

# **Sustainable Cities must be Smart Cities Smart Cities must be Learning Cities**

A plea for a  
remote sensing based

**MyWikiSustainableCity**

Open Internet Platform

GeoLand 2 Forum  
Berlin 12-14 May 2009

**Harris C.M.Tiddens**

# Present Situation: Cities?

## Cities have a behaviour

- Cities live and can die
  - They can be
    - benign for their civilians as well as a hell
    - Stupid or Smart
    - self cleaning or self poisoning
    - parasitic on their environment
  - Do we already have smart Sustainable cities?

# Present Situation: Learning?

## Who is helping to learn?

- 1) Are the National states helping
- 2) Cities are so connected.....but can they learn from each other?
- 3) Who is helping the cities on a global scale to learn from each other at present?
- 4) How does this compare with for instance the WHO?
- 5) We talk about remote sensing, but would somebody see our national states out of space?
- 6) Can we extrapolate research done in one city to another peer city
- 7) Two programs to describe cities in a universal way.
  - 1) 100 Cities program of the University of Arizona
  - 2) Urban Atlas
    - 1) simple universal City description language
    - 2) "translation layer" for a city 2 city cooperation.

# But are we at the moment able to answer essential questions?

- What is the ideal size of a city with respect to pleasant sustainability?
- What is the ideal volume/height of a neighbourhood with respect to traffic, road surface and public transport capacity.
- How much volume could/should we increase in a neighbourhood with respect to traffic.
- Where is the optimum with respect to building efficiency and advantage to traffic?
- What is the volume of a certain urban neighbourhood with respect to emitted CO<sup>2</sup>, what is then better improve existing neighbourhood or tear it down and build a new one?
- Or how much Energy was invested just to build the city?

# Are we making use of the knowledge of all stakeholders?

- Prague has surely a volatile democracy as most western cities, but what about the other 7000 cities?
- We need Smart cities, we need learning cities What if...
  - We would could use Remote sensing and GIS processing to bring all cities homogeneous to **open** source vector graphics
- Of course Remote Sensing Data always need to be corrected. What if..
  - We enable other stakeholders via an **open** platform to attach their sustainability relevant information to the respective cells?
  - What if we could use these same location based vectors...Neighbourhoods!...to attach solutions and discuss about Best Practices?

# Vision

In 2025

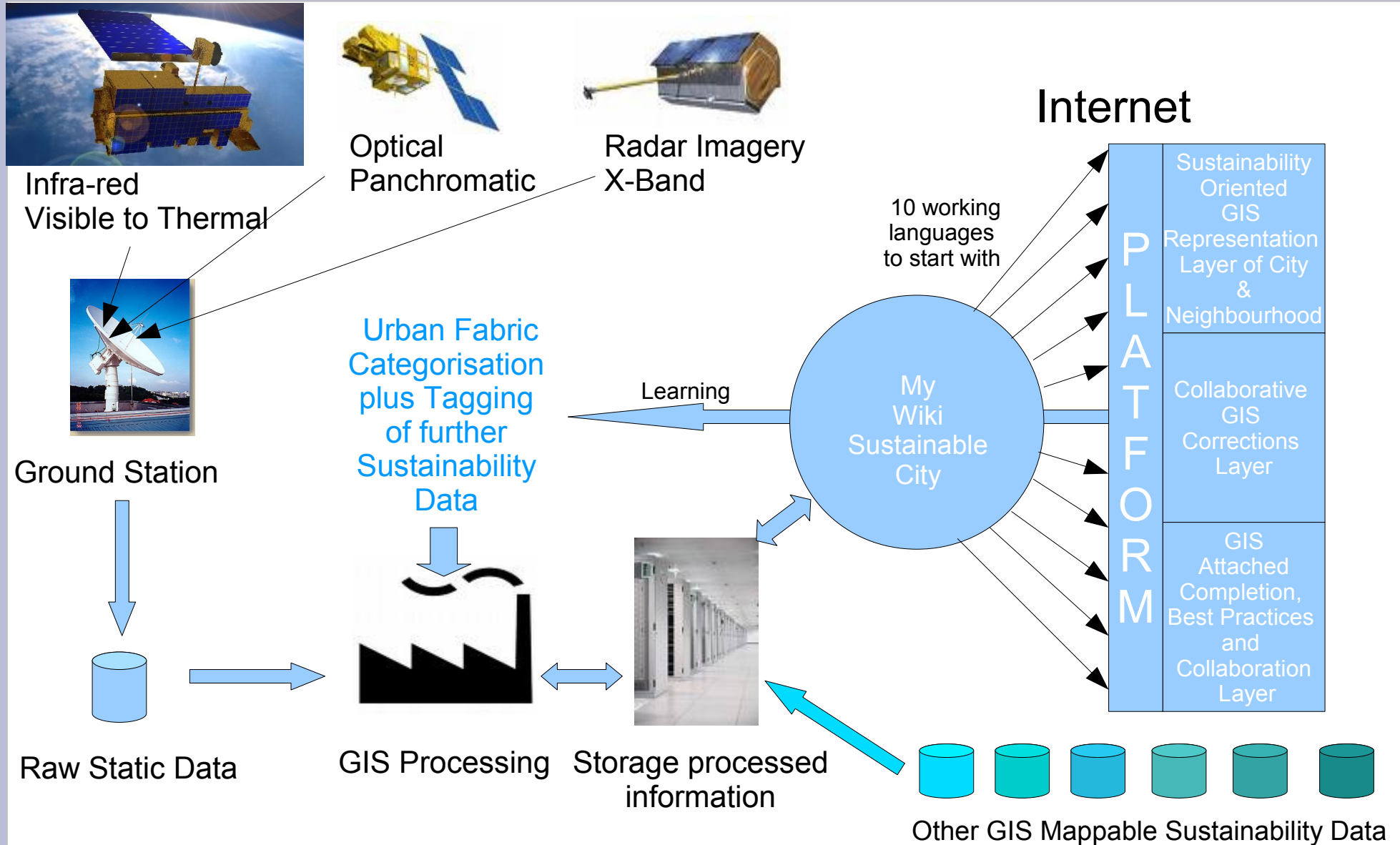
- Of our legacy cities:
  - Worldwide 50% will have learned to learn from each other
  - They have thus - with sufficient speed - matured to smart, creative and pleasant sustainable urban communities.
- New cities
  - are all build to state of the art sustainability praxis and serve as lighthouses for the reform of the legacy cities.
- We have an effective worldwide “Urban Sustainability Care” based on a homogeneous information base and global cooperation

