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SUSTAINABILITY FROM SOCIAL COMMITMENT TO TOURIST ATTRACTION: TERMINOLOGICAL APPROACH TO EUROPEAN GREEN CAPITALS BROCHURES

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Abstract: The tourism industry currently represents a relevant sector of the international market and a fundamental resource for countries like European ones, which offer a heterogeneous mosaic of histories and cultures. Such sector is, however, characterized by an ever-changing nature depending on the constantly evolving needs, habits, and awareness of different types of travelers. Far from investigating the largely discussed concept of sustainable tourism, this article aims to examine from a linguistic perspective the concept of urban sustainability as a tourist attraction in the context of the European Green Capitals Award (EGCA) and the relative terminological effects on the language of tourism. A corpus-driven approach was used to quantitatively and qualitatively investigate the terminology used in the brochures of the European Green Capitals selected from 2010 to 2021, which are included in the section Environment of the European Commission website. Following a quantitative analysis of the data, a qualitative analysis was conducted to interpret the meaning and the degree of technicality of the sustainability-related terms used in the corpus and their potential employment in the field of tourism. The corpus analysis was intended to provide evidence of those new linguistic structures used in texts like EGCA brochures which, being addressed to a wide range of readers, may directly or indirectly influence tourist interests and tourism promotional language as well.

Keywords: *brochure; EGCA; sustainability; terminology; tourism*

INTRODUCTION

European cultural, historical, and artistic heritage represents an important resource for tourism which the European Commission has defined as "a key sector of the European economy [as it] comprises a wide variety of products and destinations involving many different stakeholders, both public and private" (TOURISMlink, 2014). However, the positive impact that tourism marketing has on the economic system is counterbalanced by the negative effects on the natural and social resources of those countries overrun by tourism flows.

The negative impact of humanity on the environment has been the subject of debate over the last forty years (Lipman & Savignac, 1996; Holden & Fennell, 2013; Anselmi, 2020), leading to a variety of regulations aimed at protecting both natural and urban environment promoting more responsible concept of sustainability has evolved from a forms of tourism known as sustainable tourism. Based on the concept of sustainable development reported on the UNESCO website, this type of tourism is encouraged by the Europarc Federation (2021), which supports protected areas preservation, social respect, and economic benefits for the local populations through the promotion of sustainable destinations (European Charter for Sustainable Tourism in Protected Areas (ECST), 2010). The key points of such destinations are the protection of cultural and natural heritage, engagement of all stakeholders, partnership working, and sustainable strategies planning.

Today, the concept of sustainability, meant as the "quality of causing no damage to the environment" (Cambridge Dictionary Online, 2022), has become one of the criteria used to evaluate a service, product, and city. In this view, during the last decade, the form of social commitment to an actual

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tourist attraction, as shown by the data reported on the European Commission website (2021) in the section European Green Capitals Award (EGCA). The latter is an initiative promoted by the European Commision and started in 2010 with the purpose of enhancing a greener lifestyle in European cities. The European Green Capital Award is presented each year to a European city committed to achieving important goals in terms of sustainable development and finding innovative solutions to environmental challenges.

Such initiative, which started to provide urban models and raise awareness on sustainable development, has also led to significant benefits in terms of tourism. The initiative is promoted on the European Commission website by means of official brochures, which are freely accessible and available for download. In addition to informing the reader about the goals and achievements of the selected destinations, these brochures promote places, activities, and novelties of European Green Capitals (EGC), paving the way for a renewed role of sustainability in tourism. The increase in tourism flows in EGC may suggest that tourist interests have partially changed as visitors seem to be attracted by new opportunities and innovations related to sustainability.

From a linguistic perspective, EGCA brochures are characterized by a different degree of technicality compared to traditional tourist brochures focused on promoting cultural, historical, and artistic heritage. Considering that EGCA started as an initiative aimed at promoting a greener lifestyle, even before attracting tourists, the higher level of specialization of brochures is given by the presence of terms related to economic, social, natural, and urban sustainability. Sustainability terminology in EGCA brochures is the focus of the present analysis aimed at investigating from a quantitative and qualitative perspective the use of such terminology and the potential terminology (Zanola, 2018). Nonetheless, up to now, only a few studies have been influence that it may have on the language of tourism.

