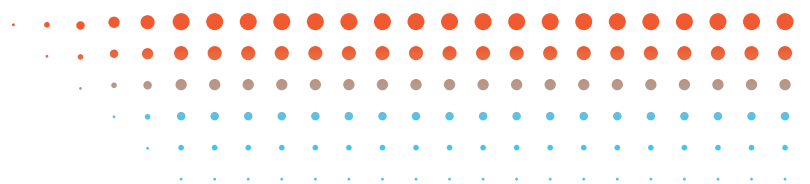


climate change  
urban change





Climate change is a transnational  
and cross generational issue



2050  
and these  
children  
will be 60  
...what  
future will  
their  
children  
face?



**METREX**   
The network of  
European Metropolitan Regions and Areas

Image : courtesy of the 2004 London Plan






## EUCO2 80 / 50

# Climate Change / Urban Change Outline Prospectus

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See also the related InterMETREX METREX Discussion Note on  
**Measures for Mitigation** January 2007  
which can be downloaded from the METREX website [www.eurometrex.org](http://www.eurometrex.org)



People all over Europe will increasingly feel the threatening effects of climate change on their health, jobs and housing, and the most vulnerable members of society will be the hardest hit. We need to fight the battle against climate change on two fronts. We must sharply reduce global greenhouse gas emissions to prevent future climate change from reaching dangerous levels, but at the same time Europe must also adapt to the climate change that is already happening.

Environment Commissioner Stavros Dimas. 29 June 2007.

COM (2007) 354. Adapting to climate change in Europe – options for EU action.  
Green Paper from the Commission to the Council, the European Parliament,  
the European Economic and Social Committee and the Committee of the Regions.







## INTRODUCTION AND CONTEXT

The InterMETREX project ran from 2003 to 2006 to provide a Benchmark of effective European spatial planning and development practice. During the project it became apparent that the key issue of **climate change** would need to be included and addressed.

An extension to the project was approved, from October 2006 to June 2007, to enable the application of the Greenhouse gas Regional Inventory Project [GRIP] model, developed by the Tyndall Centre [UK], to be piloted in the four partner areas of Glasgow and the Clyde Valley, Stockholm, Emilia-Romagna and Veneto.

The outcome was reported to the InterMETREX Steering Committee, meeting on Saturday 26 May 2007, during the METREX Veneto [Vicenza] spring Meeting. It was concluded that the GRIP model represented a unique and practical tool through the use of which European metropolitan areas could assess their greenhouse gas [GHG] emissions, explore mitigation scenarios and adopt appropriate integrated mitigation strategies. Greenhouse gases are usually referred to in carbon dioxide equivalents [CO<sub>2</sub>].

Sustainable and secure energy supplies and climate change mitigation and adaptation are now recognised by the European Union as priority issues. The European Commission has recently published an **Energy Policy for Europe**, which concludes,

The point of departure for a European energy policy is threefold,

- Combating climate change
- Limiting the EU's external vulnerability to imported hydrocarbons promoting growth and jobs
- Providing secure and affordable energy to consumers.

The Commission proposes that the European Energy Policy be underpinned by,

- An EU objective in international negotiations of 30% reduction in greenhouse gas emissions by developed countries by 2020 compared to 1990
- In addition, 2050 global GHG emissions must be reduced by up to 50% compared to 1990, **implying reductions in industrialised countries of 60 - 80% by 2050**
- An EU commitment to achieve, in any event, at least a 20% reduction of greenhouse gases by 2020 compared to 1990.

These conclusions form a central part of the Commission Communication "**Limiting Climate Change to 2°- Policy Options for the EU and the world for 2020 and beyond**".

**It is in this context that METREX now proposes to promote an Application under INTERREG IVC to extend the application of the GRIP model across the METREX membership of 47 European metropolitan areas and beyond to the wider Europe.**

There are about 100 recognised metropolitan regions and areas in Europe and Europe's urban areas are responsible for some 20% of global GHG emissions.

**The objective of EUCO2 80/50 will be to enable Europe's 100 metropolitan regions and areas to devise and adopt integrated greenhouse gas [GHG] emission mitigation strategies to achieve the 80% reductions required by the EU by 2050 and, in their own interests, secure their carbon light energy futures.**

# 02

## GRIP MODEL AND EUCO2 80 / 50

The GRIP model will allow EUCO2 80/50 partners to input readily available data [see Appendix 3], or data which can be derived from other sources, on energy supply, energy use and social and economic futures in order to assess their GHG emissions. Subsequently, through interactive workshops with key stakeholders interests, partners will be able to explore mitigation scenarios and reach conclusions about the integrated mitigation strategy and actions that will enable them to make the 60 - 80% GHG reductions recognised by the EU as necessary by 2050.

A key consideration is that the longer the required action is delayed the more difficult it will be to achieve. In reality there is perhaps as a short window of opportunity of some 10 - 15 years during which effective action on GHG reductions will have to be taken to ensure that average global warming does not exceed 2 degrees centigrade. Levels of GHG in the atmosphere were around 380 parts per million [ppm] in 2000 and the International Panel on Climate Change [IPCC] estimates that these are rising at an annual rate of some 2 - 3ppm. The implication is that by 2030 they will reach 450ppm, beyond which global warming may be difficult to stabilise.

Whatever view is taken about the probabilities of levels of warming and their implications, there is a clear prospect that the energy supplies, water supplies, economies and the social well-being of Europe's metropolitan areas could be vulnerable and at risk. Their urban fabric will require adaptation, as will urban lifestyles. However, the key requirement is mitigation - action to reduce emissions and the associated risks.

The GRIP model is regarded by METREX as the best available practical tool to enable metropolitan areas to make informed choices about the mitigation measures that are likely to be most effective in their own individual climatic circumstances. It is for this reason, and because of the imperatives of the EU climate change agenda, that METREX has formulated this outline Prospectus.

**The aspiration is to involve in the project as many as is possible of the 100 recognised European metropolitan regions and areas, including the 47 Members of METREX, in order to offer leadership on the way forward to a carbon light European urban future and to demonstrate the capability of Europe's metropolitan areas, as the primary sources of GHG emissions to, literally, put their own houses in order.**

### Further details

Tyndall Centre for Climate Change Research: [www.tyndall.ac.uk](http://www.tyndall.ac.uk)

GRIP [Greenhouse Gas Regional Inventory Project]: [www.grip.org.uk](http://www.grip.org.uk)

METREX: [www.eurometrex.org](http://www.eurometrex.org)

InterMETREX project: [www.eurometrex.org](http://www.eurometrex.org)

EUCO2 80/50: [www.EUCO2.org](http://www.EUCO2.org)



## EUC02 80 / 50 PROJECT SUMMARISED

The project is simple in conception. The idea is to form groupings of European metropolitan areas that lie within the following eight transnational spaces, which have relatively similar climatic conditions, common mitigation problems and opportunities, established working relationships and a degree of proximity for carbon light travel.

- Baltic Sea space
- Atlantic space
- European core
- Central Europe
- Alpine space
- Mediterranean West space
- Mediterranean East/Adriatic space
- Aegean/Black Sea space

The project would have twelve partners.

