



DCMR Milieudienst Rijnmond

QUADMAP: Quiet areas definition and management in action plans - Introduction

miriam.weber@dcmr.nl



Overview

- QUADMAP:
 - aim, activities and actors
- Quiet Urban Areas:
 - overview of current practice
 - 'promising' practices
- QUADMAP:
 - future steps



QUADMAP: aims and objectives



- *Current practices about selection, assessment and management of Quiet Areas in EU Countries, though regulated by the EU Directive 49/2002/EC on Environmental Noise, appear to be extremely fragmented and inhomogeneous.*
- *The main aim of QUADMAP is to develop a harmonized methodology for **selection, assessment** (combining quantitative and qualitative parameters) and **management** (noise mitigation, increasing of usability of areas and users' satisfaction) of Quiet Urban Areas (QUAs).*



QUADMAP: QUIet Urban Areas Definition and Management in Action Plans



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



QUADMAP: activities



→ Package A: Data Collection and Analysis

→ Data collection and analysis - the Netherlands, Belgium, Norway, UK, Italy, Germany, Spain, Portugal and France

→ Package B: Methodology

→ QUA methodologies for selection, analysis and definition

→ Package C: Demonstration

→ Pilot studies on selection of and intervention in QUAs

→ Package D: Guidance report

→ Package E: Dissemination

→ See e.g. www.quadmap.eu

Start date: **01.09.2011**

Expected end date: **30.09.2014**



LIFE10 ENV/IT/407 *With the contribution of the LIFE financial contribution of the European Commission*



QUADMAP: beneficiaries and supporters



Coordinating beneficiary:

- Università di Firenze, Dipartimento di Meccanica e Tecnologie Industriali (UNIFI-DMTI)

Associated beneficiaries:

- DCMR Environmental Protection Agency (DCMR EPA)
- Area de Obras y Servicios, Ayuntamiento de Bilbao
- TECNALIA
- VIE EN.RO.SE. Ingegneria S.r.l. (VIE EN.RO.SE.)
- Comune di Firenze BRUITPARIF

Supporters: EUROCITIES



LIFE10 ENV/IT/407 *With the contribution of the LIFE financial contribution of the European Commission*



QUAs current practice: definition of QUAs

Main indicators or criteria:

- Noise levels, e.g. < 50 dB Lden or 55 dB Lday or -5 dB relatively or acoustic quality objective-5 dB
- Sound sources: nature vs man-made sounds
- Presence of green, water
- Accessibility
- Soundscape: pleasant, tranquil

Other indicators or criteria:

- Visual or aesthetic quality
- Personal safety
- Size of area
- Air quality

END art. 8 (l) 'quiet area in an agglomeration' shall mean an area, delimited by the competent authority, for instance which is not exposed to a value of Lden or of another appropriate noise indicator greater than a certain value set by the Member State, from any noise source



QUAs current practice: analysis methodology

Main approach:

- Selection of (candidate) QUA based upon noise map
- Assessment of area based upon criteria
- Noise measurements e.g. L95-L5
- Field surveys



Other steps:

- Observations
- Soundwalks
- Gradient or relatively quiet / acoustic contrast noise maps



QUAs current practice: management



Main approaches (note: foreseen, not implemented!)

- Safeguarding through spatial planning and mobility planning (biking, walking)
- Limiting intruding (environmental) noise, e.g. low noise pavement



Remarks

- No or limited actions in noise action plans
- Nor budget reservations



LIFE10 ENV/IT/407 *With the contribution of the LIFE financial contribution of the European Commission*



QUAs current practice: management (2)

City	Objective	Actions	Definition	Identification	Deadlines	Budget
<i>Bilbao</i>	Preservation of quiet areas	Not set	Areas intended for recreation or natural interest.	No	Long-term strategy	No
<i>Pamplona</i>	Preservation of acoustically protected areas	Limitation of noisy activities	Areas with reduced noise levels and predominantly pedestrian use and recreation	Yes	2.011-12	No
<i>Madrid</i>	Preservation of quiet areas	Limitation of noisy activities Underground waste containers	Areas with noise levels L_{day} and $L_{evening} < 60$ dBA	No	No	Yes, but without specifying
<i>Tenerife - La Laguna and Canarias</i>	Preservation of quiet areas and natural areas	Not set	Areas with noise levels $L_{day} < 60$ dBA	No	No	No
<i>Valencia</i>	Protect quiet areas against an increase in levels	Not set		No	Long-term strategy	No
<i>Vigo</i>	Preservation of quiet areas	Not set	Areas used for recreation or cultural interest	No	No	No
<i>Zaragoza</i>	Declare 5 quiet areas Define associated Action Plan	<ul style="list-style-type: none"> - Creating and maintaining large parks or public pedestrian spaces. - Combined with traffic calming zones (areas 30). - Pedestrian corridors. - Implement new urban design ideas. 	Areas with sound quality and public use for leisure	Yes	2.011-16	No

