

# TWP1. THE OBSERVATION SYSTEMS AND DATABASES

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## PRESENTATIONS

White Book Marseille Big City

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Thomas Curt (Irstea)

OT-Med Data Catalog

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Romain Suarez (OT-Med)

Project Mediterranean Cities and Climate Change

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Hubert Mazurek (LPED)

Project Anthropogenic CO2

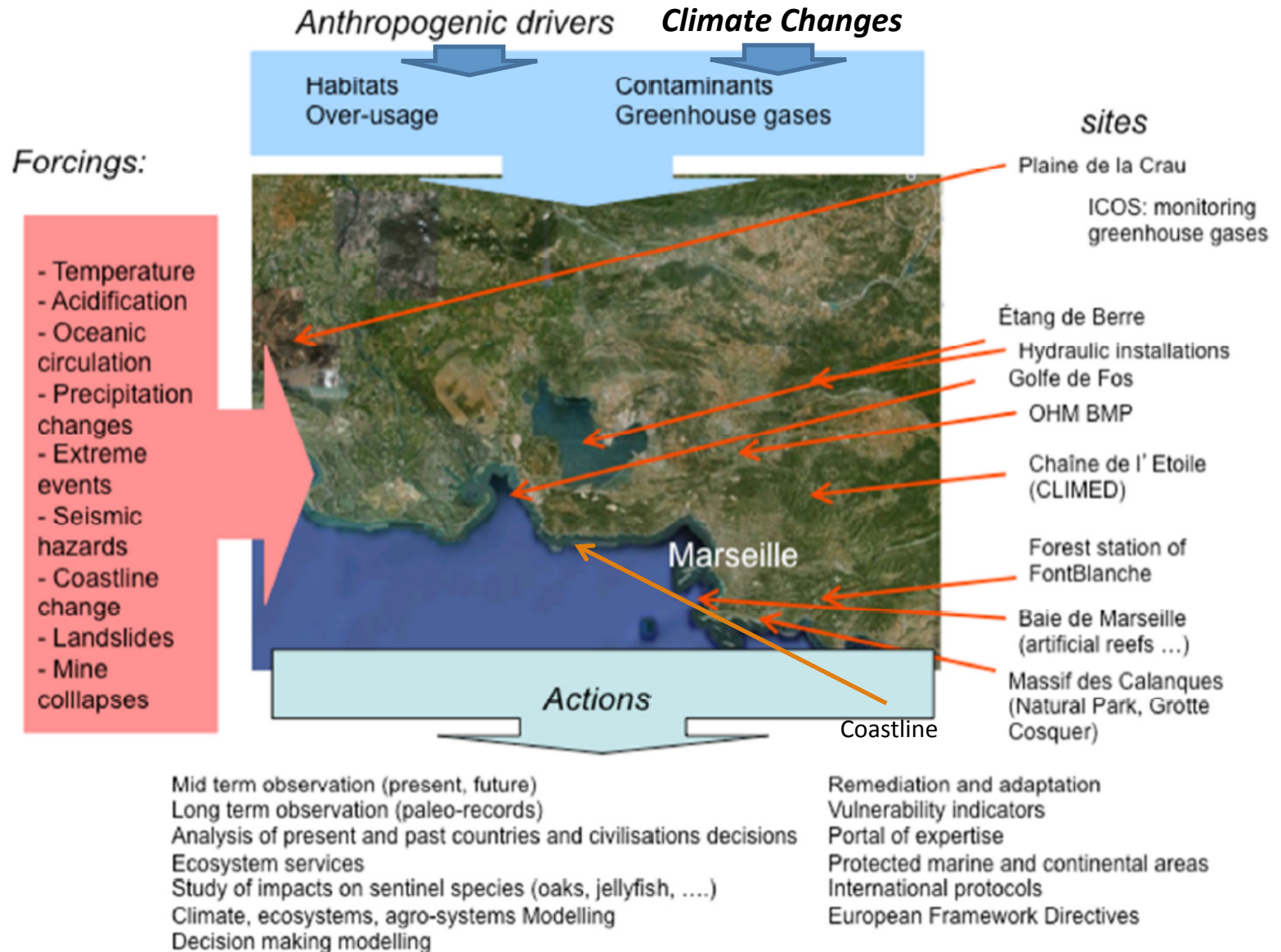
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Dominique Lefèvre (MIO)

## White Book 'MARSEILLE BIG CITY'

The sustainable development of  
Mediterranean big cities:  
*the case of Marseille and its environment*

# Defining the Issue of the White Book



# The objectives

- Confront scientific disciplines on issues related to the **sustainable development of a great Mediterranean metropolis**
- Articulate scientific knowledge and the needs and challenges of sustainable management (science and action)
- *Keywords: climate - environment – anthropogenic impacts*



## Expected Outputs

- ▶ Support to policy/decision makers facing the environmental challenges of Marseille and its environment
- ▶ Provide science-based information for management and decision (present state, future scenarios, indicators, tipping points)
- ▶ TWP1: How to change observatories to better respond to future challenges?

