Citizen Empowerment:

A(n expert) learning experience in CITI-SENSE

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RESEARCH INSTITUTE
NATURE AND FOREST

European Commission

CITI-SENSE

CITI-SENSE

Development of sensor-based Citizens' Observatory Community for improving quality of life in cities

Alena Bartonova

Starting date: 01/10/2012   *Duration*: 48 months   *Budget*:12M€
Call: FP7-ENV-2012.6.5-1 Developing community-based environmental monitoring and information systems using innovative and novel earth observation applications

First citizens' observatories projects coordination workshop,
Brussels, 29th - 30th January 2013

NILU

SEVENTH FRAMEWORK PROGRAMME

CITI-SENSE

CITI-SENSE Objective

To develop "Citizen's Observatories" to empower citizens to

- Contribute to and participate in environmental governance
- Support and influence community and policy priorities and associated decision making
- Contribute to Global Earth Observation System of Systems (GEOSS)

Citizen's observatories – *communities of users that will share technological solutions, information products and services, and community participatory methods, using approprite communication solutions, thus complementing established environmental data and information systems and improving local environmental decision making.*

Citizens' observatories are…

Communities that share

- technological solutions,

- information products and services and

- community participatory methods

Complement established environmental data and information systems, improve local environmental decision making.
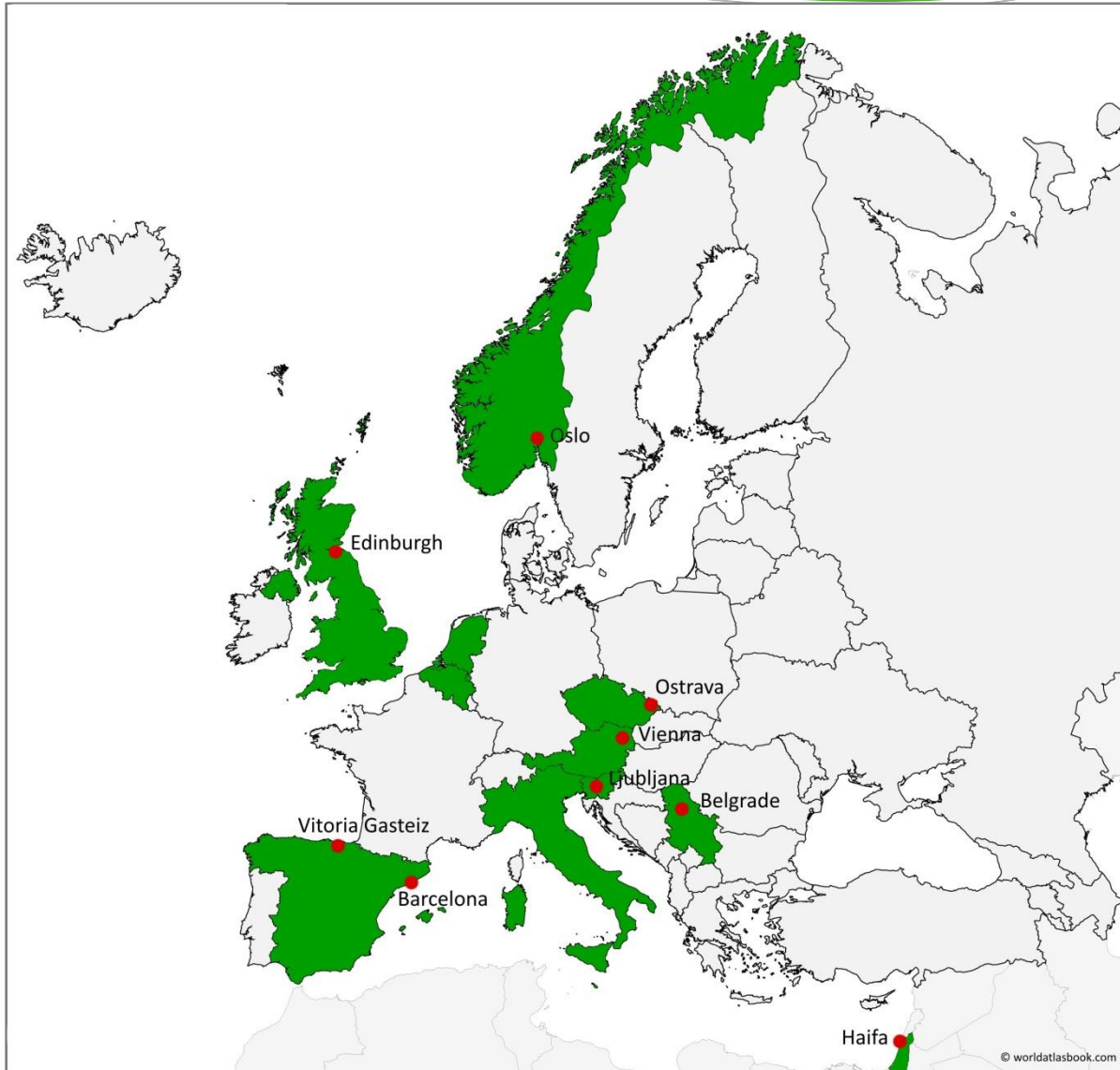
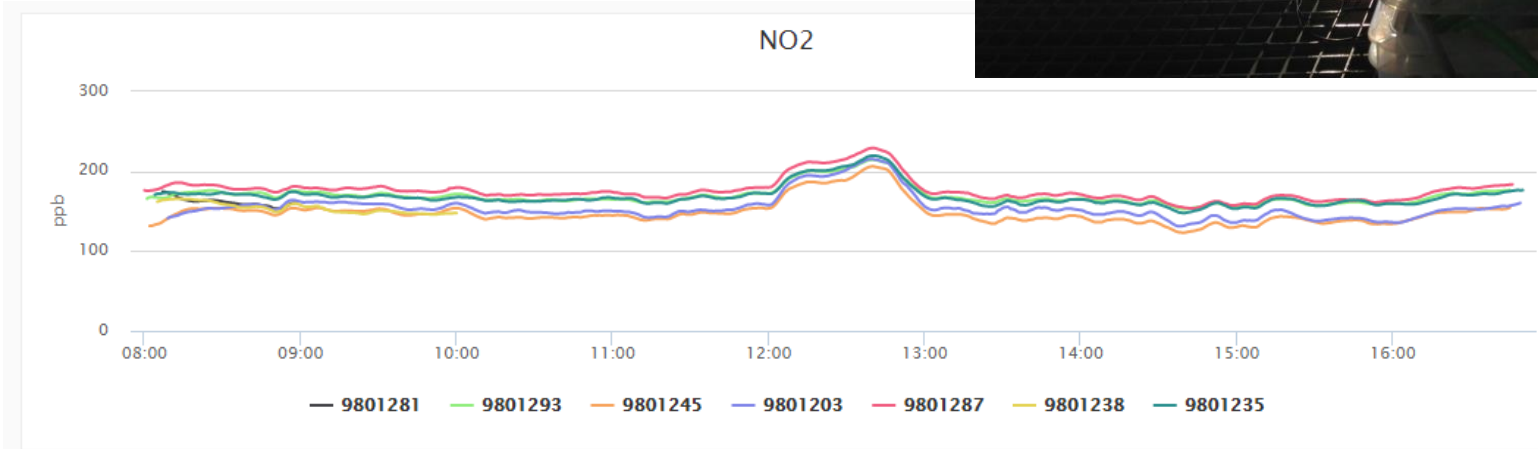# Scope: Empowerment Initiatives