Theoretical Background

The great variety of products and activities characterizing the tourism industry underlines the interdisciplinary nature of tourism language that involves different domains such as geography, history, art, economy, and gastronomy. Such interdisciplinarity has often led to disagreement about the nature of tourism language, which has been investigated from different perspectives by many scholars in the last decades (Gotti, 2006; Nigro, 2006; Agorni, 2012; Francesconi, 2014; Federici, 2018; Maci, 2020 to name but some). Consistently with the wide range of domains and activities involved in this sector, different text typologies characterize tourism discourse (Nigro, 2006) which can be divided into two main categories: promotional and professional texts. These two categories perform different pragmatic functions and are addressed to different types of audiences (Gotti, 2006); while promotional texts are addressed to a large-scale public of potential travelers (brochures, tourist guides, leaflets, etc.), specialized texts are typical of professional communication between experts (contracts, legislation, documents between agencies, airlines, tour operators).

However, despite the variety of professional contexts and activities involved in this field, tourism language has been defined as a type of specialized discourse, especially in its professional dimension. The main peculiar aspect of the tourism language is a quantitatively different use of certain linguistic structures and features compared to general language (Gotti, 2006). Moreover, special languages are commonly characterized by the presence of peculiar linguistic units mainly found at the lexical level. That means that the lexicon of special languages appears to be “their most obvious distinguishing characteristic” (Sager et al., 1980, p. 230) because it includes precise

published on tourism terminology (Ivanova & Maslennikova, 2013; Carrio-Pastor & Candel-Mora, 2017); this is probably due to the interdisciplinarity and variability of such terminology. Clearly, the variety of professional domains involved in the language of tourism implies a terminological heterogeneity that reinforces the idea that the language of tourism does not possess its own specific terminological system (Agorni, 2012) and that it makes use of general language means and technical and semi-technical words borrowed from other contexts. This is particularly true for promotional texts which are addressed to large-scale public and commonly show a low degree of technicality. Professional texts, on the contrary, show a higher degree of specialization and are characterized by the presence of tourism technical words like, for example, names (or abbreviations) of agencies, offices, and national and international organizations.

A terminological approach to the language of tourism should consider the different dimensions and categories involved in this sector, such as tourism, accommodation, transportation, tourist activities, professional figures, institutions, and agencies. Moreover, tourist activities constantly change to meet the ever-changing needs of different types of travelers. These changes inevitably affect the lexical dimension of tourism language leading to the creation of new words designating new concepts (e. g. adventure tourism, business travel, CTC).

METHODOLOGY

In recent years, global concerns with sustainability and environment protection and conservation have played a crucial role in this process of terminology enrichment. In addition to neologisms related to sustainable tourism (ecotourism), new expressions emerged in response to the spread of urban sustainability as a new attraction for visitors. The presence of such expressions in promotional texts was verified by creating a corpus including EGCA brochures from 2010 to 2021. Using the online platform Sketch Engine, corpus linguistics tools (Weisser, 2016; Rodrigues, 2020) were employed to interpret data through a corpus-driven approach (Biber, 2015) aimed at identifying frequency, context, and use of sustainability terminology in the corpus, which was then processed in two phases.

In the first phase, two frequency lists, nouns and adjectives, were generated to investigate the extent to which sustainability terminology was present in the corpus. As a frequency list provides the number of occurrences of all the words present in a corpus, the results of these lists were filtered through the concordance tool to look at words in their context of use and discard items that were non-significant for the terminological extraction of sustainability-related terms. In the second phase, the corpus was processed with the keywords tool to identify those words and structures showing significantly high frequency when compared to another corpus, a reference corpus (Lancaster University website, 2021).

As the primary aim of the second stage was to identify the most distinctive terms in the corpus, some documents focused on a different aspect of sustainability, which is natural area preservation, were selected as a reference corpus. This last phase of the analysis intended: a) to identify those terms and expressions connected to sustainability in the urban context rather than the natural one; b) to investigate whether such terms can be considered relevant in tourism promotional discourse on a par with sustainability-related terms connected to the natural areas conservation.

