

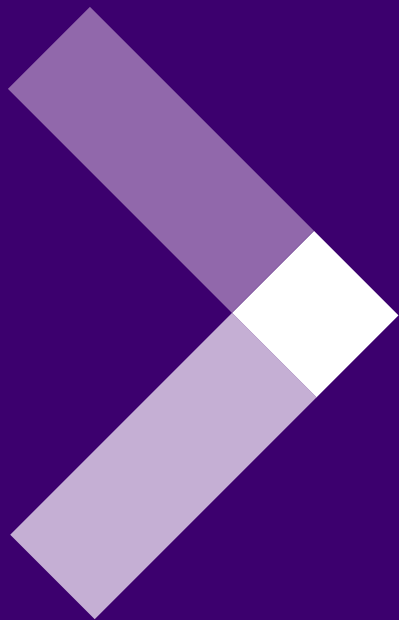
RESALLIANCE
Consulting / Modélisation / Project

CLIMATE CHANGE ADAPTATION

BUILDING YOUR RESILIENCE

Karim SELOUANE
CEO Resalliance
VINCI Construction

Lowering the stake of resilience infrastructure thanks intrapreneurship & open innovation



AT STAKE: FACING CLIMATE CHANGE



THE STAKE: “AN INCONVENIENT TRUTH”

- Cities and infrastructures are facing **shocks** and **stresses** due to climate change
- Adaptation will cost **\$80 to \$100 Bn per year** and will be borne by urban areas



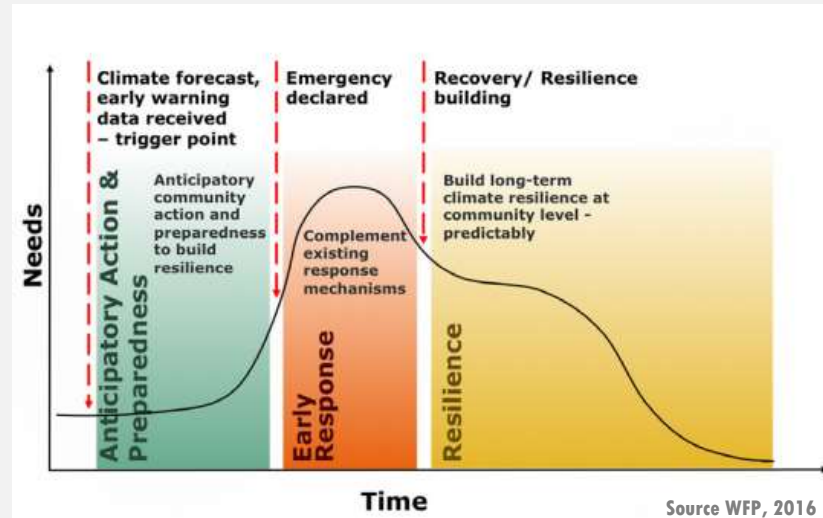
Source: [World Bank](#), 2016

“Shifts in our climate bring potentially **profound implications for insurers, financial stability and the economy**”

Mark Carney, Governor of the Bank of England, Chairman of the Financial Stability Board (Sept. 2016)