 Urban Quality

 School Environment

 Public Spaces

Oslo

Edinburgh

Ostrava

Vienna

Ljubljana

Belgrade

Vitoria Gasteiz

Barcelona

Haifa

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2 WP Progress and achievements

- Little Environmental Observatory (LEO)
  e.g. Barcelona

2 WP Progress and achievements

- Static node deployment

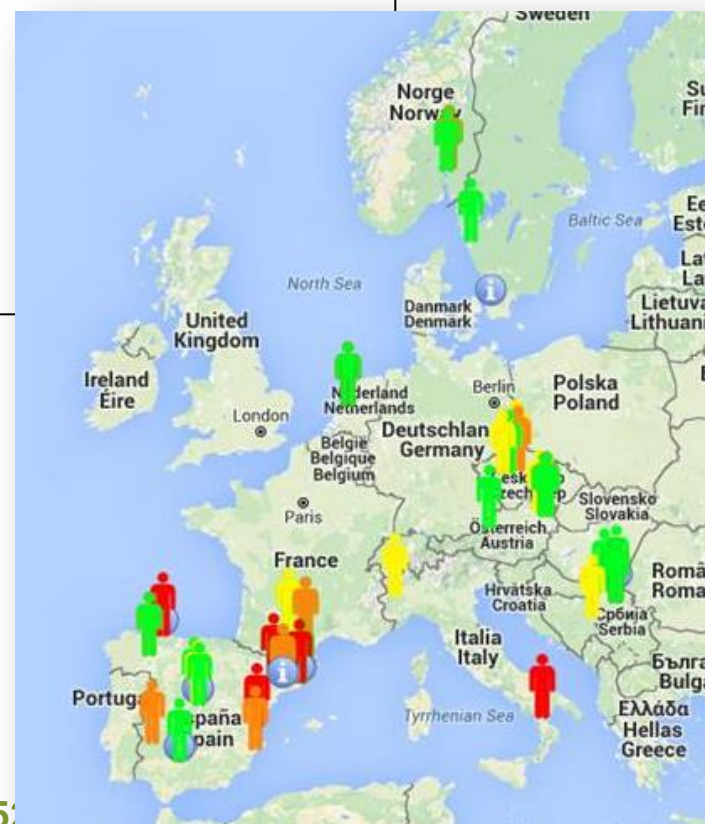| ID	P9
ADDRESS	Carrer marqués de barberà 4, 1º,1ª. 08001
SITE TYPE	Urban BG
TRAFFIC INTENSITY	4
SITE COMMENTS	Canyon Street. It seems not to have railings etc

Barcelona - potential sites selection

Selected sites
Traffic intensity (IMD)
- Super high (> 50000)
- High (> 20000)
- Medium (> 5000)
- Low (< 5000)
- Super low (pedestrian)