- Lead Partner
- Two Practice Partners [metropolitan mitigation, and related adaptation, measures and technology]
- Eight Transnational space partners
- METREX [36 other participating METREX Member metropolitan regions and areas]

The twelve Partners would form the project Steering Committee [SC] and run the activities of the project. The Lead Partner would be the contracting partner with the INTERREG IVC Managing and paying authority [Region Nord-Pas de Calais] and would enter into Partnership Agreements with the Practice Partners, Transnational space partners and METREX, to collectively undertake the project.

The 36 METREX Member participants would be de facto partners in the project, through the METREX network as a partner, and METREX would enter into individual Partnership Agreements with METREX Members to ensure the effective participation of the membership as a whole.

The project would then run over some 27 months and comprise,

**Year 1** Metropolitan Greenhouse gas [GHG] emissions assessments and inventories using the GRIP model

**Year 2** Metropolitan mitigation scenarios and the production of integrated metropolitan mitigation strategies using the GRIP process

**Year 3** Dissemination of project outcomes

It could be possible for other European metropolitan areas that are not yet Members of METREX to participate, without cost, as part of an Extended Partnership. Appendix 1 shows the 100 recognised metropolitan regions and areas in Europe and the Members of METREX.

**The widest possible commitment to the effective mitigation of European metropolitan greenhouse gas emissions is the objective.**



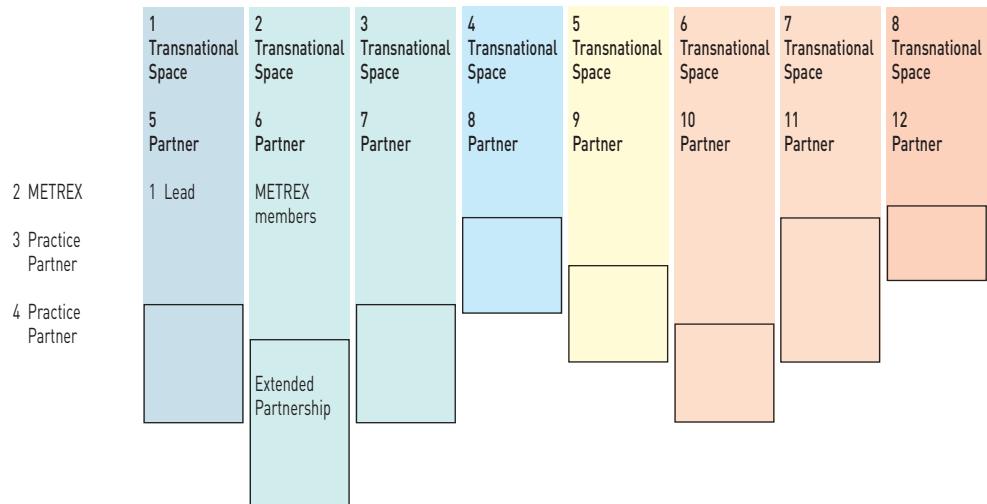
The net cost of participation, after 75% INTERREG IVC co-funding, for the benefits outlined on page 6, would be as follows:

- Lead Partner €59,668 over 27 months [plus Case Study]
- Practice Partner €31,168 over 27 months [plus Case Study]
- METREX €30,018 over 27 months
- Transnational Space Partners [8] €23,668 over 27 months [plus Workshop Case Study]
- METREX Member participant [37] €5,599 over 27 months but at own staff costs
- Extended Partnership participant [50+] free but at own staff and travel costs

**Total project cost €2,190,700**

**EUC02 80 / 50 PROJECT FORM AND CONTENT SUMMARISED / SCHEMATIC DIAGRAM**

EUC02 80 / 50 project  
12 partners, 36 other METREX Members and an extended partnership [up to 50]



**36 Activities**

1. Inception	meeting
2. GRIP practice briefings	Workshops
3. GHG workshops	
4. Synthesis meeting	meeting
5. Scenario workshops	Workshops
6. Strategy workshops	
7. Strategies synthesis	meeting
8. Dissemination	conference

## EUC02 80 / 50 PROJECT COSTS AND BENEFITS SUMMARISED

The following table summarises the activities and responsibilities, costs and benefits for the participants in the project.

### EUC02 80 / 50 PROJECT - COSTS AND BENEFITS BALANCE SHEET

Project Partnership	Activities and responsibilities	Benefits	Costs
All	Inception meeting Transnational Space Briefing/Workshops [4] Project synthesis meetings [2] Dissemination Conference		
Lead Partner	Project leadership Subsidy Contract with INTERREG IVC Project Co-ordination Financial Management Partnership Agreements with Partners	Project leadership recognition	<b>59,668</b>
	Transnational Space Case Study with Tyndall Centre GRIP assessments, scenarios and strategies	GRIP assessment process and Case Study metropolitan mitigation strategy	
	Project outcomes, outputs, dissemination, publicity and promotion. Project EU and media relations	Project leadership recognition	
Practice Partner	Practice leadership		<b>31,168</b>
	Case Study with Tyndall Centre GRIP assessments, scenarios and strategies	GRIP assessment process and Case Study metropolitan mitigation strategy	
Transnational Space Partner	Case Study with Tyndall Centre GRIP assessments, scenarios and strategies	GRIP assessment process and Case Study metropolitan mitigation strategy	<b>23,668</b>
METREX	Partnership agreement with METREX members	METREX participation	<b>30,018</b>
	Project outcomes, outputs, dissemination and wider application. Project documentation and website	Enables wider European Metropolitan engagement with mitigation	
METREX Member Participant	Participant in project On-line GRIP runs Tyndall Centre GRIP support with assessments, scenarios and strategies	GRIP assessment process and Metropolitan mitigation strategy capability and support	<b>5,599</b>
Extended Partner	Participant in project On-line GRIP runs	GRIP assessment process and Metropolitan mitigation strategy capability	<b>Free</b>
Tyndall Centre	GRIP model application through Transnational Space case studies GRIP model development through Transnational Space feedback GRIP model on line use support	Effective application of the GRIP model and process	
	Project outcomes and outputs	Enables wider understanding of GRIP and its practical application	

# 05

## PROJECT BENEFITS

Partners and would receive the following benefits from the project:

### Year 1

- GRIP model Practice Briefing
- Support with data inputs from the Tyndall Centre
- Access to the GRIP emissions assessment model on line
- GRIP model application support from the Tyndall Centre
- Participation in a European transnational space emissions Assessment Workshop
- Participation in an all partners emissions Synthesis Meeting to exchange experience and compare and contrast metropolitan emissions inventories

### Year 2

- Participation in a European transnational space mitigation Scenario Workshop
- Ongoing scenario formulation support from the Tyndall Centre
- Mitigation strategy formulation support from the Tyndall Centre
- Participation in a European transnational space Mitigation Strategy Workshop
- Participation in an all partners Synthesis Meeting to exchange experience and compare and contrast metropolitan mitigation strategies

### Year 3

- Participation in the Dissemination Conference those involved in the project.



In summary, all METREX Members would be able to benefit from the investment made by the Network in the InterMETREXplus pilot of the GRIP model under INTERREG IIIC. They would be able to assess their GHG emissions, explore mitigation scenarios and adopt appropriate and effective mitigation strategies, integrated with their wider metropolitan strategies. These are actions that all European metropolitan areas will have to take in due course if they are to engage with the key issues of energy supply and climate change.

The metropolitan regions and areas of the 8 Transnational Space Partners would be the Case Studies for the Workshops. Other METREX Members would be able use GRIP on line with Tyndall Centre support.

