Expert Panel

Technical Assessment Synopsis Report

European Green Leaf Award 2022

July 2021

Colofon

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1. Introduction

1.1 Background

Most cities face a common set of environmental challenges from poor air quality, increasing greenhouse gas (GHG) emissions, water scarcity, noise and waste pollution to preventing biodiversity loss. At the same time, some EU cities are standard setters in urban sustainability and in pioneering innovative solutions to deal with environmental challenges. Today, an ever-growing number of European cities are putting environmental sustainability at the core of their urban development strategies.

The European Green Leaf Award (EGC) was launched by the European Commission to encourage cities interested in sustainability and in making their cities greener and cleaner, to take further steps to protect the environment and thereby to improve the quality of life for their citizens. All winning cities to date[1] are recognized for their efforts to commit to achieve high environmental standards. European Green Capital winners are also important role models and ambassadors in encouraging other cities to take action.

Due to interest from smaller cities and building on the success of the EGCA the need to create a competition for cities of a smaller size was identified by the European Commission in 2014. This competition now exists as the 'European Green Leaf' (EGL) Award. The EGLA is open to towns and cities with 20,000-100,000 inhabitants, in order to recognize their environmental achievements, create citizen awareness and to encourage other cities of a similar size to grow greener.

The European Green Deal for the European Union and its citizens was launched by the European Commission in December 2019. This new growth strategy for Europe[2] sets out the European Commission's commitment to tackling climate change and environmental related challenges. Cities will play an important role in the delivery of the European Green Deal through how they deliver policies, engage with citizens, business, industry, academia, and networks, and other stakeholders in order to create cities that are 'fit for life'. Green Capital holders can therefore play a valuable role in supporting the European Green Deal locally.

1.2 Annual Award Process

The objectives of the European Green Leaf Award are:

- To recognize towns and cities that demonstrate a good environmental record and commitment to generating green growth;
- To encourage towns and cities to actively develop citizens' environmental awareness and involvement;
- To identify towns and cities able to act as a 'green ambassador' and to encourage other towns and cities to progress towards better sustainability outcomes.

The overarching message of the EGLA is to communicate locally that European citizens have a right to live in healthy urban areas. Cities are encouraged to improve the quality of life for their citizens and reduce their impact on the global environment. This message is brought together in the Award's slogan 'Green cities-fit for life'.

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[1] The EGL winning cities to date include: Mollet del Vallès, Spain and Torres Vedras, Portugal in 2015/2016, Galway, Ireland in 2017, Leuven, Belgium and Växjö, Sweden in 2018, Cornellà de Llobregat, Spain and Horst aan de Maas, Netherlands in 2019, and Limerick, Ireland and Mechelen, Belgium in 2020, and Gabrova, Bulgaria and Lappeenranta, Finland in 2021.
[2] https://ec.europa.eu/info/files/communication-european-green-deal_en

In order to be eligible for the EGLA 2022 competition a town/city must have met the following criteria:

- Towns and cities from EU Member State, EU Candidate Countries, Iceland, Liechtenstein, Norway or Switzerland.
- All towns and cities from the countries listed above must have 20,000 and up to 100,000 inhabitants at the date of application.
- In countries where there is no city with more than 20,000 inhabitants, the largest city is eligible to apply.
- In this context, a 'city' is understood to be an urban area and an administrative unit governed by a city council or another form of democratically elected body.
- In any given year, cities can apply for either the European Green Capital Award or European Green Leaf Award, but not both at the same time.
- Past winners may not apply for a period of ten years after they have been awarded the European Green Leaf title.
- The signatory should be the Mayor or highest-ranking city representative, authorized by national law to legally represent the city.

The EGLA is presented on an annual basis by the European Commission as an award recognizing 'Towns and Cities, Growing Greener!'. The EGLA 2022 competition cycle was launched on 28 May 2020 with a deadline for submission of applications from eligible cities until 28 October 2020.

An expert panel of environmental specialists independently assess the applications and propose a shortlist of finalist applicant cities to present to the Jury. The Expert Panel has carried out a technical assessment of each of the six environmental topic areas (detailed in Section 2.3) and provided a ranking of applicant cities together with qualitative comments on each application. This ranking is the result of a joint assessment from the two experts assigned to each topic area (further details on this procedure are provided in Section 2).

This information is presented to the Jury in the form of this report to form part of their deliberation at the Jury Day. An independent Jury has been selected for EGLA, comprising the same member organizations as the EGCA Jury.

The finalist cities are invited to present a communication strategy substantiated by action plans on how they intend to fulfil their green leaf year, should they win. The Jury will assess the finalist cities based on the following evaluation criteria:

- The city's overall commitment, strategy and enthusiasm, as conveyed by the presentation;
- The city's efforts to communicate to citizens and the level of citizen engagement in environmental activities;
- The city's potential to act as a 'green ambassador', promoting environmental good practice and spreading the EGLA concept further.
- The city's proposal on initiatives and measures intended to be set in place within the year of the award to enhance the city's environmental sustainability and to contribute to achieving the city's sustainability vision.

Based on the proposals from the Expert Panel and information presented to the Jury, the Jury will make the final decision and select the city or cities to be awarded the title of European Green Leaf 2022. The winner(s) will be announced on 9 September in Lahti (FI), the 2021 European Green Capital.

The full details on the competition process were set out in the published Rules of Contest[3] for this competition cycle, see Section 2.1.

1.3 Aim of this Report

This Technical Assessment Report provides an overview of the approach to this Award. It presents the technical assessment of the Expert Panel, which forms the basis for shortlisting the finalist cities.

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[3] https://ec.europa.eu/environment/europeangreencapital/wp-content/uploads/2020/Rules_of_Contest_EGC_2023_EGL_2022_Web.pdf

2. Technical Assessment Procedure

2.1 Rules of Contest

A 'financial incentive' of €75,000 for the winner of the EGLA title (max. 2 winners per cycle) was introduced to the 2021 cycle of the EGLA competition and will be €200,000 for the 2022 EGLA competition. With the introduction of the financial incentive, Rules of Contest were published. The formal requirements for the applicants to follow were set out in the EGLA 2022 Guidance Note and Section 3.1.2 of the Rules of Contest:

- The full application shall be written in one of the official languages of the European Union. However, submission of the application form in English is encouraged for the smooth and timely running of the assessment of the applications.
- Candidate cities shall answer all the questions and complete all sections of the application form. In the event that a question cannot be answered, reasons should be given.
- For the pre-selection stage, the applications shall adhere to the word limits indicated per section of the application form. Any words above the specified limit will not be taken into account and may leave application responses incomplete. Text included in the body of graphics / tables will be included in the word count. Text included in the captions and heading (titles) of graphics/images/tables will not be included in the word count, however these shall not exceed 20 words. Cities may be contacted by the Secretariat in case of clerical and / or administrative errors or for missing documents.
- There is a limit of graphics/images/tables to be provided per Topic Area and Good Practice section of the application form that should be adhered to. Please refer to the EGLA guidance note and EGLA application form for details.
- For the pre-selection stage, applicants shall submit their application in Word-document format in the official EGLA 2022 application form and upload through the application portal on the European Green Capital Award website[4].

2.2 Applicant Cities for EGLA 2022

A total of 41 cities registered for the EGLA 2022 competition. Of these, 14 submitted valid applications. Details of the 2022 applicants are included in Table 2.1 and Figure 2.1.

Of the 14 cities evaluated by the Expert Panel, 7 are signatories of the Covenant of Mayors Office (CoMO) and 8 of the eligible countries from across Europe are represented. The smallest city by population is Petrinja in Croatia with a population of 20,758, whereas Valongo in Portugal has the largest population of 97,444.

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[4] https://ec.europa.eu/environment/europeangreencapital/applying-for-the-award/

Table 2.1 - Details of Applicant Cities (presented in alphabetical order)

No.	City Name	Country	Population
1	Arcos de Valdevez	Portugal	21,057
2	Bistrița	Romania	94,574
3	Elsinore	Denmark	62,567
4	Frascati	Italy	22,828
5	Gavà	Spain	46,771
6	Haskovo	Bulgaria	69,219
7	Las Rozas de Madrid	Spain	95,814
8	Oliveira do Hospital	Portugal	20,855
9	Petrinja	Croatia	24,671
10	Pleven	Bulgaria	95,086
11	Sisak	Croatia	47,768
12	Treviso	Italy	85,943
13	Valongo	Portugal	93,858
14	Winterswijk	The Netherlands	28,852

Figure 2.1 - Map of European Green Leaf 2022 Applicant Cities

2.3   Six Environmental Topic Areas

The selection of the European Green Leaf 2022 is based on the following six environmental topic areas:

1.   Nature, Biodiversity, Sustainable Land Use and Soil
2.   Air Quality and Noise
3.   Waste and Circular Economy
4.   Water
5.   Climate Change and Energy Performance
6.   Sustainable Urban Mobility

The topic areas were broadly developed on the basis of the 12 indicators used to assess the EGCA with many of the EGCA indicators combined to produce a smaller number of EGLA topic areas. In addition to this, the application form for EGLA is more qualitative in comparison to the EGCA application form.

For the 2022 cycle, there were some changes made to the text content of several indicators to take into account relevant policy developments, but there were no changes to indicator areas or titles.

2.4   Application Form

The 2022 EGLA Application Form is made up of 3 Sections as presented below:

- Section A: City Introduction and Context
- Section B: Topic Areas 1-6 (as per Section 2.3 above).
- Within each Topic Area there are 2 sub-sections:
    - Current Situation and Strategic Approach
    - Citizen Participation and Public Awareness
- Section C: Good Practices

Section A

The 'City Introduction & Context' section provides valuable insight and context to the Expert Panel into the history and background of the city and the challenges faced.

Section B

Applicants are required to answer Section B for each of the six Topic Areas. This provides applicants with the opportunity to describe the current situation and strategic approach in the city for the relevant topic area. Applicants are also required to explain how this situation has been achieved. This should be done by presenting background information, key objectives, targets, data, numerical information, figures, graphics, budgets etc. and achievements/benefits from implementation of measures.

For Citizen Participation & Public Awareness the focus is on campaigns undertaken by applicants, public consultation, awareness raising campaigns and events, stakeholder participation, school education and forums. This section should also discuss and outline the benefits of awareness projects. It should be noted that Section B is the only section which counts towards the ranking.

Section C

Section C of the EGLA Application Form provides the Expert Panel with a valuable insight into what the applicant considers as good practice within their town or city.

The cities were asked to provide environmental data in table format for three topic areas: Topic Area 2, Air Quality and Noise, Topic Area 3, Waste and Circular Economy, and Topic Area 4, Water. A copy of the EGLA 2022 Application Form is in Appendix A.

A Guidance Note was provided for the 2022 EGLA competition to assist cities in preparing their application. This Guidance Note was revised for the 2022 award cycle to reflect the updated format of the EGLA 2022 Application Form, and to provide guidance on the information required and help applicant cities shape their responses.

A background check of applicant cities was not carried out as part of the EGLA technical assessment. However, this will be carried out for the finalist cities in advance of the Jury Meeting and will be provided to the Jury members.

2.5 Expert Technical Assessment Panel

The Technical Assessment Panel consists of 12 Experts who bring internationally recognized expertise within each of the areas covered by the indicators to the process. Profiles for each of the Experts can be found in Appendix B. A shortlist of the experts per indicator and their titles are included in Table 2.2.

