

Integrated Transport
Development
Experiences in Global
City Clusters:
Context and definitions





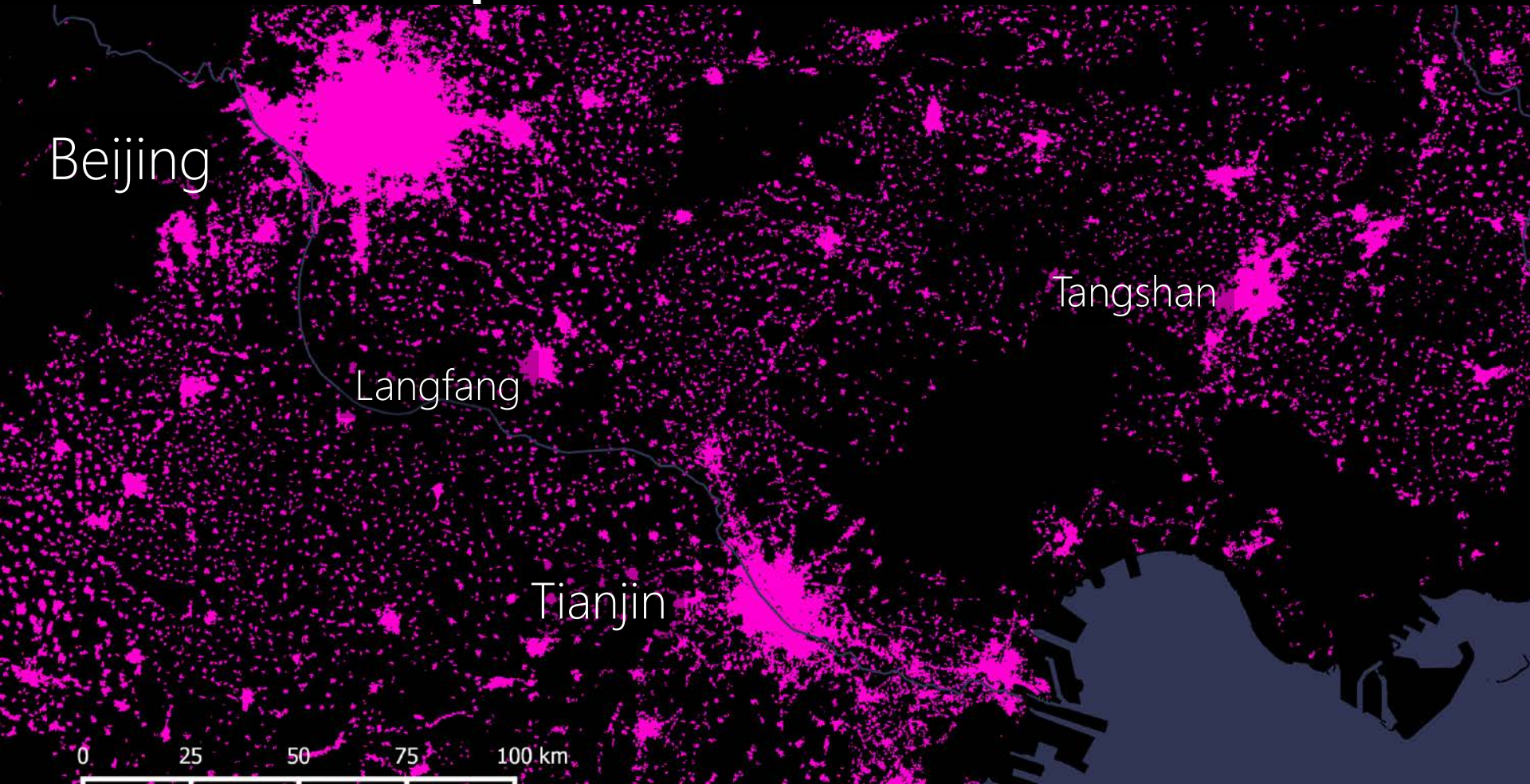
烤鲜鱿鱼
筋饼

总店门牌
03
营业时间
18:00-24:00
地址
天津路

90
烤



Urban land occupation – 2000



Beijing

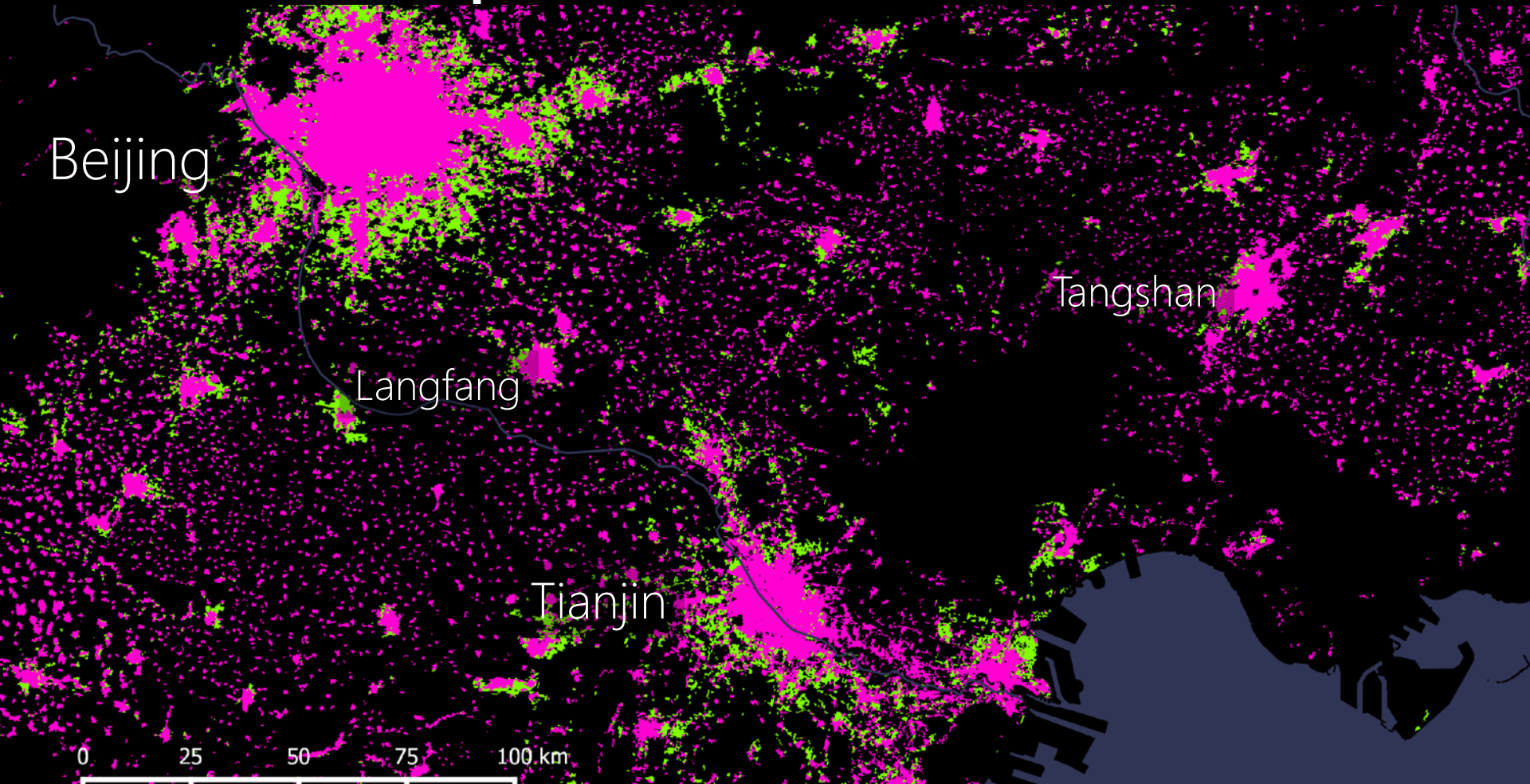
Langfang

Tianjin

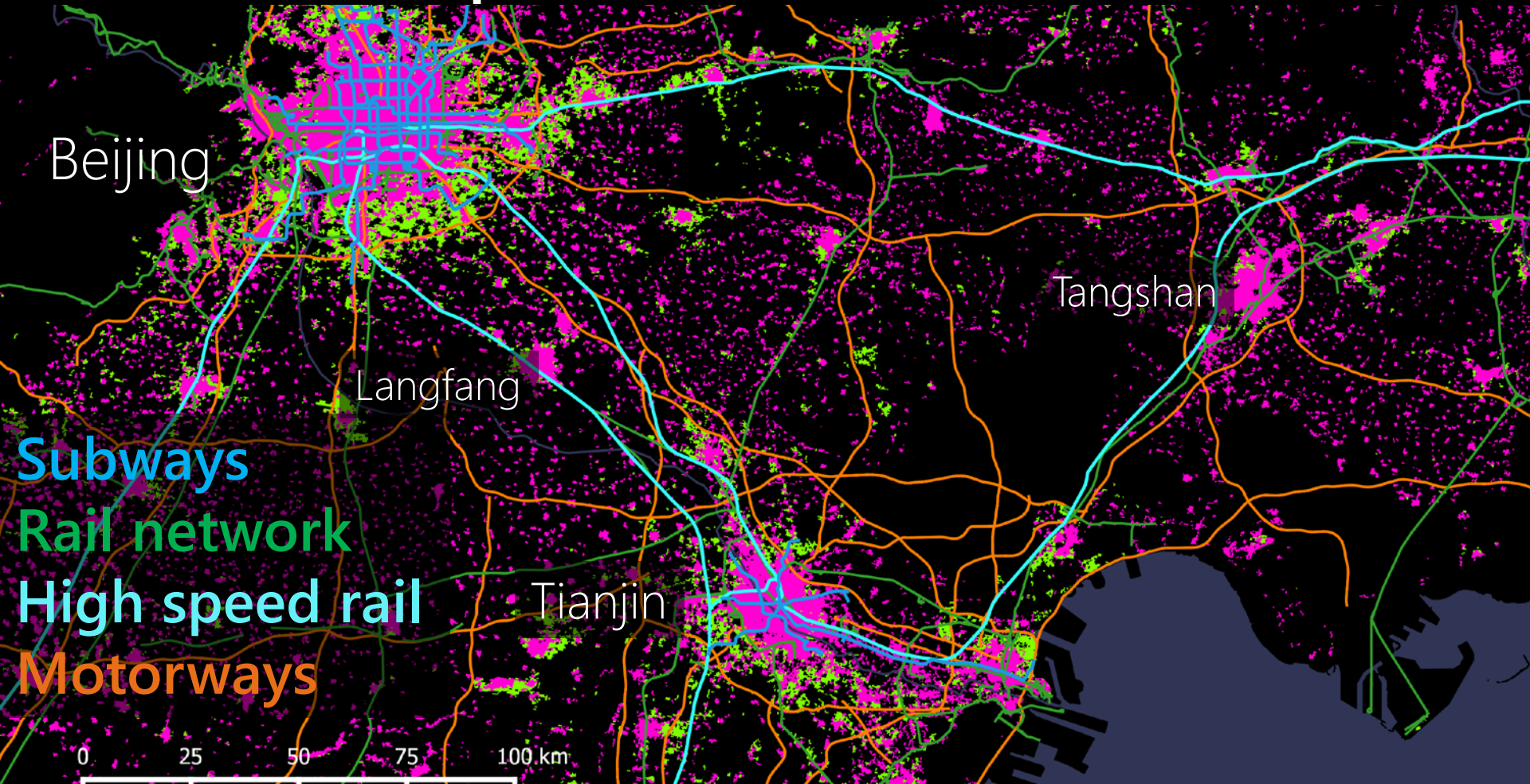
Tangshan

0 25 50 75 100 km

Urban land occupation – 2000, 2010



Urban land occupation – 2000, 2010



Beijing

Tangshan

Langfang

Tianjin

Subways

Rail network

High speed rail

Motorways

0 25 50 75 100 km

Definitions: Direct Transport Impacts

The benefits, revenues and costs for users, operators, infrastructure providers/managers and governments.