The 12 Partners in the project would be eligible for INTERREG IVC co-funding for staff, travel and accommodation and common project Operational Costs. METREX Members would be eligible for co-funding for travel and accommodation and common Operational Costs. Operational Costs include shared Tyndall Centre costs.

Non-METREX participants in the Extended Partnership would be able to participate in the Practice Briefing, Workshops, Synthesis Meetings and Dissemination Conference and be able to use the GRIP model on line, without cost. However, they would have to carry their own staff and travel costs.

It is anticipated that the 12 Partners will act collectively as a Steering/Managing Committee [SC] for the project and meet for this purpose prior to the 8 primary Workshop/Synthesis Meetings. The Lead Partner would call SC meetings. Video conferencing would also be possible for project management co-ordination and for Tyndall support functions.

In this Prospectus the term Partner means one of the 12 core Partners comprising the Steering/Managing Committee and the term partner means other METREX Members participating through their membership of METREX or a member of the Extended Partnership of the 50+ non-METREX metropolitan areas of Europe. Participants are all those involved in the project.

# 06

## PROJECT ACTIVITIES AND TIMETABLE

The anticipated 36 participatory project activities are summarised below.

### Pre Application stage

---

Year 0	June - November 2007
June	Outline project Prospectus
July	Partnership formation
September	INTERREG IVC Call for Proposals
October	METREX Zaragoza autumn meeting and EUCO2 80/50 participants meeting
November	Hamburg Climate change/Urban change Conference
November	EUCO2 80/50 INTERREG IVC Application submission deadline

### Greenhouse gas [GHG] emissions assessments and inventories

---

Year 1	March - December 2008
March	Prospective EUCO2 80/50 approval and start up
April	1 Inception meeting for all participants
May - June	2 - 9 8 GRIP model Practice Briefings, one in each climatic space  Ongoing GRIP application support by the Tyndall Centre
September - October	10 - 17 8 GHG emission assessment Workshops, one in each climatic space
November	18 Emissions assessment synthesis meeting for all participants
<b>Total</b>	<b>18 Participatory activities - 4 per participant</b>

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## Mitigation scenarios and the production of integrated metropolitan mitigation strategies

Year 2		January - December 2009
January - March	1 - 8	8 Scenario Workshops, one in each climate space  Ongoing scenario support by the Tyndall Centre
May - June		Integrated mitigation strategy formulation in partner metropolitan areas  Ongoing mitigation strategy formulation support by the Tyndall Centre
September - October	9 - 16	8 Mitigation Strategy Workshops, one in each climate space
November	17	Mitigation strategies synthesis meeting for all participants
	17	Participatory activities - 3 per participant

## Dissemination

Year 3		January - June 2010
January - March		Project documentation and dissemination material
May	1	Climate change/Urban change outcomes dissemination Conference
May - June		Project wind up and final accounts/partner co-funding claims/audits
	1	participatory activity - 1 per participant
<b>Total</b>	<b>36</b>	<b>Project activities involving 11 Partners, METREX as a Partner, 36 METREX Members and the Extended Partnership</b>

The INTERREG IVC Operational Programme was published by the European Commission in April 2007. It makes specific and substantive references to the key issue of climate change.

INTERREG IV has two priorities, Innovation and the knowledge economy and Environment and risk management. Each includes a number of sub themes [see Appendix 2] and projects that cover a number of sub themes under both priorities will be favoured. Appendix 1 shows [sub themes underlined] that InterMETREXplus could be seen as being relevant to a number of the 10 sub-themes.

From the presentation on INTERREG IV made at the METREX Veneto [Vicenza] Meeting in May 2007, by colleagues from the INTERREG IIIC West Zone, it is understood that the core element of the programme will be the **identification of good practices and exchange of experiences between regional and local authorities**. INTERREG IVC is a strategic framework dedicated to the **improvement of regional and local policies**.

Co-funding is anticipated at 75% with up to 85% for Convergence Regions.

EUCO2 80/50 will have to demonstrate its added value over InterMETREXplus and to show that the nature of the cooperation now proposed is different. InterMETREXplus involved four **InterMETREX partners piloting the GRIP model**, in N|E|S|W European climatic conditions, to carry out GHG emission **assessments** and in the case of the Lead Partner to consider mitigation **scenarios**.

The added value of EUCO2 80/50 will be the development and effective application of **mitigation strategies by as many of Europe's 100 metropolitan areas as is possible**. If METREX is to lead this crucial initiative it goes without saying that as many of the Network members as possible should make the necessary commitment. The initiative would have little credibility were this not to be so. EUCO2 80/50 envisages mitigation being addressed, collectively by metropolitan areas, at the level of Europe's primary climatic spaces. This is a truly trans-national and inter-regional issue.

It is hoped that EUCO2 80/50 will be seen as fitting well with the overall spirit and intent of INTERREG IVC, which makes many references to climate change as a key issue. It seems reasonable to expect that the EU would not adopt mitigation targets without supporting and facilitating the means to achieve them through the integrated mitigation strategies and actions of the primary sources of emissions, which are Europe's metropolitan areas.



# 08

## PROJECT ADMINISTRATION

METREX has gathered substantial practical experience of INTERREG programme operation with transnational partnerships. Amongst the lessons learned are the following.

- There can be a hierarchy of auditing requirements [EU Paying Authority, National governments, Regional governments, partner independent auditors] and this can often delay co-funding submissions and payments and affect partner cash flow assumptions. It can prejudice the capability of partners to continue participation and hence the viability of the whole project
- Where the Lead Partner is in this position then the whole partnership can be affected.

# 09

## PARTNER COSTS CO-FUNDING

In consequence, there is advantage to be gained from the simplest possible system of co-funding claiming. It is proposed that EUCO2 80/50 should only seek co-funding for,

- Partner staff costs
- Partner external expertise if required as an alternative to staff use
- Partner travel and accommodation expenses [primary travel and hotel accommodation only]
- Partner financial management costs
- Lead Partner project Coordination and Financial Management costs, including accounting, auditing, co-funding submissions and payments as part of Common Operational Costs
- Limited other common Operational Costs, including Partner costs in holding activities [Briefing, Workshops, Dissemination Conference], language services and the dissemination of outcomes and outputs
- Tyndall Centre costs as part of common Operational Costs.

It has been found that the real cost of the hierarchical auditing of minor expenses, such as meals and local travel, can far exceed the co-funding received. It is for this reason that it is proposed to restrict co-funding claims to primary [air/rail] travel and hotel expenses.

# 10

## PARTNER STAFF COSTS AND BUDGET

### Lead Partner staff time commitment

- 4 transnational space activities @ 20 days, making 80 days
- 4 all partner/participant activities @ 5 days, making 20 days
- 4 all partner/participant activities organisational allowance of 10 days, making 40 days
- Partner accounting, audit, claiming and reimbursement. 16 days.

Sub total 140 days over 27 months

### Lead Partner project Co-ordination and Financial Management commitment

- Start up 20 days, 32 project activities @ 5 days, making 160 days, and wind up 40 days
- Project outcomes, outputs, dissemination, publicity and promotion. Project EU and media relations. 40 days.

