 0.49)
% of population living in cities in severely materially deprived household	113	3	Highest ($\bar{x}$: 0.29 ; σ: 0.79)	57	Lowest ($\bar{x}$: -0.23 ; σ: 0.82)	41	High ($\bar{x}$: 0.26 ; σ: 1.27)	12	High ($\bar{x}$: 0.11 ; σ: 0.51)
% of female population in severely materially deprived household	121	3	Highest ($\bar{x}$: 0.43 ; σ: 1.43)	63	Lowest ($\bar{x}$: -0.22 ; σ: 0.75)	43	High ($\bar{x}$: 0.25 ; σ: 1.31)	12	High ($\bar{x}$: 0.14 ; σ: 0.46)
% of population reporting perception of crime, violence or vandalism in a highly urbanized area	117	3	Highest ($\bar{x}$: 0.83 ; σ: 1.08)	62	Lowest ($\bar{x}$: -0.29 ; σ: 0.77)	40	High ($\bar{x}$: 0.34 ; σ: 1.23)	12	High ($\bar{x}$: 0.14 ; σ: 0.73)
% of households with single parents in a highly urbanized area	117	3	Highest ($\bar{x}$: 0.73 ; σ: 1.93)	62	Lowest ($\bar{x}$: -0.33 ; σ: 0.44)	40	High ($\bar{x}$: 0.25 ; σ: 0.98)	12	High ($\bar{x}$: 0.63 ; σ: 1.98)
% of population with problems with the dwelling (too dark, not enough light etc.) living in a highly urbanized area	117	3	Highest ($\bar{x}$: 0.74 ; σ: 0.86)	62	Lowest ($\bar{x}$: -0.31 ; σ: 0.78)	40	High ($\bar{x}$: 0.45 ; σ: 1.10)	12	Low ($\bar{x}$: -0.05 ; σ: 1.12)
% of population below the risk of poverty threshold in a highly urbanized area	117	3	Highest ($\bar{x}$: 0.76 ; σ: 1.12)	62	Lowest ($\bar{x}$: -0.21 ; σ: 1.03)	40	High ($\bar{x}$: 0.24 ; σ: 0.90)	12	High ($\bar{x}$: 0.12 ; σ: 0.98)
WORK CONDITIONS									
% of atypical workers in ISCO-08 subset working in NACE9 aged 20-29	119	2	Highest ($\bar{x}$: 1.73 ; σ: 0.16)	66	Low ($\bar{x}$: -0.07 ; σ: 1.01)	39	High ($\bar{x}$: 0.13 ; σ: 0.85)	12	Lowest ($\bar{x}$: -0.33 ; σ: 1.20)
% of atypical workers in population over 60	120	2	Highest ($\bar{x}$: 1.43 ; σ: 1.00)	68	Lowest ($\bar{x}$: -0.28 ; σ: 0.89)	38	High ($\bar{x}$: 0.42 ; σ: 1.09)	12	Low ($\bar{x}$: -01.3 ; σ: 0.73)
% of atypical workers in ISCO-08 subset working in NACE9	120	2	Highest ($\bar{x}$: 1.42 ; σ: 0.18)	67	Lowest ($\bar{x}$: -0.21 ; σ: 0.97)	39	High ($\bar{x}$: 0.22 ; σ: 0.97)	12	High ($\bar{x}$: 0.21 ; σ: 1.06)
% of atypical workers in NACE9	120	2	Highest ($\bar{x}$: 1.69 ; σ: 0.32)	67	Lowest ($\bar{x}$: -0.17 ; σ: 0.95)	39	High ($\bar{x}$: 0.16 ; σ: 1.00)	12	High ($\bar{x}$: 0.11 ; σ: 1.05)
5-year growth rate of over 30 workforce working in ISCO-08 in NACE9	59	0	n.d.	29	Lowest ($\bar{x}$: -0.31 ; σ: 1.06)	22	High ($\bar{x}$: 0.19 ; σ: 0.75)	8	Highest ($\bar{x}$: 0.61 ; σ: 1.10)
10-year growth rate of over 30 workforce working in NACE9	42	1	High ($\bar{x}$: 0.20 ; σ: 0.00)	18	Lowest ($\bar{x}$: -0.30 ; σ: 0.86)	16	Low ($\bar{x}$: -0.08 ; σ: 0.73)	7	Highest ($\bar{x}$: 0.92 ; σ: 1.45)