# The Target Audience

- Decision makers, people in charge of public policy, scientists, teachers

# An Editorial Board

- To be determined: make contacts



# Coordination and the Editorial Process

- Present state = 3 meetings with scientists and decision makers
- A first content
- Each coordinator works with all relevant colleagues
- Chapters reviewed by contributors to other chapters and by policy-makers and managers: strong interactions are expected!
- Final meeting for the final redaction

# The Time Schedule

- First Draft: February, 2015
- Publication: End 2015



# The Content (present proposal)

- Preface by an outsider
- Introduction: reminder of objectives

## TOPICS

Natural and Technological Hazards  
Land Uses  
Biodiversity  
Marine Environnement  
Urban Environnement  
Coastal Environnement  
Climate

## Coordinators

T. Curt  
C. Napoleone  
M. Deschamps-Cottin, V. Montes, L. Affre  
S. Ruitton, P. Raimbault  
H. Mazurek, E. Dorier  
S. Robert, I. Laffont-Schwob  
X. Giraud

- Provide a list of data sets using the OT-MED Portal
- Glossary and definitions (eg sustainable development)

# The Content (present proposal)



- Common sketch for all chapters
  1. State of the art/knowledge for scientists and decisions makers
  2. The drivers of changes (anthropogenic/environmental)
  3. Future stakes: challenges for sustainable development, tipping points...
- Scope = metropolis and its environment (but do not overlook the larger scale)
- Highlights: *systemic approach - transversal environmental issues, multidisciplinary approach*
- Identify key issues for sustainable development (variable definition / discipline and topics)
- Based on case studies: Valley of Huveaune, polluted soils, Berre lagoon...



# Any Suggestions/Ideas?



- A Reflection of topics not yet studied:
  - Health?
  - Urban hydrology?
  - Transportations?
  - Management of Energy?
- Others?

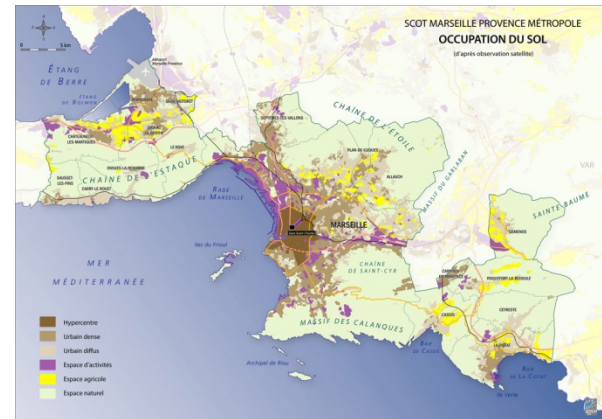
# Chapter 1 - Natural and Technological Hazards

- State of the art: Characterizing the hazards, the people in charge and the regulations
- The drivers of hazards in the Marseille area
- The future hazards: effects of climate, land uses, urban dynamics, regulations...
- Future stakes: observation networks and databases, tipping points, modelling future hazards, vulnerability, indicators, multi-hazards...
- Observations and databases



# Chapter 2 – Land Uses

- Land use history: What has changed in the Marseille area (land uses and urban development)
- Drivers and analyses of land use changes and urban development, anticipation
- Sustainable development? (examples, public policies, disturbances on environment)



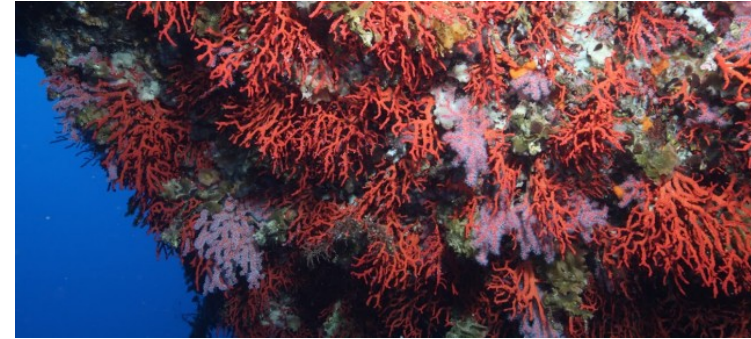
# Chapter 3 – Biodiversity

- State of the art on biodiversity: littoral, urban, terrestrial, freshwater
- What has changed: anthropogenic pressure, climate changes, management
- Prospects: socio-ecological response, resilience, adaptation, biodiversity and human well-being
- Indicators for public policies



# Chapter 4 – Marine Environment

- State of the art: marine zone and habitats (knowledge, management, restoration)
- Impacts of climate change and anthropization: from species to ecosystems and landscapes
- Socioeconomic consequences and ecosystem services, environmental quality
- New Perspectives: public policies and management, prevention, sustainable development, observation and databases



# Chapter 5 – Urban Environment

- State of the art: urban and socio-economic drivers of urban development and intensification (public decision, political choices, industry...) and case studies (Ste Marthe?)
- Questioning the policy of segregation and fragmentation: social coexistence process (urban development, environmental inequalities, environmental consequences, congestion...)
- Heart of island: Heat island
- Environment as quality: quality assessment? Social quality? Closing disrupting traffic
- The governance component: analyze the differences in position, the needs and innovation stakes



# Chapter 6 – Coastal Environment

- State of the art: the coastal system and its interfaces, multi-scalar, multi-actions
- The main stakes for the coastal area
- The Sea/Land interface: specific functions, nuisance and attractiveness, retroactions, environmental projections
- Prospects for the coastal environment



# Chapter 7 – Climate Change

- The issues: climate / scaling -transfer territory from global to local - identifying climate risks (read grid)
- Inventory: examples - forecasts (modeling ...)
- Observation - the parameters ???
- Inequalities adaptations ???
- Legislation - climate plan
- Foresight: integrated approach - time scale - adaptation - good practices

