

EO 4 Ecosystem Accounting 2022

Understanding the human footprint from space – the World Settlement Footprint

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² Google Switzerland

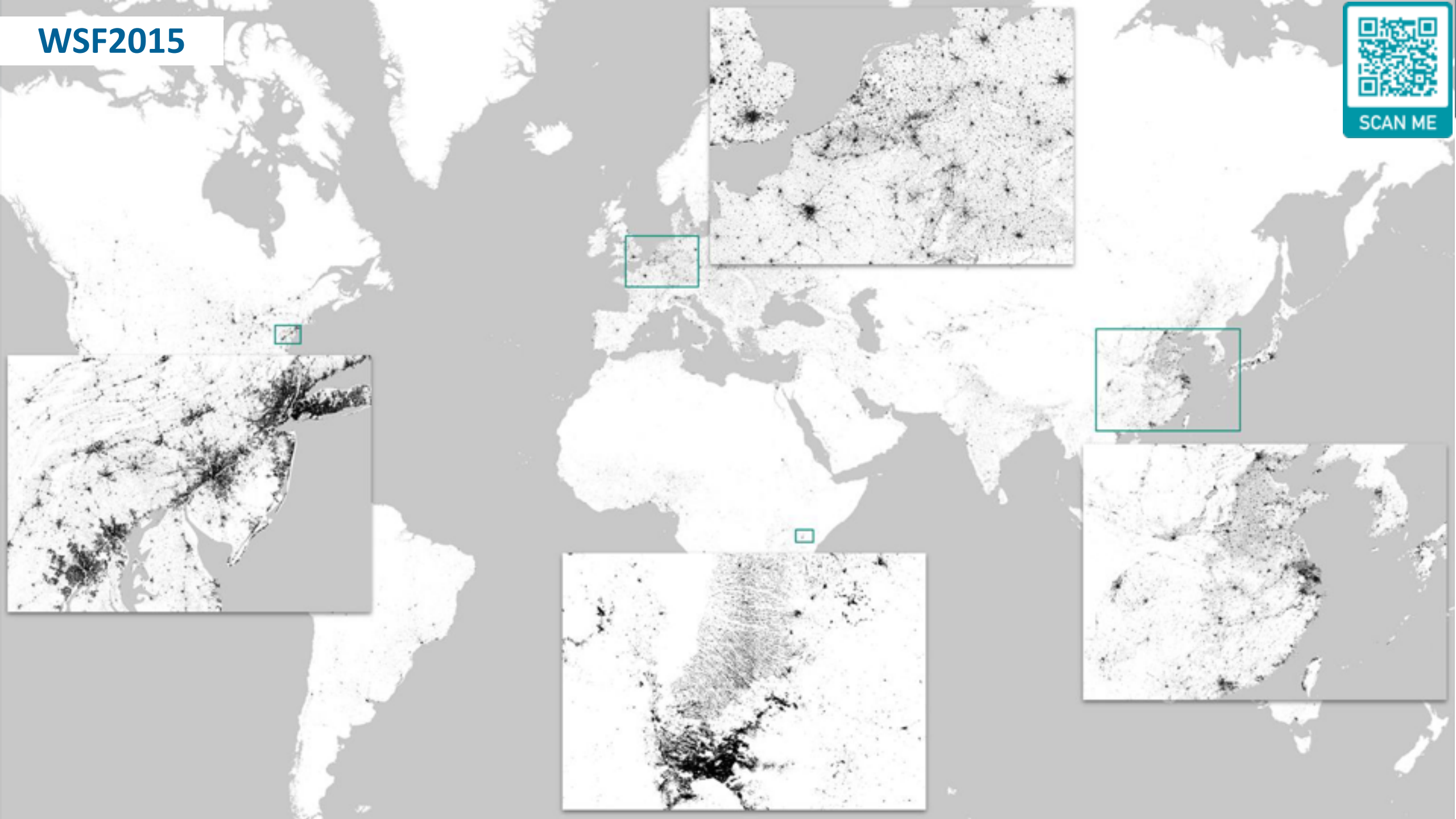
³ ESA

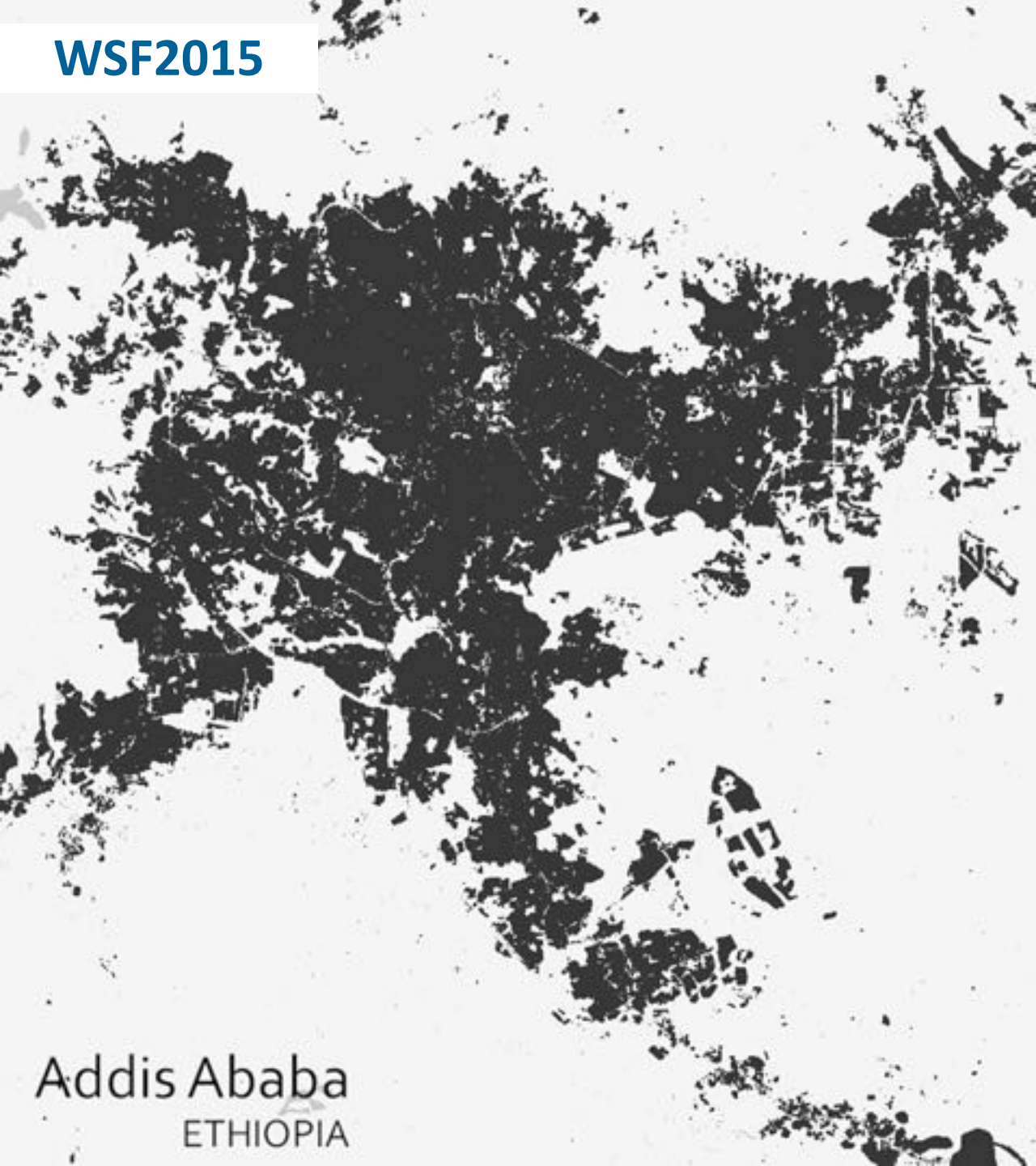
30th November 2022



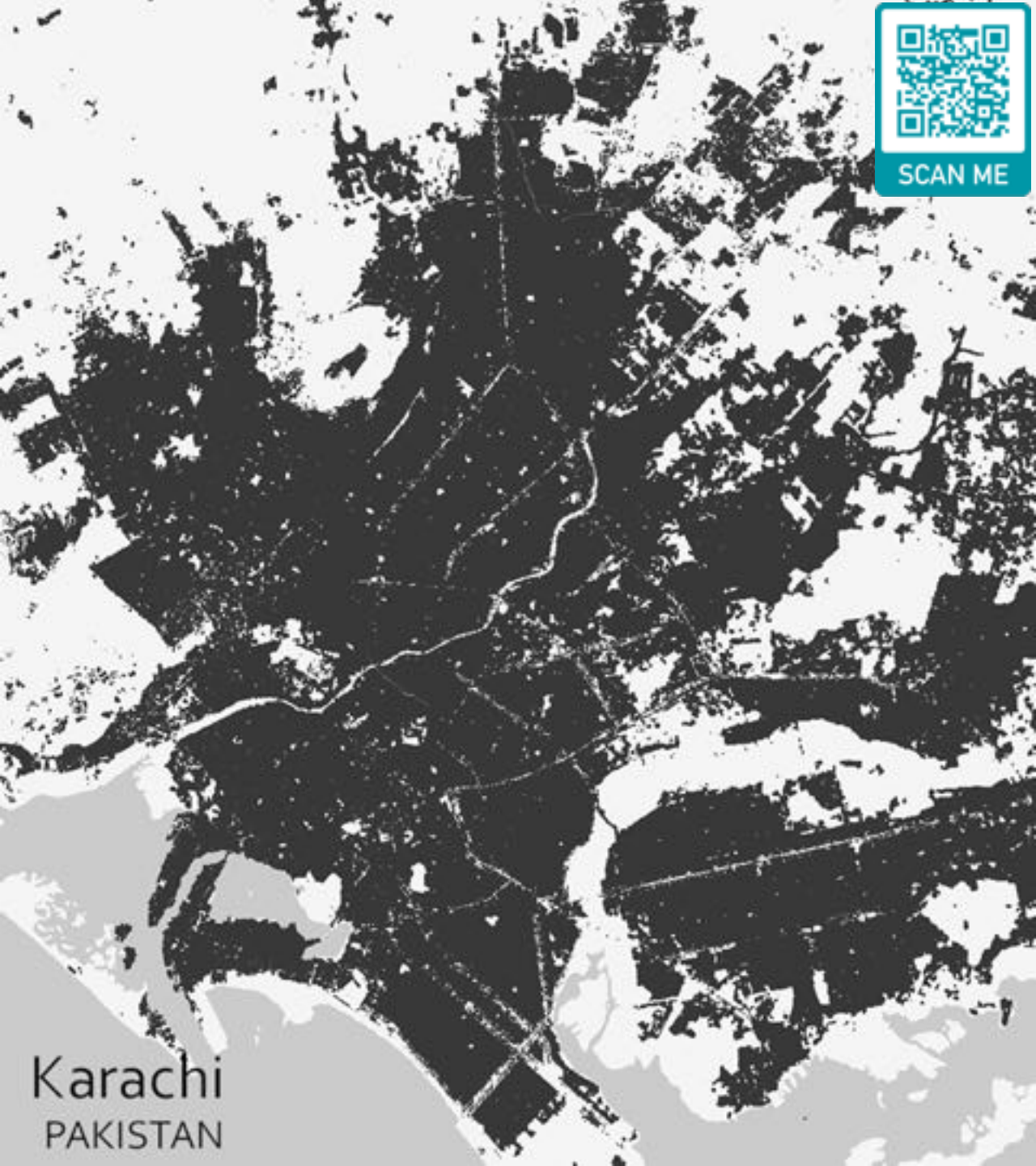


#GeoForGood22