The corpus collected for the analysis comprises 10 documents belonging to a single text typology: promotional brochures about urban sustainability in Europe. As mentioned, each brochure corresponds to a European Green Capital, which has been awarded between 2010 and 2021, including

Stockholm 2010, Hamburg 2011, Vitoria-Gasteiz 2012, Nantes 2013, Copenhagen 2014, Bristol 2015, Ljubljana 2016, Essen 2017, Nijmegen 2018, Oslo 2019, Lisbon 2020, and Lahti 2021.

EGCA brochures are documents of about 50 pages characterized by a constant interplay between words and images that sometimes may be crucial in clarifying some complex or new concepts. Different kinds of information are provided about the capital represented in the brochure, such as the origins and characteristics of the city, plans, social initiatives and policies in sustainable development, and green activities in the urban spaces. The description of spaces is a core element, and references to the initiative (EGCA) are frequent in all brochures.

After having downloaded EGCA brochures from the European Commission's official website, a preliminary step was discarding information that was deemed unnecessary to the purpose of analysis, such as graphic and paralinguistic elements, names of organizations, and contacts. The documents were collected from the online platform Sketch Engine by Anthony Lawrence, which generated a corpus (EGCA) containing 127,323 tokens (each item occurring in the corpus making an exception for spaces) and 109,013 words (tokens beginning with a letter of the alphabet). Following a first phase aimed at generating frequency lists to identify the most frequent sustainability-related terms in the brochures, a reference corpus was created to investigate the keywords of the EGCA corpus, namely those words that are unusually frequent in the corpus and therefore distinctive such collection of texts.

The reference corpus was compiled by collecting three brochures centered on sustainable tourism aimed at promoting the preservation of the natural environment and protected areas (tokens 5,869; words 5,036): (1) *Good for Parks. Good for People* (Europarc Federation, 2020); (2) *CEETO Outcomes & Success Stories* (Interreg Central Europe); (3) *Cross-border cooperation for sustainable development and tourism through the valorization of rural cultural heritage and conservation of natural assets of areas with ancient olive groves* (Interreg Italy, Albania, Montenegro).

Though reference corpora are commonly meant to be bigger and representative of a wider variety of the language under investigation, the use of a reference corpus smaller than the focus corpus was not an obstacle to the reliability of the results; the latter was obtained considering the relative frequency of the terms in the corpus filling the size gap between the two corpora. The choice of these documents as reference corpus was made considering the analogies in terms of text typology and subject: while the EGCA collected European Capitals brochures focusing on sustainability from 2010 onwards, the reference corpus consists of brochures revolving around the concept of sustainable tourism. This choice was made with the purpose of narrowing the keywords list to only urban sustainability-related terms through the comparison with texts centered on sustainability and nature. As regards the text typology, the fact that the two corpora exclusively include brochures narrows the research to the tourism promotional discourse.

RESULTS AND DISCUSSION

The first step of the terminological analysis was the investigation of the frequency lists generated by Sketch Engine through the 'wordlist' tool and sorted by frequency. The latter may be expressed in terms of raw (or absolute) frequency, which indicates the total number of times a word occurs in the corpus, and relative frequency (or frequency per million), which indicates the percentage of each item over the corpus. Based on the tags automatically created through Sketch Engine, which provide linguistic information about the items of a corpus like grammatical category, part of speech, inflected or uninflected forms, a frequency list was generated to provide evidence of the nouns

that most frequently occur in the corpus. The list was generated by selecting lemma lowercase as query option, converting each token in its basic form (uninflected) without considering differences between capitalized and lowercase forms of the same lemma. This choice was made to reduce the risk of generating duplicates and provide more precise results.

A first look at the nouns frequency list (4,264 items) immediately clarified the topic of the corpus as the first three items of the list were the city, green, and capitals, followed by the names of the EGC that appeared in the first 50 positions of the list together with words strictly related to the topic of the brochures like, for example, european, environment, development, change. Bearing in mind the purpose of the research, a terminological extraction was made to identify the terms connected to the concept of sustainability.