5-year growth rate of over 30 workforce working in NACE9	54	0	n.d.	28	Lowest ($\bar{x}$: 0.33 ; σ: 0.97)	17	High ($\bar{x}$: 0.22 ; σ: 0.75)	9	Highest ($\bar{x}$: 0.61 ; σ: 1.18)
% of over 30 workforce working in ISCO-08 in NACE9 as atypical worker	110	2	Lowest ($\bar{x}$: -0.49 ; σ: 0.00)	59	Low ($\bar{x}$: -0.28 ; σ: 0.42)	37	High ($\bar{x}$: 0.11 ; σ: 0.88)	12	Highest ($\bar{x}$: 1.15 ; σ: 2.11)
% of over 30 workforce working in ISCO-08 in NACE9	121	2	Lowest ($\bar{x}$: -0.70 ; σ: 0.27)	68	Low ($\bar{x}$: -0.28 ; σ: 0.53)	39	High ($\bar{x}$: 0.13 ; σ: 0.89)	12	Highest ($\bar{x}$: 1.25 ; σ: 2.04)
% of over 30 workforce working in NACE9	121	2	Low ($\bar{x}$: -0.16 ; σ: 0.26)	68	Lowest ($\bar{x}$: -0.32 ; σ: 0.44)	39	High ($\bar{x}$: 0.17 ; σ: 0.86)	12	Highest ($\bar{x}$: 1.29 ; σ: 2.14)
% of people ascribed to the first quintile of the income distribution of the country	72	2	Low ($\bar{x}$: -0.51 ; σ: 0.62)	42	Highest ($\bar{x}$: 0.26 ; σ: 0.72)	21	Lowest ($\bar{x}$: -0.54 ; σ: 1.3)	7	High ($\bar{x}$: 0.18 ; σ: 1.00)
% of people aged 15-29 ascribed to the first quintile of the income distribution of the country	72	2	Low ($\bar{x}$: -0.66 ; σ: 0.46)	42	Highest ($\bar{x}$: 0.40 ; σ: 0.74)	21	Lowest ($\bar{x}$: -0.77 ; σ: 1.11)	7	High ($\bar{x}$: 0.10 ; σ: 0.74)
% of people aged 15-29 living in a highly urbanized area ascribed to the first quintile of the income distribution of the country	71	2	Low ($\bar{x}$: -0.60 ; σ: 0.40)	42	Highest ($\bar{x}$: 0.36 ; σ: 0.97)	20	Lowest ($\bar{x}$: -0.64 ; σ: 0.80)	7	Low ($\bar{x}$: -0.18 ; σ: 0.82)
% of non-nationals with a European nationality, living in a highly urbanized area, and ascribed to the first quintile of the income distribution of the country	48	2	Low ($\bar{x}$: -0.09 ; σ: 1.27)	29	Highest ($\bar{x}$: 0.28 ; σ: 1.05)	12	Lowest ($\bar{x}$: -0.41 ; σ: 0.82)	5	Low ($\bar{x}$: -0.61 ; σ: 0.44)
% of female workers ascribed to the first quintile of the income distribution of the country	72	2	Low ($\bar{x}$: -0.35 ; σ: 0.15)	42	Highest ($\bar{x}$: 0.29 ; σ: 0.84)	21	Lowest ($\bar{x}$: -0.48 ; σ: 1.15)	7	Low ($\bar{x}$: -0.18 ; σ: 1.06)
% of non-Europeans ascribed to the first quintile of the income distribution of the country	68	2	Lowest ($\bar{x}$: -1.27 ; σ: 0.00)	39	High ($\bar{x}$: 0.37 ; σ: 0.97)	21	Low ($\bar{x}$: -0.70 ; σ: 0.94)	6	Highest ($\bar{x}$: 0.44 ; σ: 0.77)
% of non-Europeans living in a highly urbanized area ascribed to the first quintile of the income distribution of the country	61	2	Lowest ($\bar{x}$: -0.96 ; σ: 0.09)	33	High ($\bar{x}$: 0.40 ; σ: 0.99)	20	Low ($\bar{x}$: -0.71 ; σ: 0.65)	6	Highest ($\bar{x}$: 0.47 ; σ: 0.55)
% of mobile workforce (difference between place of residence at time of the survey over the previous year)	100	2	Highest ($\bar{x}$: 0.97 ; σ: 1.87)	63	Low ($\bar{x}$: -0.19 ; σ: 0.80)	25	High ($\bar{x}$: 0.57 ; σ: 1.30)	10	Lowest ($\bar{x}$: -0.39 ; σ: 0.37)
% of non-nationals in the tourism sector (NACE9+NACE18)	90	2	Lowest ($\bar{x}$: -0.40 ; σ: 0.03)	54	Low ($\bar{x}$: -0.14 ; σ: 0.88)	25	Low ($\bar{x}$: -0.08 ; σ: 0.96)	9	Highest ($\bar{x}$: 1.15 ; σ: 1.23)
% of tourism jobs on total local employment	101	2	High ($\bar{x}$: 0.10 ; σ: 0.24)	64	Lowest ($\bar{x}$: -0.36 ; σ: 0.50)	25	High ($\bar{x}$: 0.34 ; σ: 0.59)	10	Highest ($\bar{x}$: 1.45 ; σ: 2.20)

