



POST-CARBON CITIES OF TOMORROW POCACITO

Measuring progress towards a post-carbon city

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Sep 2, 2016



The POCACITO project has received funding from the European Union's Seventh Framework Programme for Research, Technological Development and Demonstration under Grant Agreement Number 613286.



POST-CARBON CITIES OF TOMORROW

- We support the transition towards Post-Carbon Cities in Europe and beyond
- Using participatory vision-building and scenario development with a broad range of stakeholders and citizens (accessibility = sustainability)
- Exchanging on best practices across different sizes of cities in various climatic and topographic settings





POCACITO IN THE WORLD

- POCACITO cities include:
 - Barcelona, Copenhagen, Istanbul, Lisbon, Litomerice, Malmö, Milan, Rostock, Turin, Zagreb
 - Sao Paulo (BR) and Guangyuan + Xiamen (China)
 - Bottrop, Dresden, Essen, Hamburg, Leipzig and Munich
- POCACITO cities in the US:
 - Denver, Detroit, Houston, Las Vegas, Memphis and Minneapolis
- Partnering with Clean Air Asia's Clean Air Partnership

WHAT IS A POST-CARBON CITY?

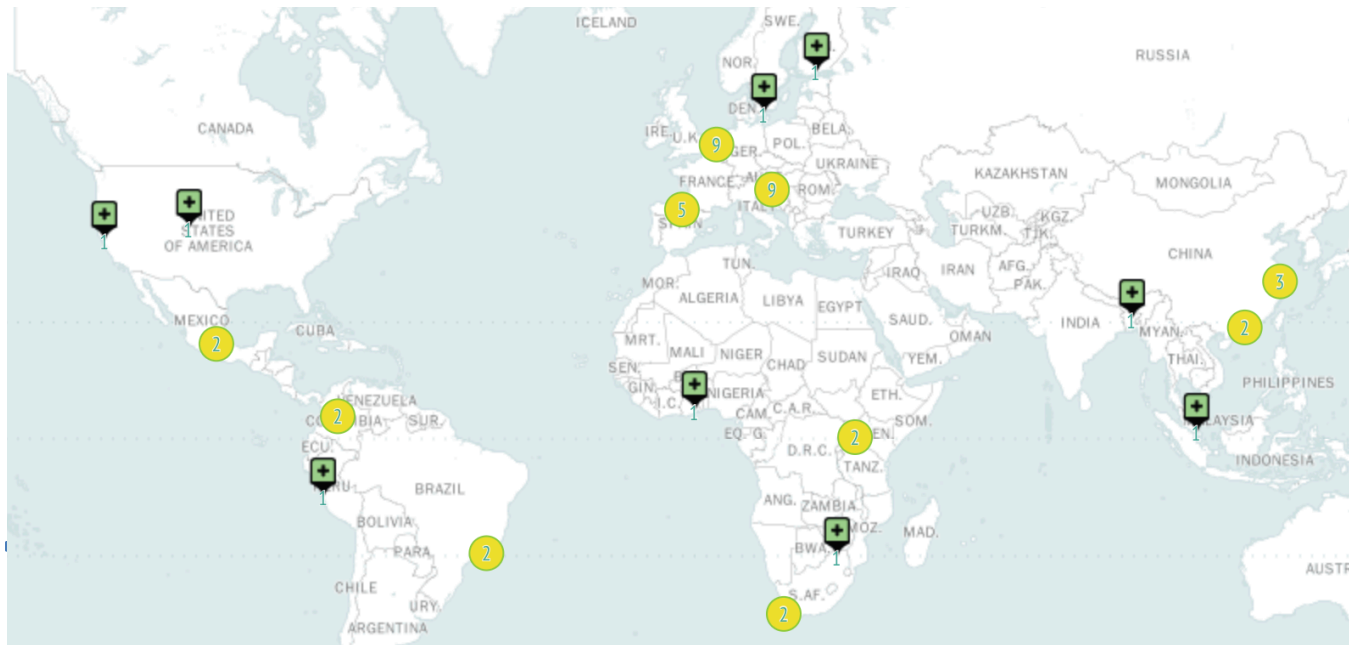
- A rupture in the carbon-dependent urban system with high levels of greenhouse gas emissions
- A transformation responding to the challenges of
 - climate change
 - ecosystem degradation
 - social inequity and economic pressure
- A holistic city which covers sustainability in
 - environmental,
 - social, and
 - economic terms