Definitions: Direct Transport Impacts

User impacts (travel time, reliability, relief from overcrowding...)

Revenue effects for operators and infrastructure managers

Environmental effects (pollutants, noise, GHG)

Safety impacts (mortality and morbidity)

Definitions: Induced Land-use Change

Mid- to long-term changes in land use triggered by transport infrastructure.

Induced land use changes (and associated impacts) not part of direct transport impacts).

difficult to track net generative vs. redistributive effects;

challenging to appraise rigourously.

Definitions: Wider Economic Benefits (W.E.B.)

Economic effects in labour, goods and service markets that are additional to the direct transport benefits (that may stem from induced land-use changes).

Definitions: Transport and W.E.B.

Should not assume that increased transport investments leads to improved economic vitality;
Context and stage of growth matters; in a well-connected region, additional transport investments (often) display declining marginal returns.

Issues for macroeconomic appraisal

Conceptually, direct economic benefits, induced land-use change and wider economic benefits can be captured by a linking microeconomic and macroeconomic appraisal

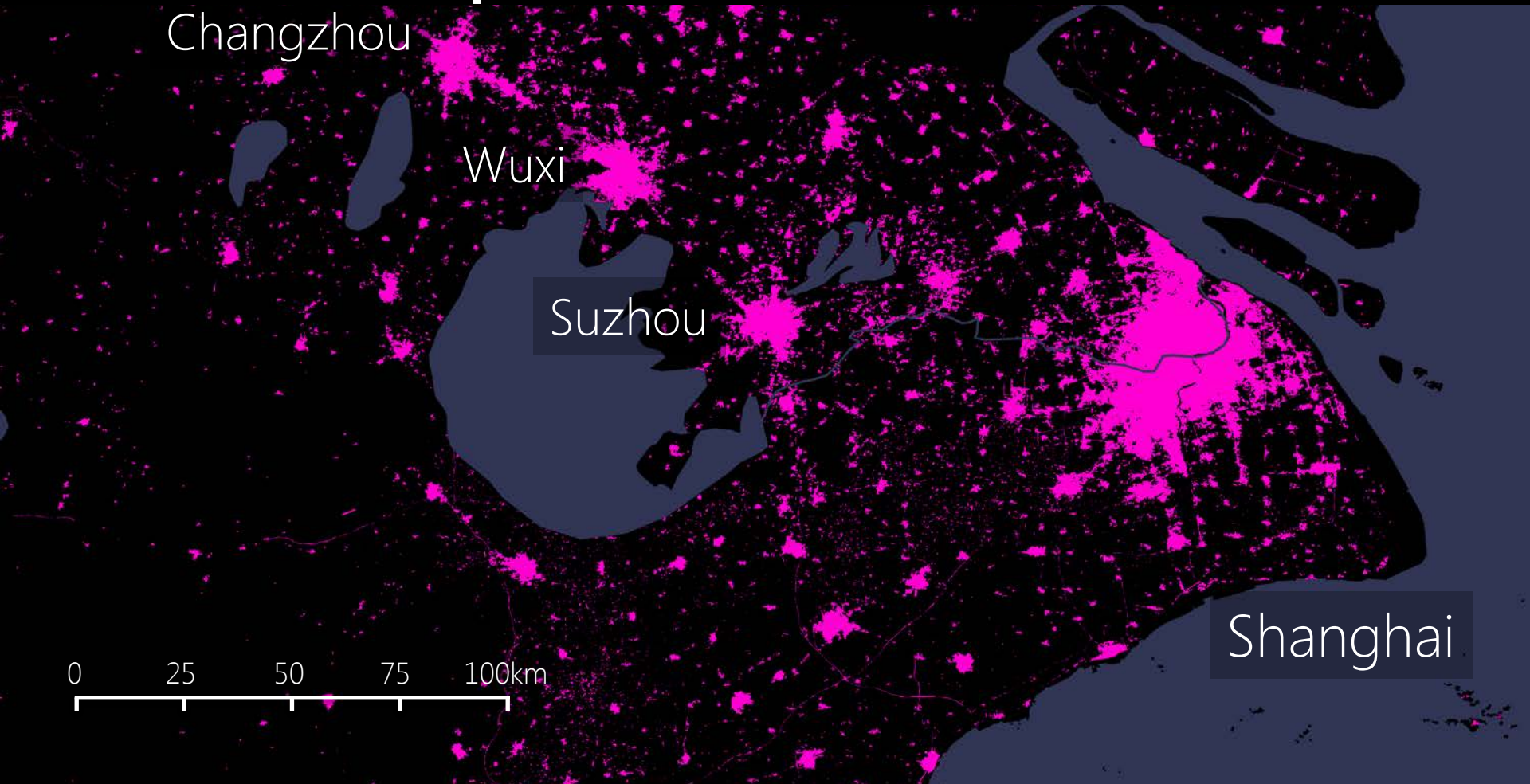
In practice, this is rarely done sufficiently, in part because of lack of data and monitoring.