Example: review Spanish action plans



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



QUAs current practice: in sum

- Large variety in approaches, regarding a.o.
 - END requirements e.g. identification, delineation and actions
 - Indicators
 - Methods
 - Competent authorities, e.g. national guidance versus local initiatives
 - Actor and citizen involvement
- Implementation gaps
 - Main focus on identification of QUAs
 - No / limited practice regarding management or interventions (action plans)
- Low position on (political, policy) agenda
 - UK seems to be exception, as well as some individual cities



QUAs current practice: SWOT (1)

Strengths

- UK considers a broad range of aspects for a QUA
- Several cities apply criteria based upon user perspective instead of legal perspective
- Criteria in NL are strong on visual quality, safety and functionality
- Several cities use quantitative AND qualitative criteria
- Several cities apply criteria allowing relatively low noise levels (50-55 Lday)
- Strong link with citizens quality of life, their connection with natural elements and aesthetic values, and usability and accessibility
- Consultation of citizens and participative approach in some cities

Weaknesses

Opportunities

Threats/Risks



QUAs current practice: SWOT (2)

Strengths

Weaknesses

- Some cities allow relatively high noise levels (55, 65 dB Lday)
- Some cities have criteria that are weak on safety and maintenance
- Criteria are different among several cities: no unified vision of the problem
- No particular interest or competence among local policy makers: problems are most felt at scientific and university level than at local and administrative level
- Most cities do not have a procedure for monitoring the degree of compliance with policy objectives
- In some cases only large areas (more than 30 ha) can be considered as quiet areas in Germany
- Limited experience and consequently postponing of actions in Spain
- Limited skills regarding surveying and other perception approaches at local level

Opportunities

Threats/Risks



QUADMAP



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



QUAs current practice: SWOT (3)

<i>Strengths</i>	<i>Weaknesses</i>
<i>Opportunities</i> <ul style="list-style-type: none">• All countries can add criteria from each other• Authorities can take a more user centred approach in surveys and public consultations	<i>Threats/Risks</i>



QUAs current practice: SWOT (4)

<i>Strengths</i>	<i>Weaknesses</i>
<i>Opportunities</i>	<i>Threats/Risks</i> <ul style="list-style-type: none">•Risk of not finding enough QUA for many quality demands•Risk of having discontent from different user groups as demands and perceptions are different•Time consuming or 'incorrect' approaches due to limited guidelines and harmonisation from either EU or national competent authorities



QUADMAP



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



'Promising' practices

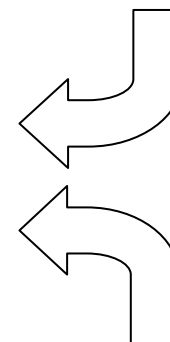
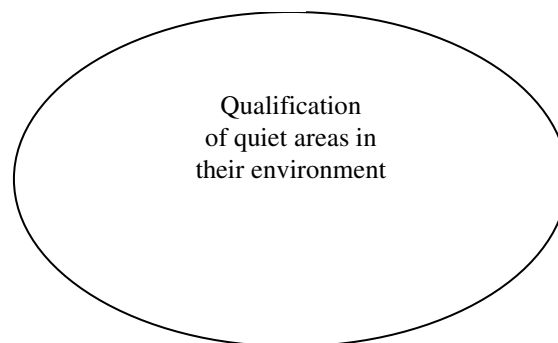
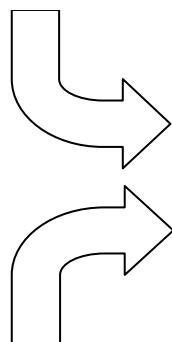
Paris experiment: criteria for qualification of quiet area

1. The physical environment

Could the site be described as « quiet » in terms of physical space ?