Table 2.2 - Expert Technical Assessment Panel

	Topic Area	Expert	Title
1	Nature, Biodiversity and Sustainable Land Use and Soil	Mr. David Jamieson	Parks, Greenspace & Cemeteries Manager, City of Edinburgh Council, and Director, Greenspace Scotland, United Kingdom
		Dr. Henk Wolfert	Programme Manager at the Amsterdam Institute for Advanced Metropolitan Solutions, and at Wageningen Environmental Research, The Netherlands
2	Air Quality and Noise	Mr. Joan Marc Craviotto Arnau	Independent Air Quality Consultant, Spain
		Dr. César Asensio	Researcher at the Instrumentation and Applied Acoustics Research Group of the Technical University of Madrid, Spain
3	Waste and Circular economy	Mr. Olivier Gaillot	Director of Environment, Energy and Resource Management, RPS, Ireland
		Ms. Zita Dibáczi	Senior Environmental and Renewable Energy Expert
4	Water	Mr. Christof Mainz	Senior/First Officer at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Germany
		Ms. Birgit Georgi	Urban and Adaptation Expert, Founder of 'Strong Cities in a Changing Climate', Germany
5	Climate Change and Energy Performance	Dr. Matthew Kennedy	Head of Strategy and Business International Energy Research Centre, Ireland
		Ms. Vesna Kolega	Independent Consultant, Croatia
6	Sustainable Urban Mobility	Dr. George Angelou	Staff member of the Greek Ministry of Transport and Networks, HCAA HANSP Headquarters, Greece
		Mr. Alex Minshull	Innovation and Sustainable City and Climate Change Manager, Bristol City Council, United Kingdom

2.6 Technical Assessment Procedure

2.6.1 Pre-selection Screening

In accordance with Section 4.3: Pre-selection of the Rules of Contest, the Secretariat validated the applications for compliance with the criteria set out in Section 3 of the Rules of Contest. Compliant applications were provided to the Expert panel for technical evaluation.

2.6.2 Primary Technical Review

Each Expert was required to assess each application based on its own merit and rank all applications against each other within each topic area. In the course of the primary technical review, each expert reads only Section A and their relevant Topic Area in Section B of the application. Each topic area has two sub-sections: part A and part B, where part A carries 70% of the weight while part B carries a weighting of 30%.

2.6.3 Ranking Criteria

Experts use a defined ranking system, which is not based on quantitative scores but on rankings.

2.6.4 Co-evaluation

The EGLA technical assessment was carried out as a co-evaluation process. All Expert Panel members assessed their respective topic area and then discussed and agreed a combined final ranking and commentary for all applicants with their partner co-evaluator. This exercise provides a robust quality check of the assessment process. Where the two experts differ on a ranking, they must work together to reach a consensus. The final ranking and comments are a combination of both reviewers' assessments.

2.6.5 Conflicted Application

In the event of a conflicted application, where an Expert cannot complete an unbiased assessment of an application for personal or professional reasons, a suitable external expert is identified by the EGLA Secretariat to carry out the assessment of the conflicted application. The review carried out by the external expert is discussed with both co-evaluators for the Topic Area, and the overall rank is agreed amongst the three experts involved. There was no conflict of interest raised in the 2022 EGLA cycle.

2.6.6 Background Check

As part of the EGLA process, a high-level background check is carried out by the European Commission on all cities shortlisted as finalists to identify if any are in breach of environmental legislation or do not meet European reporting requirements. This background check is not presented to the Expert Panel during the technical assessment process. It is provided to the Jury in advance of the Jury Meeting for the deliberations on selecting the title winner(s).

3.   Technical Assessment Results

Based on the technical assessment results, the Expert Panel has proposed to shortlist as finalists the following six cities (presented in alphabetical order) for European Green Leaf 2022:

Bistriţa - Elsinore - Gavà - Treviso - Valongo - Winterswijk

The Commission will invite these six cities to the next stage of the evaluation process. The Expert Panel's summarised ranking for the shortlist of finalist cities is in the following Table 3.1.

Table 3.1 – Sum of technical rankings of finalist cities for the European Green Leaf Award 2022

Indicator	Bistriţa	Elsinore	Gavà	Treviso	Valongo	Winterswijk
Total combined	**31**	**33**	**32**	**24**	**24**	**28**

4. Technical Assessment of Finalist Cities

4.1 Finalist City Summaries

4.1.1 Bistriţa

Bistrița is located in the north-east of Transylvania, Romania, where it is situated in the flat area around the riverbanks of the river with the same name. The city has a total population of 94,574 inhabitants and a population density of 646.34 inhabitants/km^2.

One of the topic areas on which Bistriţa performs well is Noise. The city is planning clear actions, with specified deadlines and budgets, that will have a positive effect on reducing noise pollution in the city. The actions aimed at reducing the use of private vehicles in the city's interior especially stand out. Furthermore, the city is planning to produce a noise map, coming closer to a strategy of systematic assessment and action.

One of the environmental challenges is the National Road 17 or European Road E578, that runs straight through the city Since there is no bypass for heavy traffic, this traffic uses this road, resulting in noise and air pollution.

4.1.2 Elsinore

At the coast of Oresund, in the upper part of Denmark, the municipality of Elsinore is located. Elsinore has a total population of 62,567 inhabitants and a population density of 512 inhabitants/km^2. It is separated from Sweden by the Oresund strait; on the other side of the strait lies Elsinore's sister city Helsingborg. The two are connected by continuous ferry connection.

In June 2019 the City Council approved a new 'Vision 2030' for the municipality, with the aim to be a sustainable municipality, creating the best possible conditions for the type of existence they wish to sustain. This comes with the mindset and attitude of making sustainable choices and acting in a climate friendly way.

The town has a climate and sustainability plan 2020-2030 and a dedicated budget, sustainable water and wastewater management, relatively clean electricity and heating (biosmass and windpower) and well-educated local craftsmen. Some of the key challenges are renovating the energy household of historic buildings, making tourism sustainable, creating awareness and actions to combat climate change and the need for coastal protection from extreme weather.

4.1.3 Gavà

Gavà is a municipality located in the region of Baix Llobregat in the Metropolitan Area of Barcelona. Its population is 46,771 inhabitants with a density of 1,521 inhabitants/km2. Gavà is part of the metropolitan administration (AMB), consisting of 36 municipalities which share a joint urban plan since 1976, that is currently being revised.

The city council is developing a Municipal Action Plan (MAP) 2020-2023, which is in line with the 2030 Agenda and the Sustainable Development Goals (SDG). The action plan contains 20 objectives that address different challenges: ecological transition and climate change adaptation, naturalization of public spaces to make them healthier, increase the quality in urban space and meeting the zero-waste objective by 2030.

Gavà is located 15 minutes from Barcelona, near the Barcelona-El Prat Airport and Barcelona's Port, which implies a high urban pressure on Gavà regarding infrastructure and housing.

4.1.4 Treviso

Treviso is located 30 kilometers from Venice, Italy and has a population of 85,943 inhabitants. The population density is 1548 inhabitants/km^2. Just like Venice, the city is crisscrossed by numerous watercourses which characterize the landscape and the historic centre.

Treviso demonstrates a comprehensive approach to sustainable mobility, with good plans, measures and engagement with citizens in planning sustainable mobility in the city. The City's Sustainable Urban Mobility Plan (SUMP) addresses four objectives: Accessibility, Road safety, Environmental protection and Quality of life. In the SUMP very clear plans and actions are highlighted.

The city houses an industrial sector containing medium and small manufacturing companies. This contributes to the fact that the city has a challenge concerning the air quality. It is the main long-term objective of Treviso to make the air quality better and cleaner.

4.1.5 Valongo

Valongo is located in the North of Portugal, District of Porto and is part of the Metropolitan Area of Porto (AMP). It has a population of 93,858 inhabitants with a density of 1,291 habitants/km^2.

An area of 58.3% of the municipality is covered by forest, part of which is classified as a Natura 2000 Site and part as a Regional Protected Landscape Area. Especially for these areas the Municipal Strategy for Adaptation to Climate Change is in place. This aims at increasing resilience to fire, consolidating margins for flood and inundation abatement.

One of the environmental challenges for Valongo is the noise pollution in the city, due to transport infrastructures whose competence is beyond the local authority's. This harms the acoustic quality of the city and thus the health and well-being of its citizens.

4.1.6 Winterswijk

Winterswijk is located in the East of the Netherlands and provides space for a total of 28,852 inhabitants with a population density of 209 inhabitants/km^2. Three quarters of the municipal border is shared with Germany.

On the topic area of Waste and Circular Economy Winterswijk performs really well. The city has a very good door-to-door collection system for recyclable and organic waste. The collection and treatment system achieves very high recycling rates. Furthermore, there is also collection of items for reuse. The city has achieved the national target for residual waste reduction.

Air quality and noise are themes that do not seem to have a high priority in Winterswijk. No current issues are identified but there is no monitoring or policy in place to prevent possible problems to occur in the future.

4.2 Bistriţa Technical Assessment

4.2.1 Nature, Biodiversity and Sustainable Land Use and Soil

Experts
Mr. David Jamieson
Dr. Henk Wolfert

Bistriţa is serious in its efforts to create a green infrastructure for biodiversity and citizens. It involves various levels (forest, park, street and square), but information on measures to protect green areas or to enhance its functioning for pollinators and climate adaptation is not provided in the application. It is not clear what landscape qualities and species are involved.

A map of protected and managed areas specific to Bistriţa would help evidence the scale and connectivity of the city's green spaces, native forests and nature areas. The map provided showing the location of the city in relation to the natural protected areas of Romania is not particularly relevant to the Green Leaf City assessment criteria.

The number of residences in Bistriţa is increasing every year and a new ring road seems necessary. No specific information was provided as to what strategy is in place to guide the growth of the city in order to prevent urban sprawl and safeguard the qualities of the surrounding hills with orchards, as well as the Bistriţa river landscape.

4.2.2 Air Quality and Noise

Experts
Mr. Joan Marc Craviotto Arnau
Dr. César Asensio

Bistriţa proposes some actions in its application, with deadlines and budgets, that will have a positive effect on reducing noise pollution in the city. The actions aimed at reducing the use of private vehicles in the city's interior stand out. It is also considered extremely positive that the city is planning to produce a noise map, coming closer to the strategy of systematic assessment and action established by the environmental noise directive. In terms of air quality, the city includes all the benchmarking information, which is a valuable issue.

However, it is not clear if the city is aware of its air pollution sources, as it does not include any information in its application about source apportionment. Therefore, is not possible to evaluate the suitability of the proposed measures which may reduce, mainly, emissions from traffic, at least locally, if they are finally implemented. Also, a major part of the Green School activities seems focused on sustainable mobility which gives the impression that the improvement in air quality and noise is something consequential.

Along with the actions that Bistriţa proposes for the future, it is considered desirable to take as a reference for the strategy to fight against environmental noise the Environmental Noise Directive: strategic noise maps, action plans, information to the public, quiet areas, etc.

4.2.3 Waste and Circular Economy

Experts
Mr. Olivier Gaillot
Ms. Zita Dibáczi

The current waste management system in Bistriţa relies principally on landfill (93.36% of MSW). Bistriţa has limited separate collection for recyclables and organic waste which will need to increase to achieve higher recycling rates.

The application shows that the city has a good waste management planning with specific targets to increase recycling to meet EU targets. The city made use of economic instruments to reduce waste generation. In 2019 the "pay for how much you throw away" system was introduced in Bistriţa to encourage the reduction of municipal waste quantities and the recycling of paper, plastic, metal and glass waste.
In Bistriţa several good communication and awareness initiatives are ongoing, such as the "Spring & Autumn cleaning", and the educational programs are very sound. The planned projects to reduce waste generation are very well outlined including dedicated budget. The local circular economy action plan is sound, focused on advanced waste management. However, further collaboration among potential local industry and stakeholders is recommended.

4.2.4 Water

Experts
Mr. Christof Mainz
Ms. Birgit Georgi

Bistriţa's strength regarding water lies with a development concept that is under way with support of funding. A long term-strategy for the city is also in place. Bistriţa has some activities on public awareness for the river Bistriţa in the Local Development Strategy and an IT application with a competition between housing blocks to reduce energy and water consumption which is quite good. Additionally, the city has some educational activities related to water.

Unfortunately, half of the data is missing from the application, especially all requested new data (public water access, free drinking water, compliance with the Drinking Water Directive (DWD), additional wastewater treatment, energy measures). Not all parts of the city have a centralized system of water supply and sewage (90/82%) so wastewater is discharged directly into the natural emissary. However, compliance with DWD and the Urban Waste Water Treatment Directive (UWWTD) is claimed. Additionally, the water loss rate in Bistriţa is at 40% and considered too high.

In the application there is a contradiction in claiming compliance with the DWD/UWWTD and action carried out to ensure quality with regard to the DWD and UWWTD is claimed. The application also lacks any information on water issues besides drinking water and wastewater. It provides no explanation on how to tackle the moderate water body status under the Water Framework Directive (WFD). Finally, the application gives no general overview on water issues other than some in the city's introduction.