Sub total 260 days over 27 months

**Total Lead Partner 420 days over 27 months**

### Practice Partner staff time commitment

- 80 days over the lifetime of the project for research into mitigation methodologies and technologies for incorporation into mitigation scenarios and strategies
- 4 transnational space activities @ 20 days, making 80 days
- 4 all partner/participant activities @ 5 days, making 20 days
- Partner accounting, audit, claiming and reimbursement. 8 days.

**Total Practice Partner 190 days over 27 months**

### METREX staff time commitment

- 4 climatic zone activities @ 20 days, making 80 days
- 4 all partner/participant activities @ 5 days, making 20 days
- Project outcomes, outputs, dissemination and wider application. Project documentation and web site. 100 days
- METREX and METREX Partners fund management [accounting, auditing, claims and reimbursements]. 60 days [METREX 8 days and the fund 52 days]

**Total METREX 260 days over 27 months**



### Transnational Space core Partner staff time commitment

- 4 transnational space activities @ 20 days, making 80 days
- 4 all partner/participant activities @ 5 days, making 20 days
- 4 all partner/participant activities organisational allowance of 5 days, making 20 days
- Partner accounting, audit, claiming and reimbursement. 8 days.

**Total Transnational Space Partner 128 days over 27 months**

It is proposed to include staff time allowances of €500 per day for all Partners to provide a staff time budget, which in practice might involve a range of staff at various salary levels. Those Partners with lower average salary levels will have the option of spending more time on the project.

On this basis the partner staff budgets could be as follows.

**Lead Partner 400 days @ €500, making €200,000**

**Practice Partner 180 days @ €500, making €90,000**

**METREX 260 days @ €500, making €130,000**

**Eight Transnational Space core Partners 120 days @ €500, making €60,000 each and €480,000 in total**

**Total prospective Partner budget for staff [or the equivalent in external expertise] time €960,000**

## 11

### TRAVEL AND ACCOMODATION BUDGETS

It is proposed to include a common budgetary allowance of €1,000 per Partner and METREX Member for each of the 8 project activities they will be involved in, making a total budget for travel and accommodation of 48 @ €8,000 or **€384,000**. Those partners hosting Workshops could use their allowances elsewhere.

# 12

## OPERATIONAL COSTS

The Lead Partner accounting and auditing charge for handling and paying claims for staff costs and expenses for all 12 partners for 8 activities [96 transactions comprising €960,000 in staff costs and €384,000 in expenses or a total of €1,344,000] would be 5% or **€67,200**. This would mean a total cost of €5,600 per partner and a net cost of 25% or €1,400. It would also cover the costs of managing the Lead Partner fund for Operational Costs [see below].

The venue, catering and language support costs for activities will vary depending on partners and participants attending and their needs. It is proposed to include general budgetary provision of €4,500 per activity on the basis of €500 venue costs, up to 25 participants per activity at €50 per head for all day catering, €1,000 for whispered translation equipment hire, €1,500 for translation services and €250 for sundries. All partner activities could involve up to 50+ participants and costs of €6,000. A Dissemination Conference budget of €27,500 has been included. This would mean a budget of **€195,500** for activity costs or €4,073 per Partner. The net cost per Partner would be 25% or €1,018.

Manchester University, part of the Tyndall Centre, will provide the team to run the GRIP model and process [GHG assessments, mitigation scenarios and strategies] over the lifetime of the project. The Lead Partner will enter into a contract with the University on behalf of the 12 project Partners. Dr. Sebastian Carney, author of the GRIP model, will lead the team, which will comprise three staff with administrative support. There would be expenses for two people, or **€16,000**, plus team staff costs [including overheads] of some €200,000 a year, or **€454,000** in total, making a net cost of **€470,000**. The cost for each of the 47 partners using the GRIP model and process would be €10,000 or €2,500 net.

The outcomes and outputs of the project require to be published and disseminated and this could be done electronically through the METREX web site or on CD. Nevertheless, a printed Report on Climate change/Urban change would be desirable for dissemination and promotion purposes. A provisional sum of **€36,000** or €3000 per Partner might be allocated. The net cost per partner would again be 25% or €750.

The total Operational Costs budget would then be **€701,500**. The intention is that all 48 prospective participants in the project should share the Tyndall and activity costs and that the core 10 Partners should share the venue, catering, languages and outcomes report costs. These arrangements are set out in the tables below and on pages 17 - 18 [METREX partners fund].



# 13

## LEAD PARTNER FUND

The Lead Partner will be taking on considerable commitments on behalf of the Partners, including a contract with Manchester University for the use, development and application of the GRIP model in Case Study areas and partner support to METREX Members using GRIP on line. Partners hosting Briefing, Workshop or Conference activities will need to be reimbursed. Project Co-ordination and Financial Management costs will be incurred on behalf of the partnership.

It is for this reason that it is intended to set up a Lead Partner Fund with equal initial contributions from all 11 other Partners at the start of the project, possibly in March 2008. The Fund could be replenished at the beginning of 2009. The table below shows how these arrangements might be managed.

### LEAD PARTNER FUND

		First Partner [12] payments 2008	Second Partner [12] payments 2009	
12 Partner staff costs		96,000		
12 Partner travel and accomodation		384,000		
Project operational costs		701,500		
Lead Partner	Tyndall costs	470,000	55,000	55,000
8 Hosting partners	Venue / catering / languages	195,500	24,438	24,438
Lead Partner	Outcomes report	27,000		36,000
Lead Partner accounting / auditing / claiming and reimbursement PR1 - 5		67,200	67,200	
Totals		701,500	146,638	115,438
See METREX fund			253,312	253,312
Partner [12] payments		26,208	14,664	11,544

The related table on page 18 shows how the METREX Member Fund might be managed in a similar way.

# 14

## PARTNER COSTS AND BUDGETS

On the basis of the above, the overall costs to the Lead Partner and partners would be as follows.

### Lead Partner

Staff costs €200,000, net cost €50,000  
Own accounting/audit €8,000, net cost €2,000  
Expenses €8,000, net cost €2,000  
Operational costs €17,073 plus €5,600 accounting/audit or €22,673, net cost €5,669  
Total costs €238,673, net cost **€59,668 over 27 months**

### METREX the Partner

Staff costs €100,000, net cost €25,000  
Own accounting/audit €4,000, net cost €1,000  
Expenses €8,000, net cost €2,000  
Operational costs €7,073 plus €5,600 accounting/audit or €22,673, net cost €5,669  
Total costs €120,073, net cost **€30,018 over 27 months**

### Practice Partner

Staff costs €90,000, net cost €22,500  
Own accounting/audit €4,000, net cost €1,000  
Expenses €8,000, net cost €2,000  
Operational costs €17,073 plus €5,600 accounting/audit or €22,673, net cost €5,669  
Total costs €124,673, net cost **€31,168 over 27 months**

### Transnational Space Partners [8]

Staff costs €6,000, net cost €15,000  
Own accounting/audit €4,000, net cost €1,000  
Expenses €8,000, net cost €2,000  
Operational costs €17,073 plus €5,600 accounting/audit or €22,673, net cost €5,669  
Total costs €94,673, net cost **€23,668 over 27 months**

If all expenses funding were used [€8,000] then the net cost to partners would be as above over 27 months for the benefits outlined earlier on page 6.

The added value of being a Transnational Space Partner, as against a METREX partner, is that Partner metropolitan areas will have the benefit of being Case Studies or the actual demonstration Case Studies used at Workshops for emission assessments, scenarios and mitigation strategy formulation. Partners are obtaining the equivalent of a full consultancy service for a very reasonable net cost.