Routine Stations
- Gràcia - Sant Gervasi
- Palau Reial

0 0.5 1 2 3 Km
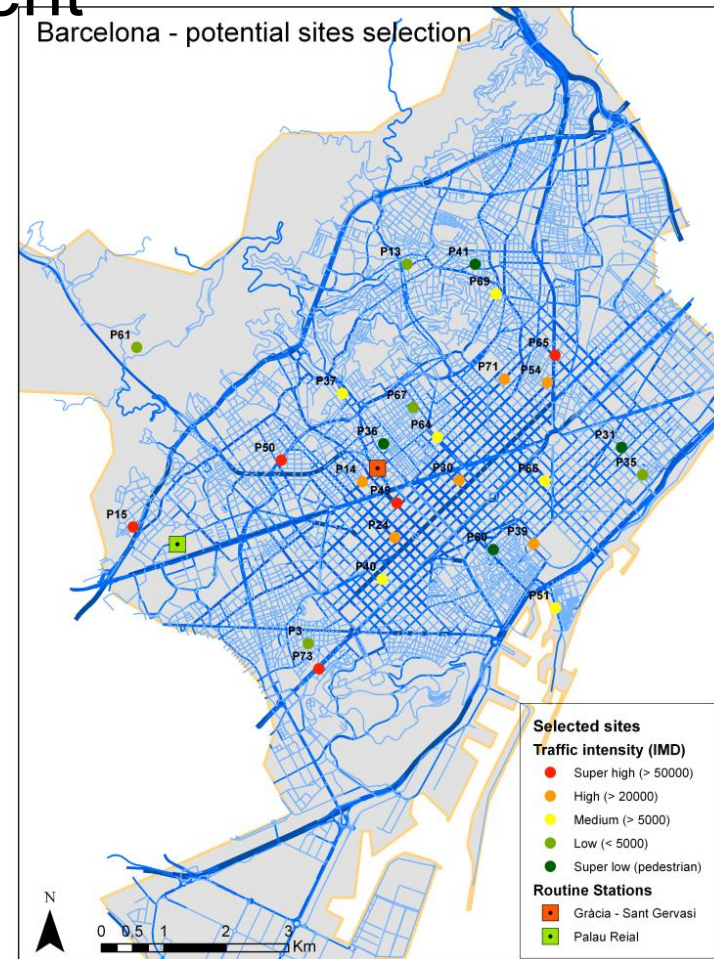
2 WP Progress and achievements

- CityAir app
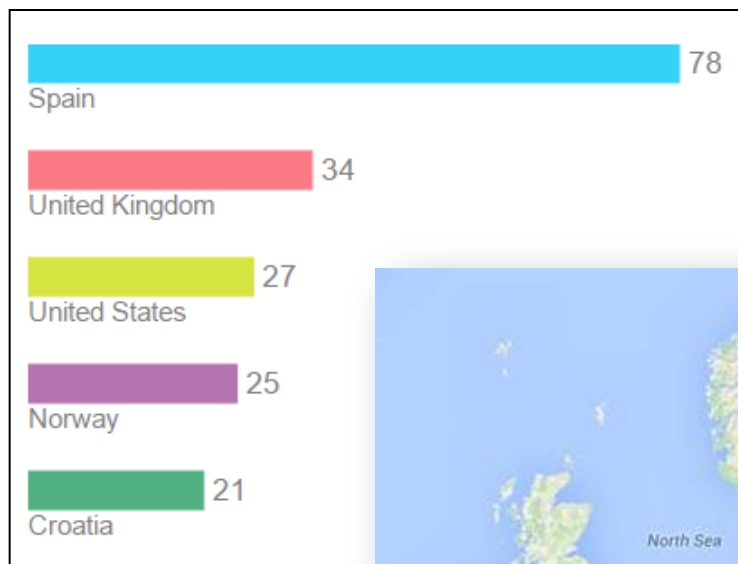
TOTAL INSTALLS BY USER ON JAN 2, 2016

✓	Serbia	91
✓	Spain	89
✓	Norway	47
☐	Austria	41
☐	Czech Republic	22
☐	Romania	18
☐	United Kingdom	14
☐	Slovenia	14
☐	India	12
☐	Macedonia (FYROM)	10
	Others	88