10-year growth rate in the share of tourism jobs	80	2	Low ($\bar{x}$: -0.01 ; σ: 0.21)	44	Lowest ($\bar{x}$: -0.24 ; σ: 0.85)	25	High ($\bar{x}$: 0.09 ; σ: 0.62)	9	Highest ($\bar{x}$: 0.93 ; σ: 1.87)
5-year growth rate in the share of tourism jobs	101	2	Lowest ($\bar{x}$: -0.23 ; σ: 0.73)	64	Low ($\bar{x}$: -0.17 ; σ: 0.90)	25	High ($\bar{x}$: 0.19 ; σ: 0.97)	10	Highest ($\bar{x}$: 0.67 ; σ: 0.43)
% of non-Europeans unemployed	96	3	Lowest ($\bar{x}$: -0.95 ; σ: 0.05)	55	High ($\bar{x}$: 0.19 ; σ: 0.99)	28	Low ($\bar{x}$: -0.35 ; σ: 1.01)	10	Highest ($\bar{x}$: 0.23 ; σ: 0.81)
% of non-Europeans living in a highly urbanized area that are unemployed	91	3	Lowest ($\bar{x}$: -0.81 ; σ: 0.09)	51	Highest ($\bar{x}$: 0.23 ; σ: 1.06)	27	Low ($\bar{x}$: -0.36 ; σ: 0.88)	10	High ($\bar{x}$: 0.04 ; σ: 0.76)

In relation to **health**, self-reported health conditions are significantly different between regional clusters. Regions with highest levels of self-reported health are 'Tourism Stars', yet also 'Fast Internationalisation' and 'Steady Growers' regions score higher than average, while values are lower in 'Low Intensity' regions. This finding may reflect the fact that highly visited tourist destinations tend to offer better climate and landscape amenities (Amelung and Viner, 2006), with healthcare services of relatively higher quality (Hunter-Jones and Blackburn, 2007).

In relation to **housing**, the percentage of non-EU nationals that have arrears on mortgage or rent payments is significantly higher in 'Fast Internationalisation' and lowest in 'Steady Growers' compared to the other two clusters. This could hint at the more unprotected status of migrants that have been attracted into these regions where the tourist pressure in urban areas has become stronger (Joppe, 2012). These regions also show a similar behaviour in relation to the population over 65 who reports living in an overcrowded household. Housing costs are more likely to be considered a financial burden within the cluster of 'Tourism Stars', which we may assume, in line with the literature on tourism-led and transnational gentrification (Cocola-Gant, 2016; García-Lopez et al., 2020), to be associated with the higher-than-average penetration of short-term rentals. The lowest perceived burden is registered among 'Steady Growers', a cluster including regions where tourism pressure and the penetration of short-term rentals are lower than the average. Similar trends can be retraced in reference to the perception of housing costs as a 'heavy financial burden', especially for women and non-EU nationals. Conversely, the percentage of people that affirms receiving income from the rental of property of land is generally higher in 'Tourism Stars' and lower in 'Fast Internationalisation' regions compared to the rest of the sample, matching with the distribution of the penetration of Airbnb across the four clusters. This provides some support to the assumption that the growth of tourism could be an opportunity to extract rents from land property (Semi and Tonetta, 2020), although research examines critically the societal distribution of these opportunities (Clancy, 2020; Morales-Pérez et al., 2020).

As for **poverty and deprivation measures**, the percentage of population over 65 living in severely materially deprived households is significantly higher in 'Steady Growers' regions as opposed to lower records in the 'Low Intensity' cluster. It is possible that conditions of material deprivation can have worsened in places that have been experiencing high growth of tourism in the last decade (or an intensification of tourism in the non-urban areas), as suggested by Briedenhann and Wickens (2004), but remain low in regions that have long benefited from tourism development. Urban dwellers show lower rates of deprivation in 'Low Intensity' regions and high in all the others, meeting the highest scores in 'Fast Internationalisation' regions; the same is observed in relation to the female population. Looking at the rest of the social deprivation measures considered, the share of urban population reporting problems with the dwelling (too dark, not enough light etc.), and the share of population living below the threshold of a high risk of poverty, these are low in 'Low Intensity' regions, high in 'Tourism Stars' and 'Steady Growers', and the highest values in 'Fast Internationalisation' regions. In general, these results point to the same direction of much of the existing literature on the social impacts of tourism. Some degree of tourism development might benefit society and mitigate social exclusion, but when it overcomes structural levels of capacity of absorption, it may become a driver of social disorder and exclusionary trends (Zerva et al., 2019).