A first selection was made setting a minimum of ten occurrences for each term and generating a frequency list of 681 items. In order to provide more precise results, the terminological extraction was refined by looking at the context of the use of each term in the list through the 'concordance' tool available on Sketch Engine. Concordances provide "a list of all examples of the search word or phrase found in a corpus, usually in the format of a KWIC [keyword in context] concordance with the search word highlighted in the center of the screen and some context to the right and to the left" (Sketch Engine website). The possibility of looking at the context of use through the concordance tool made it possible to interpret data, gathering information about each item's different shades of meaning. On this basis, the following table was compiled reporting words that were mainly or exclusively used in relation to urban, natural, economic, and social sustainability, even in case of different contexts of use.

Table 1. *Nouns Frequency List*

	Lemma (Lowercase)	**Absolute Frequency**	**Frequency Per Million**
1	city	1,739	13,658.176
2	green	925	7,264.987
3	capital	851	6,683.788
5	water	455	3,573.588
7	energy	353	2,772.476
8	waste	344	2,701.79
12	transport	306	2,403.336
14	environment	275	2,159.861
17	climate	260	2,042.051
18	development	252	1,979.218
22	quality	231	1,814.283
30	award	186	1,460.852
31	plan	185	1,452.997
32	change	185	1,452.997
33	life	179	1,405.873
38	nature	157	1,233.084
39	management	157	1,233.084
43	emission	146	1,146.69
47	air	133	1,044.587
52	mobility	119	934.631
65	sustainability	100	785.404
69	biodiversity	96	753.988
73	economy	94	738.28
79	carbon	91	714.718
86	infrastructure	80	628.323

98	consumption	70	549.783
119	panel	56	439.826
133	reduction	55	431.972
143	pollution	53	416.264
144	living	52	408.41
155	treatment	48	376.994
156	recycling	48	376.994
67	protection	45	353.432
168	power	45	353.432
211	corridor	35	274.891
219	gas	34	267.037
220	belt	33	259.183
228	ecosystem	32	251.329
244	zone	30	235.621
247	greenhouse	30	235.621
258	generation	28	219.913
263	wind	28	219.913
265	supply	28	219.913
298	employment	25	196.351
309	ground	24	188.497
310	biogas	24	188.497
311	reuse	24	188.497
317	fuel	23	180.643
327	habitat	23	180.643
333	environmental	22	172.789
345	restoration	21	164.935
362	co2	20	157.081
368	agenda	20	157.081
388	renovation	18	141.373
390	lifestyle	18	141.373
395	natura	18	141.373
429	greening	16	125.665
439	incineration	16	125.665
444	gardening	16	125.665
448	tourism	15	117.811
449	reserve	15	117.811
473	Evs (electric vehicles)	15	117.811
490	summit	14	109.957
491	eco-innovation	14	109.957
497	ecology	14	109.957
501	soil	13	102.103
534	directive	12	94.248
545	dioxide	12	94.248
548	local	12	94.248
556	ecocity	12	94.248
566	ev (electric vehicle)	12	94.248
576	deal	11	86.394
600	egca	11	86.394
610	body	11	86.394
613	zero	11	86.394
629	disposal	10	78.54
669	regulation	10	78.54

The 77 items listed in the table correspond to approximately 11% of the 681 most frequent nouns in the corpus. As the scope of creating a frequency list was to quantitatively determine the presence of sustainability-related terminology in the corpus, common words that remotely referred to the concept of sustainability were not considered for the terminological extraction, which took into consideration: (1)

technical words or abbreviations connected to the concept of sustainability (e.g, *sustainability*, *ecosystem*, *ecoinnovation*, *ecocity*, *evs*); (2) common words which acquire a techincal meaning or a meaning strictly connected to the EGCA initiative when co-occurring with other elements (e.g. 'green *city*', 'green *lifestyle*', 'waste *water*', '*waste* management', '*wind* power', 'urban *living*', 'low emissions *zone*', '*zero* waste energy'); (3) words resulting from a process of resematisation or metaphorisation (e.g. *greening*, '*green* capital', 'green *corridor*', 'green and blue *belt*', '*greenhouse* gas', 'water *body*'); (4) terms or abbreviations which refer to any regulation in the context of sustainability (e.g., *agenda* with reference to *Agenda 21*, *summit* with reference to Environmental Summit *Rio+20*, and *directive*).

