ECOMORE II

AFD
AGENCE FRANÇAISE
DE DÉVELOPPEMENT

Lao Package:
An integrated data system

National Stakeholder Meeting
29 November 2019, Vientiane, Lao PDR

Marc Choisy
IRD Hanoi, Vietnam

ສະຖາບັນ ປັດສະເຕີ ລາວ
INSTITUT PASTEUR DU LAOS

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FRANCE

urban
epidemiological
simulator

urban
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simulator

epidemics management
urban planning

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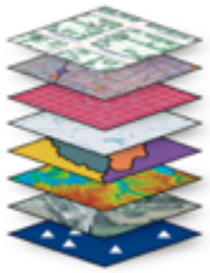
urban planning

co-variables



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learning from data

co-variables

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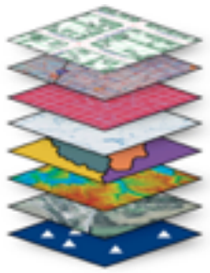

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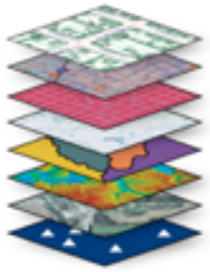

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Ecomore2-generated:

- entomology: density and resistance of mosquitoes (2019)
- seroprevalence: population immunity (2019)
- cases localities: home GPS coordinates

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available data:

census 2015
shapefiles 2005, 2015

daily and seasonal population movements

mobile phone data

co-variables

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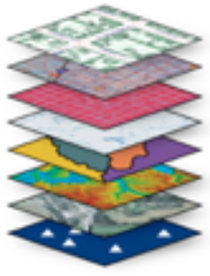

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GLOBAL + OPEN ACCESS

	variables	spatial resolutions	temporal resolutions
GHSL European Commission	building density	38 m	1990, 2000, 2014
world pop	population density	100 m	2000 ⟶ present
GLOBCOVER	land cover	300 m	2005, 2009
EROS • GSFC • KSC LDCM LANDSAT Data Continuity Mission NASA • USGS	surface temperatures	38 m	2018, monthly
SENTINEL 2	water bodies	polygons	2019
OpenStreetMap	indexes of centrality	GPS coordinates	real time

World Wide Web

GHSL

European Commission

world pop

GLOBCOVER

EROS • GSFC • KSC

LDCM

LANDSAT

Data Continuity Mission

NASA • USGS

SENTINEL 2

OpenStreetMap

World Wide Web

GHSL

European Commission

world pop

GLOBCOVER

EROS • GSFC • KSC

LDCM

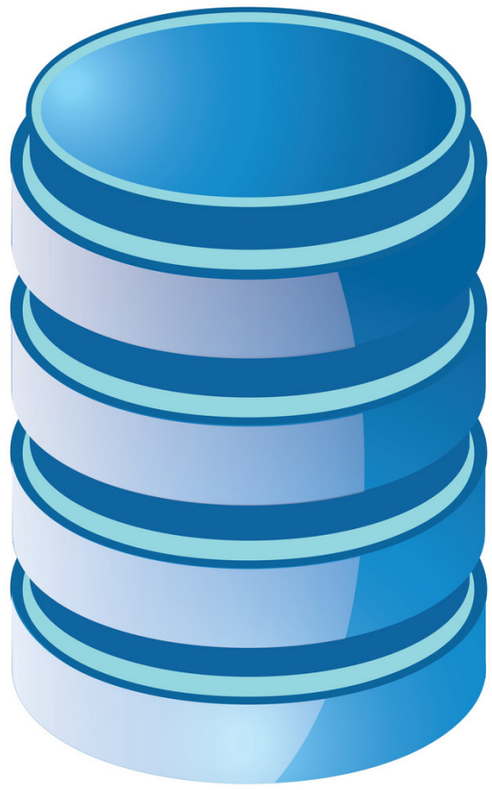
LANDSAT

Data Continuity Mission

NASA • USGS

SENTINEL 2

OpenStreetMap



Completion: 90 %

- fixing villages names and definitions
- automating LANDSAT and Sentinel

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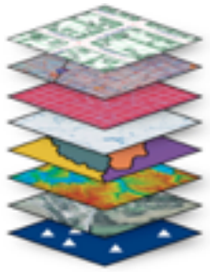
https://github.com/ecomore2