Spain 78
United Kingdom 34
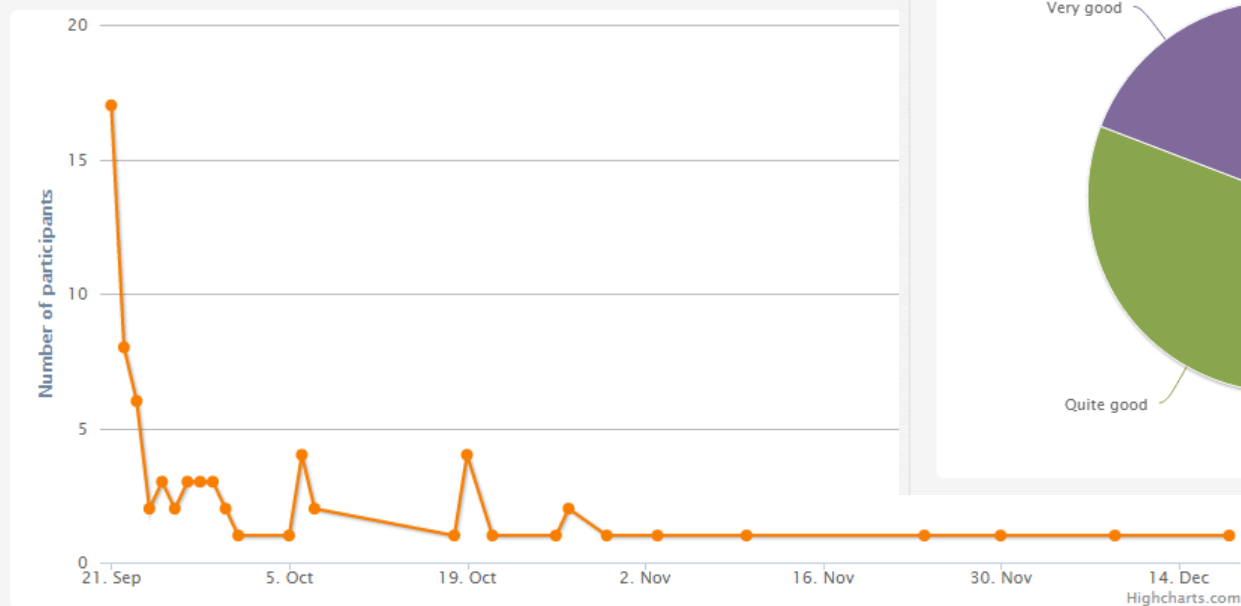United States 27
Norway 25
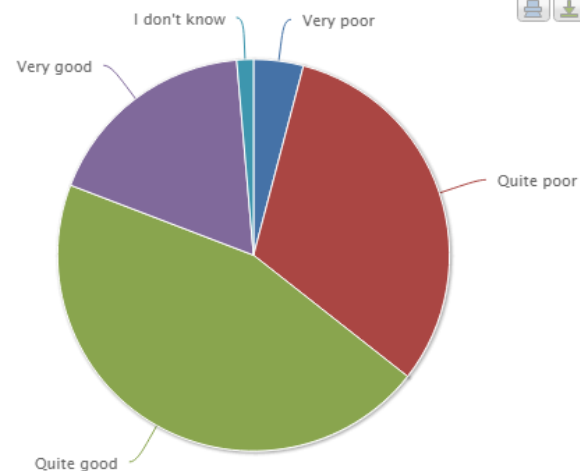Croatia 21

CITI-SENSE project
nt agreement nº: 3085

2 WP Progress and achievements

- Long Air Quality Perception Questionnaire
e.g. Edinburgh

Participation Timeline

Question 6: How would you describe the air quality in Edinburgh in general?

How many social scientists?

How many social scientists?

The role of empowerment in CITI-SENSE

- The main objective of CITI-SENSE is *to develop "Citizens' Observatories" to empower citizens and citizens' groups*:

  (i) to contribute to and participate in environmental governance;

  (ii) to support and influence community and policy priorities and the associated decision making; and

  (iii) to contribute to European and global monitoring initiatives.

- This will be supported by the novel use of technological solutions; i.e. *technology is essential but it is subsidiary*.

- The people issues of CITI-SENSE are relevant to <u>all</u> of CITI-SENSE – they are not an optional add-on. They are especially important for the pilot case studies.

D5.1 Baseline for studying citizen participation and empowerment

A review of state-of-the-art evidence of citizen participation

- Addresses key factors on what has been demonstrated to have a positive effect on citizen and stakeholder participation.
- Content overview:
  - Integrated environmental health approaches
  - Citizen participation in environmental health science & governance
  - Online toolboxes
  - Evaluation of practices

Environmental health governance – the premise:

Science cannot tackle complexity without dialogue from different stakeholders. **Governance** instead of governing.

MOTIVATIONS AND EXPECTATIONS WITH COLLABORATIVE PARTICIPATION		
Authorities	Efficient system for **informing** citizens.	"Cost-free" amateurs and experts that can help **identify issues and solutions**. **Compliance** with environmental regulation.
Experts Stakeholders Citizens	Relevant **information** on environmental risks.	Contribute data, knowledge, experience and information. **Impact** on decision-making. **Empowerment**, make a difference.

Level 1: CITI-SENSE as a reliable source of env. data.