Dynamic, structuring effects and appraisal

Assessing how large changes to the transport system impact the regional economy and land use over time is challenging...

.... but forecasting the “business-as-usual” case, which is essential for cost-benefit appraisal, is also complicated.

Urban land occupation - 2000



Changzhou

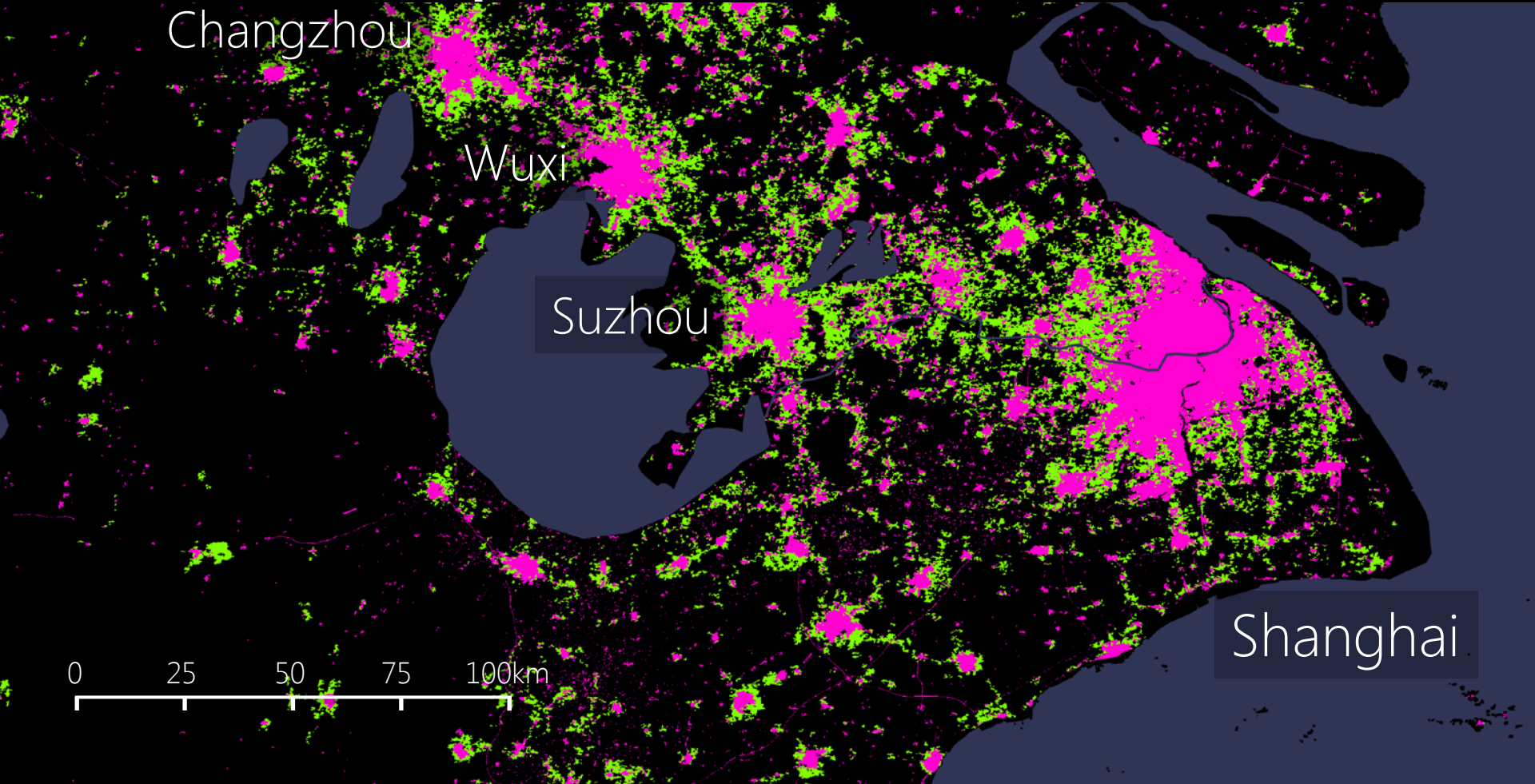