The situation is different for the Lead Partner. The lead costs are appreciably greater but the added value is in being the,

- Promoter, leader and presenter of the outcomes of the project
- Public face of the project in Europe, and globally, and to European institutions and other European metropolitan areas
- Project Coordinator and Financial Manager
- Primary contact with INTERREG IVC
- Primary contact [and contractor on behalf of the partnership] with the Tyndall Centre

This is a role for a committed European champion of metropolitan **Climate change/Urban change**.

## 15

### **METREX MEMBERS EXPENSES CO-FUNDING**

It is proposed that each of the 36 METREX Members who participate in the project through METREX as a full Partner should receive travel and accommodation expense co-funding on the same basis as all other nine Partners.

## 16

### **METREX MEMBER FUND**

The arrangements for this could be that METREX creates a Fund from advance contributions by each METREX Member partner. METREX would contract with a selected European Travel Agent to provide booking services, enabling only one invoice to be presented for all Member expenses to a Briefing, Workshop or Conference. METREX would then submit one collective claim for co-funding to the Lead Partner, comprising all Member claims at the due claim date [usually every six months in December and June]. Co-funding received would be passed on, less the charges explained below. Any participant funds unspent at the end of the project would be returned.

## METREX MEMBER COSTS AND BUDGETS

Members could not receive staff cost co-funding because METREX is not their employer. METREX could pay primary expenses. The budgetary provision for these would be **€8,000** so that the real cost to each participant would be 25% or €2,000.

The METREX accounting and auditing charge for handling and paying claims for expenses for 38 METREX participants for 8 activities would be one day a month and five days every six months when claims and reimbursements are made or **€26,000**. The total per partner for 8 activities would be **€684** and this would have to be paid in advance in addition to the expenses funding. The real cost would again be 25% or €171.

Tyndall Centre costs, as for participants, would be **€10,000** per partner and a net cost of €2,500 [see page 14].

The total participant cash flow commitment to METREX would then be **€22,395** comprising €11,198 at the inception of the project, provisionally in March 2008, and €7,793 in January 2009. If all expenses funding was used [€8,000] then the net METREX cost to Members would be **€5,599 over 27 months** for the benefits outlined earlier on page 6.

### METREX PARTNERS FUND

		First Partner [36] payments 2008	Second Partner [36] payments 2009
Travel and accomodation	296,000	148,000	148,000
Tyndall costs	360,000	180,000	180,000
Activity costs	146,624	73,312	73,312
METREX accounting / auditing / claiming and reimbursement	26,000	26,000	
Totals	828,624	427,312	401,312
Partner [36] payments		22,395	11,198

## POTENTIAL PROJECT PARTNERS

The following tables summarise the prospective EUC02 80/50 partners, programme and budget.

### PROSPECTIVE EUC02 80 / 50 METREX PARTNERS AND EXTENDED PARTNERSHIP

1 Baltic Space	2 European Core	3 Central Europe	4 Atlantic Space	5 Alpine Space	6 Mediterranean West Space	7 Mediterranean East/ Adriatic Space	8 Aegean/ Black Sea
1. Stockholm	Ile-de-France	Berlin- Brandenburg	Glasgow	Veneto	Madrid	Emilia- Romagna	Athens
2. Arhus	Amsterdam	Katowice	Belfast	Basel	Andalucia	Genova	Alexandria
3. Bergen	Antwerp	Kiev	Bordeaux	Bern	Catalunya	Ljubljana	Bucarest
4. Bremen	Birmingham	Krakow	Cardiff	Geneve	Eurocity Basque	Lombardia	Chisinau
5. Gdansk	Brussels	Lodz	Cork	Lyon	Granada	Napoli	Istanbul
6. Göteborg	Den Haag	Minsk	Dublin	München	Marseille	Nice	Nicosia
7. Hamburg	Edinburgh	Moscow	Porto	Torino	Pais-Vasco	Roma	Odessa
8. Helsinki	Frankfurt R-M	Poznan	Le Havre	Wien	Palma	Valletta	Oradea
9. Øresund	Hannover	Prague	Lisboa	Zurich	Sevilla	Roma	Sofia
10. Oslo	Köln	Saxon Triangle	Liverpool		Toulouse		Thessaloniki
11. Riga	Lille	Warszawa	SCM		Valencia		Timisaora
12. St. Petersburg	London	Wroclaw			Zaragoza		
13. Szczecin	Luxembourg	Budapest					
14. Tallinn	Manchester						
15. Turku	Nürnberg						
16. Vilnius	Rhein-Neckar						
17.	Rhurgebeit						
18.	Rotterdam						
19.	Stuttgart						
16 6 METREX	19 10 METREX	13 6 METREX	11 4 METREX	9 4 METREX	12 8 METREX	9 4 METREX	11 4 METREX

## PROJECT PROGRAMME

### EUC02 80/50 PROJECT OUTLINE PROGRAMME

Total project time 27 months	Year 1				Year 2				Year 3	
	Jan/Mar	May/Jul	Aug	Sep/Dec	Jan/Mar	May/Jul	Aug	Sep/Dec	Jan/Mar	May/Jul
Start up										
1. Inception meeting	meeting									
2. 8 GRIP model practice briefings		8 workshops								
3. 8 GHG emission assessment workshops				8 workshops						
4. Emissions assessment synthesis meeting				meeting						
5. 8 Scenario workshops					8 workshops					
6. 8 mitigation strategy workshops							8 workshops			
7. Mitigation strategies synthesis meeting							meeting			
8. Dissemination conference										conference
Wind up										



Years 2008 - 2010 / PR1 - 5 contd.

	Lead Partner 1	METREX Partner 2	Practice Partner 3	Practice Partner 4	Baltic Sea Space Partner 5	Atlantic Core Partner 6	European Europe Partner 7	Central Space Partner 8	Alpine West Space Partner 9	Mediterranean Adriatic Space Partner 10	Mediterranean East/ Black Sea Space Partner 11	Aegean/ Partner 12	Totals
<b>Travel and subsistence expenses</b>													
Travel and subsistence allowances	8,000	296,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	384,000
<b>Operational costs</b>													
Tyndall Centre costs	10,000	360,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	701,500
Venue, catering and language support costs	4,073	150,697	4,073	4,073	4,073	4,073	4,073	4,073	4,073	4,073	4,073	4,073	470,000
Outcomes report and dissemination	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	195,500
Sub totals	17,073	513,697	17,073	17,073	17,073	17,073	17,073	17,073	17,073	17,073	17,073	17,073	36,000
Lead Partner accounting, auditing, claiming and reimbursement	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	67,200
<b>Partner costs</b>													
Partner totals	238,673	945,297	124,673	124,673	94,673	94,673	94,673	94,673	94,673	94,673	94,673	94,673	2,190,700
Partner net cost @ co-funding of 75%	59,668	236,324	31,168	31,168	23,668	23,668	23,668	23,668	23,668	23,668	23,668	23,668	1,643,025
<b>Project total</b>													
Project co-funding @ 75%													1,643,025
Project net cost to partners													547,675

Year 1 - 2008

Lead METREX Practice  
Partner 1 Partner 2 Partner 3 Partner 4

Partner 5 Partner 6 Partner 7 Partner 8 Partner 9 Partner 10 Partner 11 Partner 12