In conclusion, the quality of the application for water is unfortunately low. Using last year's application form, it seems that some information simply has been copied and not worked over. Because of this, all new questions raised in the 2022 application form are consequently not answered and the quality of the application has not improved much.

4.2.5 Climate Change and Energy Performance

Experts
Dr. Matthew Kennedy
Ms. Vesna Kolega

The application of Bistriţa has a clear political commitment via the Sustainable Energy and Climate Action Plan (SECAP), developed in 2019, with well-presented data influencing action. The additional CO_2 inventory analysis by sector would be welcomed. The city's actions include flat renovations (energy efficiency measures across 112 blocks) and local energy production. An explanation of collaboration across the city with civil society in Energy City and Future Zero Carbon city would improve the application.

In the application, future measures are identified and linked to SECAP with indicators and financial estimates. There is however no quantification of impact of future action or explanation of trends that influence measure selection. The application would benefit from an explanation on how the city plans to achieve a zero-carbon future and could use more adaptation measures.

Bistriţa creates engagement through local survey, green schools and carbon foot printing. The application however lacks an explanation of a particular citizen engagement approach. More details on surveys in terms of number of respondents and citizen input into survey design would have been helpful.

4.2.6 Sustainable Urban Mobility

Experts
Dr. George Angelou
Mr. Alex Minshull

Bistriţa has no strategic highway network, railway station and 39% of the roads are unmetalled.

Cascaded from the national level Bistriţa's objectives of the Sustainable Urban Mobility Plan (SUMP) 2017 are improving the street network, public transport, freight, alternative means and traffic management. These objectives are based on the EU targets for climate change and energy efficiency and cascades national level transport and spatial plans. The objectives or principles of the SUMP are however less clear in the application.

City measures to increase the use of public transport, cycling and walking are based on a proposal for a "public transport green line" with electric buses. This is expected to reduce car traffic by 3.5% and greenhouse gas emissions by 2.6% at an estimated cost of 10.5 million euros. Another measure is the addition of new public transport routes to increase the amount of users of it by 5% (estimated cost: 0.7 million euros). In the application, a public transport intermodal centre is also proposed (estimated cost: 9 million euros) as well as 24 kilometers of cycling tracks (estimated cost: 4 million euros), pedestrian/cycling in the city centre and a new bypass to reduce traffic in the city by 24% for the usage of cars and 85% for freight (estimated cost: 25 million euros). The bypass is also mentioned in the application to reduce the environmental impact of freight transport city-wide. This is a comprehensive programme with a total cost of nearly 50 million euros, with 50% of this for the bypass alone. The application does not explain whether this funding has been secured or how it will be obtained. It would mean an investment of approximately 500 euros per resident of the city.

The application refers to improvements in non-car modes to decrease car use and has made an attempt to quantify these.

For 30% of the residents of Bistriţa the local development strategy and road infrastructure are a priority. A public transport user survey was taken in 2015 which highlighted, network gaps, ticketing and reliability issues.

Bistriţa has an ecological education centre, teaching 2000 children about sustainable development. The city has also created a traffic snake game for children to learn more about walking, cycling or using public transport to get to school. For its municipal staff Bistriţa was the first Romanian city to run a mobility game to encourage modal shift (in 2015/16). In 2019 a social biking challenge was held.

It is encouraging to see that the city is seeking to consult citizens and transport users. The awareness raising activities for children and municipal staff are suitable examples, but the application would have been stronger if Bistriţa could have demonstrated a more deliberate and consistent approach.

4.3   Elsinore Technical Assessment

4.3.1 Nature, Biodiversity and Sustainable Land Use and Soil

Experts
Mr. David Jamieson
Dr. Henk Wolfert

Elsinore should be very proud of its "bee-municipality" status. The actions that are now underway to naturalize spaces for pollinators is impressive and the associated biodiversity education delivered via school gardens and outdoors learning should help sustain pollination awareness.

One of the key challenges facing Elsinore is its declining biodiversity. Although a biodiversity plan is in place, the various measures to enhance nature presented in this application seem to be rather fragmentary instead of considering the whole of the green infrastructure. It is suggested that such a network approach would have added value.

Regarding the new plan for Climate and Sustainability 2020-2030, it would be good to know how biodiversity and urban greening can benefit from the Climate Adaptation Plan and the related activities and vice versa, how the Biodiversity actions can contribute to climate mitigation and adaptation.

4.3.2 Air Quality and Noise

Experts
Mr. Joan Marc Craviotto Arnau
Dr. César Asensio

Elsinore seems to focus its noise-control actions on industrial activities and on traffic on the main roads. The application does not address traffic noise on its streets, noise zoning, quiet areas, action plans to mitigate noise pollution or strategies to preserve the noise environment. Even if the health risks related to noise were low, a diagnosis could be helpful to keep this situation in control in the long-term. It is considered necessary to take as a reference the guidelines established by the Environmental Noise Directive, for the protection of the health and wellbeing of citizens.

When it comes to air quality, the city does not count with any pollution monitoring station and neither undertakes measurements on its own. The application states that air quality standards are met all over the country and therefore also must be in Elsinore. Even though data included shows good air quality parameters, the data is from 2012. This data therefore is too old to create a proper picture of the current situation. Additionally, a regional model is mentioned but, unfortunately, any information about it is missing.

Action is focused only on reducing oil-fired boilers, but its suitability cannot be well assessed. However, the electrification of ferries is an interesting measure, even though this probably was not implemented by the city itself.

4.3.3 Waste and Circular Economy

Experts
Mr. Olivier Gaillot
Ms. Zita Dibáczi

The city of Elsinore has a very good collection and treatment system resulting in a very good recovery (66%) and recycling (34%) ratio with limited reliance on landfill (<1%). Food waste collection is planned for 2021. A new recycling centre is to be opened in 2021, however further information about its planned capacity is not included in the application.

Circular economy is well encouraged in Elsinore through reuse and recycling such as construction waste from demolitions or renovations, clothes containers and technology repair shops.

Information campaigns are well carried out to promote proper waste separation. More focused educational programs for the young generation are recommended for the future, e.g., in schools and kindergartens.

4.3.4 Water

Experts
Mr. Christof Mainz
Ms. Birgit Georgi

The technical data provided in the application show a good status for the water infrastructure. The application also includes activities to tackle groundwater pollution in the catchment used for drinking water supply and an ambition to use groundwater at a sustainable level (including rainwater infiltration). Elsinore's Water Supply Plan 2019-2030 builds a long-term strategy. Additionally, a Waste Water Management Plan 2012-2026 for rural and urban management is in place. Ecological targets are given in the application to improve rivers and lakes in accordance with the Water Framework Directive (WFD), as quality of streams and lakes in the municipality is 'only' moderate to good. Elsinore has a Climate Adaption Plan to adapt to the impact of climate change with the use of soft adaptive solutions. Citizens are also encouraged to disconnect rainwater from the sewerage. In Elsinore a wastewater system will be adapted to needs due to future developments. Finally, the programme for restoration of nine rivers to enable fish migration between 2015-2027 is remarkable. Unfortunately, the application does not give information on the costs of the measures.

Overall, the application is of a very good quality. Past and future problems are tackled and solutions to improve the situation in the future are carried out and include public involvement. In addition, there are regular open days for schools and the public, guides for homeowners on water management and long-term strategy and activities.

4.3.5 Climate Change and Energy Performance

Experts
Dr. Matthew Kennedy
Ms. Vesna Kolega

Elsinore has an impressive carbon reduction per capita (exceeding national average) and a good presentation of greenhouse gases inventory by sector at city level. The city also has evidence of a city plan with budget allocations. Measures include the combined heat and power (CHP) biomass plants and a 2014/2021 adaptation plan with budgets.

The city has political commitment through the Covenant of Mayors initiative (CoM) and a carbon neutrality objective by 2045. The application would be stronger if measures and actions were quantified to realize strategies. It would also benefit from more information as well as targets contributing to actions by sector.

Engagement campaign information does not reflect how citizens engage in the process. Actions such as workshops for citizens, climate committees and school campaigns with leaders are well presented and effective. More detail on methods of engagement would strengthen the application as would a quantification of the number of energy checks delivered.

4.3.6 Sustainable Urban Mobility

Experts
Dr. George Angelou
Mr. Alex Minshull

The application states that Elsinore has a lot of activities to promote sustainable mobility and that these are "under a great focus on traffic safety". It has achieved ISO39001 for road traffic safety. The application would have been stronger if it had demonstrated a strategic approach to sustainable mobility and linkages with the theme of the European Green Leaf Award rather than the focus on safety.

The city has approved a cycling strategy, with an annual budget, but no details were provided. From 2021 alternatively fueled buses will be specified in new tenders. It is not clear how quickly this will lead to the conversion of the fleet.

The city aims for 50% of the municipal cars to be electricity or hydrogen fueled by 2030 and is developing a strategy for public electric charge points. The application provided very few details of public engagement or awareness raising. The examples included were focused on road safety.

Unfortunately, the application did not refer to many of the good examples of performance and practice seen in the city's previous application.

4.4 Gavà Technical Assessment

4.4.1 Nature, Biodiversity and Sustainable Land Use and Soil

Experts
Mr. David Jamieson
Dr. Henk Wolfert

Gavà has provided a comprehensive inventory of natural and connecting spaces in map form. Along with the Urban Management Plan this helpfully demonstrates a strategic approach to the protection and enhancement of the city's natural environment and green infrastructure.

Gavà displays valuable know-how on landscape-level ecological issues and has implemented interesting management measures to enhance the quality of its natural areas. This provides an excellent basis for engaging citizens. However, the application shows little signs of participation. It would have benefitted the application were a description given on whether there are any plans to improve citizen engagement and realize education programs at schools.

Being part of the Barcelona metropolitan area, Gavà faces significant pressure due to housing and infrastructure demands. It would have helped if the application had elaborated more on this aspect, especially about the ideas to maintain a high-quality living environment in Gavà's inner city.

4.4.2 Air Quality and Noise

Experts
Mr. Joan Marc Craviotto Arnau
Dr. César Asensio

Gavà has a high level of awareness of environmental noise, which has led it to largely adopt the strategy defined by the Environmental Noise Directive. Its involvement in ARC and its efforts and collaboration with AENA to reduce the noise that the airport generates in the city are positively valued. Also positive are the awareness-raising activities that the city has undertaken in recent years in relation to noise pollution. The city is also aware of its challenges related to air quality. As part of Barcelona conurbation, the city has access to a complete air quality assessment, including modelling, regionally developed by the Government of Catalonia. Therefore, the city can focus efforts in reducing emissions from mobility, coherently with the assessment, through a SUMP.

It is regrettable that the city has only been able to implement 20% of the actions included in the Noise Action Plan. It is considered very important to comply punctually with the actions foreseen in an action plan, in a commitment to the continuous improvement of the city's sound environment. In general, the application lacks detail regarding the action plan, and it would be valuable to have more details about some actions or projects.

4.4.3 Waste and Circular Economy

Experts
Mr. Olivier Gaillot
Ms. Zita Dibáczi

Circular economy is well promoted in Gavà through public-private collaboration projects, such as Circular Data Driven Cities. Section A of Gavà's application however lacks details on the waste collection and treatment systems (e.g., material collected). The application makes no reference to a waste management plan and waste objectives or targets.

No information is provided in the application on current waste prevention and reuse initiatives. Gavà plans to develop the Ecopedia facility to replace the current landfill. The facility is intended to become a reference centre for waste prevention, reuse, etc.

Gavà has a good communication campaign to introduce new collection systems. The city organized a circular economy conference. The application would have been stronger if further concrete examples of benefits and lessons learned were provided.

4.4.4 Water

Experts
Mr. Christof Mainz
Ms. Birgit Georgi

The data which is available and described in Gavà's application is quite good. However, there is mainly no metering (4%) and the treatment level for wastewater (100%) is considered somewhat questionable, although Gavà has a high-end wastewater treatment plant with a membrane bioreactor. The water reuse which is promoted by the city is rather impressive. Regular yearly initiatives for public awareness and citizens participation take place, such as a Water Party, and are part of the city's strength related to water. The children's education or site visits are commendable, but not very extensive.