Looking at the concordances, it emerged that many words identified as nouns by Sketch Engine were actually used as modifiers in combination with other words such as nature, wind, cargo, CO2, and greenhouse. Likewise, a high number of items acquired a specific or technical meaning only when co-occurring with other words. It also emerged that, though 'green' is an adjective, it has been automatically included in the list due to its numerous occurrences in the expression European Green Capitals, in which all words are capitalized. As a result, another frequency list was created to identify the most frequent adjectives in the corpus and their co-occurrence with other words. Employing the same query criteria used for nouns, a list of 213 items was generated, including the most frequent adjectives having a minimum of ten occurrences in the corpus. The terminological extraction produced a list of 29 items, as shown in the following table

Table 2. *Adjectives Frequency List*

	Lemma (Lowercase)	**Absolute Frequency**	**Frequency Per Million**
1	european	680	5,340.748
2	green	492	3,864.188
3	sustainable	372	2,921.703
4	urban	328	2,576.125
8	environmental	253	1,987.072
18	natural	95	746.134
27	electric	61	479.096
30	renewable	59	463.388
33	circular	56	439.826
40	friendly	50	392.702
41	economic	50	392.702
46	solar	46	361.286
53	healthy	40	314.162
56	ecological	38	298.454
62	blue	34	267.037
76	co2	29	227.767
89	fossil	23	180.643
91	organic	23	180.643
96	agricultural	22	172.789
143	raw	14	109.957
147	biological	14	109.957
152	high-quality	14	109.957
153	eco-friendly	14	109.957
154	domestic	13	102.103
164	recycled	12	94.248
173	alternative	12	94.248

181	marine	11	86.394
199	native	10	78.54
206	pedestrian	10	78.54

Table 2 lists the most frequent sustainability-related adjectives in the corpus, which correspond to approximately 13,6% of the 213 most frequent adjectives in the corpus. On the basis of the criteria used for Table 1, the extraction considered: (1) technical words or abbreviations connected to the concept of sustainability (e. g. *sustainable*, *renewable*, *organic*, *eco-friendly*); (2) common words which acquire a technical meaning or a meaning strictly connected to the EGCA initiative when co-occurring with other elements (e.g. '*green* infrastructure', 'environmentally *friendly*, '*urban* development', '*natural* resources', '*solar* energy', '*electric* vehicles'); (3) words resulting from a process of resematisation or metaphorisation (e.g., '*green* capital', '*blue* infrastructure', '*circular* economy', '*responsible* consumption', '*alternative* energy sources').

The examination of nouns and adjectives frequency lists showed that a considerable quantity of terminology related to the concept of sustainability is included in EGCA brochures. However, to know whether such terminology may be defined as distinctive of the corpus, a further step was necessary: the analysis of keywords lists.

The investigation of keywords was conducted by selecting the 'keywords' tool on Sketch Engine. As for frequency lists, the research was conducted by selecting lemma lowercase as a query option for keywords occurring not less than 10 times in the corpus. The query generated two keyword lists: single-word and multi-word terms. The single-word list included 815 items, of which the first 100 occurrences were reported in the table below. As the analysis of the keyword was intended to determine whether sustainability terminology was peculiar to EGCA brochures and to what extent the most frequent words corresponding to the keywords of the corpus, the items are sorted by keyness, indicating absolute and relative frequency for the focus and the reference corpus as well.

Table 3. *First 100 Occurrences of Single-Words List*

	Lemma (Lowercase)	**Absolute Frequency Focus corpus**	**Absolute Frequency Ref. corpus**	**Frequency Per Million Focus corpus**	**Frequency Per Million Ref. Corpus**
1	city	891	0	13,858.00	0.00
2	green	699	0	10,871.76	0.00
3	capital	408	0	6,345.75	0.00
4	nijmegen	268	0	4,168.29	0.00
5	oslo	261	0	4,059.41	0.00
6	lisbon	244	0	3,795.01	0.00
7	lahti	244	0	3,795.01	0.00
8	essen	222	0	3,452.83	0.00
9	energy	196	0	3,048.45	0.00
10	citizen	170	0	2,644.06	0.00
11	waste	160	0	2,488.53	0.00
12	climate	151	0	2,348.55	0.00
13	future	113	0	1,757.52	0.00
14	space	105	0	1,633.10	0.00
15	emission	97	0	1,508.67	0.00
16	air	90	0	1,399.80	0.00
17	river	90	0	1,399.80	0.00
18	resident	84	0	1,306.48	0.00
19	plant	82	0	1,275.37	0.00