Totals

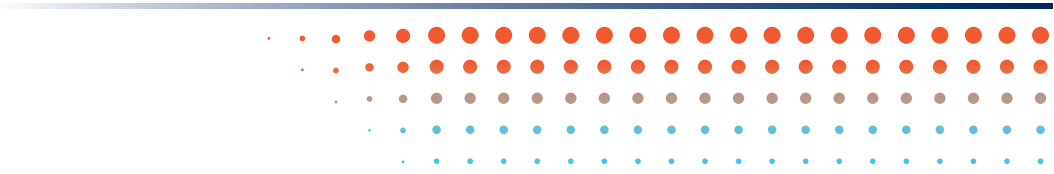
	Baltic Sea Space	Atlantic Space	European Core	Central Europe	Alpine Space	Mediterranean West Space	Mediterranean East/ Adriatic Space	Black Sea Space	Aegean/ Black Sea Space	Totals
<b>PR1 - Start up and Inception Meeting</b>	Partner 5	Partner 6	Partner 7	Partner 8	Partner 9	Partner 10	Partner 11	Partner 12	Partner 12	198,040
<b>Start up and inception meeting staff and expenses</b>										104,250
12 Partners staff @ €500 per day	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	56,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000									36,000
<b>Operational costs</b>										64,750
Catering 50 @ €50 per head	125	125	125	125	125	125	125	125	125	6,000
Language services €2,500										
Venue €500 and sundries €500										
Tyndall Centre €56,750 plus €2,000 exps	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
<b>PR1 March to May 2008 [submit as at June 2008]</b>										29,040
Partner accounting, formulation, liaison, submission	800	800	800	800	800	800	800	800	800	15,600
Lead Partner accounting, formulation, liaison, submission	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	13,440

Year 1 - 2008 contd.

	Lead Partner 1	METREX Partner 2	Practice Partner 3	Practice Partner 4	Baltic Sea Space Partner 5	Atlantic Space Partner 6	European Core Partner 7	Central Europe Partner 8	Alpine Space Partner 9	Mediterranean West Space Partner 10	Mediterranean East/ Adriatic Space Partner 11	Aegean/ Black Sea Space Partner 12	Totals
<b>PR2 - GRIP Briefing, GHG Workshops/Synthesis</b>													<b>850,040</b>
<b>GRIP model practice briefings</b>													<b>234,250</b>
12 Partners staff @ €500 per day	30,000	16,250	20,000	20,000	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	186,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000												36,000
<b>Operational costs</b>													<b>96,750</b>
Catering 25 @ €50 per head	792	29,288	792	792	792	792	792	792	792	792	792	792	38,000
Language services €2,500													
Venue €500 and sundries €500													
Tyndall Centre €56,750 plus €2,000 exps	1,250	45,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
<b>GHG emission assessment workshops</b>													<b>234,250</b>
12 Partners staff @ €500 per day	30,000	16,250	20,000	20,000	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	186,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000												36,000
<b>Operational costs</b>													<b>96,750</b>
Catering 25 @ €50 per head	792	29,288	792	792	792	792	792	792	792	792	792	792	38,000
Language services €2,500													
Venue €500 and sundries €500													
Tyndall Centre €56,750 plus €2,000 exps	1,250	4,500	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750

Year 1 - 2008 contd.

	Lead Partner 1	METREX Partner 2	Practice Partner 3	Practice Partner 4	Baltic Sea Space Partner 5	Atlantic Space Partner 6	European Core Partner 7	Central Europe Partner 8	Alpine Space Partner 9	Mediterranean West Space Partner 10	Mediterranean East/ Adriatic Space Partner 11	Aegean/ Black Sea Space Partner 12	Totals
<b>GHG emission assessment synthesis meeting</b>													
12 Partners staff @ €500 per day	12,500	8,750	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	94,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000												36,000
<b>Operational costs</b>													
Catering 50 @ €50 per head	125	4,625	125	125	125	125	125	125	125	125	125	125	64,750
Language services €2,500													6,000
Venue €500 and sundries €500													
Tyndall Centre €56,750 plus €2,000 exps	1,250	45,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
<b>PR2 July to December 2008</b>													
Partner accounting, formulation, liaison, submission	1,600	6,000	800	800	800	800	800	800	800	800	800	800	29,040
Lead Partner accounting, formulation, liaison, submission	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	15,600
													13,440





Year 2 - 2009	Lead METREX Practice												Totals	
	Partner 1	Partner 2	Partner 3	Partner 4	Partner 5	Partner 6	Partner 7	Partner 8	Partner 9	Partner 10	Partner 11	Partner 12		
<b>PR3 - Scenario and Strategy Workshops</b>													<b>691,040</b>	
<b>Scenario Workshops</b>													<b>234,250</b>	
12 Partners staff @ €500 per day	30,000	16,250	20,000	20,000	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	186,250
12 Partners travel @ subsistence €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000													36,000
<b>Operational costs</b>													<b>96,750</b>	
Catering 25 @ €50 per head	792	29,288	792	792	792	792	792	792	792	792	792	792	792	38,000
Language services €2,500														
Venue €500 and sundries €500														
Tyndall Centre €56,750 plus €2,000 exp	1,250	45,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
<b>Mitigation Strategy Workshops</b>													<b>234,250</b>	
12 Partners staff @ €500 per day	30,000	16,250	20,000	20,000	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	186,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000													36,000
<b>Operational costs</b>													<b>96,750</b>	
Catering 25 @ €50 per head	792	29,288	792	792	792	792	792	792	792	792	792	792	792	38,000
Language services €2,500														
Venue €500 and sundries €500														
Tyndall Centre €56,750 plus €2,000 exps	1,250	45,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
<b>PR3 January to June 2009</b>													<b>29,040</b>	
Partner accounting, formulation, liaison, submission	1,600	6,000	800	800	800	800	800	800	800	800	800	800	800	15,600
Lead Partner accounting, formulation, liaison, submission	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	13,440

Year 2 - 2009 contd.

	Lead Partner 1	METREX Partner 2	Practice Partner 3	Practice Partner 4	Baltic Sea Space Partner 5	Atlantic Space Partner 6	European Core Partner 7	Central Europe Partner 8	Alpine Space Partner 9	Mediterranean West Space Partner 10	Mediterranean East/ Adriatic Space Partner 11	Aegean/ Black Sea Space Partner 12	Totals
<b>PR4 - Mitigation Strategies Synthesis Meeting</b>													188,040
Mitigation Strategies Synthesis Meeting													94,250
12 Partners staff @ €500 per day	12,500	8,750	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	46,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,000
36 METREX Members travel and subsistence	36,000												36,000
<b>Operational costs</b>													64,750
Catering 50 @ €50 per head	125	4,625	125	125	125	125	125	125	125	125	125	125	6,000
Language services €2,500													
Venue €500 and sundries €500													
Tyndall Centre €56,750 plus €2,000 exps	1,250	45,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
<b>PR4 July to December 2009</b>													29,040
Partner accounting, formulation, liaison, submission	1,600	6,000	800	800	800	800	800	800	800	800	800	800	15,600
Lead Partner accounting, formulation, liaison, submission	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	13,440