Considering measures of **employment conditions**, we analysed different subgroups of atypical workers (shift work, evening work, and weekend work), such as those in elementary occupations (ISCO-08) employed in the Accommodation and Food Service Activities sector (NACE 9). The share of atypical workers is higher in 'Fast Internationalisation' regions and lower in 'Low Intensity' regions compared to the other clusters. This result is consistent with insight from the literature on the impacts

of reforms in regions that were severely hit by the global financial crisis of 2008 and in particular the most tourist-dependent regions in which tourism activity has been boosted using increasing contingents of temporary and agency-mediated labour (Gialis et al., 2017). When we just look at workers under 29, this share is lowest in 'Tourism Stars' regions. This result could be interpreted in the sense that workforce in the 'Fast Internationalisation' regions (and to a slightly lesser degree in 'Steady Growers') had to be recruited from outside of the region to keep pace with the growth of tourism, as is confirmed by a workforce mobility indicator. Thus, there is a higher-than-average inflow of young workers accepting low-wage and seasonal jobs as an intermediate step in career paths. In 'Tourism Stars' regions, these careers have been stabilised in time; the situation of workers has been compensated by the inflow in the same area of creative workers who select regions characterised by tourist amenities (Romero-Padilla et al., 2020; Crociata et al., 2018) and there might be a higher level of unionisation in tourism which keeps the share of atypical workers to a minimum; or alternatively, a higher level of firm productivity that explains why atypical jobs are not devalued. The population over-60 that is enrolled in atypical occupations is also highest in 'Fast Internationalisation' and 'Steady growers' regions, hinting again at the double-edged sword of precarious work dependency in regions where tourism offers new opportunities to sectors of the population that have lost jobs in other sectors (Robinson et al., 2019). The pull of 'Tourism Stars' for unspecialised workers in hospitality in the last 5 years has grown fastest among all regional types in 'Tourism Stars', indicating an ongoing process of absorption of this pool in regions where the intensification of tourism especially in urban areas has been strongest, and this is generally the case with over-30 workers (atypical or not).

Salary levels tend to be lower in 'Low Intensity' regions, while reaching their peak in 'Steady growers'. It is remarkable that they are low in 'Tourism Stars', and this is particularly the case with the youngest worker cohort. Non-EU citizens receive the worst salaries in 'Low Intensity' regions and the best in 'Steady Growers', and also do well in the other 'touristy' regional types. Female workers seem to be particularly benefiting by the economic buoyancy of 'Tourism Stars' (where the share of non-nationals tends to be highest). Non-EU workers instead do worse in 'Tourism Stars' and best in 'Fast Internationalisation' regions. They also suffer from a higher unemployment rate in Tourism Stars for urban areas, only surpassed by 'Low Intensity' regions whereas they enjoy the lower unemployment rates in 'Fast Internationalisation' regions.

All in all, the results discussed above should be seen as a first attempt to explore the different outlooks of regions in terms of social exclusionary trends, which associate to different profiles of attractive places in relation to the dimension of tourism related mobilities attracted. Limitations should be nevertheless acknowledged in our exercise. First, the scope of our approach is downsized by the availability of data at regional level across the EU territory. To address this limitation, we have proposed an analytical strategy combining different geographies (NUTS 1 and 2). This allowed us to extend the geographical cover of the analysis, but with the side effect of exposing the analysis to some imbalances as a function of the heterogenous size of the units of analysis. Further limitations are linked with the mismatch between the sample used in the cluster analysis and the number of cases in the ANOVA tests. This implied that the sample size for some of these tests is rather reduced, which calls for caution when interpreting the obtained results.

4. Discussion and conclusions

The analysis in this paper refers to a context of steady intensification of tourism and international mobility that has characterised the decade between 2008 and 2018, to come to an abrupt halt with

the sanitary emergency of COVID-19 in 2020. Looking into the near past goes in the way of understanding how tourism mobilities could have become enmeshed with social inequalities. The hindrances provoked by COVID-19 have been opening new relevant avenues of social exclusion, which the recent literature claims to be overlapping and heightening, and not substituting, pre-existing ones. These results may therefore inform the process of recovery, and underline the key policy challenges that are at stake. We may be facing a once-in-lifetime moment in which a transition towards a new regime of value creation in tourism founded on quality over quantity, dignified labour, and a more equal distribution of costs and benefits across population strata and city spaces, is not only socially desirable (Benjamin et al., 2020), but possibly also a necessary one for the industry to survive (Brouder, 2020).