MARKETPLACE OF IDEAS

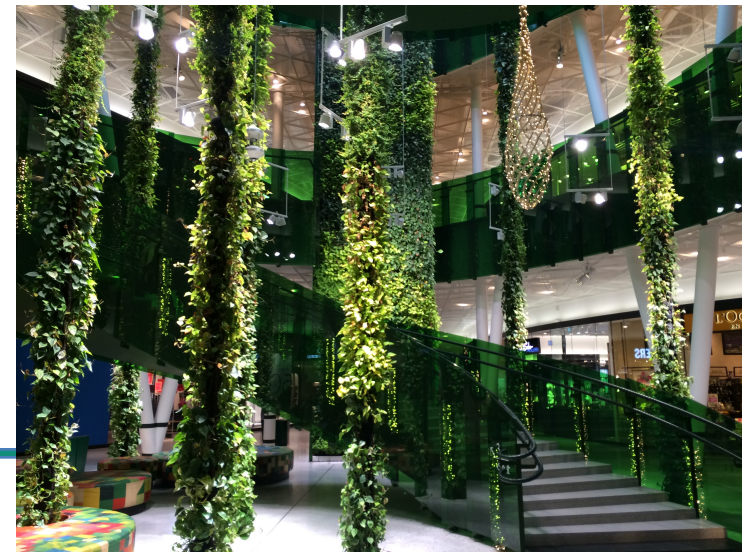
- 60+ fact sheets, searchable by topic, location, size
- 15 fact sheets translated into Mandarin
- June 2015 study tour to Central Eastern Europe (Zagreb, Ivanic-Grad, Maribor, Graz, Güssing, Vienna)
- Oct 2016 tour to Paris, Loos-en-Gohelle, Brussels