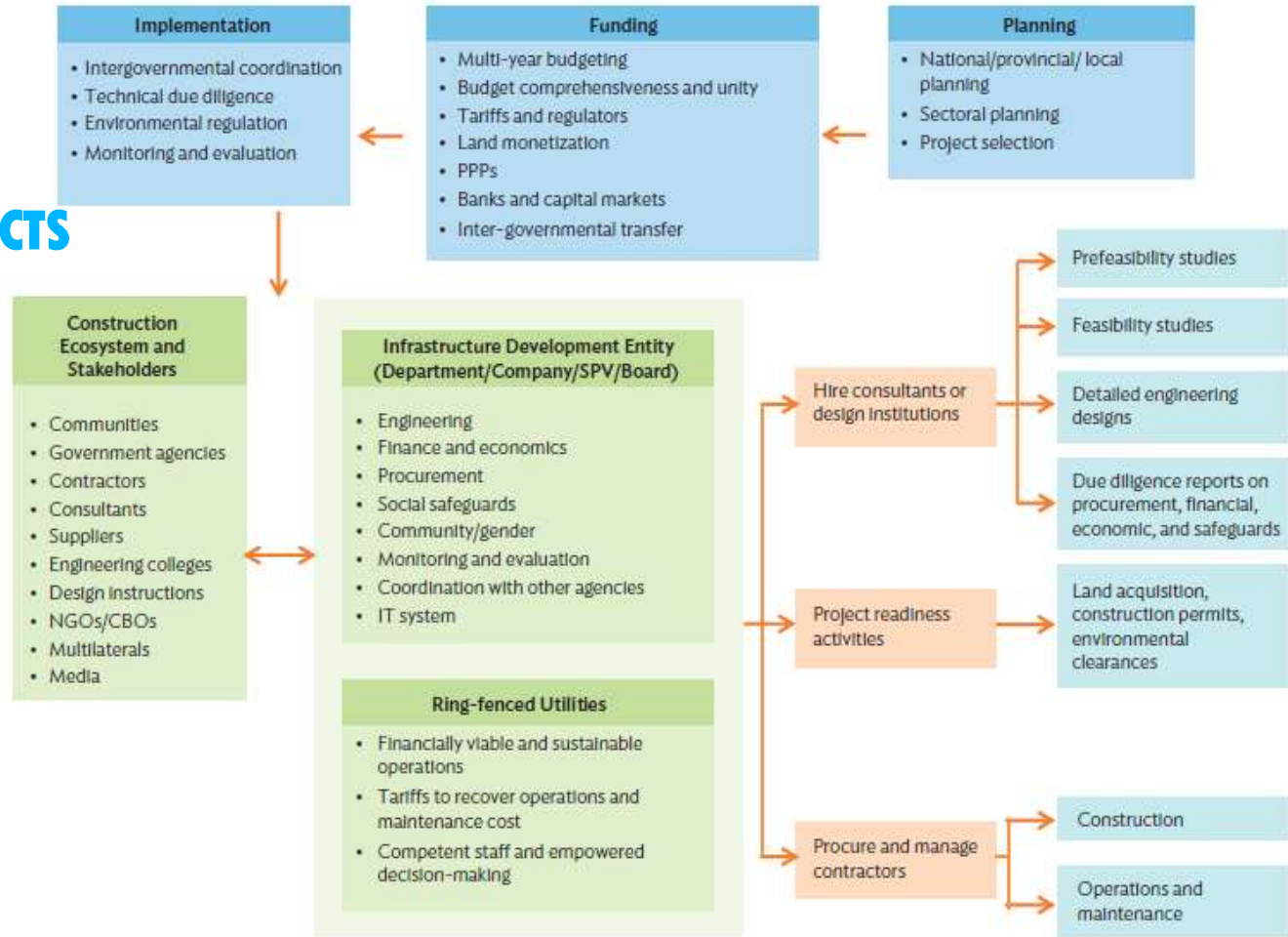
RESILIENCE DIVIDENDE

- How much would it cost to private & public stakeholders if we don't tackle Resilience ?
- Cost of dysfunction
- Cost of emergency adaptation
- Cost of insurance risk
- Financial risk
- Losing first mover position & competitive advantage



CLIMAT CHANGE « JUSTLE » THE CYCLE INFRASTRUCTURE PROJECTS

- Uncertainty on the predictive modele
- Impact on the planning & implementation over the entire project cycle (DBCO)
- New competencies, innovative technical solution
- New stakeholders ecosystem



FACING CLIMAT CHANGE : WHAT INNOVATIVE TECHNICAL, FINANCIAL & GOUVERNANCE MODEL TO BUILD ?