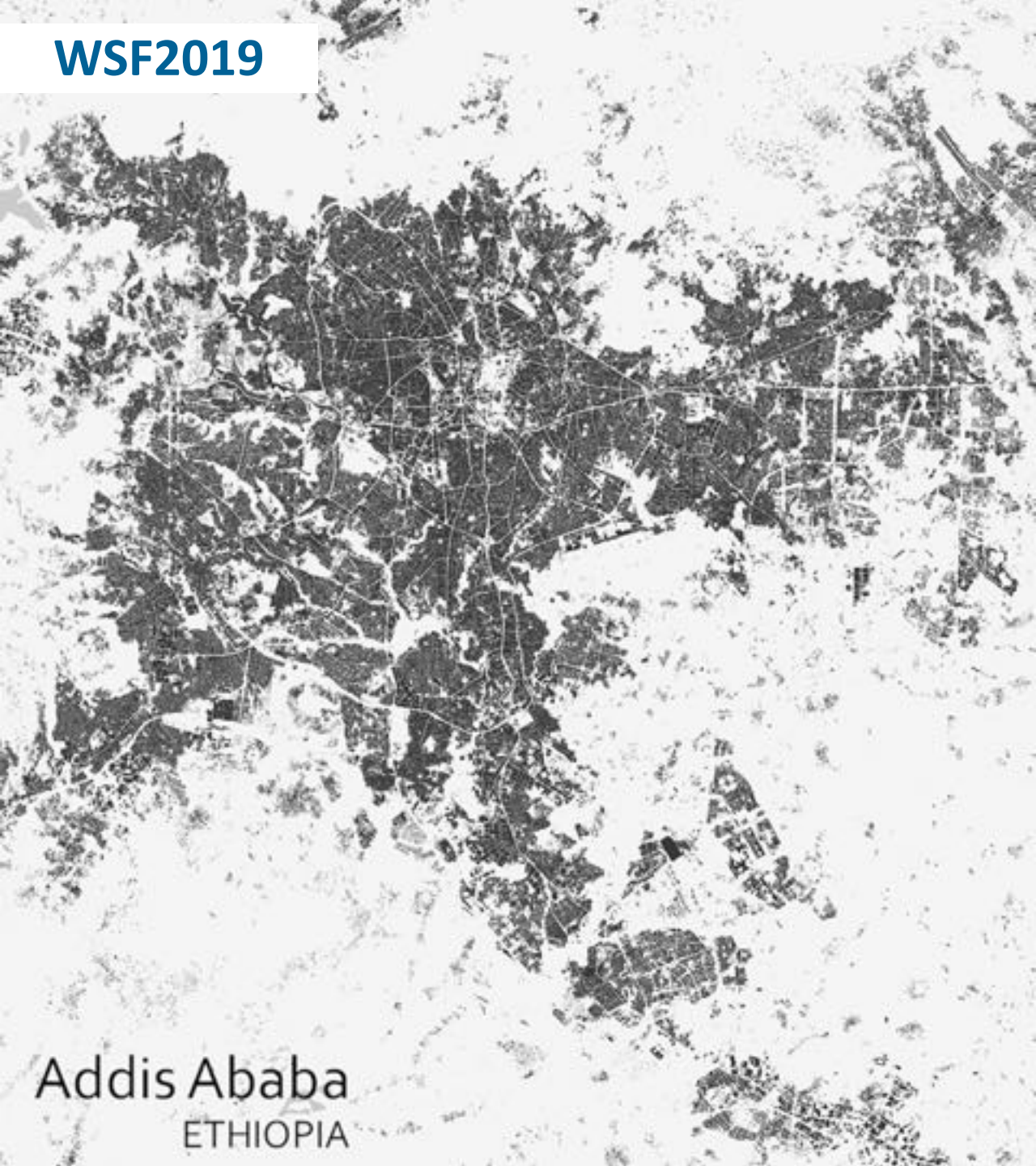




Addis Ababa
ETHIOPIA



Karachi
PAKISTAN



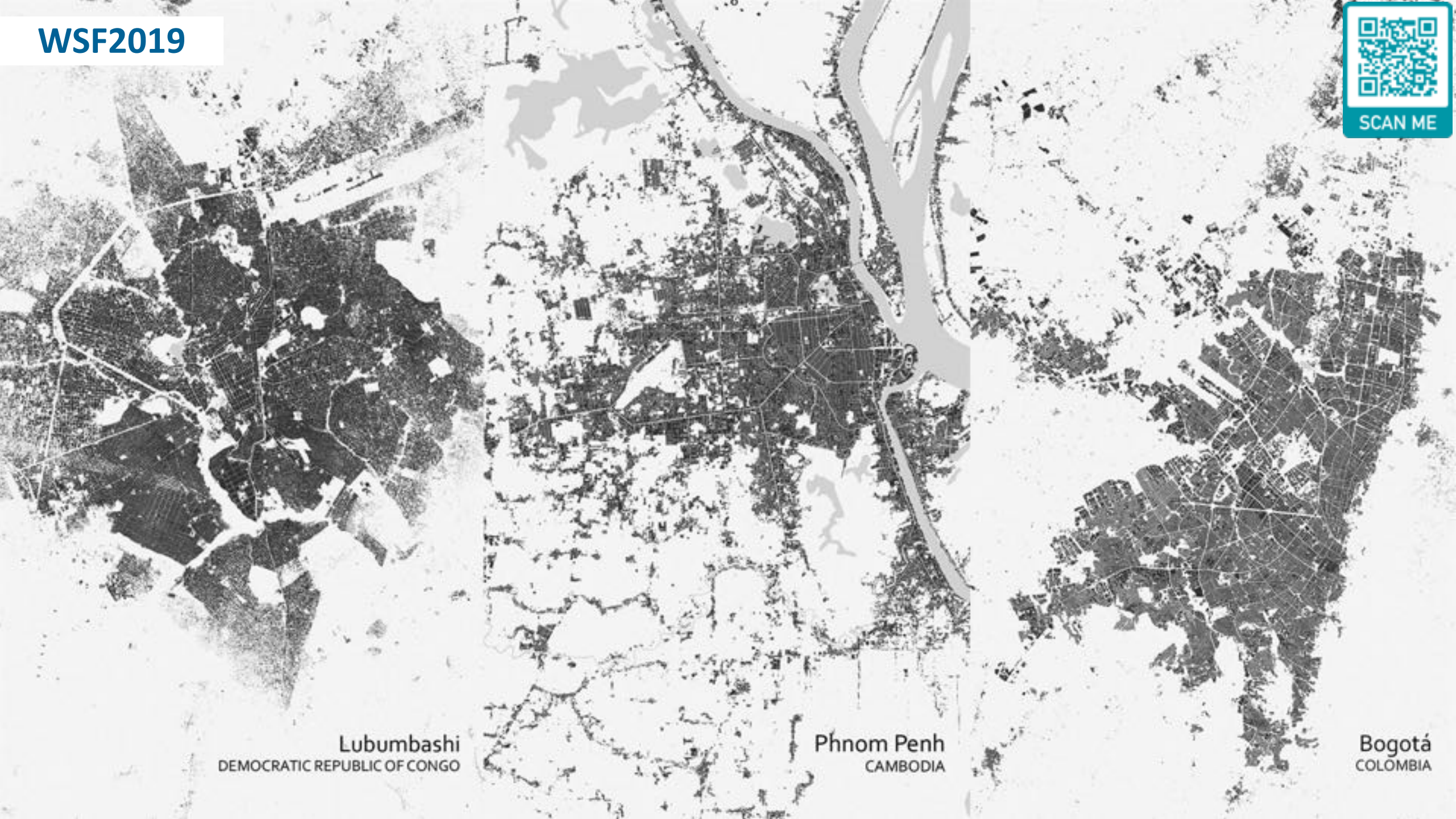
Addis Ababa
ETHIOPIA



Karachi
PAKISTAN