Unfortunately, Gavà has a bad status of water bodies (surface and groundwater). The actions taken to improve the situation have not been made clear in the application. Water consumption in Gavà is high (162 l/cap/d) and no specific data is available for industrial or agricultural use. Information on structured planning or future activities and goals are missing in the application, as well as some financial aspects (how much money will be spent in future and for what?).

Overall, the requested data is given and described in the application. In part B some activities and public awareness raising campaigns on energy saving measures are described, but none of these are in connection with water. Further information on strategies or goals for water issues would have been helpful.

4.4.5 Climate Change and Energy Performance

Experts
Dr. Matthew Kennedy
Ms. Vesna Kolega

The presented data in Gavà's application from 2005-2007 are too old and out of date to give the current city situation on climate change and energy performance. Sustainable Energy Action Plan (SEAP) measures are presented untill year 2016, however an update to 2020 would improve the application. The application includes attention on the local adaptation plan with 29 actions and some quantified impact (such as reducing dune regression).

The application however does not attempt to describe how Gavà tends to influence future action. It is assumed that the city would do this with actions in the Energy Efficiency (EE) and Renewable Energy (RE) Plan, but these are not explained or qualified. The application lacks evidence and a future strategy related to climate change and energy performance.

Some quite innovative and interesting initiatives are cited in the application, such as an escape room in terms of sea level awareness and a dust bowl in terms of impact of climate on agriculture. More details on both initiatives would have strengthened this section including information on the design of the initiatives, numbers engaged and role of citizens. The application references 27.15% reductions on greenhouse gases over 2015-2017 but no information is presented in section A on this development.

4.4.6 Sustainable Urban Mobility

Experts
Dr. George Angelou
Mr. Alex Minshull

The existing modal share in Gavà consists of 39% Car usage, 11% use of public transport and 50% walking or cycling. The city has a variety of measures to increase the use of public transport, cycling and walking. The measures include public transport by hybrid buses (but it is not clear in the application if these are used in Gavà or the wider Barcelona area), a new bus line linking the city to the airport and increases in the frequency of services.

The Bicycle Master Plan includes a 300m of bike lane to the train station, 250 spaces bike parking (some shared with Barcelona), 12 electric bikes made available in a shared scheme, a new bus lane, and a campaign to encourage municipal staff to cycle.

The city has measures to encourage shared mobility through a car sharing service but no details have been given in the application. The city also has measures to encourage use of alternatively-fueled vehicles through a municipal fleet conversion although details are not specified in the application.

For 5 years Gavà has taken part in the European Sustainable Mobility Week, which they have won in 2017. Activities in this week include street closures and activities, 30-kilometer speed limits, a large group bicycle ride and now also group walks. During this week 400 children have been trained to ride bikes.

The city has a Sustainable Urban Mobility Plan (SUMP) alongside the Barcelona Metropolitan Plan and this includes actions to improve public transport, encourage walking and provide cycling facilities. It was not clear in the application which actions were undertaken by the municipality and which by the metropolitan authorities. For example, it was not made clear whether obtaining the 14 hybrid buses

were a metropolitan or municipal action. The application did seek to quantify some actions, for example by specifying the number of new bicycle facilities, but in some cases the context was not clear. Whilst the city has won an award for its public awareness activities, no mention is made in the application of public involvement in decision making or whether the public was consulted in the preparation of the SUMP.

4.5   Treviso Technical Assessment

4.5.1 Nature, Biodiversity and Sustainable Land Use and Soil

Experts
Mr. David Jamieson
Dr. Henk Wolfert

Treviso's application makes reference to local Natura 2000 sites and their associated habitats. It would also be advantageous to list some of the rare species protected by international, national and regional site designations. It is encouraging that Treviso is reducing its reliance on chemical herbicides to care for its streets and public green spaces. It would be beneficial to know if other measures to support biodiversity are being enacted, such as naturalization of mowing regimes.

Treviso has been realizing many small-scale green area improvements. It would help to know how these are connected to each other, thus providing a true network to both species and citizens. It is unclear if the green infrastructure policy is aiming at access to all citizens.

Treviso's population is growing fast and realizing the threat of urban sprawl the municipality has adopted the Territorial Development Plan. This seems to focus on the preservation of the characteristics of places and landscape. It is not clear however whether it really prevents urban sprawl.

4.5.2 Air Quality and Noise

Experts
Mr. Joan Marc Craviotto Arnau
Dr. César Asensio

Treviso has a regulatory basis to fight noise pollution, which has led to the development of an acoustic zoning of the municipality, setting limits to the noise levels in the different areas of the territory. This is good news, but it can only be seen as a starting point. On its own, it will not be very helpful to protect citizens from noise.

Although the Environmental Noise Directive does not establish obligations for cities of less than 100,000 inhabitants, it nevertheless sets out a number of basic principles for the protection of the health and well-being of citizens that should also be adopted in less populated cities. Land-use-based acoustic spatial planning and systematic and regular noise diagnosis and action can help to combat noise where it already exists and prevent its emergence in cases where the noise environment is not so bad.

In terms of air quality, the city has access to up-to-date data from 2 monitoring stations of different types: urban background and traffic. It therefore has a good representation of its pollution levels. Unfortunately, any information about pollution sources is missing from the application. Therefore it is not possible to correctly evaluate the suitability of any measures. The city presents an anti-smog plan, oriented to reduce the consumption of fossil fuels, both stationary and mobile, which may reduce emissions of the most important pollutants. It would have been interesting to see some reference about its effects, as it is implemented in 2006. Finally, it is worth mentioning the CleanAir@School action for its game changing potential as well as the air protocol.

4.5.3 Waste and Circular Economy

Experts
Mr. Olivier Gaillot
Ms. Zita Dibáczi

The city of Treviso has a very good door to door collection system introduced in 2014 for recyclable (paper and cardboard, glass, plastic, cans) and organic waste supported by the use of economic instruments (quantity-based tariff). The four-folded objectives of the waste management plan are well outlined, circular economy aspects are basically well considered, however further stakeholder involvement is recommended for the future. The planned upgrading of the composting plant is welcomed.

The city has a number of projects in collaboration with local industry (development of a recycling plant for used personal absorbent hygiene products) or third level institute (Horizon 2020 EMBRACED project).

Citizen Participation and Public Awareness measures focused on encouraging separate collections reducing food waste and the promotion of the mobile reuse centre. The city could consider introducing measures to encourage waste prevention (use of a water fountain and refillable containers, donation to foodbanks, etc.) and re-use (repair café, exchange platforms, etc.).

4.5.4 Water

Experts
Mr. Christof Mainz
Ms. Birgit Georgi

From Treviso's application some data on Water are missing. The city has carried out some refurbishment and development work on the drinking water supply and for the sewer system. In section B of the application several good activities related to citizen participation and public awareness raising campaigns are described.

Unfortunately, the application contains mainly a description of works carried out at the network for wastewater and drinking water. Although some work at the supply network was carried out, the water consumption (291 l/cap/d) and the leakage rate of 30% is still far too high and needs much more reconstruction. This also applies to the parasitic groundwater infiltration in the sewer system. The application has no information on future plans or goals and additional information about further action is missing (such as Water Framework Directive issues, ecological status of water bodies, floods, river restoration, groundwater, SUDs etc.). Treviso also does not carry out any water reuse activities.

4.5.5 Climate Change and Energy Performance

Experts
Dr. Matthew Kennedy
Ms. Vesna Kolega

Treviso shows clear political commitment through the Covenant of Mayors initiative (CoM) and the preparation of Sustainable Energy Action Plan (SEAP) as well as the plan to develop Sustainable Energy and Climate Action Plan (SECAP) in the near future. The inventory in the application concludes that the 2020 targets on the reductions of energy have been achieved (especially related to diesel and oil) but more details on future actions to deliver SECAP would be welcome. The focus of the application lies with water and energy consumption and modernization of plants.

The application presents no clear trends of emissions nor are actions explained to enable target achievement.

Stakeholder mapping is done through a local governance map but citizens/communities are not featured in the application. The application does mention the role of stakeholders in creating a common vision and guidelines to achieve behavioral change but no other specifics have been provided. More details on the level of student involvement and their role in SECAP would strengthen this section.

4.5.6 Sustainable Urban Mobility

Experts
Dr. George Angelou
Mr. Alex Minshull

The application demonstrates a comprehensive approach to sustainable mobility, with good plans, measures and engagement with citizens in planning sustainable mobility in the city. The City's Sustainable Urban Mobility Plan (SUMP) addresses four objectives: Accessibility, Road safety, Environmental protection and Quality of life. Very clear plans and actions are highlighted. Measures to increase sustainable mobility are in place. Examples for the theme walking are restricted traffic zones (RTZ) and urban pedestrian areas in the historic centre of Treviso.

In order to encourage electric mobility, the Municipality of Treviso has promoted some policies to favor electric vehicles, such as free parking at all paid meters and free access in the RTZ. The installation of recharging stations was also promoted and encouraged. To date, 68 charging stations are already active and a further 22 will be installed.

Another theme is cycling: in Treviso 25% of the population uses a bicycle as a means of transport for regular trips. The Bicycle Plan was approved in 2012 and proposes 14 main cycling paths and the expansion of the urban cycling network up to 165 km. Since 2019, a bicycle marking service has also been offered free of charge to citizens, which is a new deterrent against bicycle theft. To date, around 1,000 bicycles have been punched and marked. In 2020, construction was started on the Ciclopolitana; 13 cycling routes that will offer citizens the opportunity to travel safely by bicycle on the home-to-work or school-to-work routes or even for daily commuting. Another measure to encourage cycling is the bike sharing service which is active in Treviso since 2010 (offering 31 stations, 300 docking posts and 150 bicycles).

In Treviso the urban bus service has been integrated with an extra-urban bus service (since 2013). In 2014, the Home-to-School Travel Plan was approved, which involved all primary and secondary schools of 1st grade (5600 students). Since 2017 the bus and some railway transport lines have been

integrated and since then a mobile phone app has been active that allows you to plan your trip and purchase the relevant fares (tickets and passes). In 2020, as part of the drafting of the city's SUMP, the municipal administration has launched several roundtables that involve a number of stakeholders, in particular traders, trade associations, residents of the historic centre, schools, the healthcare company, institutions and all interested citizens. These are all good measures to increase sustainable mobility.

4.6 Valongo Technical Assessment

4.6.1 Nature, Biodiversity and Sustainable Land Use and Soil

Experts
Mr. David Jamieson
Dr. Henk Wolfert

The application of the city shows that there are a number of interesting projects underway or in development across Valongo. These projects will demonstrate how the city can enhance its biodiversity whilst also benefiting the wellbeing of its citizens, notably the FUTURO project, the Urban Agriculture Laboratory, Leça Corridor Project, and the Enhancement and Adaptation of the Ferreira and Sousa Rivers.

With approximately 94,000 inhabitants and located near the big city of Porto, Valongo's green areas - both within the city and the surrounding mountainous forests - will be under pressure. It would have helped if the application had elaborated more on this aspect, especially regarding the ideas to maintain a high-quality living environment in Valongo's inner city.

The Municipal Strategy for Adaptation to Climate Change aims at increasing resilience to fire, consolidating margins for flood and inundation abatement. This seems to focus very much on the natural areas in and around Valongo. The question remains whether Valongo is also considering reducing temperatures in the urban residential areas and storing water in the soil by means of nature-based solutions.

4.6.2 Air Quality and Noise

Experts
Mr. Joan Marc Craviotto Arnau
Dr. César Asensio

Valongo has an updated strategic noise map, although it is not compulsory in this case, and has carried out an acoustic zoning. These are valuable but insufficient actions. Much of the noise pollution in the city is due to transport infrastructures whose competence is beyond the local authority's. Valongo's application should explain how the city intends to combat a situation that harms the acoustic quality of the city, and thus the health and well-being of its citizens.