20	now	75	0	1,166.50	0.00
21	carbon	74	0	1,150.94	0.00
22	bike	67	0	1,042.07	0.00
23	role	64	0	995.41	0.00
24	where	62	0	964.31	0.00
25	cycle	61	0	948.75	0.00
26	since	60	0	933.20	0.00
27	clean	57	0	886.54	0.00
28	circular	57	0	886.54	0.00
29	electric	56	0	870.99	0.00
30	bicycle	56	0	870.99	0.00
31	measure	56	0	870.99	0.00
32	food	52	0	808.77	0.00
33	cycling	52	0	808.77	0.00
34	day	50	0	777.67	0.00
35	my	48	0	746.56	0.00
36	municipal	46	0	715.45	0.00
37	company	46	0	715.45	0.00
38	when	46	0	715.45	0.00
39	reduction	45	0	699.90	0.00
40	home	45	0	699.90	0.00
41	population	44	0	684.35	0.00
42	noise	42	0	653.24	0.00
43	key	42	0	653.24	0.00
44	material	42	0	653.24	0.00
45	power	40	0	622.13	0.00
46	each	40	0	622.13	0.00
47	street	39	0	606.58	0.00
48	just	39	0	606.58	0.00
49	million	38	0	591.03	0.00
50	transition	38	0	591.03	0.00
51	ambitious	37	0	575.47	0.00
52	panel	37	0	575.47	0.00
53	even	36	0	559.92	0.00
54	currently	36	0	559.92	0.00
55	health	36	0	559.92	0.00
56	jury	36	0	559.92	0.00
57	solar	36	0	559.92	0.00
58	consumption	36	0	559.92	0.00
59	effort	35	0	544.37	0.00
60	finland	35	0	544.37	0.00
61	continue	35	0	544.37	0.00
62	under	34	0	528.81	0.00
63	child	34	0	528.81	0.00
64	performance	33	0	513.26	0.00
65	heating	32	0	497.71	0.00
66	storm	32	0	497.71	0.00
67	co2	31	0	482.15	0.00
68	school	31	0	482.15	0.00
69	traffic	31	0	482.15	0.00
70	ruhr	30	0	466.60	0.00
71	so	30	0	466.60	0.00
72	invest	30	0	466.60	0.00
73	neutral	30	0	466.60	0.00
74	production	29	0	451.05	0.00
75	today	29	0	451.05	0.00
76	past	28	0	435.49	0.00
77	km	28	0	435.49	0.00
78	go	28	0	435.49	0.00

79	allotment	27	0	419.94	0.00
80	major	27	0	419.94	0.00
81	marka	27	0	419.94	0.00
82	stage	26	0	404.39	0.00
83	vesijärvi	26	0	404.39	0.00
84	garden	26	0	404.39	0.00
85	investment	26	0	404.39	0.00
86	waal	26	0	404.39	0.00
87	total	26	0	404.39	0.00
88	mayor	26	0	404.39	0.00
89	say	26	0	404.39	0.00
90	housing	25	0	388.83	0.00
91	transformation	25	0	388.83	0.00
92	put	25	0	388.83	0.00
93	unique	25	0	388.83	0.00
94	every	25	0	388.83	0.00
95	bridge	25	0	388.83	0.00
96	organisation	25	0	388.83	0.00
97	move	25	0	388.83	0.00
98	effect	25	0	388.83	0.00
99	pioneer	24	0	373.28	0.00
100	fossil	24	0	373.28	0.00

The items listed in Table 3 corroborated the hypothesis that the peculiarity of EGC brochures, compared to thematically different brochures, was the presence of sustainability discourses. Although not all the keywords can be associated with the domain of sustainability, the majority of the first 100 single-words keywords are sustainability-related words. Many of them match the frequency lists reported in Tables 1 and 2.