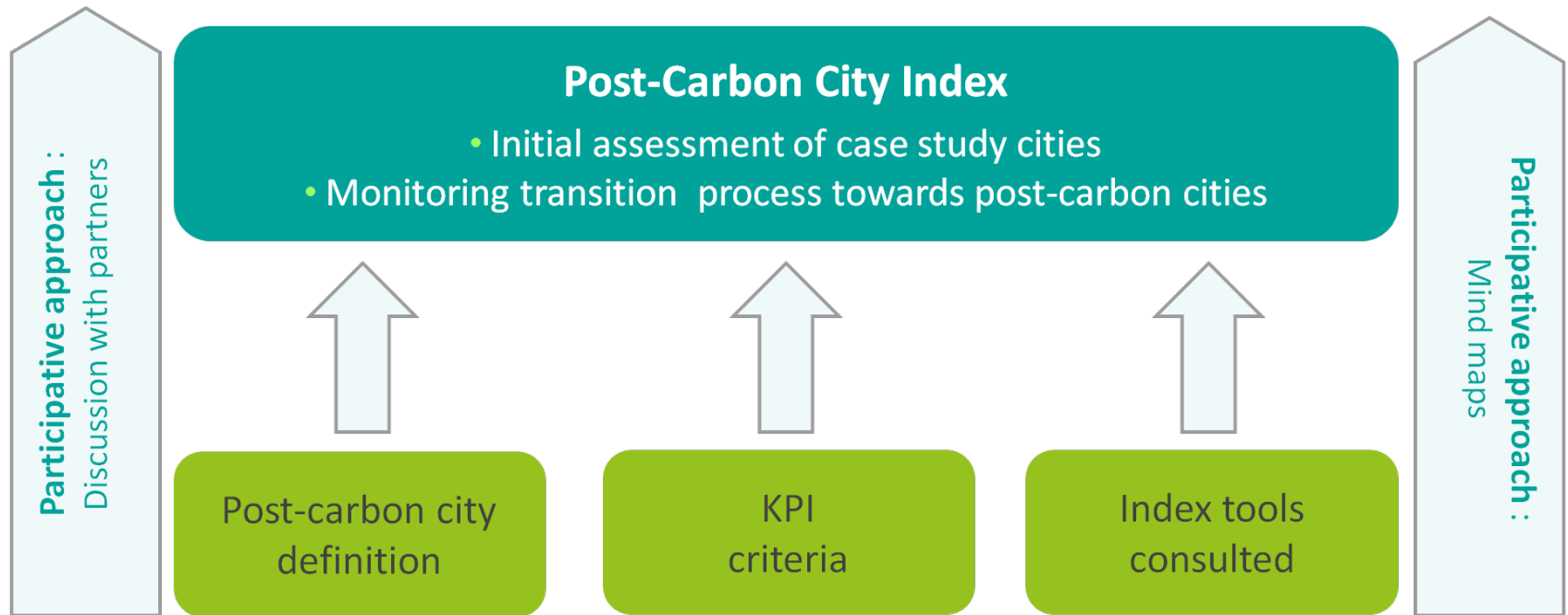
A ROADMAP FOR POST-CARBON CITIES

- process-oriented
 - non-prescriptive
 - focus on participatory vision-building
 - translating qualitative vision via back-casting into actionable targets (who does what by when)
 - quantification of status-quo and post-carbon vision
 - monitoring of progress
 - enabling adaptive policy-making



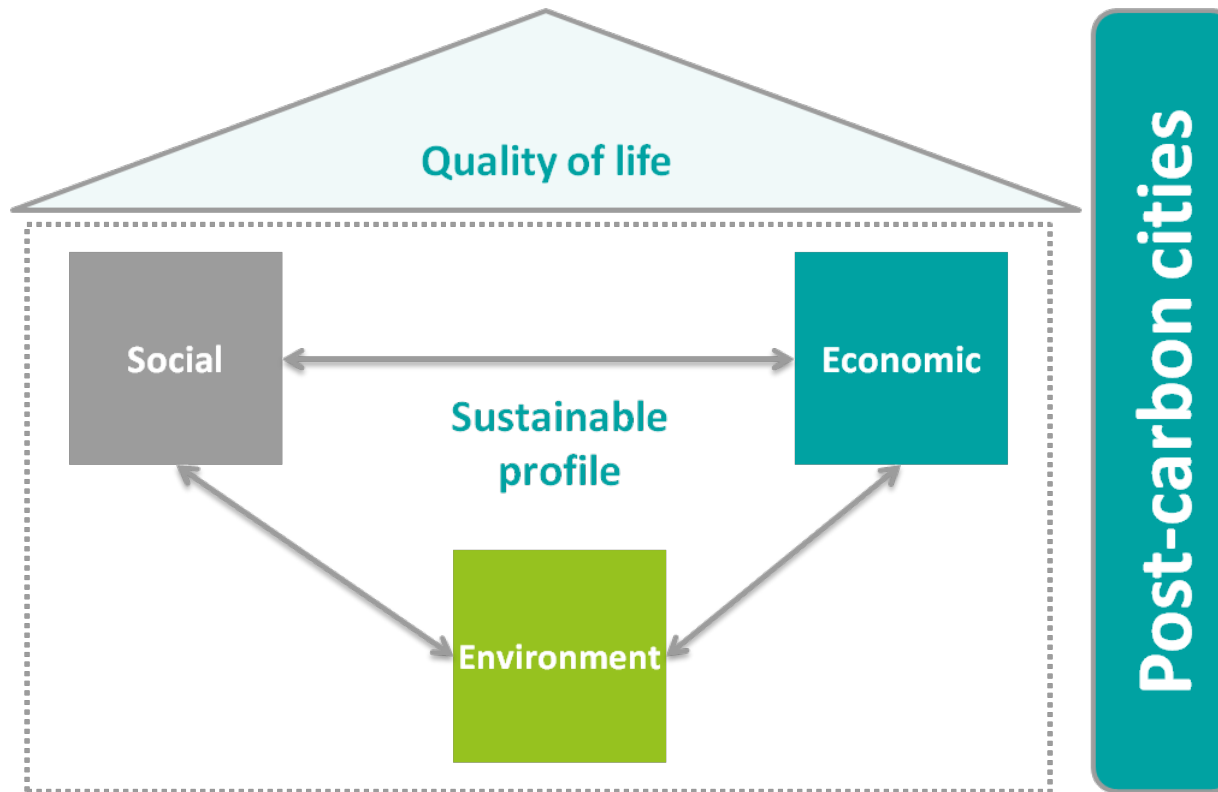
HOW TO MEASURE PROGRESS?