In spite of the methodological limitations noted above (spatial scale, incomplete territorial cover, missing data in ANOVA tests) which could have clouded some of our results, the key take-out is that the pace of development seems to have a more critical impact on social inclusion that the sheer dimension or even intensity of tourism and other related migrations. As directions for future research, it is key to examine how territorial structures, geographical specificities and policy regimes may play a role in explaining these variations.

At this level of the analysis, besides the expected result that tourism development produces regional wealth (Proença and Soukiazis, 2008; Kostakis and Theodoropoulou, 2017), our insights confirm that social cohesion is at stake. It was shown that different patterns of tourist attractiveness and paces of development are not always associated with high scores in social indicators, hinting at tourism and mobilities more in general as redistributive agencies that operate through the effect they have on place and its different spatial and socioeconomic constructs.

These associations hint at key policy challenges for social cohesion in places that are the hub of global mobilities:

- the **challenge of poverty and deprivation**. That tourism development could be an accelerator of social polarization, has already been advanced by authors such as Carrascal-Incera and Fernández-Fernández (2015), Picascia et al. (2017), and Gössling et al. (2019), who look at different frameworks and drivers of unequal distribution of costs and benefits especially in contexts of high tourism pressure (urban areas) and destination maturity in Western countries. Our analysis has observed higher than average conditions of social deprivation in urban areas whose tourism growth has been rapid over the 2008-2018 decade, and are particularly hard on the female population, while the perception of living in a polarised community and being subject to unequal living conditions is also high in urban areas that are among the most established and mature destinations in Europe. These results support the claim that tourism growth need to be accompanied by policies of mitigation and redistribution of wealth to cater for the negative externalities affecting those who are excluded from the benefits in tourism. However, this is not always the case, and redistribution mechanisms may fail – see for instance the debate on how 'tourist taxes' are actually spent in EU member countries in Goktas and Polat (2019).
- the **challenge of affordable housing and dignified housing conditions**. Especially in regions where tourism development has been rapid and has reached a high level of intensity, affordable housing is an increasingly contested issue, the more so since the emergence of short-term rental platform has triggered a scale jump in the tourist use of housing (Cocola-Gant and Gago, 2019; Wachsmuth and Weisler, 2018). In our analysis we bring to the fore that this is associated to processes fathoming social exclusion as living in overcrowded households or dedicating a large part of household income to paying mortgages, and has different effects on groups at risk of exclusion

like residents with a non-EU nationality, the elderly, the female population and their intersections. This challenge calls for fundamental revisions, possibly harmonised at EU level, of regulations and quotas for the short-term rental market, property rental regulations, and the provision of social housing to cover for these deficiencies.

- the **challenge of precarious labour in the tourism sector**. Highly interrelated with the previous two, it hints at tourism labour as 'disfavoured work' (SMARTDEST, 2021), characterised by precarious conditions, high levels of instability and poor protection (Cañada, 2018; Robinson et al., 2019). These trends have been heightened by the 'platformization' of a sizable part of the service and hospitality industry, and by the uneven regimes of access to citizen rights that the different members of the EU grant to immigrants, leading a part of them to form a 'reserve army of undocumented workers' that are subject to labour exploitation and cut off from welfare systems, with vicious impacts on the competitive regimes in local labour markets. We have highlighted that in highly attractive regions, the local labour markets tend to be bent by a large pool of low-skilled immigrant workers, and labour conditions are worse in regions that having grown rapidly over the last decades have not kept pace with adapted social security structures, minimum salary regulations and mechanisms of sectorial negotiation. A main challenge seems to be externalised labour contracts that escape from sectorial regulations, and the low salaries of hyper-specialised tourist region with a strongly competitive climate. Policy-wise this challenge hints at the potential change in the competition model which could emerge in the post-pandemic recovery period. Faced with a long tail of disruption on incoming markets, tourist companies will have to 'do more with less'. This may be a driver of higher labour productivity tied to upgrades in product quality and differentiation, which needs to be sustained by progressive employment and immigration policies in order to translate in better and more stable employment conditions.