Year 3 - 2010	Lead METREX Practice										Totals		
	Partner 1	Partner 2	Partner 3	Practice Partner 4	Baltic Sea Space Partner 5	Atlantic Space Partner 6	European Core Partner 7	Central Europe Partner 8	Alpine Space Partner 9	Mediterranean West Space Partner 10		Mediterranean East/ Adriatic Space Partner 11	Aegean/ Black Sea Space Partner 12
<b>PR5 - Dissemination Conference</b>													<b>263,540</b>
<b>Dissemination Conference</b>													<b>114,250</b>
12 Partners staff @ €500 per day	32,500	8,750	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	66,250
12 Partners travel and subsistence @ €1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
36 METREX Members travel and subsistence	36,000												36,000
<b>Operational costs</b>													<b>120,250</b>
Catering 150 @ €20 per head	531	19,659	531	531	531	531	2,750	531	531	531	531	531	25,500
Language services €10,000													
Venue €5,000 and sundries €5,000													
Tyndall Centre €56,750 plus €2,000 exps	1,250	45,000	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	58,750
Dissemination Report - Climate change/Urban change	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	36,000
<b>PR5 January to June 2010</b>													<b>29,040</b>
Partner accounting, formulation, liaison, submission	1,600	6,000	800	800	800	800	800	800	800	800	800	800	15,600
Lead Partner accounting, formulation, liaison, submission	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	13,440

### INTERREG IVC APPLICATION BUDGET FORMAT

Specification	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5	Totals	%
1. Staff costs	56,250	418,750	372,500	46,250	66,250	960,000	44
2. Administration costs	29,040	29,040	29,040	29,040	29,040	145,200	7
3. External expertise	58,750	176,250	117,500	58,750	58,750	470,000	21
4. Travel and accomodation	48,000	144,000	96,000	48,000	48,000	384,000	18
5. Meetings and events	6,000	82,000	76,000	6,000	25,500	195,500	9
6. Promotion costs					36,000	36,000	2
7. Other							
8. Investments Video Conferencing	25,000						
Sub totals	223,040	850,040	691,040	188,040	263,540	2,190,700	
9. Preparation costs	25,000						
%	10	38	32	9	12		100

The overall prospective INTERREG IVC budget has been formatted above on the basis of the budgetary headings used for INTERREG IIIC. There were limitations of 50% for staff costs and 5% for administration. The budget in the project Application will need to reflect any such limitations for INTERREG IVC.

However, the primary budgetary determinant will be the number of METREX Members participating and the size of the Extended Partnership on non-METREX partners.



# 21 APPENDICES





# APPENDIX 1

## EUROPEAN METROPOLITAN REGIONS AND AREAS

	Alexandria	15	Hamburg		Palma
1	Amsterdam	16	Hannover	31	Porto
2	Andalucia	17	Helsinki		Poznan
	Antwerp	18	Ile-de-France	32	Prague
	Arhus	•	Istanbul	33	Rhein-Neckar
3	Athens		Katowice		Rhurgebiet
	Basel		Kiev	34	Riga
	Belfast		Köln	35	Roma
	Bergen	19	Krakow	36	Rotterdam
4	Berlin - Brandenburg		Le Havre	•	Saxon Triangle
	Bern		Lille	37	South Coast Metropole
	Birmingham	20	Lisboa	38	Sevilla
	Bordeaux		Liverpool	•	Sofia
	Bratislava		Ljubljana		St. Petersburg
	Bremen		Lodz	39	Stockholm
5	Brussels	21	Lombardia	40	Stuttgart
6	Bucarest	22	London	41	Szczecin
7	Budapest		Luxembourg		Tallinn
	Cardiff		Lyon	42	Thessaloniki
8	Catalunya	23	Madrid		Timisaora
	Chisnau		Manchester	43	Torino
	Cork	•	Marseille		Toulouse
	Den Haag		Minsk		Turku
	Dublin	24	Moscow		Valencia
	Edinburgh	25	München		Valletta
9	Emilia-Romagna	26	Napoli	44	Veneto
10	Eurocity		Nice		Vilnius
11	Frankfurt Rhein Main		Nicosia	•	Warszawa
	Gdansk	27	Nürnberg	•	Wien
	Geneve		Odessa	45	Wroclaw
12	Genova	28	Oradea		Zagreb
13	Glasgow	29	Øresund	46	Zaragoza
	Göteborg		Oslo	47	Zurich
14	Granada	30	Pais-Vasco		

METREX members numbered

• Denotes considering METREX membership

# APPENDIX 2

## INTERREG IVC - INTERREGIONAL COOPERATION PROGRAMME OPERATIONAL PROGRAMME - APRIL 2007

### Overall objective

To improve, by means of interregional cooperation, the effectiveness of regional development policies in the areas of innovation, the knowledge economy, the environment and risk prevention as well as to contribute to economic modernisation and increased competitiveness of Europe.

### Specific objectives

- 1 To improve regional and local policies in the field of innovation and the knowledge economy, more specifically focusing on regional capacities for research and technology development, support to entrepreneurship and SMEs, support to business development and innovation initiatives, promotion of the use of ICTs and support to employment, human capital and education
- 2 To improve regional and local policies in the field of environment and risk prevention, more specifically focusing on prevention and management of natural and technological risks water and coastal management, waste management, biodiversity and preservation of natural heritage, energy efficiency and renewable energies, clean and sustainable public transport, cultural heritage.
- 3 To enable actors at regional and local level from different countries across the EU to exchange their experiences and knowledge.
- 4 To match regions less experienced in a specific policy field with regions with more experience in that field, with the aim of jointly improving the capacities and knowledge of regional and local stakeholders.
- 5 To ensure that the good practices identified within interregional cooperation projects are made available to other regional and local actors and are transferred into Convergence and Competitiveness programmes.

### Priority 1 / Innovation and the knowledge economy

Main sub-themes the purpose of interregional cooperation.

- **innovation, research and technology development**
- entrepreneurship and SMEs
- **the information society**
- employment, human capital and education

### Priority 2 / Environment and risk prevention

Main sub-themes for the purpose of interregional cooperation.

- **natural and technological risks**
- **water management**
- **waste management**
- **biodiversity and preservation of natural heritage**
- **energy and sustainable transport**
- **cultural heritage and landscape**





# APPENDIX 3

## GRIP MODEL DATA REQUIREMENTS FOR EMISSIONS ASSESSMENTS

In the GRIP methodology there are up to three methods [referred to as 'levels'] that can be used to estimate the emissions of each metropolitan area. These methods currently accommodate differences in levels of data availability between the English Regions. The work that Sebastian Carney, of the Tyndall Centre, will perform on behalf of METREX will extend the portability of the GRIP methodology to fit the data sets available in the metropolitan areas in Europe participating in the InterMETREX project extension. The first stage will need to establish the data that is currently available within the partner regions.

- 1 The minimum data requirements for the project [the inventory component] [Level 3 in GRIP]
- 2 A list of data requirements necessary for more accurate disaggregation of data [Level 2 in GRIP]
- 3 A list of preferred data requirements [Level 1 in GRIP].

The nature and type of data available within the regions will directly affect the level of uncertainty surrounding any subsequent inventory. In the case of GRIP the Level 1 approaches are the most certain.