Entrepreneurship & intrapreneurship

A taste for entrepreneurship is one of the common denominators of all VINCI employees. Leonard supports all the men and women who want to turn their innovative ideas into tomorrow's businesses.

[All themes](#) ▾

[See all contents](#) ▾

RESALLIANCE Intrapreneurship feedback

TO EMERGE A RESILIENCE ECOSYSTEM

Private Stakeholders | Public Stakeholders

BUSINESS PARTNERSHIPS

- Business Development Div.**
- Sustainable Development **
- Strategic Marketing & Urban Development

INSTITUTIONAL PARTNERSHIPS

- 100 Resilient Cities:** Chief Resilience Officers (Paris**, Montreal**, Ho Chi Minh City**, London, Johannesburg, Hanoi, Singapore, New York**)
- C40:** Paris**, Barcelona**
- AFD**:** Climate Change Adaptation (Africa & SE-Asia)
- HQE Performance Resilience***
- Munich Climate Insurance Initiative**
- Viet Nam Ministry of Environment****
- Global Facility for Disaster Reduction and Recovery

TECHNICAL PARTNERSHIPS

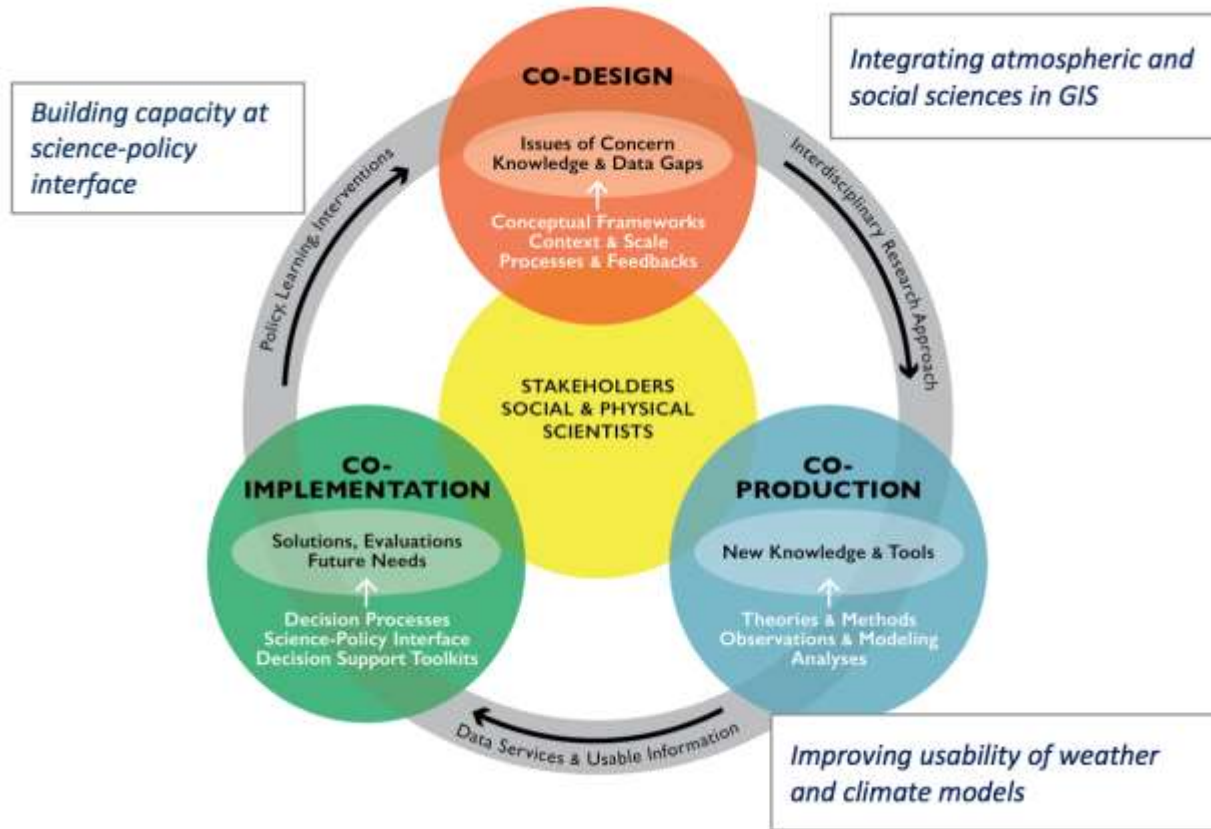
- Information System (GIS & BIM)**
- Technical & Innovation Div.**
- Financial Div
- Risk (management) Div
- Insurance dIV