SCAN ME

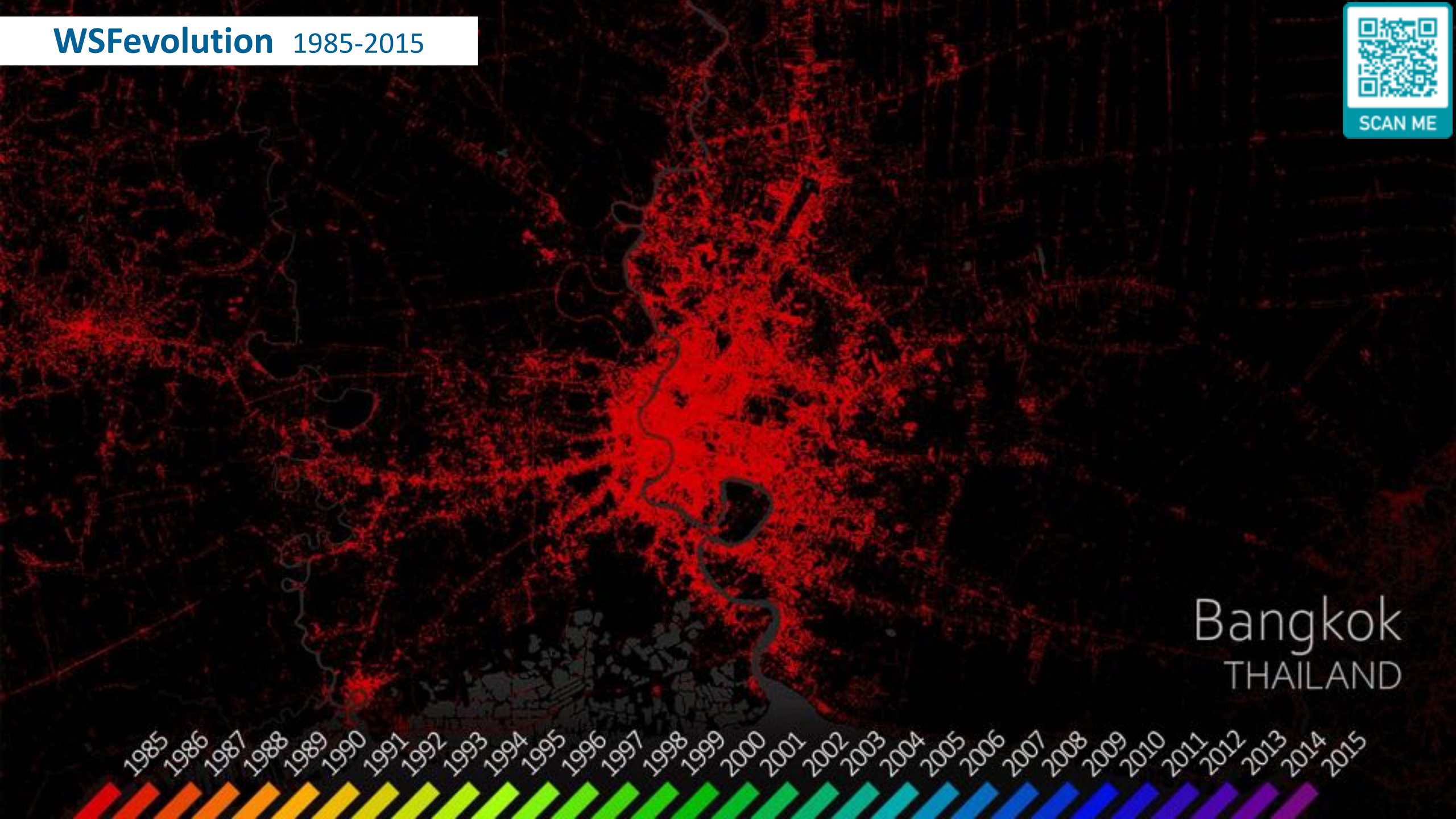


Lubumbashi
DEMOCRATIC REPUBLIC OF CONGO

Phnom Penh
CAMBODIA

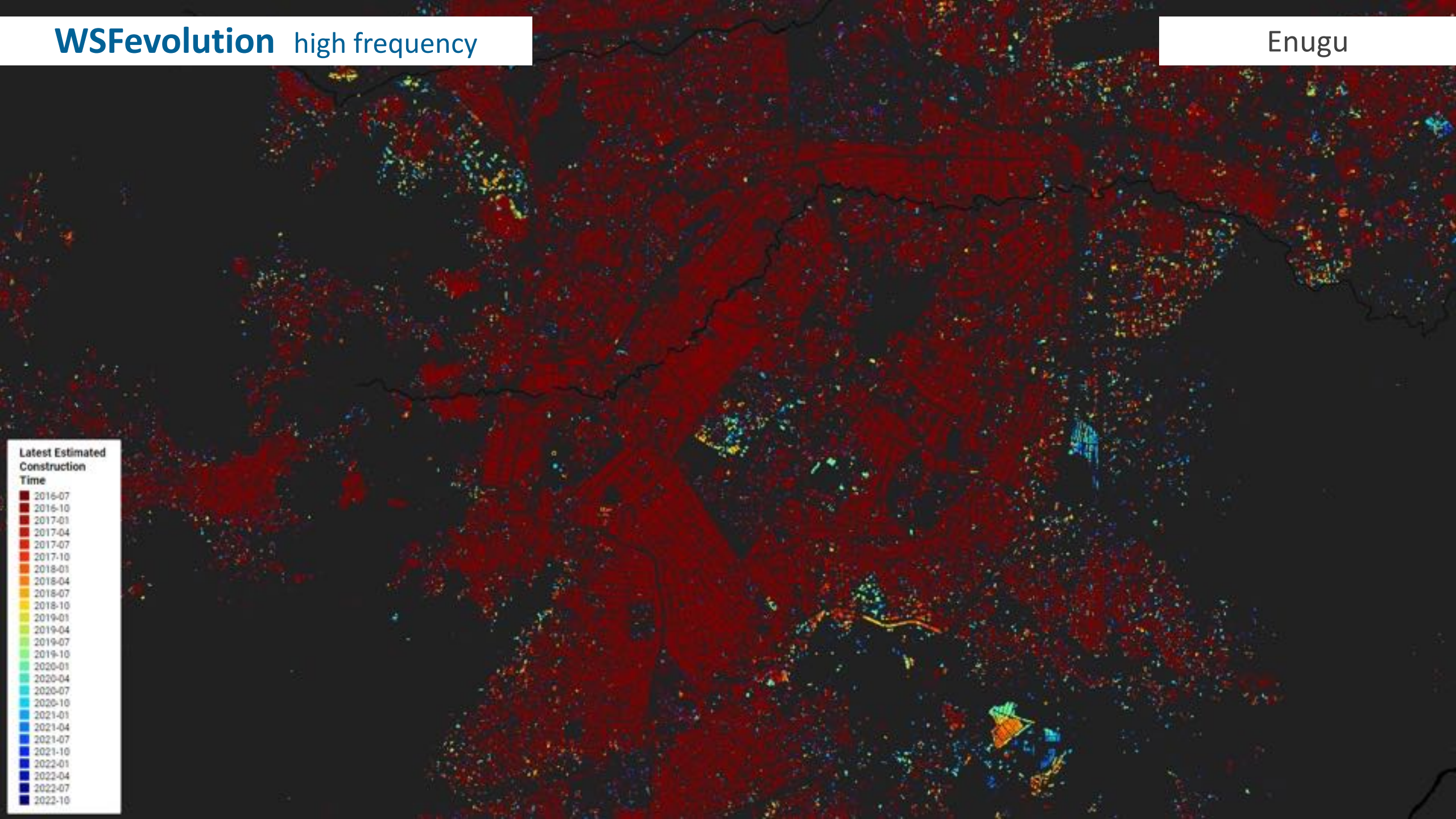
Bogotá
COLOMBIA