Wuxi

Suzhou

Shanghai

0 25 50 75 100km

Urban land occupation – 2000, 2010



Urban land occupation – 2000



Zhaoqing

Guangzhou

Foshan

Zhongshan

Zhuhai

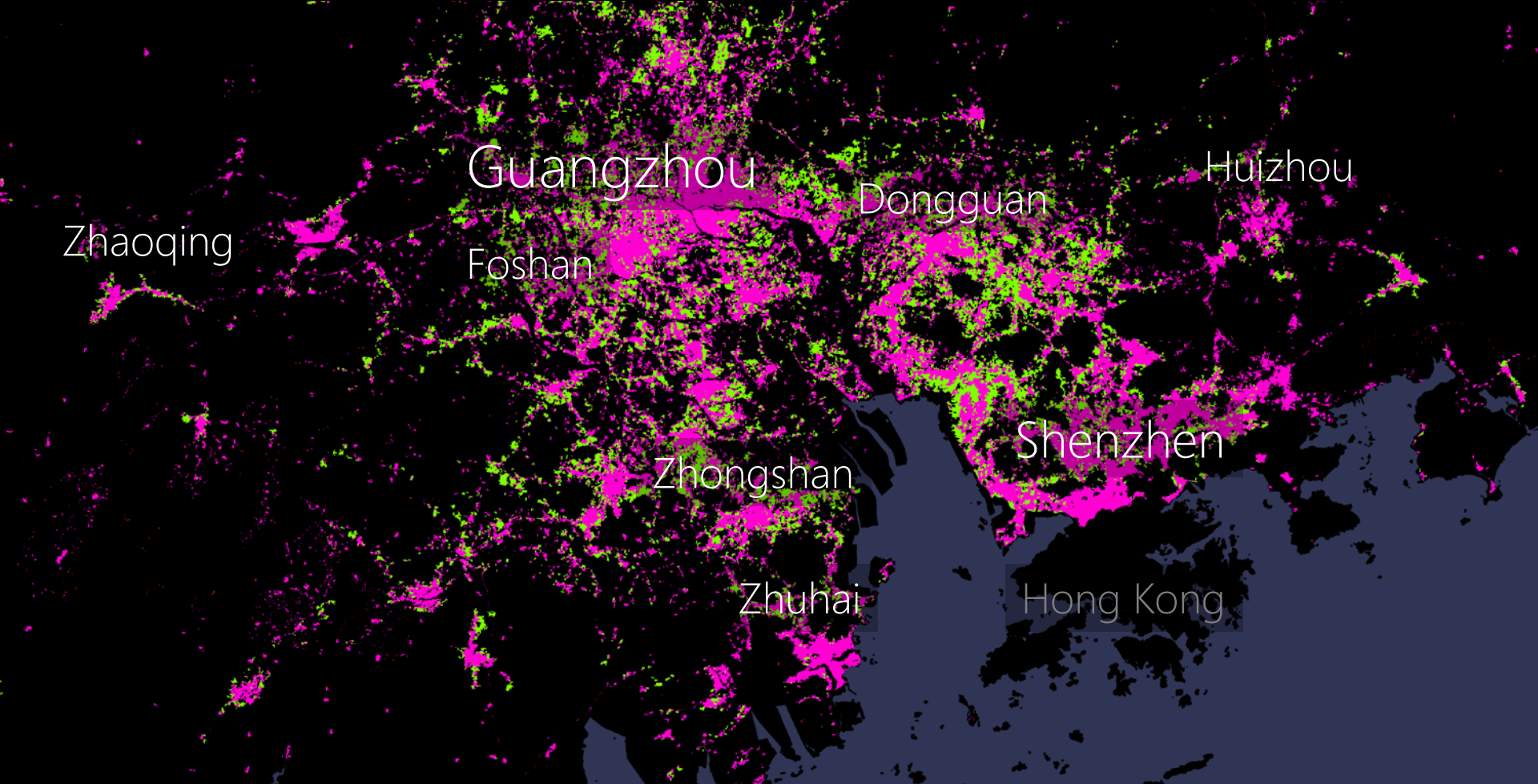
Dongguan

Shenzhen

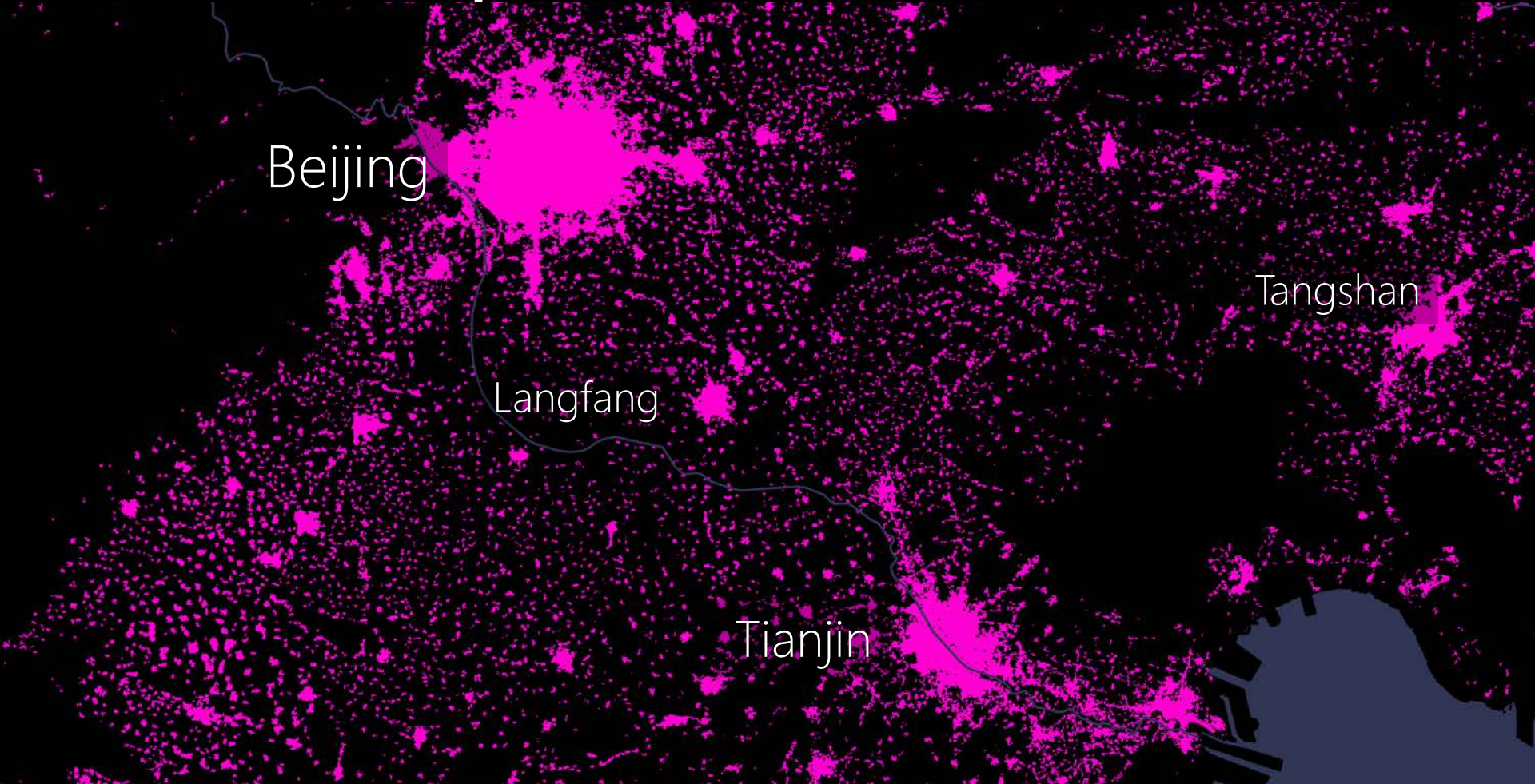
Hong Kong

Huizhou

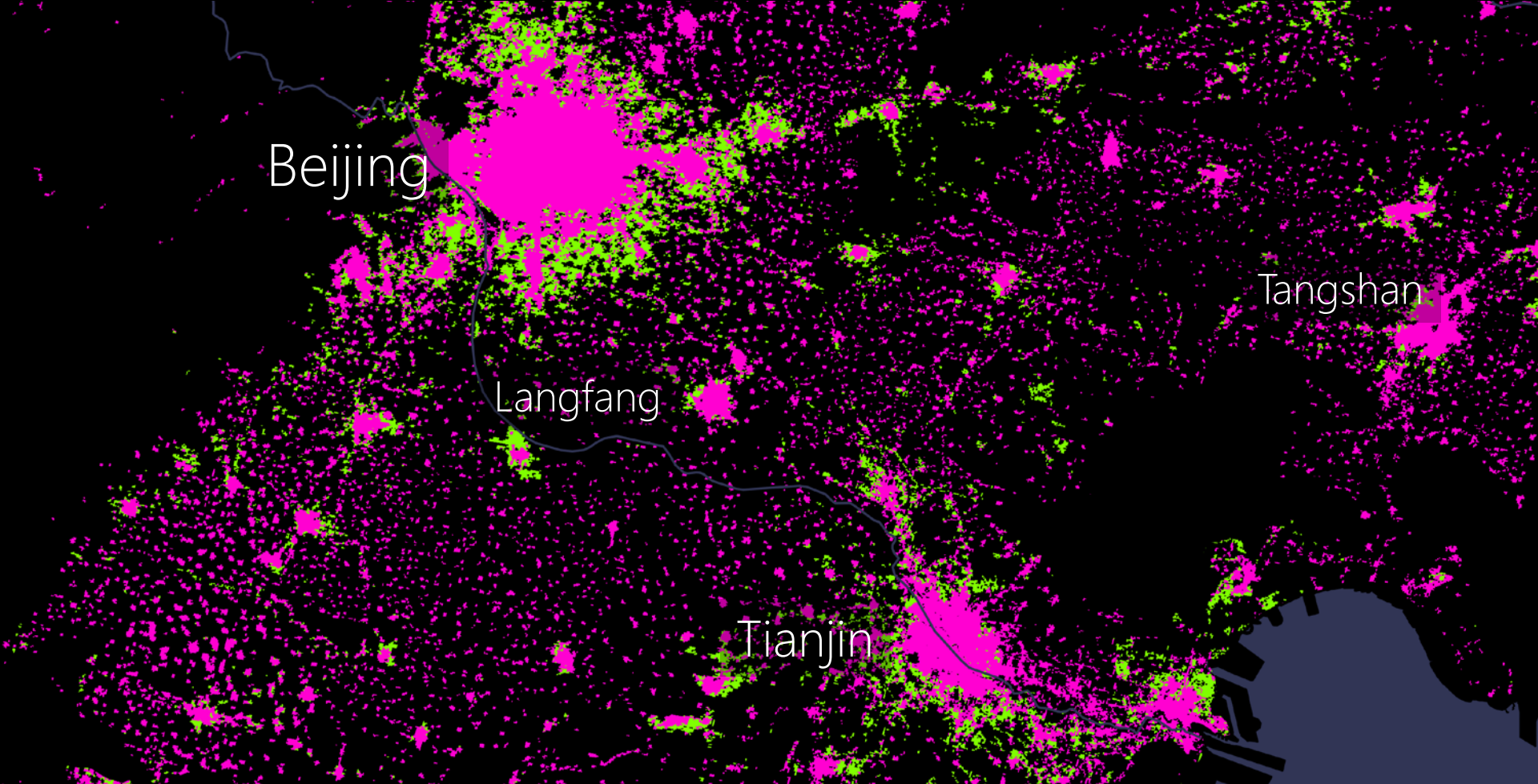
Urban land occupation – 2000, 2010