SCIENTIFIC PARTNERSHIPS

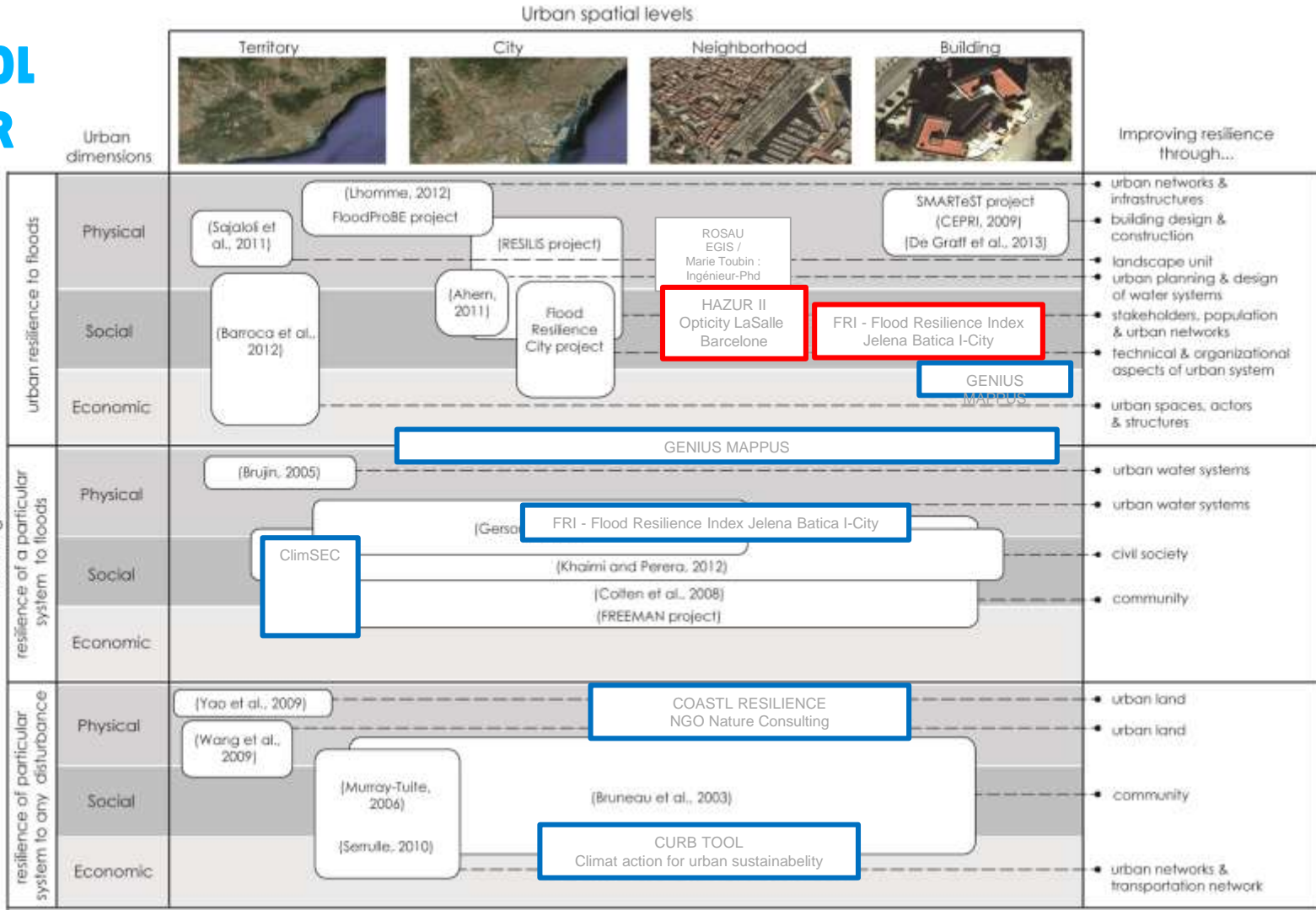
- Univ MLV*:** Labex Futursurbains with Mons & Montreal Univ.
- IMREDD*:**
- International University's LaSalle Network
- Ecole Polytechnique**:** Economics department
- Chair VINCI AgroParisTech**
- Ho Chi Minh City Univ.****
- Urban Climate Change Research Network*:** European hub