2. Urban morphology and functionality

Is the site dedicated to a « quiet » function ?
Do the site characteristics give it a particular atmosphere ?



3. Accessibility and legibility

Interactions between the site and its immediate environment do they permit to perceive and experience a « quiet » space ?

4. The feelings, uses and practices

Is the site perceived and practiced as « quiet » by users and inhabitants ?

Source: Faburel & Gourlot (2008)



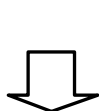
LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



'Promising' practices

First operational identification of quiet areas

Quiet or tranquillity areas = Spaces for resting and wellness ?



Perceptual factors	Quantitative criteria	Gaps
Capacity to talk	Time of « silence » / Ambient noise	Not
Capacity of movement	Size, topography, density	Not
Representation of sound types (natural, human...)	Sound sources	Globally, not
Safe atmosphere	Cleanliness (equipment), incivillity	Globally, not
Visual quality (panorama, water features, wildlife)	Use, urban form, official classifications of protected areas (eg. areas of architectural conservation, urban forests)	Globally, yes (eg. river banks)
Accessibility spaces	Accessibility spaces	Globally, yes (eg. habitat types and

Source: Faburel & Gourlot (2008, 2012)

QUADMAP



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



Capacity of movement	Size, topography, density	NOI
<p>'Promising' practices</p> <p>Value called natural (panorama, water features, green spaces, wildlife)</p> <p>Opportunity to be in quiet place</p> <p>Sound comfort</p> <p>Expectations for quiet</p>	<p>Land use, urban form, official classifications of protected areas (eg. areas of architectural conservation, urban forests)</p> <p>Accessibility spaces</p> <p>Noise level</p> <p>Distance of infrastructure, industrial activities</p>	<p>Globally, yes (eg. river banks)</p> <p>Globally, yes (eg. habitat types and population)</p> <p>Yes (desired / undesired character)</p> <p>Yes (eg. healing, urban rhythms)</p> <p>Yes (eg. landscapes, quality of life, feeling of well-being)</p>
<p>Sensitive and sensory quality of space</p>		



Source: Faburel & Gourlot (2008, 2012)



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



'Promising' practices

Subjective assessment of urban tranquillity (for use by local authorities)



Name of area being assessed

Local authority in which area is located

General description of area (including its approximate size in hectares and primary land use)

Note: The boundary of the candidate quiet area should be clearly marked on an accompanying map.

Criteria directly relating to perceived quiet

A substantially positive report in these three categories and a screening test to identify excessively noisy areas on the strategic noise maps are the essential criteria for formal quiet area designation.

Soundscape

Presence of nature



Tranquility assessment Wales



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



'Promising' practices

Supplementary criteria contributing to overall tranquillity and wellbeing

These are optional for formal quiet area designation purposes but affect the level of actual benefit conferred on local residents by an area being perceived as quiet.

Sense of personal safety

Culture and freedom of the place

Opening hours

Disabled access (y/n)

Fee to enter (y/n)

Poor air quality (y/n)

Name, position and contact details of person completing checklist

Date

Tranquility assessment Wales



LIFE10 ENV/IT/407 With the contribution of the LIFE financial contribution of the European Commission



QUADMAP: future steps



- Selection of indicators for identification and characterisation of QUAs
- Definition of methods or approaches to gather and assess indicators
- Based upon in-depth assessment of 'promising practices' from e.g. UK, NL, Belgium and France, and
- Online questionnaires for stakeholders and for citizens
- In line/cooperation with EC DG Environment (EPoN), COST Action on Soundscape, (LIFE+ funded) international projects and other (scholarly) initiatives



LIFE10 ENV/IT/407 *With the contribution of the LIFE financial contribution of the European Commission*



- Thank you for your attention!
- Remaining questions?



WELCOME NEWS CONTACT

Miriam Weber MSc

Search

Head of Noise Department DCMR EPA



QUADMAP
quiet urban areas

miriam.weber@dcmr.nl

TABLE OF CONTENTS

- Objectives
- Partners
- Work packages
- Planning
- Quantification

Welcome to this website which belongs to the QUADMAP project being a LIFE+ project on Quiet Urban Areas. The acronym QUADMAP stands for QUIet Areas Definition and Management in Action Plans. The project aims to deliver a method and guidelines regarding identification, delineation, characterisation, improvement and managing Quiet Areas in urban areas as meant in the Environmental Noise Directive 2002/49/EC.