Level 2: CITI-SENSE as shared online/offline spaces where experts, citizens and authorities meet, communicate and collaborate.

| Agenda-setting | Providing data and knowledge | Making sense of data | Generating common understanding | Decision-making |

Requirements:
- Involvement and dialogue **throughout the process** (though be aware of different user-patterns)
- Empowerment means participation must have **impact** on decisions

Challenges:
- Organizations are hard to change, existing power-structures
- Unequal participation and participatory divides
- Translating between different domain-languages
- Quality-assurance and verifying data
- Making data intelligeble, visualizing
- Contributions must have real impact

Solutions include:
- Communicate benefits for all
- Mechanisms to include equal participation
- Interaction, dialogue
- Peer-review, reputation-system, expert-review
- Citizen-created application and visualizations of data
- Communicate and visualize how contributions have impact

D5.2
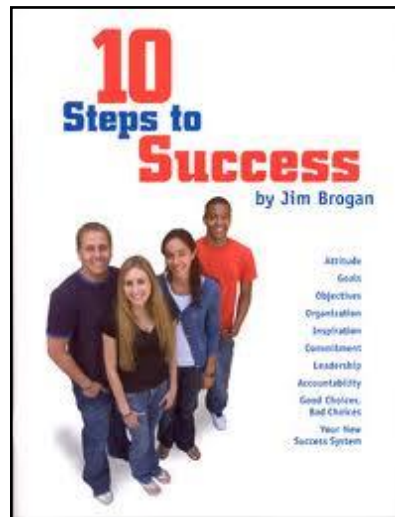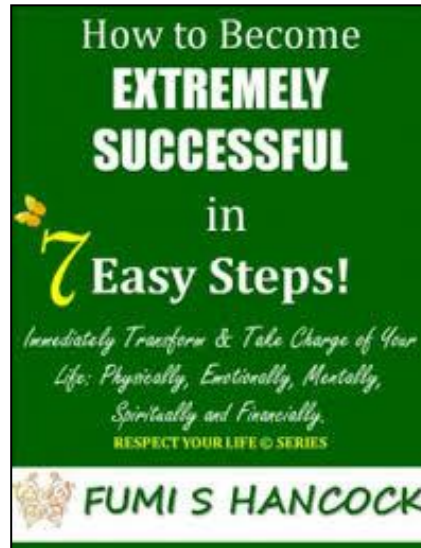
"10 easy steps to start up a very succesfull empowerment initiative?!"

Is this realistic? (No)

Plan of approach

NOT: writing another manual on participation
and empowerment
(e.g. describing participative methods, etc…)

~ *"Reinventing the wheel"* *(it won't help)*

General coordination of the CITI-SENSE-project
Sonja Grossberndt, Alena Bartonova

Other WP-coordinators (e.g. technical expertise)

General coordination of CITI-SENSE WP5: *Sonja Grossberndt and Fintan Hurley*

General coordination of WP5-information flows between EIs and experts: *Fintan Hurley Hans Keune Wim Verheyden*

+

Centralization of all data on CITI-SENSE-webplatform

Barcelona *Tom Cole Hunter*

Vitoria-Gasteiz *Juan Angel Acero Alejandro*

Jonatan Moreno Carranza and Hans Keune

Belgrade *Milena Jovasevic-Stojanovic*

Vienna *Jasmin Pielorz*

Wim Verheyden

Edinburgh *Karen Galea and Fintan Hurley*

Fintan Hurley

Haifa *David Broday*

Ljubljana *Milena Horvat*

Peter van den Hazel

Oslo *Nuria Castell Balaguer*

Sonja Grossberndt and Marika Lüders

Ostrava *Ivan Gabal*

Ivan Gabal

Participation and empowerment: *Jonatan Moreno Carranza Wim Verheyden Gallego Antxon Joseba Solaetxe*

**Communication and conflict management:** *Fintan Hurley Other???*

E-communication and E-participation: *Marika Lüders Petter Bae Brandtzaeg*

Citizen science, observatories and crowd-sourcing: *Marika Lüders Other???*

Environmental health (and complexity): *Hilary Cowie Joanne Crawford Hans Keune*

Decision-support strategies: *Hans Keune Other???*

Data quality issues and comparability: *???*
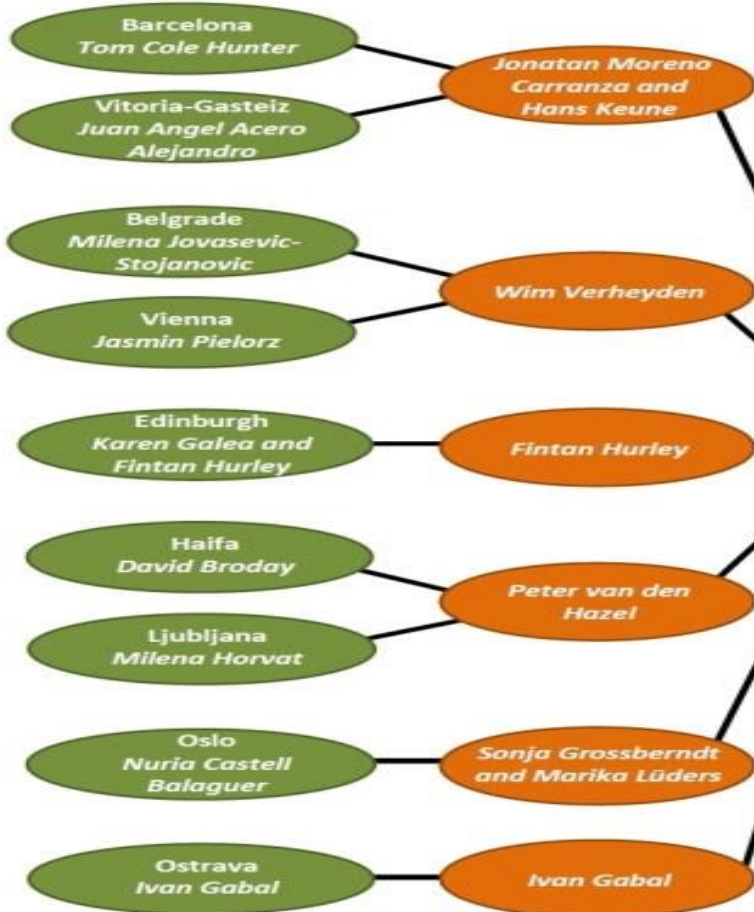
| Local officers (EIs) WP2, WP3a and WP3b | WP5-contactpersons for the EIs | General coordinators (information flows) | WP5-experts (thematic) |