# Mission

Until 2015 we:

- Have to create a simple universal Urban model with -constant- well defined terms and measurable sustainability parameters.
- Use Remote Sensing, GIS and further sources to create typologies of all cities of more than 100.000 inhabitants based on their
  - Geomorphological and climatological properties
  - Urban form and Urban fabric, -ecology etc.And deliver time series on the respective sustainability parameters
- Publish these data on a - multi lingual – MyWikiSustainableCity Platform where all the stakeholders can see their respective cities and city cells
- Enabled the stakeholders to correct and amend the vector data
- Thus have enabled the stakeholders of cities and city cells to:
  - See themselves in an unbiased benchmarking global mirror
  - To find their urban peers easily on a global basis
  - To define what the sustainability target really should be
  - Track down and review the best practices to achieve these targets

# MyWikiSustainableCity



Thank you!



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Sustainable Thinking Systems  
可持续的思维体系

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The name is a working name, but it is on purpose connected to the Wikipedia movement, a movement that mobilises the enormous power of free motivated collaboration.

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National states emerged mostly by one or a cluster of cities subduing the rest.

- To the inside the national states then mainly extracted tax-income from these cities
- A large part of these taxes were used to fix and if possible extend the borders of the state by - partially very aggressive- processes.
  - In some parts of the world like Afghanistan and Pakistan borders are still unclear. In some parts regions around clusters of cities want to from their own state (Kurdistan)
  - Some oceanic areas areas (Arctic) have no clear allocation to the states. But the North Sea has shown that such arrangements are possible by peaceful means.
  - But for the rest this crystallisation process has been closed.
- After the age of nationalis

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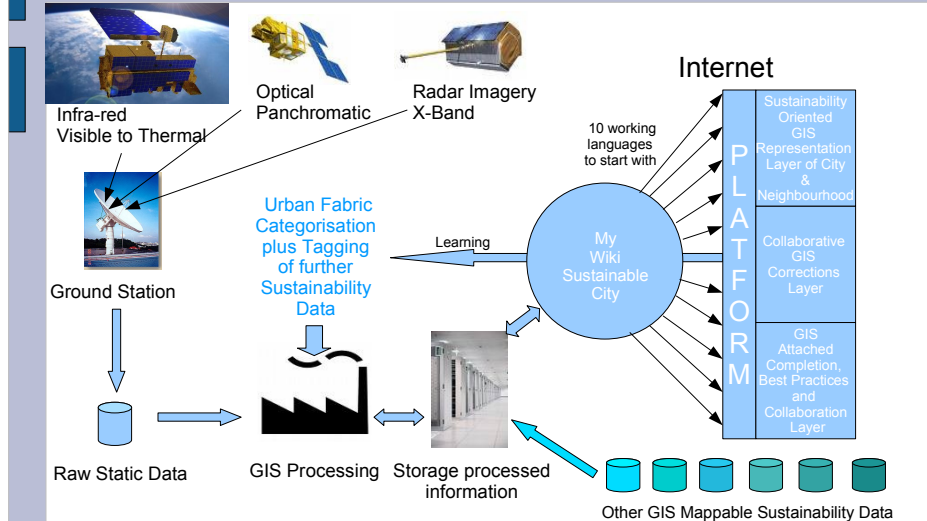
Just like we have a World Health Organisation

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And this is how the platform should look like.

This is mature existing airborne technology, nothing spectacular.

Thank you!



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