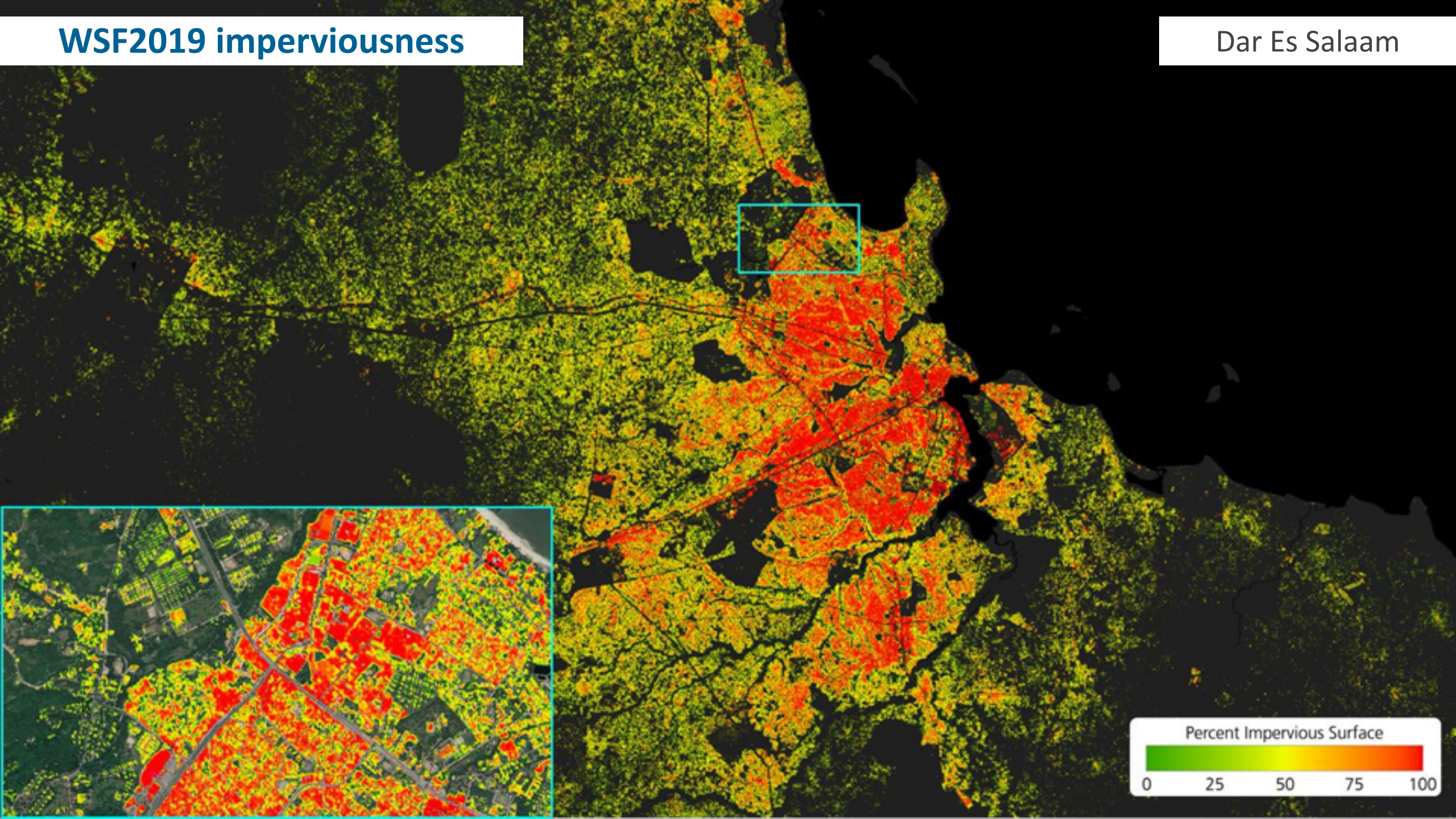
WSFevolution 1985-2015



Bangkok
THAILAND

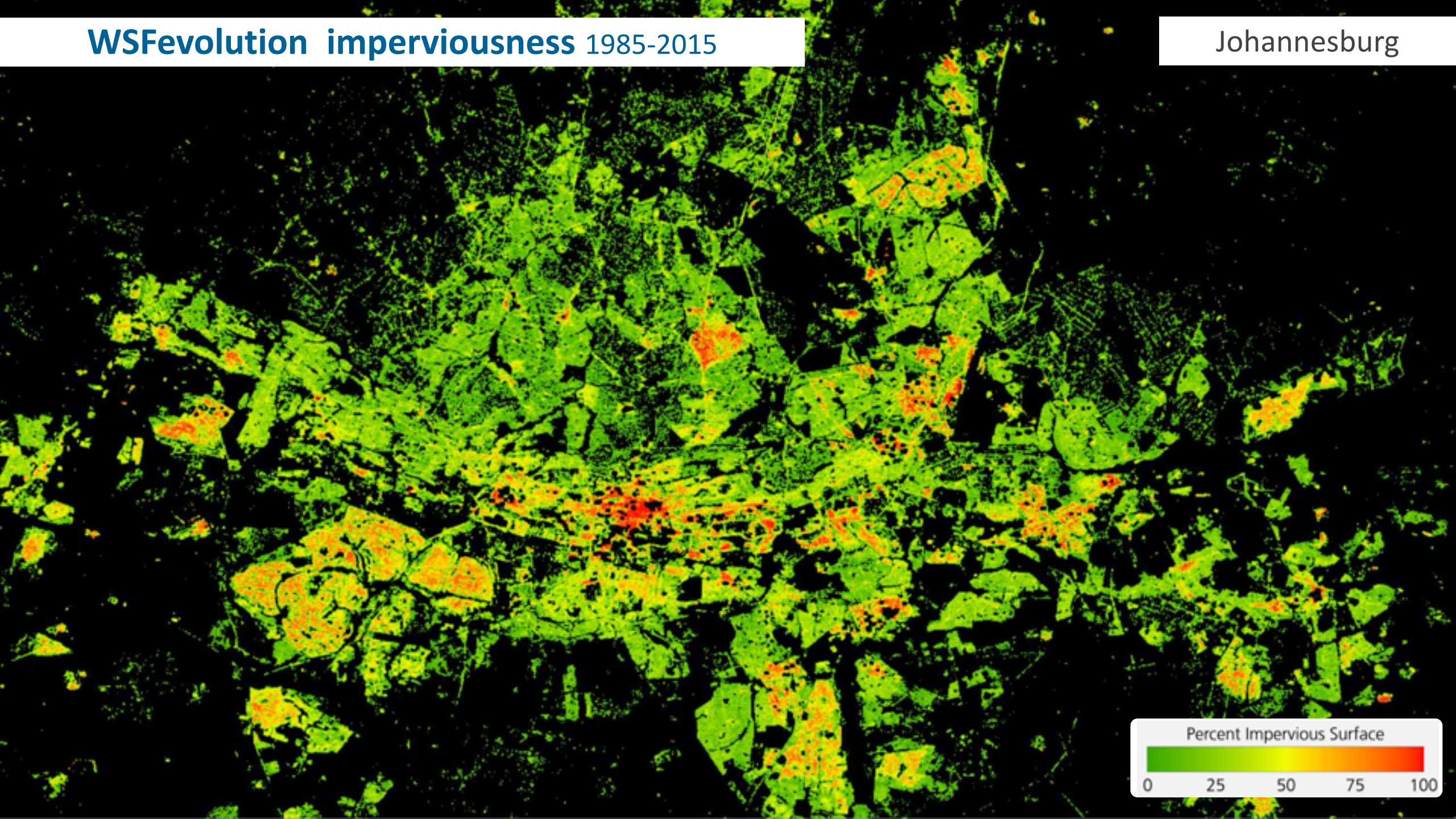
1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015