- Development of a set of Key Performance Indicators – the Post-Carbon Cities Index (PCI)

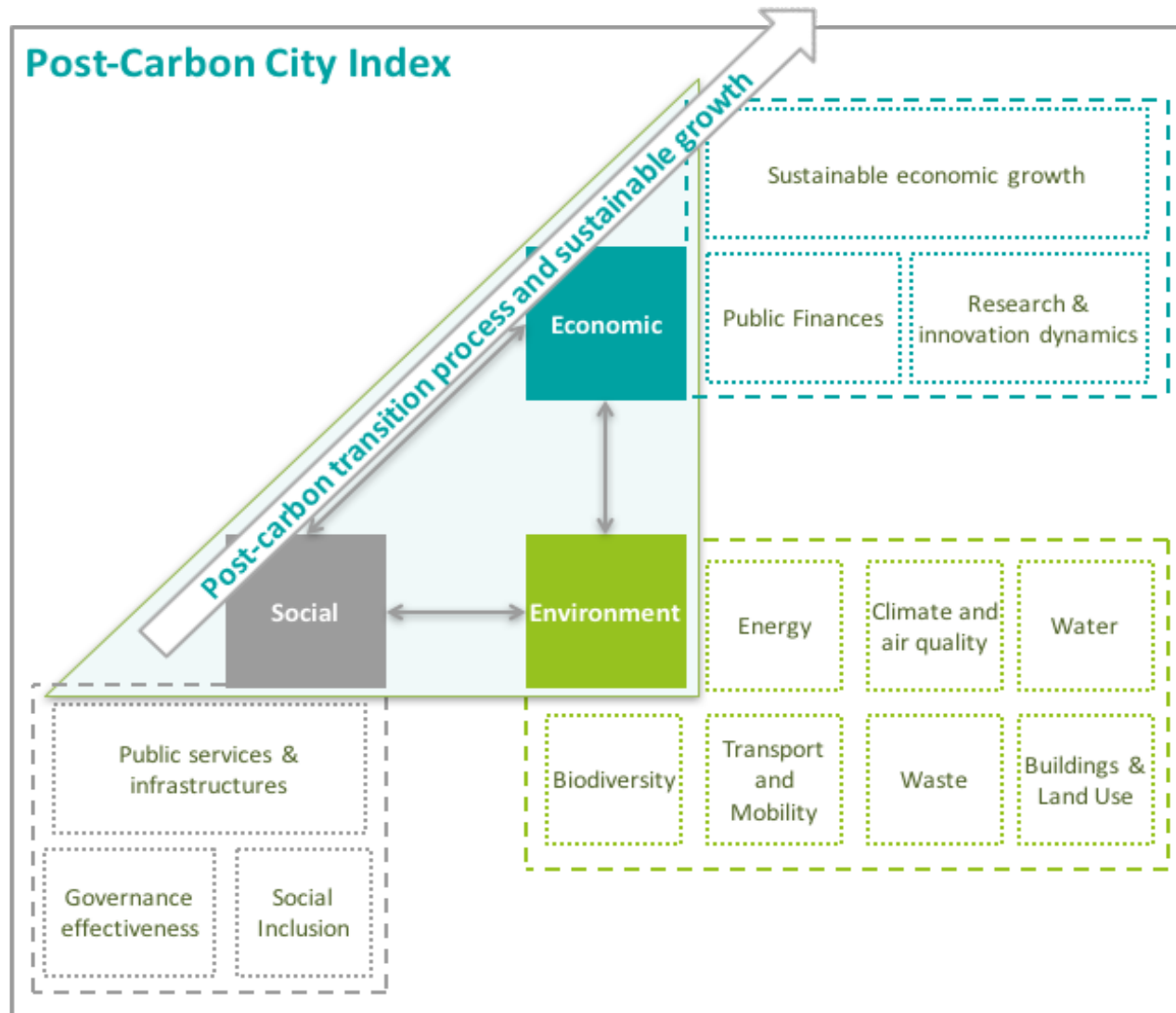


POST-CARBON CITIES INDEX

- Conceptual model



PCI DIMENSIONS AND SUB-DIMENSIONS





SELECTION CRITERIA

- Relevance
 - link to POCACITO definition
 - city's influence on indicator
 - relevance for different sizes of cities
- Clarity of message
 - message and direction clear
 - easily understandable name
- Data availability
 - available at city level
 - frequency, costs
- Data quality





PCI - ENVIRONMENT

DIMENSION	SUB-DIMENSION	INDICATOR	UNIT	YEAR
ENVIRONMENT	Biodiversity	Variation rate of ecosystem protected areas	Percentage	2012
	Energy	Energy intensity variation rate	Toe/euro Toe	2003 2012
		Variation rate of energy consumption by sectors	Percentage	2003 2012
		Variation rate of carbon emissions intensity	Ton CO ₂ /euro Ton CO ₂	2003 2012
	Climate and Air Quality	Variation rate of carbon emissions by sector	Ton CO ₂	2003 2012
		Exceedance rate of air quality limit values	No.	2010 2012
		Transport and mobility	Variation share of sustainable transportation	Percentage
	Waste	Variation rate of urban waste generation	Kg/person/year	2007 2012
		Variation rate of urban waste recovery	Percentage	2007 2012
	Water	Water losses variation rate	m ³ /person/year	2003 2012
	Buildings and Land Use	Energy-efficient buildings variation rate	Percentage	2007 2012
		Urban building density variation rate	No./ km ²	2003 2012



PCI - SOCIAL

DIMENSION	SUB-DIMENSION	INDICATOR	UNIT	YEAR
SOCIAL	Social Inclusion	Variation rate of unemployment level by gender	Percentage	2003-2012
		Variation rate of poverty level	Percentage	2003-2012
