

# H Building Healthy Communities

S. Di Sabatino and S. Cordella, LECCE, ITALY



Urban and Sub-urban re-qualification plans through target actions to remove aerial high tension cables with emphasis on city outlook improvement to Lecce

reinforce citizen city good perception and use of public space







# **TRADITIONS**





# PROJECTED TOWARDS THE FUTURE

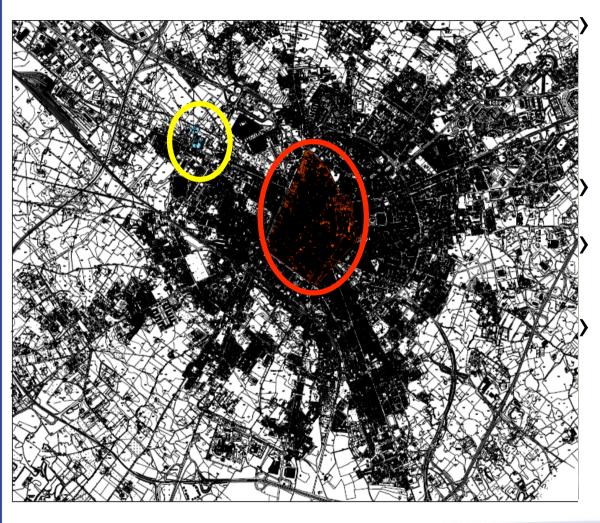


LECCE MUNICIPALITY
ITALY





### LECCE AREA DESCRIPTION



Lecce: 40N, 18°E, it arises over almost flat terrain at about 12 km from the sea. It has about 100,000 inhabitants

It covers a surface of about 7 km x 5 km
It is bound by preroman walls
(historical centre)

Several neighbourhoods outside the historical centre, some of them to be "regenerated" both environmentally and structurally





## LECCE AREA DESCRIPTION

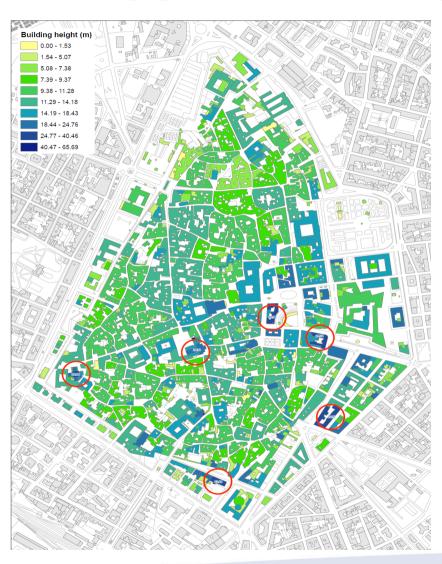


- High building density (more than 45 % built to unbuilt);
- Mean building height in the historical centre around 10 m;
- Max building height is about 70 m;
- Public Garden with more than 140, 20 m high trees;
- Overall it is not a green city;
- More green spaces could be in principle be introduced possibly outside the historical centre





# LECCE AREA DESCRIPTION



- > The high building density does not allow for more green areas planning
- Trees can be planted only on some of the streets





### LAP DESCRIPTION

- Removal of and placing underground aerial high tension cables (ENEL) and data transmission cables (TELECOM)
- Two main areas: the **historical centre** where some interventions have been already made and the **neighbourhood** called " **zone 45** "

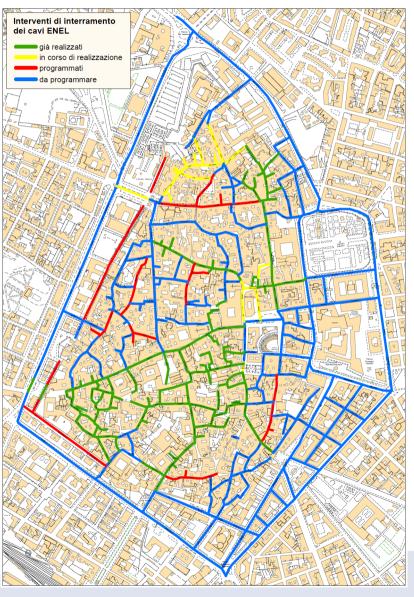
### Why?