WSFevolution imperviousness 1985-2015

Johannesburg

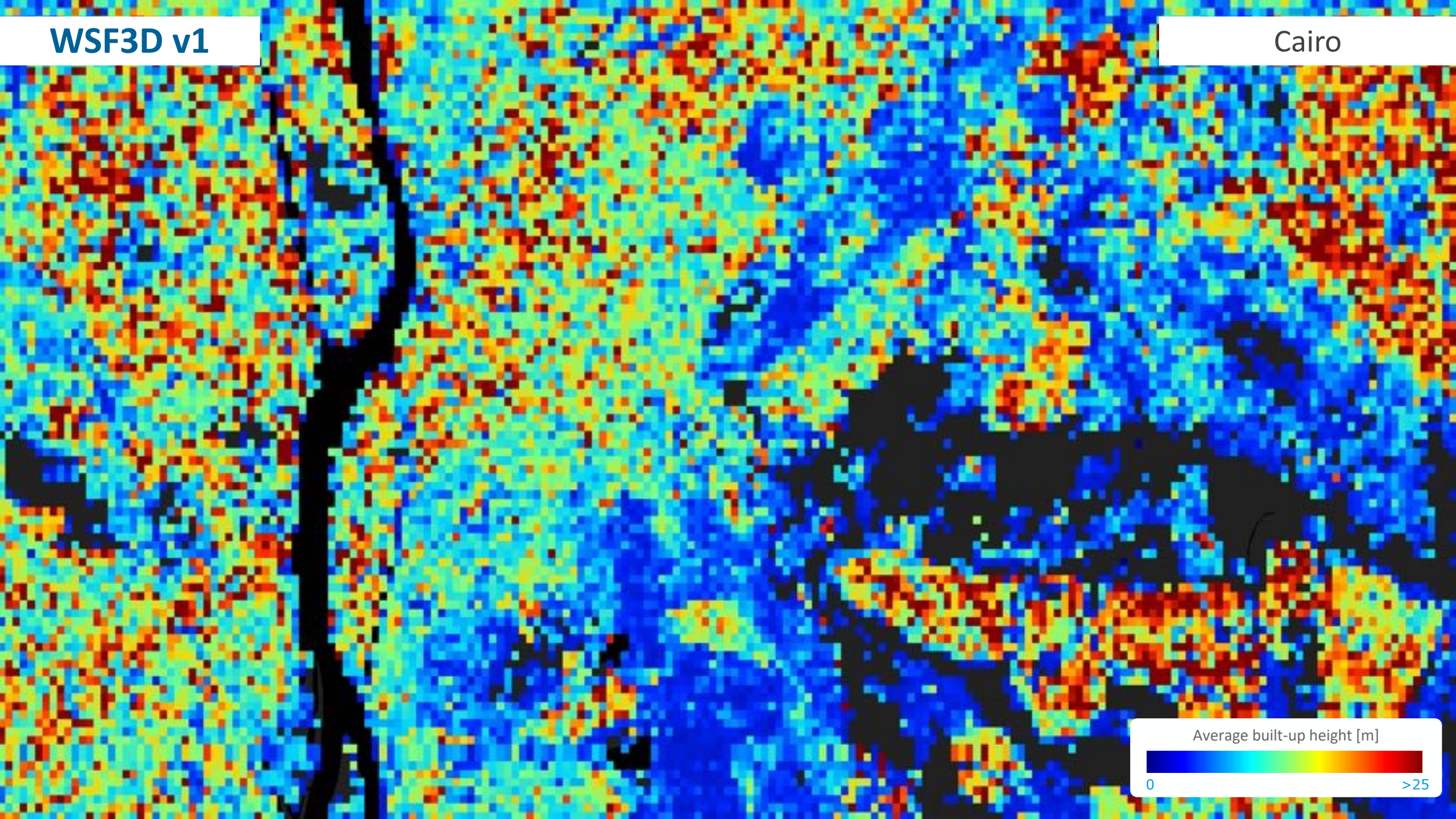


Cairo



WSF3D v1

Cairo



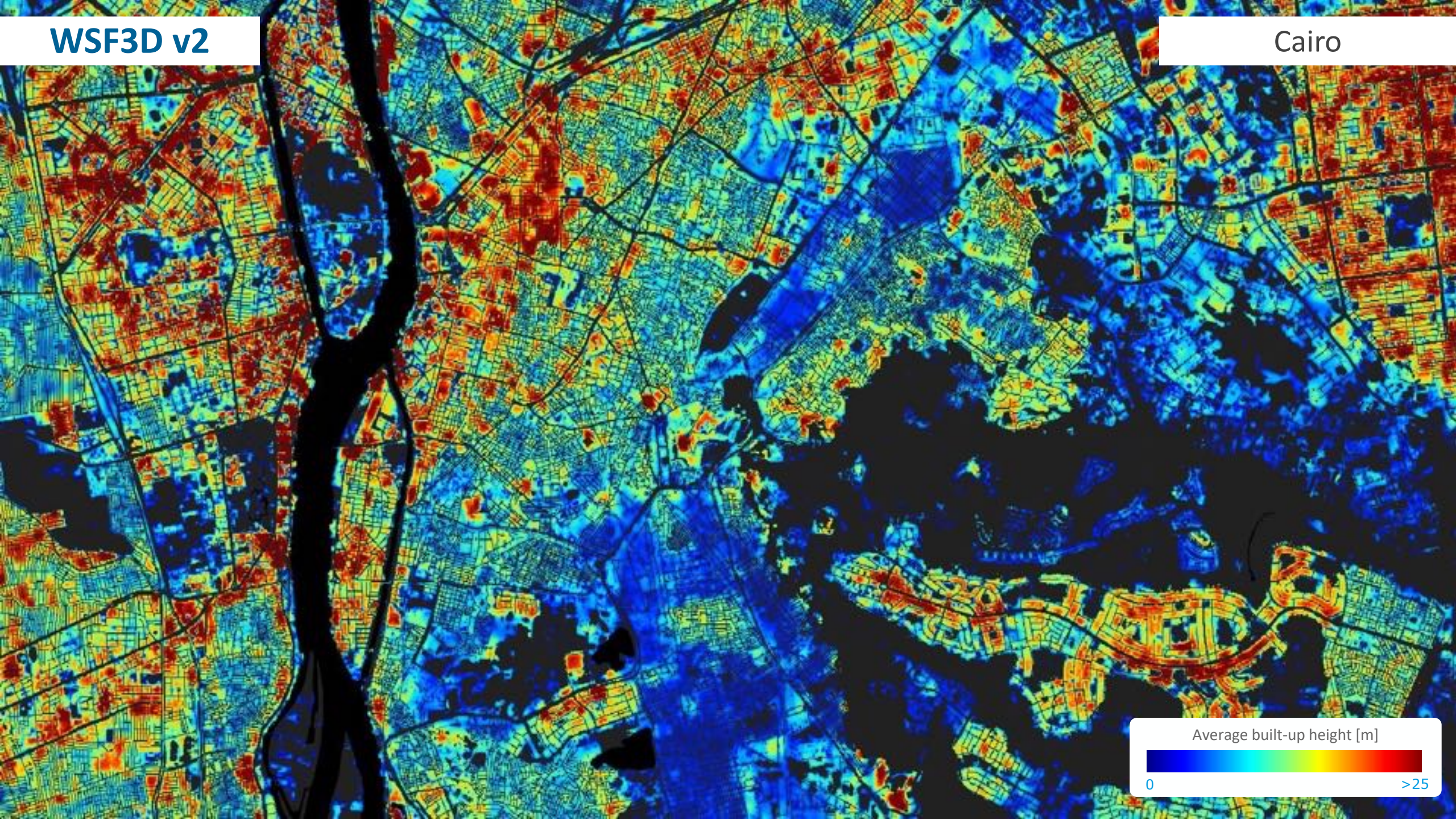
Average built-up height [m]