		Variation rate of tertiary education level by gender	Percentage	2003-2012
		Variation rate of average life expectancy	Average No.	2003-2012
	Public services and Infrastructures	Variation rate of green space availability	Percentage	2003-2012
	Governance effectiveness	Existence of monitoring system for emissions reductions	Yes/No Description	2013



PCI - ECONOMIC

DIMENSION	SUB-DIMENSION	INDICATOR	UNIT	YEAR
ECONOMY	Sustainable economic growth	Level of wealth variation rate	eur/person	2003-2012
		Variation rate of GDP by sectors	Percentage	2003-2012
		Employment by sectors variation rate	Percentage	2003 2012
		Business survival variation rate	Percentage	2008,2009 ,2010
	Public Finances	Budget deficit variation rate	Percentage of city's GDP	2003-2012
		Indebtedness level variation rate	Percentage of city's GDP	2003-2012
	Research & Innovation dynamics	R&D intensity variation rate	Percentage	2003-2012



REFLECTIONS ON PEER-REVIEW

- A powerful tool for improving local plans
 - reducing errors and mistakes
 - improving value of plan for host city
 - improving quality of all future plans (co-learning)
- Ensures comparability between local plans
- Establishes shared quality standards
- Increases credibility of plans
- Increases political pressure to implement measures to achieve goals and targets



THANK YOU

- more on POCACITO
 - <http://www.pocacito.org/> and
 - <http://pocacito.eu/>
 - Twitter: [@POCACITO](https://twitter.com/POCACITO)
 - LinkedIn groups:
 - [POCACITO in the US](#) and
 - [EU Cities](#)
 - Facebook group:
 - [POCACITO in Germany](#)
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