In relation to air quality, the city has access to up-to-date data from a background monitoring station. Also, it points out the main pollution source but it does so in terms of greenhouse gas emissions. This signals a general confusion, as the Ambient Air Directive does not include greenhouse gases. In terms of specific actions, Valongo proposes a Sustainable Urban Mobility Plan to tackle air pollution. However, the aim of having its own monitoring network for noise and air pollution has been positively valued.

4.6.3 Waste and Circular Economy

Experts
Mr. Olivier Gaillot
Ms. Zita Dibáczi

Valongo's collection system is based on door-to-door residual waste collection with central collection of recyclables. Other collections include clothes, Waste from Electrical and Electronic Equipment (WEEE) and cooking oil.

The municipality intends to extend selective household collection (paper, packaging, glass and food) to 90% of the municipality by 2030. The Local Action Plan is well defined including circular economy aspects. Valongo is planning to sign the New European Declaration on Circular Cities, which is promising. Awareness-raising campaigns and trainings are well organized.

The city could consider introducing measures to encourage waste prevention (such as the use of a water fountain and refillable containers, donation to foodbanks, etc.) and reuse (repair café, exchange platforms, etc.).

4.6.4 Water

Experts
Mr. Christof Mainz
Ms. Birgit Georgi

The application gives very good information with some numbers and figures regarding the drinking water and wastewater situation. Some good examples related to awareness and information campaigns have been provided in the application.

Some data are provided in the application which describe a wastewater treatment plant with a treatment rate of 145/127% which is considered dubious (considered to be a mistake). The water consumption in the city is considered far too high (267 l/cap/d) and is not explained further. More information on future plans would improve the application.

4.6.5 Climate Change and Energy Performance

Experts
Dr. Matthew Kennedy
Ms. Vesna Kolega

Valongo shows political commitment, as expressed in the Energy efficiency action plan (2016). The application well-presented the Municipal Strategies for Adaptation to Climate Change (EMAAC) that utilizes an innovative tool to identify 20 adaptation actions. An energy matrix of the amount of greenhouse gasses (GHG) by sector is presented, showing that emissions per capita in the city is lower than the country baseline.

Actions including social housing, photovoltaics (PV) in schools and energy efficiency in buildings are presented in the application, but there are no details in terms of how these may link to emissions trends (no inventory is presented) and how they influence the setting and achievement of future

targets. More quantified details on actions would be welcome (especially in reforestation, lighting replacement and nature-based solutions).

The citizens' role is not defined in the presented initiatives such as the educational initiatives and environmental interpretation centres. The application also does not provide clarity on the role of citizens related to designing initiatives and other engagements. A reference to community initiatives as part of energy and environmental week action would have been welcomed.

4.6.6 Sustainable Urban Mobility

Experts
Dr. George Angelou
Mr. Alex Minshull

Valongo seems to have a Sustainable Urban Mobility Plan (SUMP) in place and a number of strategies are highlighted in the application. However, their credibility is hard to be assessed given that only a title is provided for each strategy and no further details have been given, such as parking capacity, length of cycle network, etc. The application also provides a number of website references; however all of these are in Portuguese.

The city has made efforts to motivate participation of the population in the decision-making processes. Some examples include: European Mobility Week (raise awareness and promote road safety in walking and cycling for children and young people), meetings with residents to explain the concept of a " coexistence zone " and door-to-door surveys with citizens on proposals for traffic signs in residential areas.

4.7 Winterswijk Technical Assessment

4.7.1 Nature, Biodiversity and Sustainable Land Use and Soil

Experts
Mr. David Jamieson
Dr. Henk Wolfert

Winterswijk's landscape-scale ambition to recover historic natural features and ecosystems is impressive. It would be useful to learn more about how the implementation of this is progressing.

Winterswijk makes a lot of effort to enhance biodiversity, both in the inner city and in the bocage landscape. It would have helped if more detailed information was given on the results of measures such as protecting species, recovering old landscape elements, creating more greenery in built-up areas, as well as on the plans to improve the green-blue interlacing of the territory.

The application fails to provide any information on limiting urban sprawl and Winterswijk's strategic urban planning. It is unclear if there will be new developments and where these be will located. It has also not been made clear in the application how the demand for spaces for recreational activities is met.

4.7.2 Air Quality and Noise

Experts
Mr. Joan Marc Craviotto Arnau
Dr. César Asensio

Winterswijk is not aware of noise pollution and has not identified any issues regarding noise. Therefore, it does not address any strategy against noise in the city. The city is also ignorant when it comes to air quality. The application mentions that there is no monitoring station in the city. It does however include data that, although coming from a national institute, does not make clear which city situation it represents (traffic or urban background) or even if it does. No information about measures is presented in the application.

Although the Environmental Noise Directive does not establish obligations for cities of less than 100,000 inhabitants, it nevertheless sets out a number of basic principles for the protection of the health and well-being of citizens that should also be adopted in less populated cities. Land-use-based acoustic spatial planning and systematic and regular noise diagnosis and action can help to combat noise where it already exists and prevent its emergence in cases where the noise environment is not so bad.

4.7.3 Waste and Circular Economy

Experts
Mr. Olivier Gaillot
Ms. Zita Dibáczi

Winterswijk has a very good door to door collection system for recyclable (plastic packaging, metal packaging, drink cartons, paper and cardboard) and organic waste. The application makes reference

to a reverse collection for raw materials which seems promising and innovative but would have benefited from more details. The collection and treatment system achieves very high recycling rates. Furthermore, there is also collection of items for reuse. The city has achieved the national target for residual waste reduction. However, the application would have been stronger if it had been able to provide more clarity on the city's vision and plans to enhance circular economy and its engagements with local businesses.

A number of citizen participation and awareness measures have been implemented successfully. These campaigns aimed at promoting waste separation and reducing littering. The awareness activities target residents, schools and new residents.

While there is successful achievement of national targets on residual waste reduction, the application would have benefited of further details on waste prevention measures used.

4.7.4 Water

Experts
Mr. Christof Mainz
Ms. Birgit Georgi

Most necessary data on water was provided in the application, but some are national data and not data of the city. Unfortunately, all data stand alone and are not explained further, although plenty of space was left open that could have been used for this. Winterswijk has great measures in place to reduce paved surfaces which include a public campaign. The city has managed to disconnect the mixed wastewater system and has introduced water retention measures. Winterswijk has a Municipal Water Plan (2019-2023) in place, but the application lacks further information on this.

The application only contains a very brief description and includes no key objectives, targets or goals, nor is a timeline given.

Overall, the application seems to include just numbers and two specific measures (disconnection of the mixed wastewater system and measures for water retention). It is hard to assess the situation of the city, as more (detailed) information is missing. Unfortunately, the application also does not include anything on stakeholder involvement.

4.7.5 Climate Change and Energy Performance

Experts
Dr. Matthew Kennedy
Ms. Vesna Kolega

Winterswijk's strategy for energy neutrality by 2030 is well-presented and convincing, including sustainable investment and financing of initiatives.

The renewable energy deployment across the city from 0.9% in 2012 to 12.6% in 2020 is really impressive. However, more details on measures aiming to achieve 100% of renewable energy production by 2030 across buildings, industry and agriculture would improve the application significantly. The introduction of training for energy coaches, sustainability awards and climate monitoring systems are encouraging. The application would benefit from adding information on adaptation measures and nature solutions.

The referencing of energy coaching facility, landscape ambassadors (75), website dashboards to increase awareness and an energy table of expert advisors are considered positive contributions. Additional details on the role of citizens in each of these would have benefitted the application. There is a clear community engagement referenced in the wildlife camera programme and the role of residents in design and construction of solar farms. Finally, the introduction of a role of citizens regarding the financial actions, namely a revolving fund is promising.

4.7.6 Sustainable Urban Mobility

Experts
Dr. George Angelou
Mr. Alex Minshull

The city has a sound approach to sustainable mobility and is taking action across a range of areas. The application would have been stronger if had been able to describe a plan for transport in the city with actions to engage citizens in planning for sustainable mobility. The city seems to be committed to increase public transport and cycling but not much details on this are provided.

Some good measures which are taken are:
- A new bicycle policy is planned for 2021, however this has yet to be fully approved by the municipal council;
- The city has stopped parcel delivery services from entering the city centre during certain hours;
- The train station provides public transport bikes;
- To encourage alternatively-fueled vehicles, extra charging stations are installed for those who drive electric cars. All hospitality business owners receive charging points for electric bikes and the ZOOV taxi cars in Winterswijk will be fully electric as of next year. The municipality has plans to install a hydrogen station within the next two years.
- Winterswijk participates in the national 'Project Pedaling', which encourages the elderly to keep biking in order to maintain their health. Another example is the cycling lessons that students and residents of asylum centres receive, after which they obtain their cycling diploma.
- Together with the tourist office, the organization '100% Winterswijk' raises awareness among residents and tourists about the city's achievement of 'walking and cycling municipality of 2020'. In this way, the city encourages people to take their bicycle instead of their car.

Appendix A - Application Form for the European Green Capital Award 2023

European Green Leaf Award 2022

Application Form

Please complete the submission for the EGLA 2022 Award in this Application Form. **All sections must be answered** and all questions should be addressed. In the instance that an applicant cannot provide an answer to a question, reasons must be provided in the relevant section.

Text included in square brackets *[EXAMPLE]* should be deleted and replaced with the applicant's response to each respective section. Do not delete the questions in the application form.

Please note, The 'City Introduction and Context' section does not form part of the overall assessment however it is a key component of the application and therefore must be completed. This section sets the scene for the application as a whole in the context of historical, geographic, socio-economic and political constraints, contentious infrastructure/environmental projects and initiatives, and provides the Expert Panel with a clear insight into the factors influencing the city's development and environmental quality.

All six Topic Areas carry equal weight. Within each Topic Area, part a carries 70% of the weight while part b carries a weighting of 30%.

Word exceedances will not be accepted and applicants must complete the Word Count Check at the end of the Application Form to verify that their response is within the word limits set out. This Word Count Check is a tool for cities to check that word exceedances have not occurred and ensure that answers are not left incomplete.

Applicants must read the EGLA 2022 Guidance Note before completing their application and consult this document while undertaking their responses.

Application Form for the European Green Leaf Award 2022

Section A: City Introduction and Context

Use this section to provide an overview of the city and provide context to the items that are addressed in Sections B and C.

Give an overview of the city including its population, surface area, population density, geographical location, some historical and economic background (e.g. GDP, €/capita), notable features and any other factors which have influenced or will influence the environment of the city and its surrounding area.

What are the key environmental challenges the city faces (or has addressed in the recent past)? Make reference to the city's infrastructure (transport, water and drainage, buildings, parks etc.). If appropriate, mention any significant legal proceedings on environmental issues.

Please describe the services provided by the municipality relevant to the Topic Areas in Section B. The aim of this section is to assist in understanding the responsibilities of the city, its controls and the ability of the city to act and effect change.

Please include an up to date map of the city and a maximum of one additional image i.e. a maximum of two images in total including the map. The map should show the layout of urban areas, geographical and other features, across the city.

Before responding to the question please read the EGLA 2022 Guidance Note.

(max. 600 words and two graphics or images as detailed above)

[INSERT RESPONSE TO CITY INTRODUCTION AND CONTEXT HERE]

Application Form for the European Green Leaf Award 2022

Section B: Topic Areas

- **Please note ALL topic areas in this Section must be completed.**

- **Section B is used in the evaluation/ranking process. Please read the accompanying EGLA Guidance Note carefully in advance and during the preparation of the EGLA application.**

- **Please note all six Topic Areas carry equal weight. Within each Topic Area, part a carries 70% of the weight while part b carries a weighting of 30%.**

Topic Area 1: Nature, Biodiversity, Sustainable Land Use and Soil

Note: The answers to sub-sections 1a and 1b together must not exceed a total of 600 and 300 words respectively (i.e. 600 word limit for sub-section a and 300 word limit for sub-section b). A total of six graphics, images or tables may be included in Topic Area 1.

Note: It is important to address Nature/Biodiversity and Sustainable Land Use/Soil equally in the response.

Before responding to the questions in Topic Area 1 please read the EGLA 2022 Guidance Note.