Evaluation form – "End-of-session"
First meeting

List of questions (part 1/4)	I strongly agree	I agree	Neutral	I disagree	I strongly disagree
	1	**2**	**3**	**4**	
1. About the agenda of this first meeting					
All stakeholders/participants have introduced themselves (briefly) to the group during this starting session?	1	2	3	4	
There is a shared view on the ambitions, the specific targets and the context of the EI-project?	1	2	3	4	
There is a shared view on the different degrees of involvement of all the stakeholders/participants that are involved?	1	2	3	4	
The most important elements of the communication plan have been addressed during this starting session?	1	2	3	4	
The most important elements of the expectation management plan have been addressed during this starting session?	1	2	3		
You have the feeling that there are clear procedures for the participatory process and the decision making and they were explained to all stakeholders/participants?	1	2	3		
2. About credibility, relevance and legitimacy					
You have the feeling that all relevant stakeholders/participants were represented?	1	2	3		
(If not, describe which stakeholders/participants were missing…)					
You have the feeling that the moderators/facilitators were…					
(a) impartial?	1	2	3		
(b) open to multiple perspectives?	1	2	3		
(c) approachable?	1	2			
You have the feeling that all preparatory information from the project team was…					
(a) well-balanced	1	2			
(b) impartial	1	2			
You have the feeling that all out-going communication by the project group was…					

Respondent's information

Your name	
Organizational background	…
Training and experience	…
Your experience with participatory processes	…
Name of your case study	…
Your role in this project	…

Preparatory form - part 1
Focus, ambitions and context of the project (EI-coordinator)

Preparation of the project – What does already exist?
Give a (brief) overview of already available information.
(e.g. about the issue in general, about the specific context and the location, about previous initiatives that were similar, relevant research results, links to other projects, etc…)
…

Preparation of the project – What do we want?
What are the targets of this project in general?
…
What are the specific targets towards participation and empowerment ?
(e.g. what is the desired output)
…

Preparation of the project – How will we achieve our goals?
Please describe the general approach for your project (including major steps/stages in the process).
…
Is there a SWOT-analysis available for the project in general and for the participation process in particular and what was the result?
…

Identifying problem solving strategies – Finding solutions at different spatial levels
Can solutions on a higher spatial scale (outside the case study area) form a real opportunity for a (better) solution? (and this without 'shifting the problems' to neighbors and not taking any responsibility for creating the problem)
…

Identifying problem solving strategies – Finding solutions based on an ecosystem approach
Do you think that an ecosystem services approach can be valuable for broadening the scope of this project?
(e.g. regarding the advantages of a more integral solution and/or the increase of the number of interested volunteers)
…
If an ecosystem services approach is valuable, which additional steps have to be taken to integrate this way of thinking in the existing project?
…

Expectations towards WP5
What do you expect from WP5? (e.g. remaining questions)?
…
Is there anything else you want to share with us?
…

Thank you for your cooperation !!!

Bilbao WS (May 2014)

Suppose this is it.
Suppose we don't get any better sensors than this
Or any better quality data.

How can we still use the CO
to help / empower citizens and policy makers
To make better decisions,
about the environment, and about health?

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TAG Bilbao (May 2014)

Lack of citizen as user focus…

– Consider using citizens more as sensor

Air pollution sensor development playing too dominant a role

– Consider giving WP5 a stronger voice in the project

To **strengthen the engagement of target stakeholders** and to establish communication with other target groups identified in the DoW, including patient organizations, consumer protection organizations, and environmental activists in the upcoming period.

WP5: **Deliverable 5.2.** is very beneficial in stakeholder engagement and the methodology proposed in this deliverable should be implemented in the upcoming period.