https://ecomore2.github.io

co-variables



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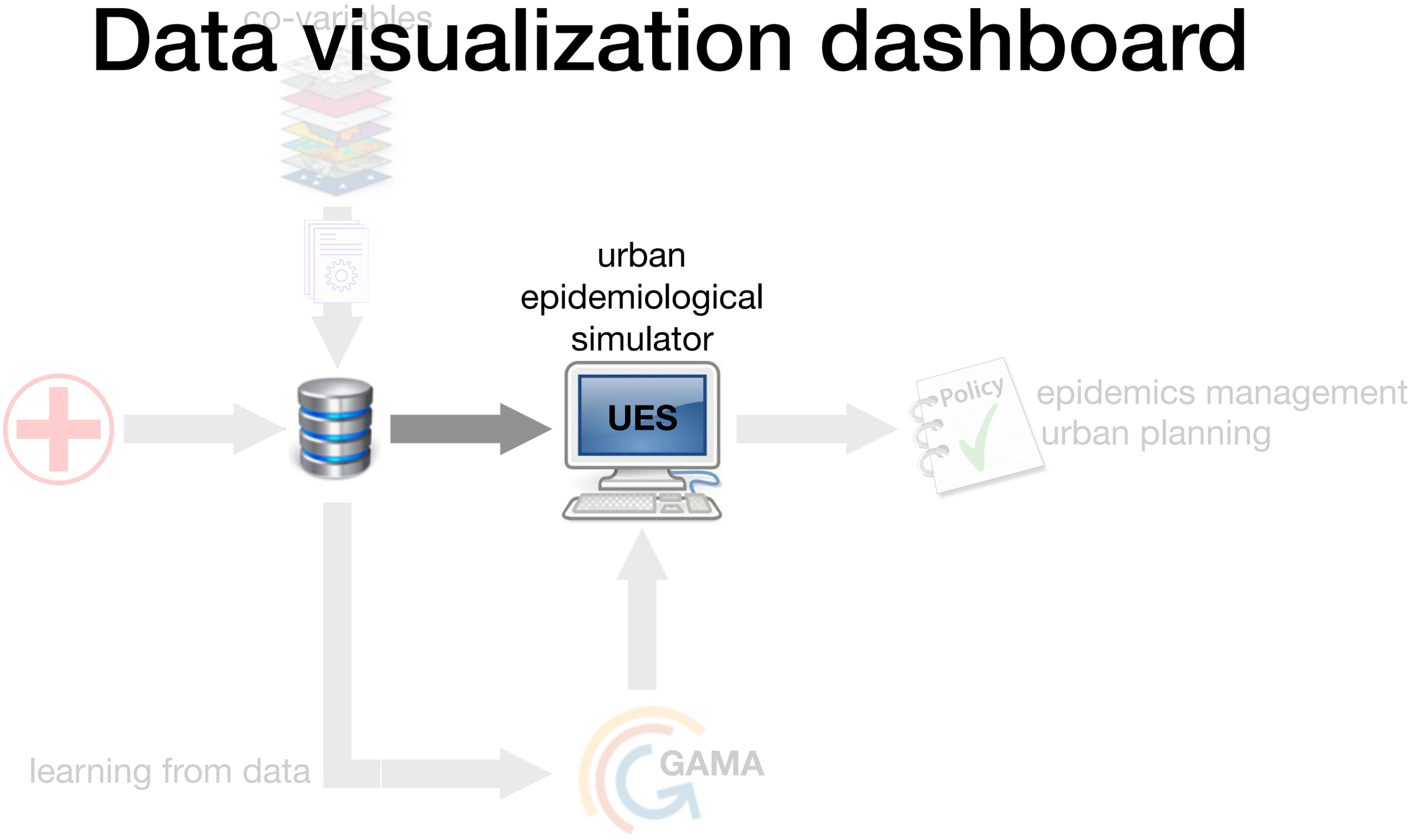
Data visualization dashboard