Moreover, it must be pointed out that the names of the Green Capitals, together with common words like bike, plant, and garden, cannot be defined as sustainability-related terms but obliquely refer to sustainability. These words were present in the frequency lists, even though they were not considered for the term extraction. The first 100 keywords of the EGCA corpus never occur in the reference corpus; some occurrences are found in the reference corpus from position 377 onwards with words like urban, mobility, and environment that, however, show a very low relative frequency when compared to the focus corpus. Other words like development, europe, and sustainable frequently occur in the reference corpus, though not as frequently as in the focus corpus. In addition to those items connected to the EGC and the greener lifestyle already identified in the frequency lists, the main difference with Tables 1 and 2 is the presence of items like municipal, street, school, traffic, and mayor, which underline the main focus of the EGCA brochures, namely urban environment. Table 3 shows consistency with Table 4, which lists multi-word keywords generated through the comparison between the focus and the reference corpus (376 items). The whole list contains 42 multi-word terms, as shown in the table below:

Table 4. *Multi-Word Keywords List*

	Lemma (Lowercase)	**Absolute Frequency Focus corpus**	**Absolute Frequency Ref. corpus**	**Frequency Per Million Focus corpus**	**Frequency Per Million Ref. Corpus**
1	city	891	0	13,858.00	0.00
2	green	699	0	10,871.76	0.00
3	capital	408	0	6,345.75	0.00

4	nijmegen	268	0	4,168.29	0.00
5	oslo	261	0	4,059.41	0.00
6	lisbon	244	0	3,795.01	0.00
7	lahti	244	0	3,795.01	0.00
8	essen	222	0	3,452.83	0.00
9	energy	196	0	3,048.45	0.00
10	citizen	170	0	2,644.06	0.00
11	waste	160	0	2,488.53	0.00
12	climate	151	0	2,348.55	0.00
13	future	113	0	1,757.52	0.00
14	space	105	0	1,633.10	0.00
15	emission	97	0	1,508.67	0.00
16	air	90	0	1,399.80	0.00
17	river	90	0	1,399.80	0.00
18	resident	84	0	1,306.48	0.00
19	plant	82	0	1,275.37	0.00
20	now	75	0	1,166.50	0.00
21	carbon	74	0	1,150.94	0.00
22	bike	67	0	1,042.07	0.00
23	role	64	0	995.41	0.00
24	where	62	0	964.31	0.00
25	cycle	61	0	948.75	0.00
26	since	60	0	933.20	0.00
27	clean	57	0	886.54	0.00
28	circular	57	0	886.54	0.00
29	electric	56	0	870.99	0.00
30	bicycle	56	0	870.99	0.00
31	measure	56	0	870.99	0.00
32	food	52	0	808.77	0.00
33	cycling	52	0	808.77	0.00
34	day	50	0	777.67	0.00
35	my	48	0	746.56	0.00
36	municipal	46	0	715.45	0.00
37	company	46	0	715.45	0.00
38	when	46	0	715.45	0.00
39	reduction	45	0	699.90	0.00
40	home	45	0	699.90	0.00
41	population	44	0	684.35	0.00
42	noise	42	0	653.24	0.00

From the results listed in the tables above, it emerged that, as with single-words, multi-word terms occurring in the keywords list of EGCA corpus are almost absent in the reference corpus, with the exception of the last 2 items. Not all the occurrences may be defined as terminological units due to the fact that they do not show a high degree of technicality or do not directly refer to the sustainability domain (e.g., *role model*, *other city*, *important role*). Nonetheless, the majority of the items included in the list refer to the themes of sustainable development, urban and natural environment, pollution, and management of resources.

The investigation of the role that sustainability is acquiring in tourism language was conducted by exploring the terminology used in EGCA brochures from a quantitative and qualitative point of view. While the analysis of frequency lists was mainly aimed at showing the presence of sustainability terminology in tourism brochures, the analysis of the keywords aimed to outline the characterization of such brochures through the use of sustainability-related language. After carrying out both analyses, it can be said that the comparison between the frequency lists and the keywords lists reveals substantial overlaps that

corroborate the hypothesis that the most frequent and characterizing words of the corpus are connected to sustainable activities and initiatives in the urban environment.