- To reduce the electromagnetic field linked to electromagnetic pollution. This especially high in the **target** zone 45 where an ENEL sub-station is present
- Aesthetic reasons reinforced by the high degradation of some buildings in the historical centre
- Regeneration and improvement of city outlook
- First step for future planning in the **zone 45 where more vegetation is planned**
- Improvement of quality of life in this target zone / **SUSTAINABLE DEVELOPMENT**





# LAP DESCRIPTION



-Details of the two areas:







# **SOME FACTS**

| SITE  | DESCRIPTION  | DATE       | TIME  | LONG.    | LAT.     | Eeff (V/m) |
|---|--|------------|-------|----------|----------|------------|
| S.R.B.<br>antenna<br>(Wind), Via<br>Taranto, n°<br>189, 73100,<br>Lecce | High density<br>traffic / low<br>density<br>pedestrian<br>area | 21/08/2008 | 10:39 | 18.15226 | 40.36709 | 1.13±0.02  |



| Effective value of electric field strength <b>E</b> (V/m) | Effective value of magnetic field strength <b>H</b> (A/m) |  |  |
|---|---|--|--|
| 6   | 0.016   |  |  |

| Equivalent plane wave power density <b>S</b> (W/m²) |  |  |  |
|---|--|--|--|
| 0.1   |  |  |  |

Technical Report on Measurements of Electromagnetic field at broad band over the city of Lecce, 2008, ElaWind









- Possible improvement of footpaths' conditions
- Recovery of areas for tree-planting and vegetation
- Improve of public lightening in the areas







**Regeneration plans** of the entire neighbourhood

Details of the target **zone 45** 



Public park planned in adjacent zones. The park will connect the centre to this area





-Removal and laying underground of **1,141 m** of medium tension electric cables in the historical centre

(ongoing!)









- -About 3,584 m cables already buried underground
- About 2,079 m have been planned (however other 12,400 m need to be buried for the overall completion in the historical centre)
- Removal of (i) ENEL sub-station, (ii) the high tension (150,000 V) incoming electric line and (iii) the several medium tension (20,000 V) electric lines

The validity of our LAP is supported by other action plans in the zone 45 that is the Public Park (This will facilitate use of public space/green space by citizens)





- Planning of remote control safety management of the buried lines
- Local/Remote Supervisory Control and Data Acquisition (SCADA) hardware/software system
- Management and monitoring
- Energy consumption optimization
- Historical data archiving and reporting
- Emergency, electrical risk and failure management





## **SPECIFIC INDICATORS**

### **Physical indicators:**

- Measurements of the electromagnetic field before and after the intervention (at least for the zone 45)
- Metres of cables removed over the total
- Number of buildings recovered
- Square meters of soil newly available
- Square meters of green space available to citizens
- Measurements of air pollution in the centre before and after the intervention (we hypothesize an improvement of ventilation in the city as a consequence of the intervention)





### **SPECIFIC INDICATORS**

### **Social indicators:**

- -Number of person who will move to the "regenerated" area
- -Number of people who will walk in the areas
- -Percentage of new families with children over the number of existing families in the neighbourhood

It is expected that by regenerating the area also social conditions will improve. The presence of young families will contribute to a new social outlook to be examined at different levels

### **Economics indicators:**

Under definition

Possibly related to the development of commercial activities in the zone 45





### **PROJECT TIMETABLE**

- Project kick-off meeting: November 2008

- ULSG constitution: April 2009

- stakeholders identification

- identification of the referent person for ULSG

- Lods meeting: June 2009

- July 2009: ULSG meeting

- sharing results from Lods meeting and activities planning

- identification of the LAP

- January 2010: ULSG meeting

- Discussion about LAP strategies/strengths/weakness

- February meeting

- reports on the technical aspects of the project

- preparation of the Turin meeting

### March 2010:

- sharing results from the Turin meeting
- planning of events to inform citizens
- promoting active participation of the citizens to develop activities to improve city good perception, especially those belonging to weaker social communities





### **PROJECT TIMETABLE**

- May 2010
  - Testing validity of indicators
  - Life style promoting
- July 2010
  - Strengthening relationship with citizen
- October 2010
  - Draft document preparation –
     We would be happy to host next BCH workshop!
- December 2010
  - Sharing the document
  - Preparation of public/social events
- March 2011
  - Final document approval
  - Public/Social Events realisation





### **FUNDING PROGRAMS**

Programma Operativo Fondo Europeo di Sviluppo Regionale (PO FESR) Puglia 2007-2013, Asse VII "Competitività e attrattività delle città e dei sistemi urbani", Linea di Intervento 7.1 "Piani integrati di sviluppo urbano".