Data visualization dashboard

co-variables

Completion: 15 % January 2020

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UES

policy

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GAMA

Urban epidemiological simulator

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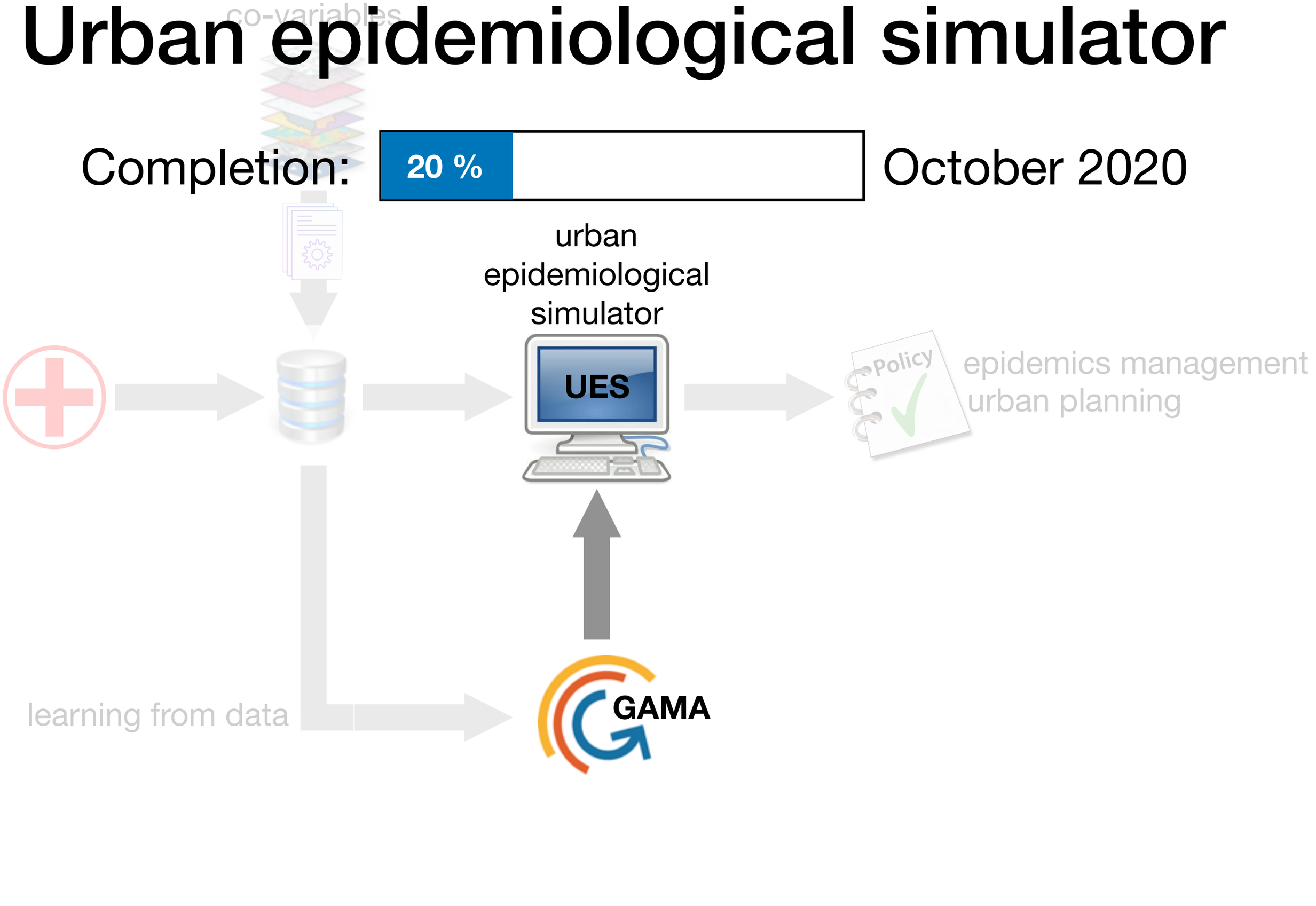
Urban epidemiological simulator

Completion: 20 % October 2020



gamar v0.1.0

https://r-and-gama.github.io/gamar

Toulouse, France, July 9-12 2019

Acknowledgements

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Thank you!

http://bit.ly/ecomore2sc3Lao_data