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WP5 – Empowerment initiatives meetings

- **Barcelona meeting WP5 – (part of) WP2 (Sept 2014)**

- **Oslo meeting WP5 – all EI's (Dec 2014)**
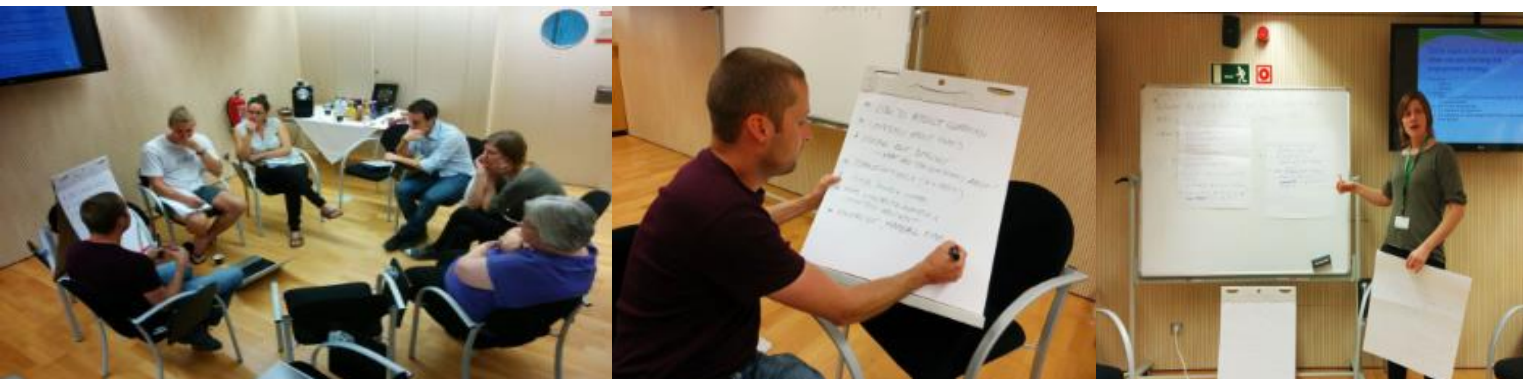
Task 5.5 - Coordinated analysis & Evaluation of empowerment

Analyze information about engagement and empowerment (citizens & public authorities) across activities and locations: data on requirements, perceptions and experiences of both citizens & public authorities

Propose key cross-cutting issues and integration issues about engagement and empowerment (of citizens, of public authorities) across empowerment initiatives and locations, including aspects of risk governance and management.

Evaluate each empowerment initiative from the viewpoints of (a) involving citizens and citizens' organisations effectively in both environmental monitoring and environmental decision-making; (b) engaging public authorities; and (c) their interaction in participatory decision making.

This will involve both context specific evaluation and meta-evaluation beneficial to the EU perspective and so will be done on (i) meta level, drawing lessons from all initiatives and locations, (ii) local level, choosing a participatory approach and (iii) international level, through peer reviewed publications.

Empowerment

- Empowerment: enhancing an individual's or group's capacity to make effective choices, effective in the sense of enabling them to transform those choices into desired actions and outcomes.
- The extent or degree to which a person is empowered is influenced by personal agency (the capacity to make purposive choice) and opportunity structure (the institutional context in which choice is made).
- Agency is defined as an actor's ability to make meaningful choices; asset endowments are used as indicators of agency. These assets may be psychological, informational, organizational, material, social, financial, or human.
- Opportunity structure is defined as the formal and informal contexts within which actors operate. Measured by the presence and operation of formal and informal institutions, including the laws, regulatory frameworks, and norms governing behavior.
- Working together, these factors give rise to different degrees of empowerment (DOE). Measured by (1) whether a person has the opportunity to make a choice, (2) whether a person actually uses the opportunity to choose, and (3) once the choice is made, whether it brings the desired outcome.

Introduction Empowerment Evaluation Role-play

15.02.2016, Oslo

To what extent is the perception questionnaire useful to you?

not useful at all – not useful – rather not useful – rather useful – useful – very useful – I don't know

Please give arguments (why, how?)

What can the perception questionnaire help you to do better?

What can the perception questionnaire not help you to do better?

What could the perception questionnaire help you to do better if improved/adapted?

How should the perception questionnaire be improved?

Which kind of actions did you already deploy based on the perception questionnaire or do you plan to deploy in the short run (coming half year)?

Which kind of actions do you plan to deploy based on the perception questionnaire in the longer run (coming years)?

What are opportunities <u>for you</u> to take AQ improvement action based on the perception questionnaire?

What are barriers <u>for you</u> to take AQ improvement action based on the perception questionnaire?

Which conditions should be met <u>for you</u> to take AQ improvement action based on the perception questionnaire?

What are opportunities <u>for others</u> to take AQ improvement action based on the perception questionnaire?

What are barriers <u>for others</u> to take AQ improvement action based on the perception questionnaire?

Which conditions should be met <u>for others</u> to take AQ improvement action based on the perception questionnaire?

Who and how?

The roles of the users will be played by the non-LO members of the CITI-SENSE consortium present in Oslo. They will play roles like:

- WP2: a citizen, a local authority representative, a NGO representative, an industry representative
- WP3: a student, a teacher, a member of the school management, a parent, a local authority representative

- Role-players get food for thought as inspiration for their roles

Each LO practices the following diversity of role-play settings: one individual interview and one focus group