1a – Current Situation and Strategic Approach

Please outline the city's approach to Nature, Biodiversity, Sustainable Land Use and Soil. What are the key objectives and targets of the city for Nature, Biodiversity, Sustainable Land Use and Soil? These may include:

- Conservation and protection measures;
- Green infrastructure;
- Plans of projects to support the conservation of wild pollinators;
- Increase and improvement of parks and green spaces;
- Sites of special interest for biodiversity;
- Connectivity of green and blue areas;
- Integrated planning and managing city expansion and growth; and
- Dealing with contaminated land etc.

Where plans/programmes have been developed at regional and national level it is important to provide information on how these are implemented at the city level.

Please provide details of the percentage of the population living within 300 metres of a green area open to the public and percentage of green areas open to the public in the city.

Also, please describe how the city is encouraging the conservation of wild pollinating insects? Is there a city-wide policy, plan and/or ambition? Have biodiversity conservation measures to support pollinator populations been implemented? Are citizens engaged in pollinator-related activities, such as monitoring or raising awareness? Does the importance of pollinators feature in local education and

learning? Please provide current examples and proposed actions.

Word Limit - 600 Words

[INSERT RESPONSE TO PART A HERE]

1b – Citizen Participation and Public Awareness

What public awareness, citizen engagement or stakeholder participation campaigns are undertaken in the city to foster Nature, Biodiversity, Sustainable Land Use and Soil? These may include:

(a) Campaigns, events, citizen science initiatives, or activities such as advertising and media, campaigns and events;

(b) Public consultation, school education, dialogue, stakeholder groups/forums, citizen science initiatives, working groups, implementation partnerships, joint ventures with local businesses etc.;

(c) Who is the target audience and what benefits have been achieved or are expected?

Please show the connection between sections 1a and 1b.

Word Limit - 300 Words

[INSERT RESPONSE TO PART B HERE]

Application Form for the European Green Leaf Award 2022

Topic Area 2: Air Quality and Noise

Note: The answers to sub-sections 2a and 2b together must not exceed a total of 600 and 300 words respectively (i.e. 600 word limit for sub-section a and 300 word limit for sub-section b). A total of six graphics, images or tables may be included in Topic Area 2.

Note: It is important to address Air Quality and Noise equally in the response.

Before responding to the questions in Topic Area 2 please read the EGLA 2022 Guidance Note.

Please note, Tables 1 and 2 in this section are compulsory and should not be included in the word count.

2a – Current Situation and Strategic Approach

Please outline the present situation regarding Air Quality in the city by completing the following table:

Table 1: Benchmarking Data - Air Quality

Air Quality	Answer		
What air quality zone does the city belong to?			
Is there an air quality monitoring station(s) in the city? - **Yes or No**.			
If Yes:		Unit	Year of Data
Mean annual data of NO_2 concentration.		$\mu g/m^3$	
Mean annual data of $PM_{2.5}$ concentration.		$\mu g/m^3$	
Mean annual data of PM_{10} concentration.		$\mu g/m^3$	
Number of hourly limit exceedances of NO_2 per year.		Number	
Number of daily limit exceedances of PM_{10} per year.		Number	
Provide any historic data for those pollutants.			
Provide the classification of stations used to monitor those pollutants (traffic, industrial or background).			

If No:	
Describe briefly the latest air quality assessment available for the air quality zone the city belongs to.	

Please outline the present situation regarding Noise in the city by completing the following table:

Table 2: Benchmarking Data - Noise

Noise	Answer
Year the last strategic noise map was produced.	
Year the last noise action plan was prepared.	
% implementation of the last noise action plan.	
Does the city have an inventory of quiet areas?	
Does the city have acoustic zoning?	
Which limits or reference value does the city apply to residential areas? (Ld/Le/Ln).	
In the last year, how many noise complaints did the city receive related to leisure or recreational activities?	
How many noise experts does the city have?	

The aim of this section is to make clear how the present situation has been achieved. Please outline related measures, projects and initiatives that have been put in place. Information on any relevant historical, geographical and/or socio-economic factors or constraints which have had an impact on air quality and the acoustic environment should also be described and/or by cross-reference to Section A: City Introduction and Context. Please describe trends in terms of pollutant emissions and ambient air concentrations of pollutants and noise that have taken place over the last five to ten years. Any trends which have been identified and any measures which have been most effective should be discussed.

Please support information by providing relevant background information, including any performance statistics, dedicated budgets or innovative forms of financing and key outcomes. Highlight why the project/measure/initiative is needed and any achieved or expected benefits from its implementation.

Specific measures such as air pollution reducing actions and noise management tools such as noise maps, acoustic zoning, noise exposure data, management of quiet areas etc. are of interest.

If data or figures are not available at a local level please state this in the application.

Describe the short and long-term objectives for air quality and noise and the proposed approach for their achievement. Emphasise to what extent plans are supported by commitments, budget allocations, and monitoring and performance evaluation schemes.

Please include:

(a) Background (include principles that have governed the development of the plan/programme);
(b) Key objectives and targets (e.g. city's contribution towards reducing NO_2, $PM_{2.5}$ and PM_{10} concentrations, noise action plans, foreseen reduction in the share of population exposed to noise, actions to maintain, extend, or improve urban quiet areas etc.);
(c) Information on the air quality in relation to the EU air quality standards (e.g. days/per year) and EU noise exposure standards.

Where plans/programmes have been developed at regional and national level it is important to provide information on how these are implemented at the city level.

Word Limit - 600 Words

[INSERT RESPONSE TO PART A HERE]

2b – Citizen Participation and Public Awareness

Please mention any public awareness campaigns, citizen engagement or stakeholder participation undertaken in the city related to Air Quality and Noise.

Focus on campaigns events or activities such as:

(a) Public awareness: awareness raising activities including advertising and media, citizen science initiatives, campaigns and events;
(b) Stakeholder/citizens participation: public consultation, school education, citizen science initiatives, open dialogue, stakeholder groups/forums, working groups, implementation partnerships, joint ventures with local businesses etc.

Where possible show the connection between this section and the previous section i.e. 2a and 2b.

Please mention the target audience and any achieved or expected benefits.

Word Limit - 300 Words

[INSERT RESPONSE TO PART B HERE]

Topic Area 3: Waste and Circular Economy

Note: The answers to sub-sections 3a and 3b together must not exceed a total of 600 and 300 words respectively (i.e. 600 word limit for sub-section a and 300 word limit for sub-section b). A total of six graphics, images or tables may be included in Topic Area 3.

Note: It is important to address Waste Management and Circular Economy within the response.

Before responding to the questions in Topic Area 3 please read the EGLA 2022 Guidance Note.

Please note, Table 1 in this section is compulsory and should not be included in the word count.

3a – Current Situation and Strategic Approach

(a) Please complete the following table providing the most recent data available to the city. If city data is not available, please provide a brief explanation and use regional or national data. If no data is available, please state this and indicate the reason why.

Table 1: Benchmarking Data - Waste and Circular Economy

Indicator	Type of Data (City/Regional /National)	Unit	Year of Data	Answer
Amount of Municipal Waste Generated Per Capita.		Kg/capita/ year		
Municipal Waste recycled (including composting and anaerobic digestion).		Kg/capita/ year per waste stream + value in % of the total		
Municipal Waste sent to incineration.		Kg/capita/ year per waste stream + value in % of the total		
Municipal Waste sent to landfill.		Kg/capita/ year per waste stream + value in % of the total		

(b) Outline the city's current waste management system describing prevention activities, collection and treatment infrastructure in place.

Data which demonstrates and supports the progress made should be included in the response.

(c) Briefly describe the city's strategy or plan for the management of waste and the transition to a circular economy providing an outline of key objectives and targets and interactions with other city plans or programmes.

Word Limit - 600 Words

[INSERT RESPONSE TO PART A HERE]

3b – Citizen Participation and Public Awareness

Describe the following activities undertaken in the city in the area of waste and circular economy (include details for **both**):

(a) Public activities such as campaigns, citizen science initiatives, events and advertising which raise awareness of waste issues; and

(b) Stakeholder activities such as citizens participation, school education programmes, forums, citizen science initiatives, engagements with local businesses etc.

Word Limit - 300 Words

[INSERT RESPONSE TO PART B HERE]

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Topic Area 4: Water

Note: The answers to sub-sections 4a and 4b together must not exceed a total of 600 and 300 words respectively (i.e. 600 word limit for sub-section a and 300 word limit for sub-section b). A total of six graphics, images or tables may be included in Topic Area 4.

Note: It is important to address Water and Waste Water Management equally in the response.

Before responding to the questions in Topic Area 4 please read the EGLA 2022 Guidance Note.

Please note, Table 1 in this section is compulsory and should not be included in the word count.

4a – Current Situation and Strategic Approach

Please outline the present situation of the relevant infrastructure and systems that are in place by completing the following table:

Table 1: Benchmarking Data - Water

Indicator	Unit	Answer
Urban and domestic water consumption.	Litres per capita per day	
Share of population that has access to drinking water (excluding bottled water).	%	
Newly set up outdoor and indoor equipment (e.g. drinking water fountains) in public spaces.	Number	
Provision of drinking water for free or for a low service fee for customers in restaurants, canteens, and catering services.	Number	
Proportion of water losses from the distribution network.	Infrastructure leakage index (ILI), or other appropriate method, or %	
Proportion of urban drinking water supply subject to water metering.	%	
Compliance with the requirements of the 'new' DWD[1]	Yes/No - %	(If No, please explain)
Population connected to the waste water collecting system and waste water treatment plants.	%	

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[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583491875802&uri=CONSIL:ST_6060_2020_REV_1

Treatment rate of central waste water treatment plant for parameters: BOD$_5$, COD, N, P.	%	
Compliance with the requirements of the UWWTD 91/271/EEC.	Yes/No	
Additional treatment steps beyond requirements of the UWWTD 91/271/EEC.	Yes/No	If Yes, please indicate (such as treatment of micropollutants, membrane technology, UV-radiation, microplastic removal)
Energy efficiency measures at urban waste water infrastructure.	Yes/No	(If No, please explain)
Ecological status of water bodies - Water Framework Directive (WFD) status.	Status	
Water reuse.	Yes/No - %	

If data or figures are not available at a local level, please state this in the application. Data available from (public/private) water service companies should be provided.

The aim of this section is to make clear how the present situation has been achieved. Information on any relevant disadvantages or constraints resulting from historical, geographical and/or socio-economic factors may be included and/or cross-referenced to Section A: City Introduction and Context. Please describe the developments that have taken place over the last five to ten years. Comment on which measures have been most effective.

Highlight relevant projects/measures/initiatives and any benefits from their implementation. Provide a brief outline of the city's Water and Waste Water Management Plans and Programmes, such as priorities in water and waste water management plans, principles that have governed the development of the plan/programme or key objectives and targets (describe/specify measures to be implemented in future). Where plans/programmes have been developed at a level above the city level i.e. regional, national etc., it is important to provide information on the plans/programmes and how they impact on the city and/or are implemented at the city level.

Where possible please outline the objectives and targets set/proposed and compare against the figures provided in this section describing the present situation (i.e. expected improvements in water consumption, water losses, etc.).

Word Limit - 600 Words

[INSERT RESPONSE TO PART A HERE]

4b – Citizen Participation and Public Awareness

Please mention any public awareness, citizen engagement or stakeholder participation undertaken in the city in the areas of Water and Waste Water Management.

Focus on campaigns, events or activities such as:

(a) Public awareness: awareness raising activities including advertising and media, citizen science initiatives, campaigns and events;

(b) Stakeholder/citizens participation: public consultation, school education, citizen science initiatives, open dialogue, stakeholder groups/forums, working groups, implementation partnerships, joint ventures with local businesses etc.

Where possible show the connection between this section and the previous section i.e. 4a and 4b.

Please mention the target audience and any achieved or expected benefits.

Word Limit - 300 Words

[INSERT RESPONSE TO PART B HERE]

Topic Area 5: Climate Change and Energy Performance

Note: The answers to sub-sections 5a and 5b together must not exceed a total of 600 and 300 words respectively (i.e. 600 word limit for sub-section a and 300 word limit for sub-section b). A total of six graphics, images or tables may be included in Topic Area 5.

Note: It is important to address Climate Change (mitigation and adaptation) and Energy Performance equally in the response.

Before responding to the questions in Topic Area 5 please read the EGLA 2022 Guidance Note.