STRUCTURING EFFICIENT “ACTION-RESEARCH” PARTNERSHIP



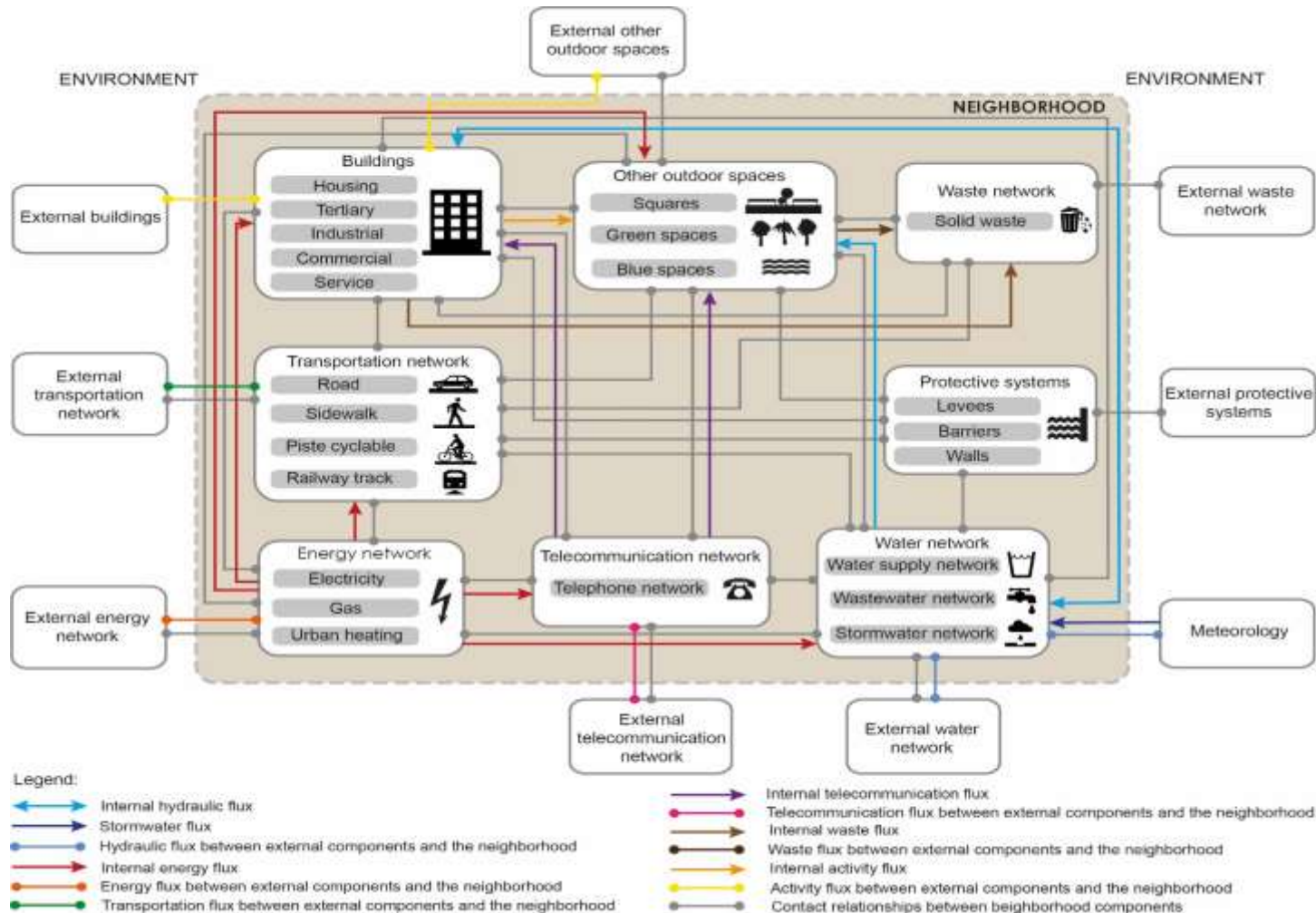
RESILIENT TOOL MAPPING FOR OPEN INNOVATION