At a more general level, the dimensions of social exclusion that we have considered could possibly be integrated to established systems of sustainable tourism indicators, taking social impacts to a more central place along the lines of Sustainable Development Goals such as SDG 5 (gender equality), 8 (decent work and economic growth), 10 (reduced inequalities), and 11 (sustainable cities and communities). This could be a further step in efforts to monitor tourism development and inform policy alternatives. In fact, while established systems like the European Commission's European Tourism Indicator System (ETIS) generally include measures of tourism as a driver of social impact, they are less determinate in terms of impact assessment. On the way of developing more nuanced, multidisciplinary approaches to the study of sustainable tourism, as advocated by Torres-Delgado & Saarinen (2014), such impacts need to be first of all explored and contextualised, as we try to do in this paper. On the other hand, the complexity of the processes involved call for what Font et al. (2021) expect for systems like ETIS, that is to inspire new and smarter efforts of assessing tourism impacts and integrating them to policymaking at the local level.

REFERENCES

Amelung, B. and Viner, D. (2006) 'Mediterranean tourism: exploring the future with the tourism climatic index', *Journal of sustainable tourism*, Vol. 14 No. 4, pp. 349-366.

Benjamin, S. Dillette, A. and Alderman, D.H. (2020) '"We can't return to normal": committing to tourism equity in the post-pandemic age', *Tourism Geographies*, Vol. 22 No. 3, pp. 476-483.

Briedenhann, J. and Wickens, E. (2004) 'Tourism routes as a tool for the economic development of rural areas—vibrant hope or impossible dream?', *Tourism management*, Vol. 25 No 1, pp. 71-79.

Brouder, P. (2020) 'Reset redux: possible evolutionary pathways towards the transformation of tourism in a COVID-19 world', *Tourism Geographies*, Vol. 22 No. 3, pp. 484-490.

Cañada, E. (2018) 'Too precarious to be inclusive? Hotel maid employment in Spain', Tourism *Geographies*, Vol. 20 No. 4, pp. 653-674.

Carrascal-Incera, A. and Fernández-Fernández, M. (2015) 'Tourism and income distribution: Evidence from a developed regional economy', *Tourism Management*, Vol. 48, pp. 11-20.

Champion, T. (2012) 'Testing the return migration element of the 'escalator region' model: an analysis of migration into and out of south-east England, 1966–2001', *Cambridge Journal of Regions, Economy and Society*, Vol. 5 No. 2, pp. 255-270.

Clancy, M. (2020) 'Tourism, financialization, and short-term rentals: the political economy of Dublin's housing crisis', *Current Issues in Tourism*, DOI: 10.1080/13683500.2020.1786027.

Clouston, S.A., Natale, G. and Link, B.G. (2021) 'Socioeconomic inequalities in the spread of coronavirus-19 in the United States: a examination of the emergence of social inequalities', *Social Science and Medicine*, Vol. 268, DOI: 10.1016/j.socscimed.2020.113554.

Cocola-Gant, A. and Gago, A. (2019) 'Airbnb, buy-to-let investment and tourism-driven displacement: A case study in Lisbon', *Environment and Planning A: Economy and Space*, Vol. 53 No. 7, pp. 1671–1688.

Cole, S. and Morgan, N. (Eds.) (2010) *Tourism and inequality: Problems and prospects*. CABI.

Crociata, A., Agovino, M., Russo, A. and Quaglieri Domínguez, A. (2018) 'Creative workforce and economic development in precrisis Europe: Main trends and causality relationships', *International Regional Science Review*, Vol. 41 No. 4, pp. 448-479.

Findlay, A., McCollum, D., Coulter, R. and Gayle, V. (2015) 'New mobilities across the life course: A framework for analysing demographically linked drivers of migration', *Population, Space and Place*, Vol. 21 No. 4, pp. 390-402.

Florida, R., Rodriguez-Pose, A. and Storper, M. (2020) 'Cities in a post-covid world', *Papers in Evolutionary Economic Geography* (PEEG), 2041.

Font, X., Torres-Delgado, A., Crabolu, G., Palomo Martinez, J., Kantenbacher, J., & Miller, G. (2021). The impact of sustainable tourism indicators on destination competitiveness: the European Tourism Indicator System. *Journal of Sustainable Tourism*. DOI: 10.1080/09669582.2021.1910281.

Garcia-López M.À., Jofre-Monseny, J., Martínez-Mazza, R. and Segú, M. (2020) 'Do short-term rental platforms affect housing markets? Evidence from Airbnb in Barcelona', *Journal of Urban Economics*, Vol. 119, DOI: 10.1016/j.jue.2020.103278.

Gialis, S., Tsampra, M. and Leontidou, L. (2017) 'Atypical employment in crisis-hit Greek regions: Local production structures, flexibilization and labour market re/deregulation', *Economic and Industrial Democracy*, Vol. 38 No. 4, pp. 656-676.