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### THE MINIMUM DATA REQUIREMENTS FOR THE PROJECT [LEVEL 3]

Requirement	Nationally [please delete]	The focus area [please delete]
Population	Y / N	Y / N
GDP [gross domestic product]	Y / N	Y / N
Households	Y / N	Y / N
Flights [take offs]	Y / N	Y / N

---

### A LIST OF DATA REQUIREMENTS NECESSARY FOR MORE ACCURATE DISAGGREGATION OF DATA [LEVEL 2]

Requirement	Nationally [please delete]	The focus area [please delete]
GVA [gross value added] or GDP by industry	Y / N	Y / N
Expenditure on fuels per household	Y / N	Y / N
Kms / miles travelled per person by transport mode [road, rail]	Y / N	Y / N
MSW disposal [kgs] per household	Y / N	Y / N
% waste landfilled	Y / N	Y / N
% waste recycled	Y / N	Y / N
% waste combusted	Y / N	Y / N

### A LIST OF DATA REQUIREMENTS [LEVEL 3]

Requirement	Nationally [please delete]	The focus area [please delete]
Total natural gas consumed	Y / N	Y / N
Natural gas consumed by end user [e.g. domestic; services, industry]	Y / N	Y / N
Total electricity consumed	Y / N	Y / N
Electricity consumed by end user	Y / N	Y / N
Total coal consumed	Y / N	Y / N
Coal consumed by end user	Y / N	Y / N
Total liquid fuel consumed	Y / N	Y / N
Total transport petrol consumed	Y / N	Y / N
Petrol consumed by end user	Y / N	Y / N
Total transport diesel consumed	Y / N	Y / N
Diesel consumed by end user	Y / N	Y / N
CHP [combined heat and power] heat consumed	Y / N	Y / N
CHP [combined heat and power] electricity consumed	Y / N	Y / N

The level 3 checklist above represents the minimum requirements for the energy combustion component of a GHG [Green house gas] inventory. It would also be helpful to know about any existing coal mines and any other off-or-onshore energy extraction sites. In addition, to compile an estimate of emissions from agriculture GRIP requires animal numbers and crop yields [if available]. In addition for emissions from industrial processes the availability of point sources of emissions [usually regulated, i.e. large energy consumers] e.g. cement manufacture. In addition if there were any extra data on waste, for example weight and type this would be helpful.

Additional data not mentioned here can be extracted from European statistical publications and the respective countries emissions inventories.

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# APPENDIX 4

## POTENTIAL METROPOLITAN MITIGATION MEASURES FOR INTEGRATED METROPOLITAN MITIGATION STRATEGIES

Energy supply measures - changing to carbon light sources of supply

- Increase renewable energy supply sources for electricity production
- In particular, increase solar powered urban lighting, heating and cooling
- Reduce dependency on energy inefficient central electricity supply and distribution systems as systems are renewed and replaced
- Increase local embedded electricity generation from hydrogen fuel cells
- Generally shift from carbon heavy to carbon light sources of energy for buildings and plants

Conservation measures - reducing energy demand

- Increase higher density mixed use urban development
- Increase the potential for the use of combined heat/cooling and power [CHP]
- Progressively restructure urban areas to integrate land use and transportation to reduce the need to travel
- Progressively restructure urban areas to facilitate increased integrated walking, cycling and public transport
- Urban micro-climate management to improve urban cooling and reduce the heat island effect

Efficiency measures - using energy more effectively and less wastefully

- Improve energy management systems and insulation in buildings through building regulations
- Generally manage the use and reuse of energy within buildings more efficiently through design standards
- Progressively shift public road transport from oil-dependency to bi-fuel and hydrogen powered vehicles
- Progressively shift from short haul aviation to high-speed trains [below 450km]
- Progressively power rail transport from renewable energy supply sources of electricity rather than carbon based fuels [e.g. diesel]
- Progressively power water supply plants from local hydro, solar and wind power sources
- Progressively power waste water and waste treatment plants and networks from local biogas sources

# APPENDIX 4 contd.

## MITIGATION MEASURES AND SUBSIDIARITY

### INTERNATIONAL - METROPOLITAN ADVOCACY

#### Foresight

- 1 Kyoto Protocol
- 2 EU Carbon Trading Scheme
- 3 Contraction and Convergence

#### Supply

- 1 Carbon capture and sequestration research and development
- 2 Clean coal technology and development [EU project]
- 2 Hydrogen economy research and development
- 3 Fusion/fission research

#### Demand

- 1 Carbon pricing - the EU CTS [Carbon Trading Scheme]
- 2 Industry and commerce in the EU CTS
- 3 Surface transport in the EU CTS
- 4 Aviation in the EU CTS
- 5 Product standards - emissions, efficiency and recycling
- 6 EU car manufacture fuel efficiency agreements
- 7 Short haul aviation [under 400km] to high speed trains
- 8 Carbon off setting?

### NATIONAL - METROPOLITAN ADVOCACY AND ACTION

#### Foresight

- 1 EU Carbon Trading Scheme
- 2 EU Energy and Climate Change targets
- 3 National climate change strategies - mitigation and adaption

#### Supply

- 1 Support for the development of renewable energy sources - wind, solar, geothermal, hydro
- 2 Renewables obligations for suppliers [UK 20%]
- 3 Support for of micro-renewable energy sources
- 4 Support for carbon capture and storage [CCS]
- 5 Support for a hydrogen energy supply system gas or electrolysis fuels/hydrogen [hydrogen gas supply system for heating and transport]

#### Demand

- 1 Building Regulations - energy and water efficiency
- 2 Building Regulations - CO2 zero homes and buildings
- 3 Energy efficiency - improved metering and billing
- 4 Home insulation programmes
- 5 Short haul aviation [under 400km] to high speed trains
- 6 Renewable transport fuel obligations [RFTO] - bio-fuels/hydrogen
- 7 Public transport powered from renewable energy sources
- 8 Vehicle taxation to promote emission reductions
- 9 Traffic management and road pricing
- 10 Personal carbon rationing
- 11 Public procurement policies [awareness raising]

### METROPOLITAN - ACTION

#### Foresight

- 1 Metropolitan vulnerability to climate change - adaptation
- 2 Metropolitan contribution to climate change - mitigation
- 3 Green house gas emissions assessments and inventories
- 4 Green house gas emission reduction scenarios
- 5 Low or zero carbon metropolitan vision
- 6 Integrated metropolitan strategy - including adaption and mitigation
- 7 Awareness raising and stakeholder involvement

#### Supply

- 1 Renewable energy supply sources
- 2 Micro-renewable energy sources - hydrogen fuel cells and CHP
- 3 Combined heat and power [CHP] - developer obligations
- 4 Micro-renewable energy sources - solar and wind
- 5 Waste to heat and power generation

#### Demand

- 1 Reducing the need to travel - centres and multi purpose journeys
- 2 Reducing the need to travel - location and linkage of traffic generators
- 3 Reducing the need to travel - higher density, mixed use urban form
- 4 Enabling walking and cycling - metropolitan networks
- 5 Integrated public transport - connectivity and accessibility
- 6 Integrated freight transport - connectivity and accessibility
- 7 Traffic management and road pricing
- 8 Public transport management and dedicated routes
- 9 Public transport powered from renewable energy sources
- 10 Water supply powered from hydro, solar and wind energy sources
- 11 Waste treatment powered from biogas sources
- 12 Micro climate management - reducing the urban heat island effect
- 13 Public procurement policies [awareness raising]







EUCO2  
80 / 50