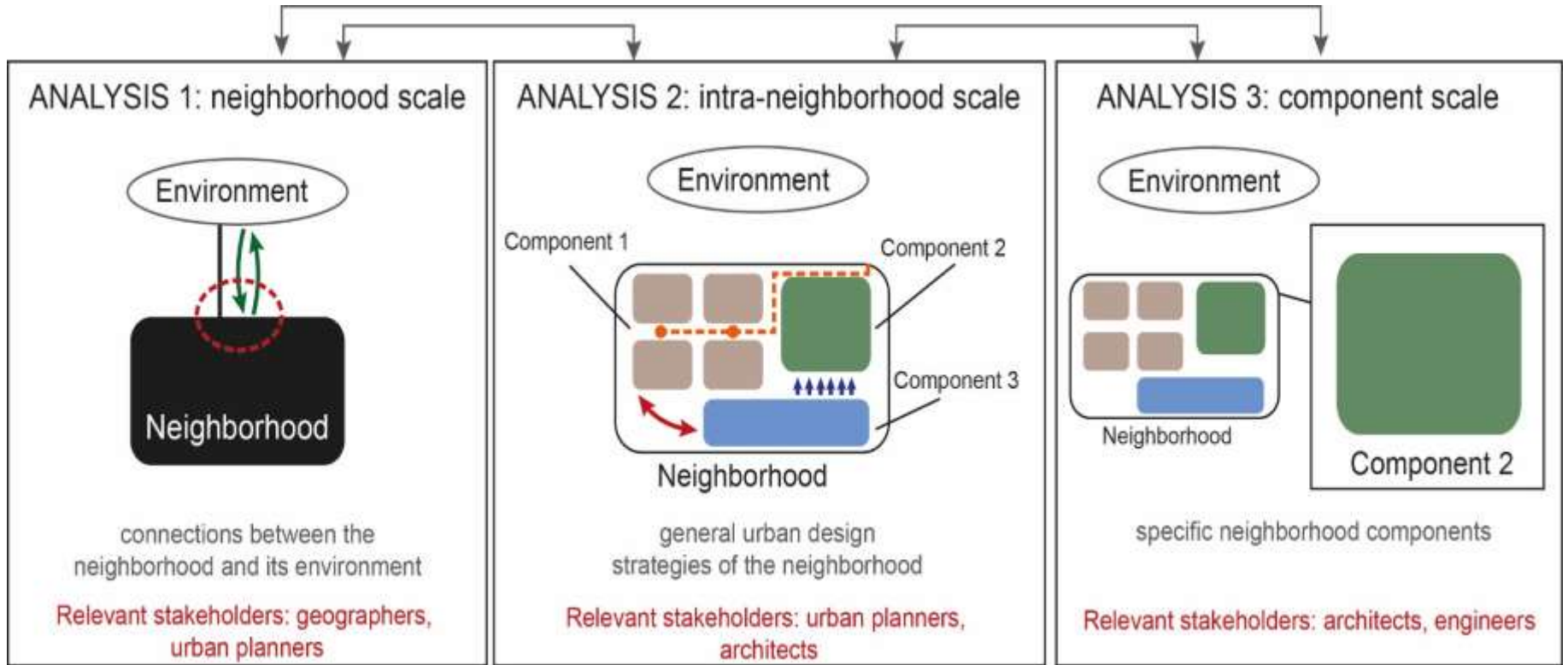
Source
Bruno Barocca UMLV 2015
Karim SELOUANE VINCI
Construction France WFP, 2018