5a – Current Situation and Strategic Approach

Please outline the present situation, e.g. the relevant infrastructure and systems that are in place. The aim of this section is to show how the present situation has been achieved and what kind of measures or programmes have been implemented so far. Information on any relevant disadvantages or constraints resulting from historical, geographical and/or socio-economic factors may be included and/or cross-referenced to Section A: City Introduction and Context.

Please describe developments that have taken place over the last five to ten years. Comment on which measures have been most effective.

Please add relevant background information, performance statistics, dedicated budgets or innovative forms of financing and key outcomes (e.g. greenhouse gas emissions, adaptation to climate change, renewable energy, energy efficiency etc.). Please also state clearly what year the data provided relates to.

If data or figures are not available at a local level please state this in the application.

Where plans/programmes have been developed at regional and national level it is important to provide information on how these are implemented at the city level.

When outlining the city's overall approach to improve Climate Change and Energy Performance, please include:

1. Data and Inventories

  (a) Outline inventories/data availability/statistics/budgets/innovative financing;
  (b) Identify the main sources of data (by sector), distinguishing between national and local;
  (c) Describe **past** trends arising from data presented;
  (d) Quantify **future** estimated reduction in GHG (Greenhouse Gases) and measures.

2. Approach objectives and targets

  (a) Outline principles that shaped plans and programmes;
  (b) Outline relevant infrastructure, systems, and the current state of play regarding environmental performance;
  (c) Demonstrate **past** developments (past 5-10 years) that inform the present situation and

comment on which measures have been most effective;

(d) Describe existing **future** targets/strategies/plans/objectives(short and/or mid-term) and long-term objectives; and

(e) Comment on budget allocation, future ambitions, innovative actions, and the contribution of the city to Directives.

3. Impact

(a) Describe the impact and outcomes of **past** measures (past 5-10 years);

(b) Describe budgets or innovative forms of financing influencing key outcomes;

(c) Comment on impact(s) experienced and how this influences and informs future plans and projects;

(d) Comment on effective strategies, measures, systematic planning, future strategies, plans, targets and their impact at city level; and

(e) Highlight proposed impact of **future** projects/measures and expected benefits.

4. Adaptation

(a) Describe the approach to adaptation strategy (measures to improve adaptive capacity, ability to adjust to climate change, to minimise potential damages, and to harness advantages); and

(b) Describe the city's strategy and approach to green infrastructure.

Where possible, please also include the following information:

(a) Include specific measures such as Green Infrastructure (GI) solutions (nature based solutions);

(b) Describe regional/national plans and how these are implemented at the city level;

(c) Membership of different initiatives and networks of energy and climate relevance;

(d) Awards for energy achievements/climate action; and

(e) Mention actions to promote energy demand response.

Word Limit - 600 Words

[INSERT RESPONSE TO PART A HERE]

5b – Citizen Participation and Public Awareness

Please mention any public awareness, citizen engagement or stakeholder participation undertaken in the city in the areas of Climate Change and Energy Performance.

Focus on campaigns, events or activities such as:

(a) Public awareness: awareness raising activities including advertising and media, citizen science initiatives, campaigns and events;

(b) Stakeholder/citizen participation: public consultation, school education, open dialogue, stakeholder groups/forums, citizen science initiatives, working groups, implementation partnerships, joint ventures with local businesses, etc.;

(c) Systematic planning to improve citizen participation and public awareness;

(d) Innovative, flagship actions on citizen participation and public awareness; and

(e) Facilitation of community activities such as citizen's energy communities and local climate pacts.

Where possible show the connection between this section and the previous section i.e. 5a and 5b.

Please identify the target audience and any achieved or expected benefits.

Word Limit - 300 Words

[INSERT RESPONSE TO PART B HERE]

Topic Area 6: Sustainable Urban Mobility

Note: The answers to sub-sections 6a and 6b together must not exceed a total of 600 and 300 words respectively (i.e. 600 word limit for sub-section a and 300 word limit for sub-section b). A total of six graphics, images or tables may be included in Topic Area 6.

Note: Before responding to the questions in Topic Area 6 please read the EGLA 2022 Guidance Note.

6a – Current Situation and Strategic Approach

The aim of this section is to to outline the current situation in the city and make it clear how this has been achieved. The response should mention relevant strategies and plans (including a Sustainable Urban Mobility Plan (SUMP) or equivalent (in force or in revision)), measures that have been implemented and any tangible results. The application should include where possible data on the percentage of journeys undertaken by each mode of transport.

Please make clear the relevant principles that underlie any plan or strategy. Where plans/programmes have been developed at a level above the city level i.e. regional, national etc. it is important to provide information on the plans/programmes and how they impact on the city and/or are implemented at the city level.

Please ensure the response mentions the following measures that:

(a) Promote and encourage public transport, cycling and walking;

(b) Promote and encourage reduced car usage;

(c) Improve the environmental performance of freight (including diverting trucks from the city centre and urban freight deliveries);

(d) Promote the use of shared mobility and alternatively-fuelled vehicles.

Word Limit - 600 Words

[INSERT RESPONSE TO PART A HERE]

6b – Citizen Participation and Public Awareness

Please mention any public awareness, citizen engagement or stakeholder participation undertaken in the city in the area of Mobility.

Focus on campaigns, events or activities such as:

(a) Public Awareness: awareness raising activities including advertising and media, campaigns, events, citizen science initiatives and school education;

(b) Stakeholder/Citizens Participation and engagement in decision making: public consultation, open dialogue, stakeholder groups/forums, citizen science initiatives, working groups, implementation partnerships, joint ventures with local businesses etc.

Please identify the target audience.

Word Limit - 300 Words

[INSERT RESPONSE TO PART B HERE]

Section C: Good Practices

- Please note that the Good Practice section is not taken into consideration during the evaluation process.
- This section is for additional information only and will help in the compilation of any European Green Leaf 2022 Good Practice Factsheets or Case Studies, as appropriate.
- Please note that at least one good practice must be completed.

Note: The descriptions of the good practices must not exceed a total of 450 words and nine graphics, images or tables.

Please summarise up to three good practices that demonstrate how the city is improving its environmental record and is committed to generating new jobs linked with producing a better environment.

The Good Practices nominated should already be briefly mentioned in the corresponding topic areas in Section B of the application form. Please describe the proposed Good Practice in more detail here.

Please also explain why the good practice described has been selected.

Good Practice 1

Word Limit 150 words & 3 graphics, images, tables etc.

Topic area: *[INSERT NAME OF RELEVANT TOPIC AREA(S) HERE]*

[INSERT RESPONSE HERE]

Good Practice 2

Word Limit 150 words & 3 graphics, images, tables etc.

Topic area: *[INSERT NAME OF RELEVANT TOPIC AREA(S) HERE]*

[INSERT RESPONSE HERE]

Good Practice 3

Word Limit 150 words & 3 graphics, images, tables etc.

Topic area: *[INSERT NAME OF RELEVANT TOPIC AREA(S) HERE]*

[INSERT RESPONSE HERE]

Application Form Word Count Check

Please complete the below word count check for Sections A, B and C of the Application Form.

As per the Guidance Note (Annex 4 of the Rules of Contest), the word count includes text in graphics/images/tables and the body of text. The word count excludes text found in the original application form (i.e. question text etc.) and captions (within the given limit of 20 words).

Section A	Number of words in graphics/images/tables	Number of words in body of text	Total number of words in graphics/images/tables and body of text	Max. words
				600

Section B	Number of words in graphics/images/tables	Number of words in body of text	Total number of words in graphics/images/tables and body of text	Max. words
1a				600
1b				300
2a				600
2b				300
3a				600
3b				300
4a				600
4b				300
5a				600
5b				300
6a				600
6b				300

NOTE: Please ensure the 'Benchmarking Data' tables in Sections 2a, 3a, and 4a have been completed. The text in these tables should not be included in the word count.

Section C	Number of words in graphics/images/tables	Number of words in body of text	Total number of words in graphics/images/tables and body of text	Max. words
1				150
2				150
3				150

Application Form Checklist

Did you complete Section A?

    Yes   No

Did you complete Section B?

    Yes   No

Topic areas:

    1. a and b?   Yes   No

    2. a and b?   Yes   No

    3. a and b?   Yes   No

    4. a and b?   Yes   No

    5. a and b?   Yes   No

    6. a and b?   Yes   No

Did you complete Section C?   Yes   No

At least one good practice must be completed.

Did you complete the 'Word Count Check'?   Yes   No

A response must be included for all of the above. If all of the items are not completed the application will be invalid.

Did you adhere to the word limit for all sections?

    Yes   No

Did you adhere to the graphics/images/tables limit for all sections?

    Yes   No

Appendix B - Expert Panel Profiles

Topic Area No. 1 - Climate Change and Energy Performance

Expert

Dr. Matthew Kennedy

Title

Head of Strategy and Business,
International Energy Research Centre, Ireland

Dr. Matt Kennedy is Head of Strategy and Business in the International Energy Research Centre, an Irish Government supported energy research centre. He was previously National Delegate (Energy) for Horizon 2020 for Ireland and led Energy R&D for the Irish Government's Sustainable Energy Authority of Ireland. Matt held the position of Special Advisor on energy and climate issues.

Matt was lead EU Negotiator for energy technology transfer at the UNFCCC's international climate change negotiations (COP21) and was a member of the UNFCCC's Technology Executive Committee (TEC) responsible for providing mitigation and adaptation technology policy advice to the UN Conference of the Parties.

Matt was Chair of UNEP's Climate Technology Centre and Network, Copenhagen, Chair of the IEA's Renewable Energy Technology Deployment Technology Collaboration Programme, Paris, and the Chair of the Programme Board of the Renewable Energy and Energy Efficiency Partnership (REEEP), Vienna.

Matt holds a PhD from the School of Engineering of Trinity College Dublin, and Masters' degrees from NUI Galway and University College Dublin.

Expert

Ms. Vesna Kolega

Title

Independent Consultant, Croatia

Vesna Kolega has 28 years of experience in the field of sustainable energy, particularly sustainable energy urban planning. With 2 years at the Croatian Power Utility Institute, 14 years at Energy Institute Hrvoje Pozar, 8 years at North-west Croatia Regional Energy Agency and most recently 4 years as an independent consultant.

As the member of the Croatian negotiation team for EU access - Chapter 15: Energy and Environment, a key expert to high level advisory support for accession negotiations in Albania, a member of numerous working groups for transposition of EU energy policies, an author of numerous Croatian energy efficiency legislative documents, an author of numerous position papers and different analyses of energy legislation and policies, a project coordinator of multiple international energy efficiency and sustainable energy planning projects, Vesna has developed an in-depth knowledge and experience on the energy situation at Croatian, SEE countries, and EU level.

Vesna obtained her BSc and MSc at the Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia. Throughout her professional career, as an engineer, researcher, projects coordinator, head of different departments, and finally an independent consultant, Vesna has been fully dedicated to sustainable energy and environmental protection as the most important imperative of the 21st century.

Topic Area No. 2 - Sustainable Urban Mobility

Expert
Dr. George Angelou

Title
Staff member of the Greek Ministry of Transport and Networks, HCAA HANSP Headquarters, Greece

George Angelou possesses 20 years of industrial and academic experience working in the USA (IBM T.J Watson Research Center, NY), UK (CISCO Systems, London) and Greece (Assistant Professor, Institute of Technology). He is also the co-founder of Mobile E-Commerce Technologies Ltd. based in London, UK and the Founder and Director of G-Alpha Telecomms based in Athens, Greece.

George is the recipient of the 2018 EGNOS Award, awarded from the European GNSS Agency (GSA) in the 2018 World ATM Congress, the recipient of UK Research Excellence in 2000, awarded from RACAL Research, London, UK and the owner of one patent awarded from the Industrial Property Organisation of Greece.

Dr. Angelou is the author of three international books published from McGraw-Hill International, New York, USA and over thirty technical articles published in peer-reviewed journals and international conferences.

Expert
Mr. Alex Minshull

Title
Sustainable City and Climate Change Manager, Bristol City Council, United Kingdom

Alex Minshull is based in Bristol, United Kingdom, where he leads Bristol City Council's Innovation and Sustainable City and Climate Change Service. His responsibilities include the City Council's climate change, sustainable development, sustainable food, and air quality programmes.