Indeed, the investigation of the regards such a combination of words, a further comment must be made on the concordances of the words included in the list. Though each terminological unit theoretically corresponds to a specific concept within a given field of knowledge, the fact that some words are mainly used in combination with given words (e.g., *green capitals*, *sustainable development*, *urban mobility*) does not exclude the possibility for such words to combine with other words generating further sustainability-related terms; for example, words like *city*, *green*, *sustainable*, *mobility*, *infrastructure*, *urban*, *tourism*, *alternative* are used in combination with different words as shown by the examples below:

a) City: *green city*, *bicycle-friendly city*, *sustainable city*;
b) Green: *green city*, *green capital*, *green infrastructure*, *green corridor*, *green areas*, *green spaces*, *green belt*.
c) Sustainable: *sustainable development*, *sustainable mobility*, *sustainable transport*, *sustainable consumption*, *Sustainable Urban Mobility (Plan) (SUMP)*;
d) Mobility: *sustainable mobility*, *urban mobility*, *electric mobility*;
e) Infrastructure: *green infrastructure*, *blue infrastructure*, *cycling infrastructure*, *urban infrastructure*;
f) Urban: *urban mobility*, *urban development*, *urban spaces*, *urban environment*;
g) Tourism: *environmentally friendly tourism*, *sustainable tourism*;
h) Alternative: *alternative energy*, *alternative transports*, *alternative currency*.

Looking at the examples above, it can be argued that some word combinations fit the tourism domain better than others; some keyword lists not only proved that the most frequent and the most distinctive elements of the EGCA corpus concern the concept of sustainability, but it also confirmed as keywords some combination of words. As of them are terminological units not originally linked to tourism, like *green infrastructure*, *green areas*, *green spaces*, *sustainable mobility*, *sustainable transport*, *cycling infrastructure*, *blue and green infrastructure*, *alternative transports*, *electric mobility*, *SUMP*, *green corridor*, *green belt* which are likely to be used to promote sustainable innovation as attraction or facilities for tourists. However, many of these lexical items show a high degree of technicality and require a minimum knowledge of the argument; this is the case of *green corridor*, *green belt*, and *SUMP*; in addition to the already mentioned *ecoinnovation*, *low emissions zone*, *zero waste energy* (Section 3.1). Moreover, in line with these technical words, it is worth mentioning the substantial number of references to regulations, directives, and conferences present in the brochures, such as *EU Water Framework Directive*, *Energy Efficiency Directive*, *Local Agenda 21*, *Environmental Summit Rio+20.*

Taking advantages of corpus linguistics tools, it can be said that a considerable quantity of sustainability-related terminology was found in EGCA brochures, even though a heterogeneous range of meanings and uses can be identified for each term which requires a reasonable level of familiarity with the subject for a full comprehension of the information included in the brochures.

CONCLUSION

EGCA started as an initiative to raise awareness of environmental protection, sustainable development, and consumption, promoting a greener lifestyle for European citizens. As reported by the European Commission, the EGCA contributed to increasing tourism in the Green Capitals, integrating the idea of sustainability as a

tourist magnet within the list of domains connected to the tourism industry. From this perspective, it can be suggested that the promotion of sustainability in the urban context encourages the spread of research was to provide insights into the introduction of urban sustainability terminology in tourism promotional discourse through the analysis of EGCA brochures. It is, however, true that any analysis of this type shows numerous limits; hence the items and features identified in this study should be corroborated through the exploration of larger corpora. Nonetheless, the results obtained stimulate reflections on the linguistic and pragmatic effects that such terminology may have on a heterogeneous audience of readers. The integration of sustainability-related technical words inevitably led to an increase in the level of specialization in EGCA promotional brochures in which the use of images could be insufficient to guarantee a full comprehension for the average reader. In line with this, the identification of new terminological units in the tourism field calls for further terminological research, which could provide tools (i.e., glossaries, term banks, special-language dictionaries) to both specialists and non-specialists aimed at disambiguating, clarifying, and standardizing the relationship between terms and the innovative concepts that they designate.

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sustainability-related terminology in tourism promotional discourse going beyond the already familiar sphere of sustainable tourism in natural areas.

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