BUILD A FUNCTIONAL RESILIENCE MODEL

Source Bruno Barocca UMLV
Karim SELOUANE JT VINCI Construction France WFP, 2015

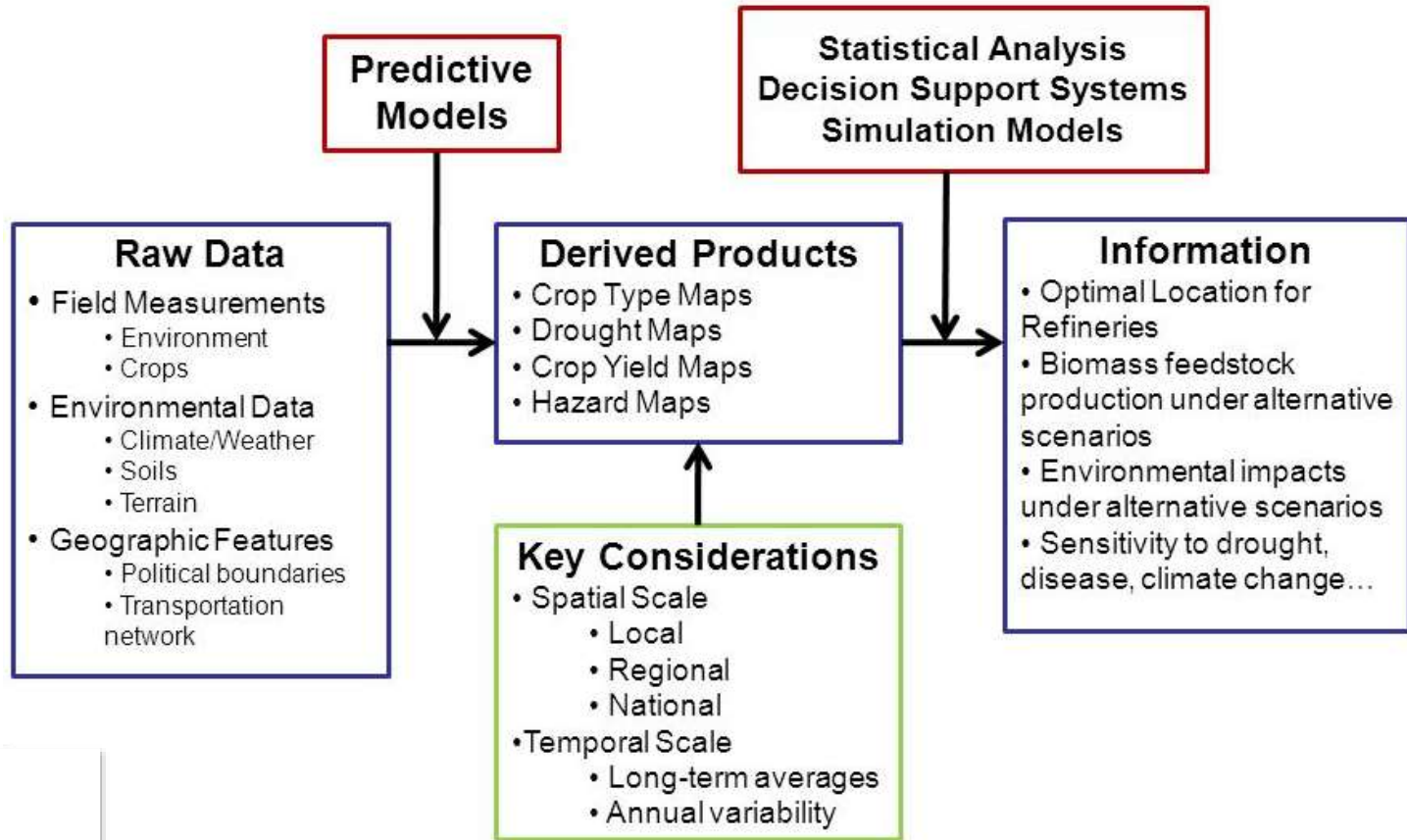


FUNCTIONAL RESILIENCE MODEL AND STAKEHOLDERS



Source Bruno Barocca UMLV / Karim SELOUANE 2017

EXAMPLE WORKFLOW FROM DATA TO SIMULATION MODELS



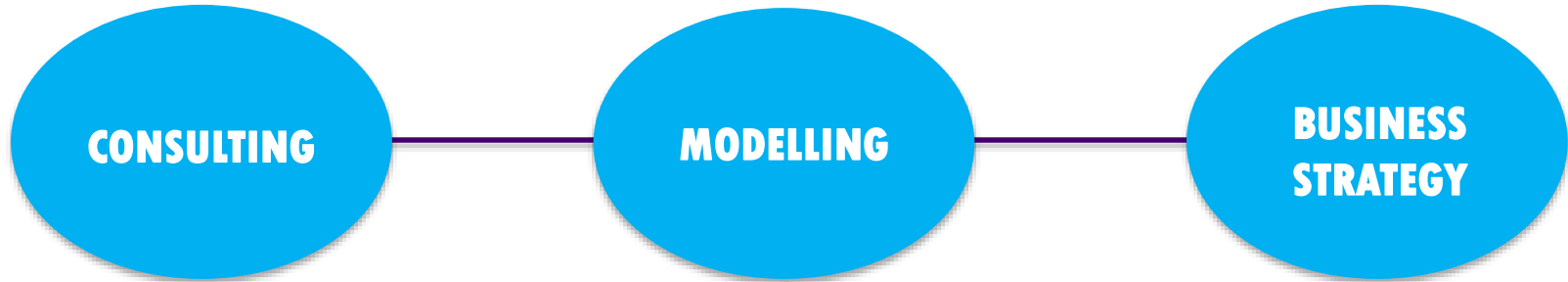


Plateforme
RÉSILIENCE VINCI



Support
Décision

Final product : Resallience, packaged services



THE DESIGN OFFICE TO SUPPORT VINCI & ITS COSTUMERS ON CLIMAT CHANGE ADAPTATION FOR THEIR PROJECTS, INFRASTRUCTURS AND THEIR USES

WHAT ARE THE CONTRIBUTIONS OF INNOVATIVE INTRAPRENEURSHIP FOR RESILIENCE ?

- **Innovative intrapreneurship program can play an important role in addressing environmental, financial & economic objectives to answer to climate change challenge**
- **Innovative intrapreneurship can also play an important role in addressing socio-economic change, land-use sectors due to their ability as “actors of change”—they often have greater freedom to experiment, take risks and develop more radical innovations**
- **Innovative intrapreneurship can also play a critical role in introducing breakthrough innovations and, in this way, initiate waves of technological change and innovation stimulating economic growth.**

THANK YOU FOR YOUR ATTENTION! ANY QUESTIONS?

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