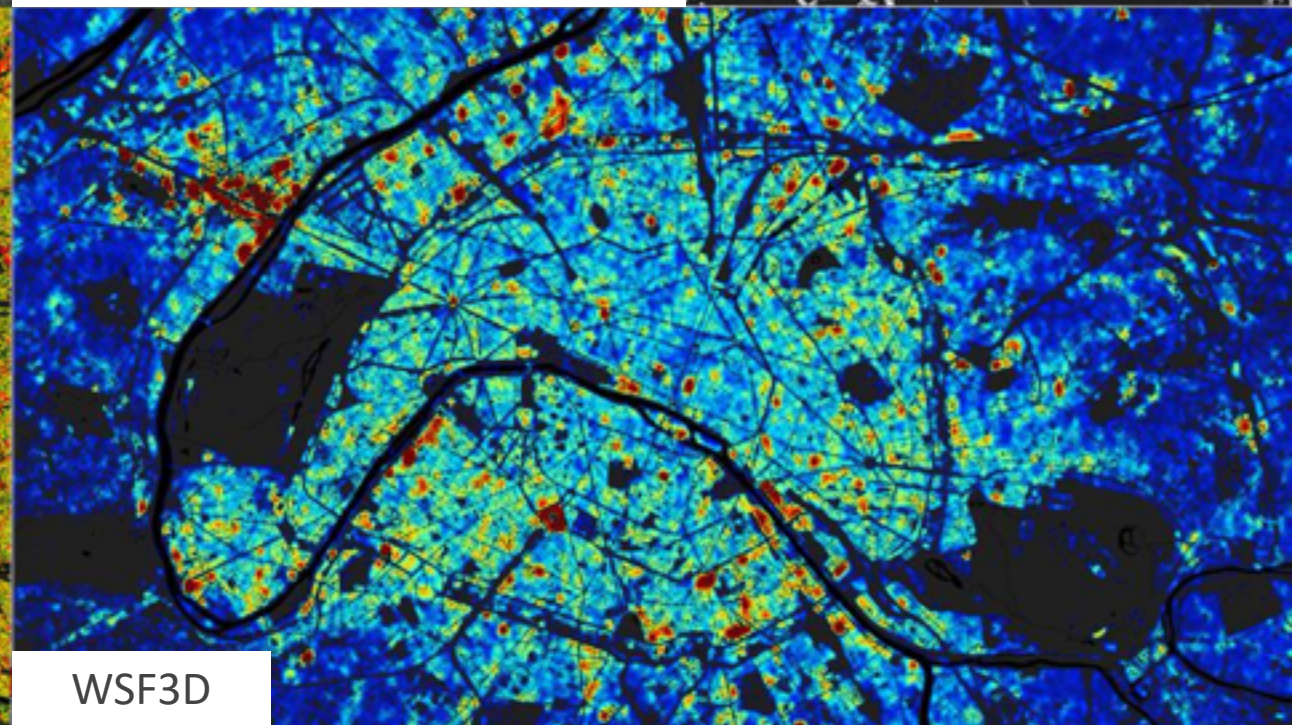
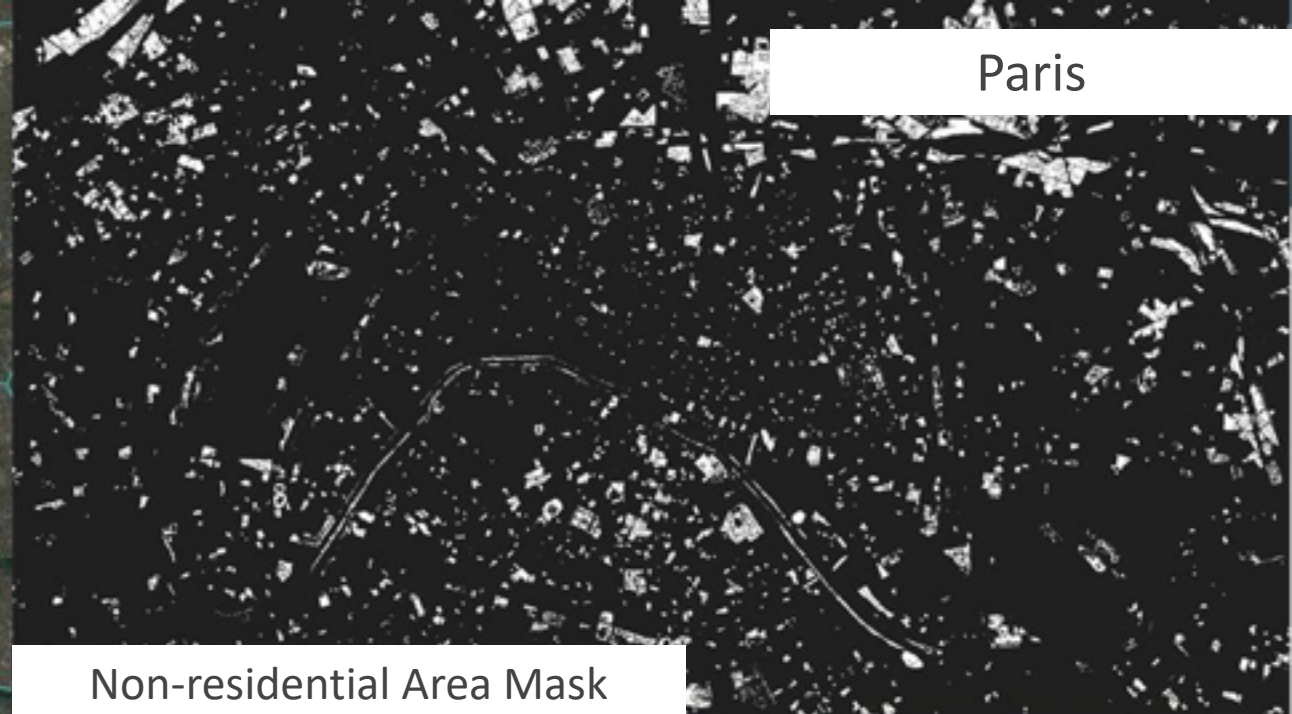
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WSF3D v2