So this is about us experts explaining reality to the citizens?
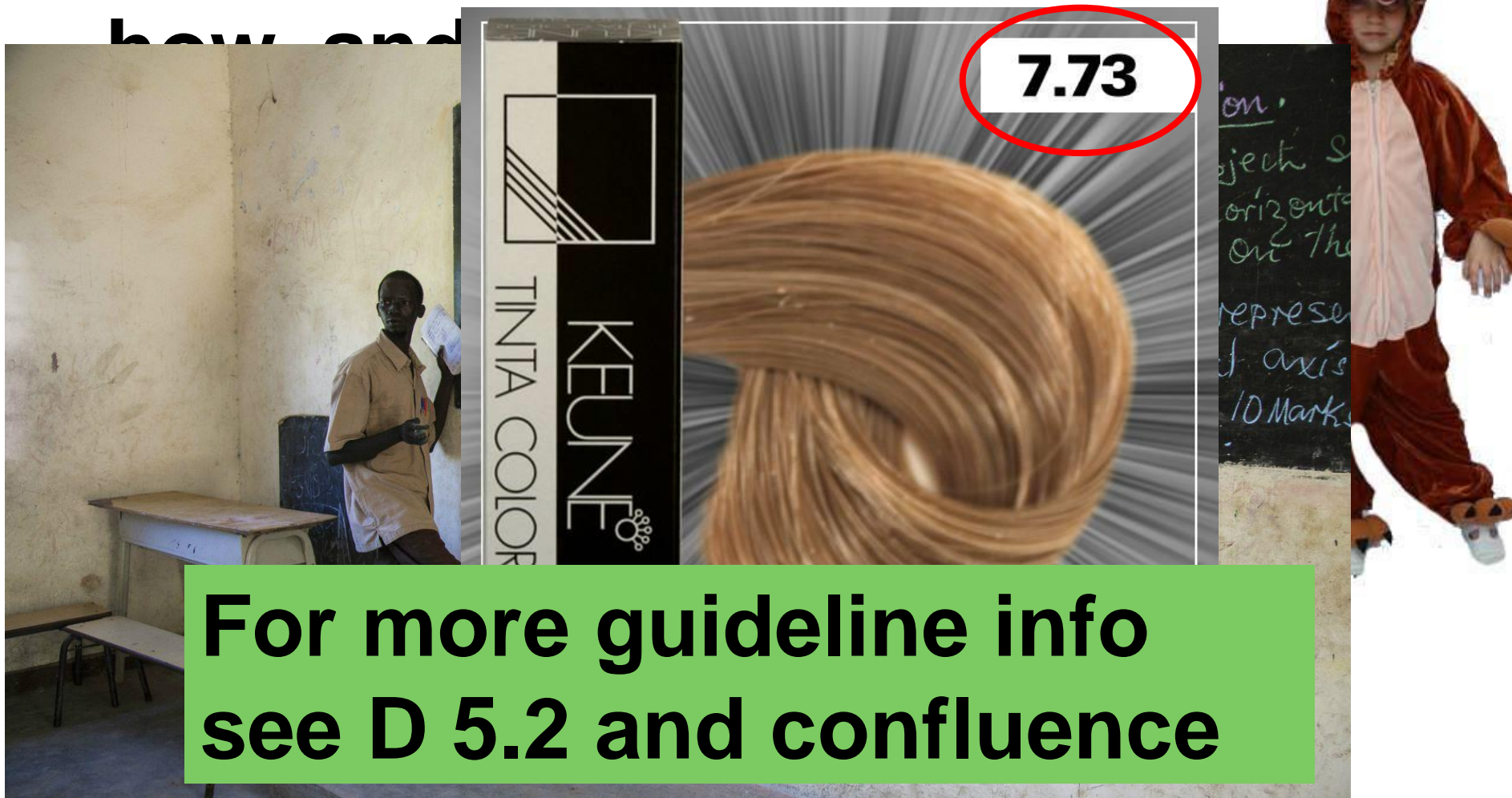
So this is about us experts explaining reality to the citizens?

A focus group? O dear... how, and what is the ideal number of participants?

A focus group? O dear... how, and what is the idea!

A focus group? O dear... how and...

7.73

For more guideline info see D 5.2 and confluence

So, this was about...

- High belief in:
  - More data on AQ will bring solutions
  - Maps as vizualization works for communication
  - Education: one-way expert communication/information
  - Technology and natural science
- High interest in:
  - Technological challenges
  - Big data sets
  - Expert driven projects (self KPI ☺)
  - One-way risk-communication
  - Math and uncertainty
  - Each other
- And social science trying to open this up to empowerment (research)

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Table 1. Overview of key issues of the traditional and alternative paradigms.

Key issues	Traditional paradigms	Alternative paradigms
Problem formulation	A single objective, optimization; if multiple objectives, then trade-off on one scale	Alternative solutions on separate dimensions without trade-offs
Data demand	Overwhelming importance	Reduced importance
Judgment of data	Science & consensus orientated	Simple and transparent, clarifying terms of conflict
Role of actors	Passive objects	Active subjects
Decision making	Top down, single decision maker	Bottom up, multiple decision makers
Uncertainty	Try to abolish uncertainty	Accept uncertainty

History of risk communication

- All we have to do is get the numbers right
- All we have to do is tell them the numbers
- All we have to do is explain what we mean by the numbers
- All we have to do is show them they've accepted similar risks in the past
- All we have to do is show them that it's a good deal for them
- All we have to do is treat them nice
- All we have to do is make them partners
- All of the above

Fischhoff, B., in: Löfstedt en Frewer (1998), p. 133-148

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Thank you for your participatience!