Goktas, L.S. and Polat, S. (2019) 'Tourist tax practices in European Union member countries and its applicability in Turkey', *Journal of Tourismology*, Vol. 5 No. 2, pp. 145-158.

Gössling, S., Ring, A., Dwyer, L., Andersson, A.C. and Hall, C.M. (2016) 'Optimizing or maximizing growth? A challenge for sustainable tourism', *Journal of Sustainable Tourism*, Vol. 24 No. 4, pp. 527-548.

Gourzis, K., Herod, A., Chorianopoulos, I. and Gialis, S. (2021) 'On the recursive relationship between gentrification and labour market precarisation: Evidence from two neighbourhoods in Athens, Greece', *Urban Studies*, DOI: 10.1177/00420980211031775.

Hannam, K. (2011) 'Mobilities and social exclusion: towards a research agenda', in McCabe, S., Minnaert, L. and Diekmann, A. (Eds.), *Social Tourism in Europe: Theory and Practice*, Channel View Publications, Bristol, pp. 92-102.

Hunter-Jones, P. and Blackburn, A. (2007) 'Understanding the relationship between holiday taking and self-assessed health: an exploratory study of senior tourism', *International Journal of Consumer Studies*, Vol. 31 No. 5, pp. 509-516.

Janoschka, M. and Haas, H. (Eds.) (2013) *Contested spatialities, lifestyle migration and residential tourism*. Routledge, London.

Jensen, O. B. (2010). Negotiation in motion: Unpacking a geography of mobility. *Space and culture*, 13(4), 389-402.

Joppe, M. (2012) 'Migrant workers: Challenges and opportunities in addressing tourism labour shortages', *Tourism Management*, Vol. 33 No. 3, pp. 662-671.

Kostakis, I and Theodoropoulo, E. (2017) 'Spatial Analysis of the Nexus Between Tourism- Human Capital-Economic Growth: Evidence for the Period 2000-2014 Among NUTS II Southern European Regions', *Tourism Economics*, Vol. 23 No. 7, pp. 1523–1534.

Lee, S. (2009) 'Income inequality in tourism services-dependent counties', *Current Issues in Tourism*, Vol. 12 No. 1, pp. 33-45.

Llorca-Rodríguez, C.M., Chica-Olmo, J. and Casas-Jurado, A.C. (2021) 'The effects of tourism on EU regional cohesion: a comparative spatial cross-regressive assessment of economic growth and convergence by level of development', *Journal of Sustainable Tourism*, Vol. 29 No. 8, pp. 1319-1343.

Manderscheid, K. (2009) 'Unequal mobilities', in Ohnmacht, T., Maksim, H. and Bergman M.M. (Eds). *Mobilities and Inequality*, Ashgate, Aldershot, pp. 27–50.

Milano, C., Novelli, M. and Cheer, J.M. (2019) 'Overtourism and degrowth: a social movements perspective', *Journal of Sustainable Tourism*, Vol. 27 No. 12, pp. 1857-1875.

Morales-Pérez, S., Garay-Tamajón, L. and Troyano-Gontá, X. (2020) 'Beyond the big touristic city: nature and distribution of Airbnb in regional destinations in Catalonia (Spain)', *Current Issues in Tourism,* DOI: 10.1080/13683500.2020.1780201.

Niavis, S., Papatheochari, T., Koutsopoulou, T., Coccossis, H. and Psycharis, Y. (2021) 'Considering regional challenges when prioritizing tourism policy interventions: evidence from a Mediterranean community of projects', *Journal of Sustainable Tourism*, DOI: 10.1080/09669582.2021.1876074.

Picascia, S., Romano, A. and Teobaldi, M. (2017) 'The Airification of Cities: Making Sense of the Impact of Peer to Peer Short Term Letting on Urban Functions and Economy', in Annual Congress of the Association of European Schools of Planning, 11-14 Jul 2017. Lisbon, Portugal. https://eprints.gla.ac.uk/232918/ (Accessed 10 July 2021).

Proença, S. and Soukiazis, E. (2008) 'Tourism as an Economic Growth Factor: A Case Study for Southern European Countries', *Tourism Economics*, Vol. 14 No. 4, pp. 791–806.

Provenzano, D. (2020) 'The migration–tourism nexus in the EU28', *Tourism Economics*, Vol. 26 No. 8, pp. 1374-1393.

Rastegar, R., Higgins-Desbiolles, F. and Ruhanen, L. (2021) 'COVID-19 and a justice framework to guide tourism recovery', *Annals of Tourism Research*, DOI: 10.1016/j.annals.2021.103161.

Robinson, R. N., Martins, A., Solnet, D. and Baum, T. (2019) 'Sustaining precarity: Critically examining tourism and employment', *Journal of Sustainable Tourism*, Vol. 27 No. 7, pp. 1008-1025.