Cairo





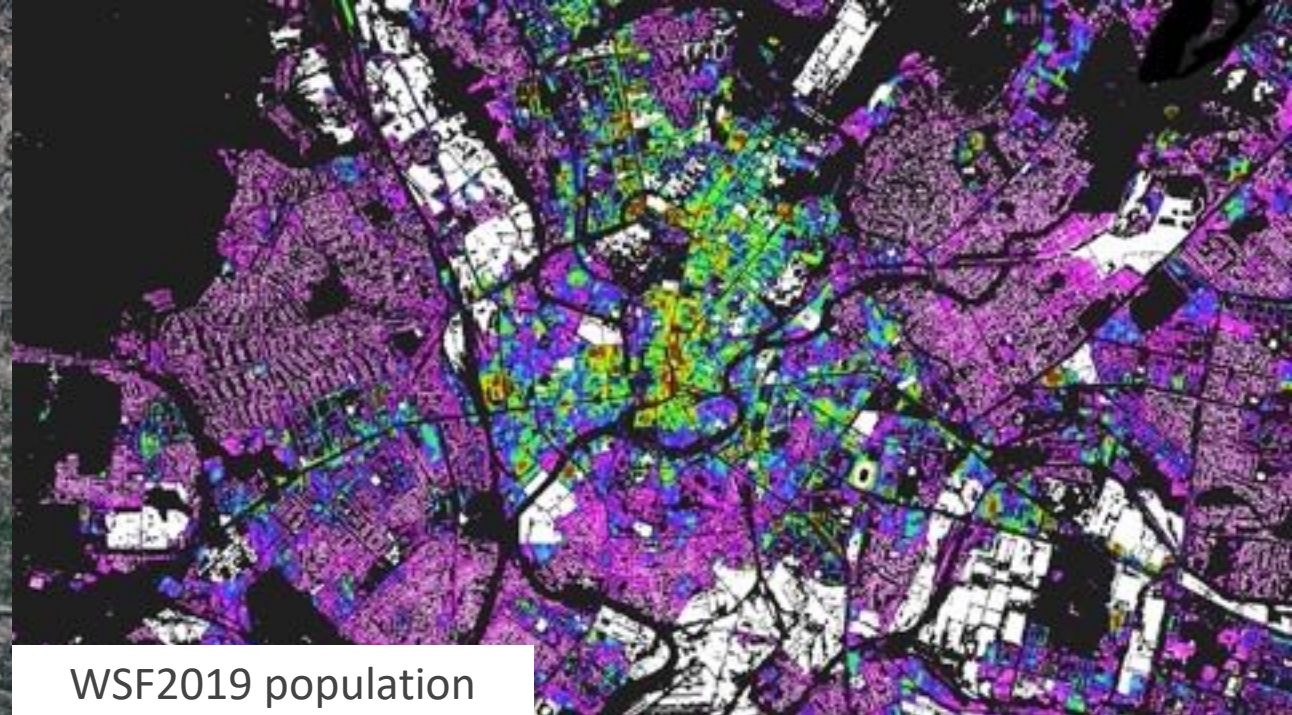
WSF2019 population

Paris

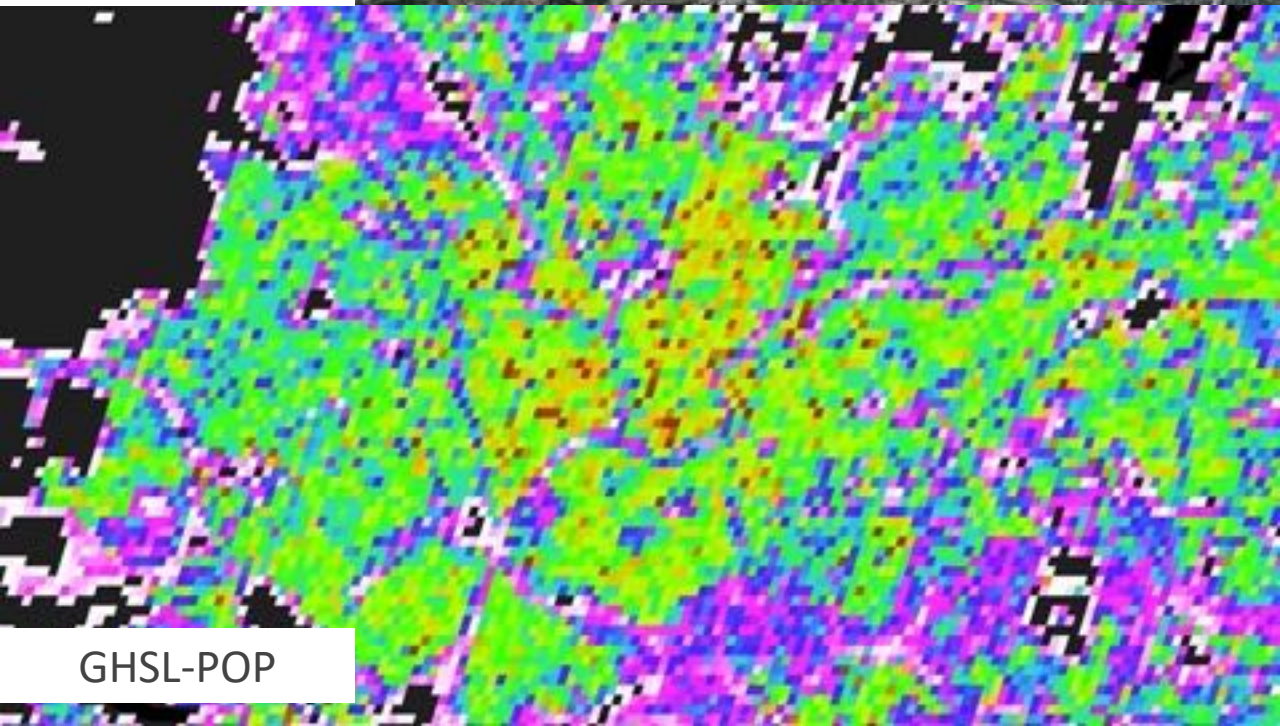




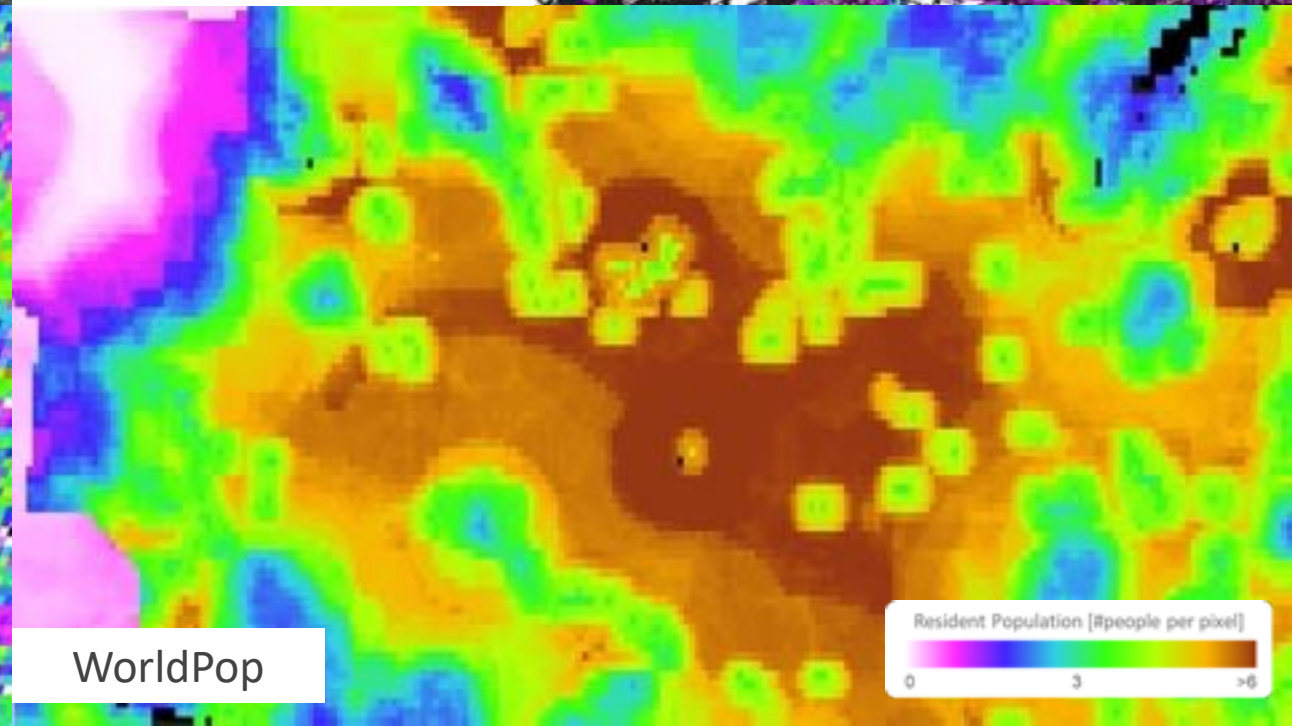
Kharkiv



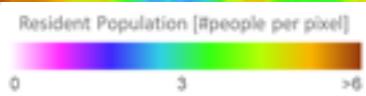
WSF2019 population



GHSL-POP



WorldPop



What are the main challenges in the uptake of the WSF suite for municipal planning and policy purposes?

- High accuracy and reliability;
- Adequate spatial and temporal resolution;
- Easy to access and integrate in existing pipelines;
- Possibility of ad-hoc online analytics (e.g., ESA Urban TEP platform)

What are the priority actions for the next 5 years?

- Generate up-to date version of all layers;
- Further improve the spatial detail (e.g., through the employment of super-resolution approaches);
- Design and implement novel indicators combining socio-economic variables.



That's all Folks!