He studied for his environmental science degree at Southampton University and for his master's degree in the energy and environmental aspects of architecture at the Centre for Alternative Technology.

Alex has worked as a sustainability professional for over 20 years, in the private and public sectors, as well as volunteering with environmental NGOs.

At the Environment Agency (England) he produced integrated river catchment management plans and advised on urban development to achieve environmental protection within the Midlands region of England. In later years at the Environment Agency, and then at Bristol City Council, he implemented new environmental management systems, secured ISO 14001 and Eco Management and Audit Scheme accreditation, and delivered significant improvements in environmental performance of these organizations.

Since 2006 his role has focused on the sustainable development of the city of Bristol and he has managed professionals working on a range of sustainability issues including, urban development, water, food, energy, electric mobility, climate change and air quality. He has worked to create effective partnerships between the city council and other organizations, including universities, businesses and environmental NGO's, bringing together their different capabilities to create a more sustainable city.

He has been involved with the European Green Capital Award since it began. He led Bristol's bids to become European Green Capital, being shortlisted twice and securing the Award for the year of 2015. Alex is passionate about the role of cities in leading the transition to a sustainable world and in cities working together to accelerate the transition. He has shared the learnings from Bristol with many cities across Europe, and across the globe.

Topic Area No. 3 - Nature, Biodiversity and Sustainable Land Use

Expert

Mr. David Jamieson

Title

Parks Greenspace & Cemeteries Manager, City of Edinburgh Council, and Director of Greenspace Scotland, United Kingdom

Based in Scotland, David is responsible for managing Edinburgh's public parks and greenspace network, including the city's nature reserves, woodlands, allotments, cemeteries and urban forest. As head of Edinburgh's Parks Service he has secured a number of green accolades for the city, including winner of Britain in Bloom, Entente Florale Gold Medal, Eurocities, COSLA Gold Medal for Service Innovation & Improvement, the UK's Best Parks, Grounds and Horticultural Service Team award, and Fields in Trusts' Best UK Landowner.

Having led the development and implementation of Edinburgh's Nature Conservation Strategy, Urban Forestry Strategy, and Biodiversity Action Plan, he is presently directing the Edinburgh Living Landscape initiative in partnership with local universities, wildlife trust, botanic garden and green space trust. This is an innovative ecosystems approach to urban open space management, bringing nature closer to people's homes and work-places.

Having recently arranged a city-wide count and ecosystem services analysis of Edinburgh's urban trees, he is now heading up a multi-agency effort to make Scotland's capital a 'Million Tree City' by 2030. This aims to help address both the climate crisis and species extinction commitments made on behalf of Edinburgh's residents and visitors by the local authority.

David is also Director and chair of the national charity, greenspace Scotland, championing the value of green space to government and other decision-makers. As a chartered ecologist and environmental manager, with degrees from Stirling, Heriot-Watt and Huddersfield universities, his career has ranged across the public, academic and voluntary sectors. In recent years he has also been a director of Volunteer Development Scotland, BTCV Scotland, Oatridge Agricultural College

and the Falkirk Environment Trust - promoting volunteering as a means for positive social and environmental change.

As well as being the Expert Panel member for Nature and Biodiversity, David is also a UK-level judge for Britain in Bloom and assessor for Green Flag Award, the two largest green award programmes in Great Britain. This gives him insight into current best practice in green space management, urban ecology, community-driven environmental initiatives, and sustainable development.

Expert

Dr. Henk Wolfert

Title

Programme Manager at the Amsterdam Institute for Advanced Metropolitan Solutions, and at Wageningen Environmental Research, The Netherlands

Henk Wolfert is a programme manager at the Amsterdam Institute for Advanced Metropolitan Solutions. He is responsible for the Vital City research theme, which addresses the issues of urban climate resilience, metropolitan food systems and healthy urban living in Amsterdam. His main interest is strategic and applied research and setting up living labs, with both public and private partners.

He is one of the initiators of the Flevo Campus in the City of Almere and its scientific programme 'The Feeding City', focusing on a transition into more regionally oriented urban food systems. In addition, he is the driver behind the Wageningen City Agenda, aiming at cooperation between the city of Wageningen and Wageningen University & Research.

Henk has been working at Wageningen Environmental Research in various positions: researcher of geomorphology, team leader Landscape Systems Research, executive secretary of the Board of Directors and coordinator of the Wageningen Research programme System Earth Management. Henk was member of several peer and governmental advisory commissions.

He is a member of the team of coordinators of the Partnership for European Environmental Research (PEER), member of the advisory board of the New Water Ways project in Oslo and involved in an expert team of the European Science for Environment Policy News Alert.

Henk holds a master's degree in Physical Geography from the University of Amsterdam, and a PhD degree from Utrecht University. His PhD was on river rehabilitation and geomorphological change.

Topic Area No. 4 - Air Quality and Noise

Expert

Mr. Joan Marc Craviotto Arnau

Title

Independent Air Quality Consultant, Spain

Joan Marc Craviotto Arnau is an Air Quality Consultant with extensive experience in urban air quality management and planning. He holds a degree in Industrial Engineering from the Polytechnic University of Catalonia and a postgraduate degree in Air Quality Management and Atmospheric Pollution Control from the University of Santiago de Chile.

For over 10 years he has collaborated with Barcelona City Council in its aim to improve citizens' well-being. In his role, he has contributed to create a professional air quality management scheme and has advised on new policies and abatement measures. He also managed the development of Barcelona's Air Quality Improvement plan and played a key role in the implementation of important abatement measures such as the Low Emission Zone. Joan Marc has put technology at the core of the strategy, promoting the use of state-of-the-art techniques in the decision-making process.

Joan Marc is a key contributor to the air quality public awareness campaign for the City of Barcelona and is committed to sharing knowledge and raising awareness of environmental issues related to air quality. He engages with and promotes scientific research to increase the knowledge of the air quality dynamics in the city of Barcelona and is a regular speaker and attendant at air quality conferences, congresses and workshops.

Expert

Dr. César Asensio

Title

Researcher at the Instrumentation and Applied Acoustics Research Group of the Technical University of Madrid

Dr. César Asensio has a BSc in Telecommunication Engineering, MSc in Acoustics Engineering in Industry and Transport and a PhD in Acoustics Engineering.

He has vast experience in environmental acoustics including noise modelling, strategic noise mapping and noise monitoring in cities, industry and transport infrastructures. He was nominated by Spain as technical expert to be part of the CNOSSOS-EU Technical Committee (Common Noise assessment methods), which is aimed at improving the consistency and comparability of noise assessments results across the EU Member states. CNOSSOS-EU defined a methodological framework that formed the basis for the amendment of Annex II of Directive 2002/49/EC of the European Parliament and of the Council relating to the assessment and management of environmental noise in Europe.

César is highly committed to environmental noise research and information dissemination, aiming to raise the awareness of public administrations, citizens and other stakeholders about the risks that community noise can pose to public health. He is particularly interested in the influence that non-

acoustic factors have on the response of citizens to noise, as well as in the exploitation of new technologies and smart city capabilities in the management of environmental noise.

Topic Area No. 5 - Waste and Circular Economy

Expert

Mr. Olivier Gaillot

Title

Director of Environment, Energy and Resource Management, RPS Group Ltd., Ireland

Olivier Gaillot is Director of Environment, Energy, and Resource Management in RPS. Olivier is a Chartered Waste Manager with a master's Degrees in Strategic Procurement and Environmental Engineering.

For the last 18 years Olivier has specialized in the waste and resource management sector, developing expertise in waste policy and legislation, strategy and planning, data analysis and technical assessments. Olivier served as project manager for rx3, 'rethink recycle remake', a national platform whose main focus was on closing the material loop, through the development of markets for reusable, remanufactured and recyclable materials. This closed loop recycling project correctly anticipated the 'circular economy' policy by the EU Commission favoring eco-innovation, economic development and job creation. The project received the best public sector award at the 2013 Green Awards. He has also served as the project manager for the development of green public procurement guidance and review of Extended Producer Responsibility in Ireland. Olivier is a member of the Irish National Waste Prevention Committee chaired by the EPA. In his current role in RPS, Olivier manages teams of engineers and scientists delivering high quality projects across the environmental, energy, waste/resource efficiency sectors.

Expert

Ms. Zita Dibáczi

Title

Senior Environmental and Renewable Energy Expert

Zita works for UNITEF Engineering in Hungary, as a senior expert on integrated sustainable urban civil engineering planning & management. Her responsibilities include feasibility studies, and licensing of projects which significantly contribute to the upgrading and transformation of local and regional development, in line with the long-term strategic plans and policy framework.

She holds a BSc in Environmental Engineering and MSc in Renewable Energy Engineering.

Since 2005, she has dedicated her professional activity to environmental and renewable energy technology. Zita is also passionate about environmental and sustainability issues, as well as climate

change mitigation which she follows with interest. She has extensive experience working on international programmes and projects for both private and public organisations.

Throughout her career, she has gained an in-depth understanding of urban & regional planning from different perspectives, such as resource efficiency, waste management, water, noise, air pollution, climate change mitigation and adaptation, and low carbon technologies through integrating renewable energy sources.

Zita has expertise in Green Technologies and Environmental impact assessments [EIA], and holds a full-scale Environmental Expert Licence from the Hungarian Chamber of Engineers for Air Quality, Noise and vibration, Water, and Geological media protection, Waste management.

Since 2013, she has evaluated and reviewed more than 100 research and innovation projects under the FP7, EEA Grants and HORIZON 2020 calls related to Low Carbon/Sustainable projects submitted by public and private entities.

Topic Area No. 6 - Water

Expert

Mr. Christof Mainz

Title

Senior/First Officer at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Germany

Christof Mainz is a civil engineer specialized in the environment and water sector. In May 2017 he commenced working at the Directorate for Water management at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) in Bonn, Germany.

Prior to his current position, he worked at the European Commission in Brussels (2011-2017) and at the regional Ministry for the Environment in Düsseldorf, North Rhine-Westphalia (1998-2011). While working at the European Commission's Directorate General for the Environment (DG ENV), within the unit responsible for the Marine Environment and Water Industry, his main responsibilities were linked to several EU Water Industry Directives and their relationship with other EU legislation and policy areas, as well as supporting EU actions on innovation in the water sector, such as strategies for water reuse and resource efficiency. Prior to this, he worked in different regional administrations on technical checks and monitoring of urban waste water treatment plants.

Expert

Ms. Birgit Georgi

Title

Urban and Adaptation Expert, Founder of 'Strong Cities in a Changing Climate', Germany

Birgit Georgi is a freelance expert in the areas of climate change adaptation, environment and integrated urban development. She has a deep and broad integrated understanding of the urban

environment and sustainability due to her long-standing professional experience in these fields for more than 25 years.

From 2007-2017 she worked with the European Environment Agency, initially as Project Manager for urban issues, and, since 2011, on climate change adaptation relating to cities and transport. Among Birgit's key contributions to the sector are the assessment reports; 'Urban Adaptation to Climate Change in Europe' (2012 and 2016), 'Adaptation of transport to climate change in Europe' (2014), and 'Quality of life in Europe's Cities and towns'.

Birgit was responsible for developing the interactive map book on urban vulnerability, the Urban Adaptation Support Tool, and the numerous case studies related to cities of the European Climate Adaptation Platform Climate-ADAPT. She supported the Commission in developing the Mayors Adapt initiative and its integration into the Covenant of Mayors for Climate and Energy. Birgit also organized the annual networking and learning event: Open European Day Resilient Cities - now the European Urban Resilience Forum. She has worked as an adviser for several EU projects such as PLUREL, SUME, RESIN and is a frequent speaker and moderator at many events on her topics.

Birgit's experience is complemented by her work at the German Federal Environment Agency from 1991-2007 where she developed action plans and supervised projects in the fields of sustainability planning, biodiversity, environmental management and sustainable transport. The scope ranged from local demonstration projects in Germany and other European countries to international activities, e.g. technical support in the framework of the UN Convention for Biological Diversity and as national contact point for the UNECE Programme, THE PEP.