Action strategies: Integrated development plans for the city. Those plans will be focused on the ecological recovery, especially of those city areas where there has been an increasing industrial construction during the 60s and 70s and whose expectations have not been met. Integrated urban development plans will be focused on the safeguard, valorisation of the cultural patrimony and fruition of the environment. Intervention strategies: infrastructural interventions, integrated urban development projects.

Programma Operativo Fondo Europeo di Sviluppo Regionale (PO FESR) Puglia 2007-2013, Asse VII "Competitività e attrattività delle città e dei sistemi urbani", Linea di Intervento 7.2 "Piani integrati di sviluppo territoriale".

**Action strategies**: interventions focused on the valorisation of artefacts and abandoned places (within the city and in the neighbourhood) by mean of the construction of material and immaterial networks. Intervention strategies: infrastructural interventions, integrated urban development projects.





### **FUNDING PROGRAMS**

Programma Attuativo Regionale Fondo Aree Sottoutilizzate (PAR FAS) Puglia 2007-2013, Linea di Azione 7.1 "Interventi per l'edilizia residenziale sociale e la casa nel contesto della riqualificazione urbana".

**Action activities**: b) urban regeneration through environmental remediation (LR 21/08). Action strategies: pollution reduction and elimination in the city

Programma Attuativo Regionale Fondo Aree Sottoutilizzate (PAR FAS) Puglia 2007-2013, Linea di Azione 7.3 "Azioni pilota programmate in fase di elaborazione del PPTR a livello di Area Vasta e di azioni di regia diretta ad esso riferibili".

**Action activities**: a) activation and realization of preliminary pilot projects developed within the PPTR in the Area Vasta project or directly directed by the Region. Objectives: link the landscape quality to the life quality (including production, consumption...)

Programma Attuativo Regionale Fondo Aree Sottoutilizzate (PAR FAS) Puglia 2007-2013, Linea di Azione 7.5 "Miglioramento della qualità ambientale nelle aree urbane".

Activities: acoustic risk mitigation





### **ULSG & MA STRUCTURE**

- Heterogeneous group with different expertise (positive aspect)



Difficulty in finding a common language and strategy (challenge!)

Perhaps too ambitious plan (weak aspect)

PLAN realisation is somewhat limited by actual access to funds (weak aspect)





## **ULSG & MA STRUCTURE**

### First evaluation – not comprehensive

- Strengths: synergy with many environmental, social and economical aspects. Overall benefit on quality of life improvement
- The group is made of motivated people ;
- Weakness: current strict dependence of funds availability; possible loss of interest;
- Opportunities: new fruition of the city; strengthening the connection between public administrations and citizens; building the future starting from our strong cultural and social traditions by incorporating a new understanding of the role of people in our city; enlarging perspectives from sharing experience with other European cities;
- Threats: possible not resistance by stakeholders;





### **Contact details (not complete)**

Arch. Luigi Maniglio (BCH project co-ordinator), Lecce Municipality, luigi.maniglio@comune.lecce.it;

Dr Raffaele Parlangeli (BCH project manager), Lecce Municipality raffaele.parlangeli@comune.lecce.it;

Dr Daniela Daloiso, Managing Authority, Apulia Region d.daloiso@regione.puglia.it;

Dr Teresa Magrini, (BCH project team), Lecce Municipality t.magrini.ue@comune.lecce.it;

Mrs Claudia Loiacono, (BCH project team), Lecce Municipality claudia.loiacono@comune.lecce.it;

Dr Giovanni Diraco (BCH LSG member), IMM-National Research Centre giovanni.diraco@le.imm.cnr.it;

Arch. Persichino (BCH LSG member) Municipality of Lecce r.persichino@libero.it;

Arch. Greco (BCH LSG member) Municipality of Lecce mariaantonietta.greco@comune.lecce.it

Ing. Gianni Refolo (BCH LSG member), Lecce Province, Local Authority grefolo@provincia.le.it;

Ing. Sofia Cordella, LSG Expert Consultant, Lecce Municipality sofia cordella@hotmail.com;

Dr Silvana Di Sabatino, (LSG scientific co-ordinator) University of Salento silvana.disabatino@unisalento.it;

Antonio Vetrugno, antonio.vetrugno@comune.lecce.it

Roberto Costa, roberto.costa@comune.lecce.it

WEB ADDRESS: www.comune.lecce.it





Grazie Thanks Danke Merci Gracias Ευχαριστώ multumesc Takk dziękuję dakujem hvala tänan kiitos köszönöm aciu Tack děkuji paldies nizzik hajr dank u wel