Romero-Padilla, Y., Navarro-Jurado, E. and Romero-Martínez, J. M. (2020) 'Destinos turísticos y capital creativo: El caso de la costa del sol en el sur de España', *Norte Grande*, Vol. 77, pp. 339-365.

Salazar, N.B. (2020) 'Labour migration and tourism mobilities: Time to bring sustainability into the debate'. *Tourism Geographies*, DOI: 10.1080/14616688.2020.1801827.

Salerno, G.M. and Russo, A.P. (2020) 'Venice as a short-term city. Between global trends and local lock-ins', *Journal of Sustainable Tourism*, DOI: 10.1080/09669582.2020.1860068.

Semi, G. and Tonetta, M. (2020) 'Marginal hosts: Short-term rental suppliers in Turin, Italy', *Environment and Planning A: Economy and Space*, Vol. 53, No. 7, DOI: 10.1177/0308518X20912435.

Servillo, L., Atkinson, R. and Russo, A.P. (2012) 'Territorial attractiveness in EU urban and spatial policy: A critical review and future research agenda', *European Urban and Regional Studies*, Vol. 19 No. 4, pp. 349-365.

SMARTDEST (2020) *D2.1 - Scientific Report of the SMARTDEST project: Initial presentation of the research context*. https://smartdest.eu/wp-content/uploads/2020/10/D2-1-SMARTDEST-Scientific-Report-Task-2-1-.pdf (Accessed 10 July 2021).

SMARTDEST (2021). *D2.3 - Tourism-related mobilities, spatial effects and local responses*. https://smartdest.eu/wp-content/uploads/2021/04/D2.3-WP2-Final-scientific-report.pdf (Accessed 10 July 2021).

Torres-Delgado, A., & Saarinen, J. (2014). Using indicators to assess sustainable tourism development: a review. *Tourism Geographies*, 16(1), 31-47.

Wachsmuth, D. and Weisler, A. (2018) 'Airbnb and the rent gap: Gentrification through the sharing economy', *Environment and Planning A: Economy and Space*, Vol. 50 No. 6, pp. 1147-1170.

Zerva, K., Palou, S., Blasco, D. and Donaire, J.A.B. (2019) 'Tourism-philia versus tourism-phobia: residents and destination management organization's publicly expressed tourism perceptions in Barcelona', *Tourism Geographies*, Vol. 21 No. 2, pp. 306-329.

ANNEX

Table A: Centre of final cluster scores obtained in 4-means clustering and ANOVA test of significance

	CLUSTER				ANOVA
	1	2	3	4	sig.
ATTRACTIVENESS overnight per kmq tot 2018	-.173	-.280	.154	1.172	.000
GROWTH OF ATTRACTIVENESS overnight per kmq tot growth 2008-2018	4.598	-.201	.098	-.079	.000
PRESSURE IN CITY overnight per pop CITY 2018	4.019	-.082	-.081	-.079	.000
GROWTH OF PRESSURE IN CITY overnight per pop CITY growth 2013-2018	-1.189	.011	-.156	.606	.033
PRESSURE IN RURAL overnight per pop RURAL 2018	4.520	-.258	.030	.597	.000
GROWTH OF PRESSURE IN RURAL overnight per pop RURAL growth 2013-2018	6.529	-.266	.470	-.209	.000
PRESSURE IN TOWN overnight per pop TOWN 2018	3.915	-.084	-.084	-.074	.000
GROWTH OF PRESSURE IN TOWN overnight per pop TOWN growth 2013-2018	-2.090	.161	-.441	.622	.000
INTERNATIONAL SHARE 2018	1.108	-.618	.590	1.080	.000
GROWTH OF INTERNATIONAL SHARE 2008-2018	3.192	-.459	.586	-.159	.000
GROWTH OF INTERNATIONAL SHARE 2013-2018	.926	-.382	.585	-.160	.000
PENETRATION OF AIRBNB 2018	-.195	-.210	.068	1.155	.000
STUDENT MOBILITY students per pop 2018	.030	-.276	.593	.188	.000
CRUDE MIGRATION RATE 2018	.244	-.235	.076	2.772	.000
MIGRATION RATE age cohort 15_24 2018	1.153	-.327	.326	.907	.000
MIGRATION RATE age cohort 25_49 2018	-.032	-.059	-.215	2.660	.000
MIGRATION RATE age cohort 50_64 2018	-.801	-.060	-.060	2.176	.000
MIGRATION RATE age cohort 65_79 2018	-.391	-.054	-.052	1.595	.010