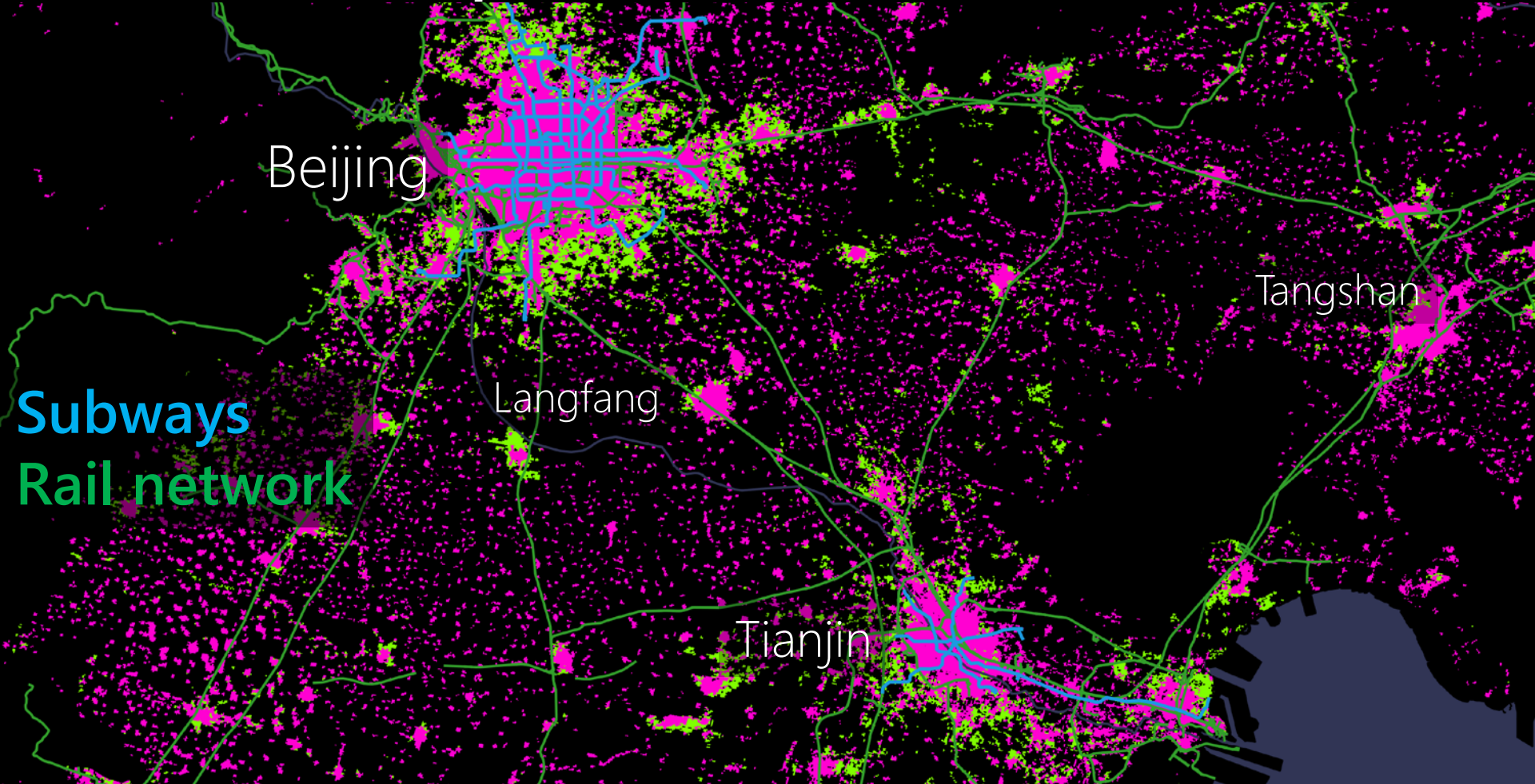
Urban land occupation – 2000



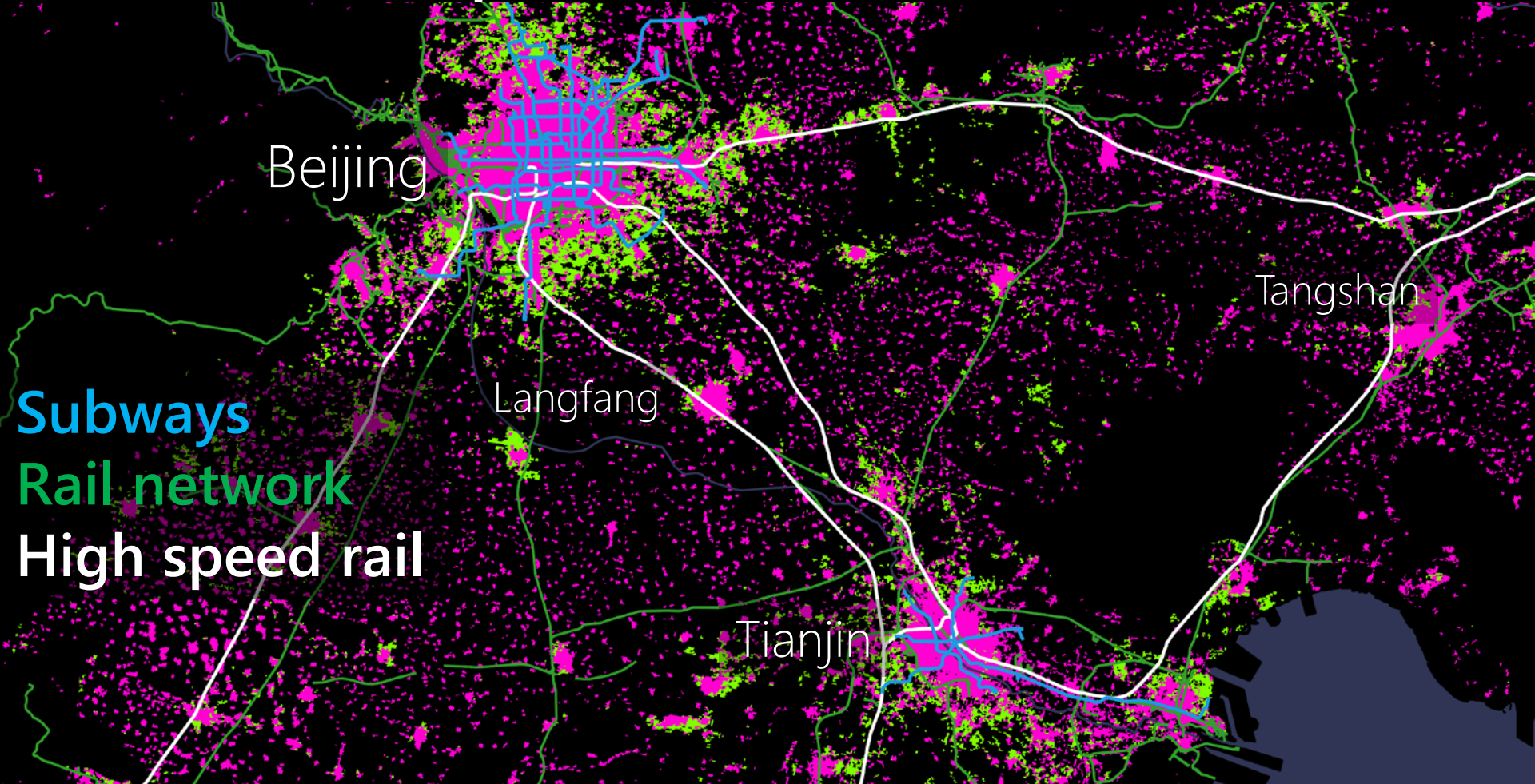
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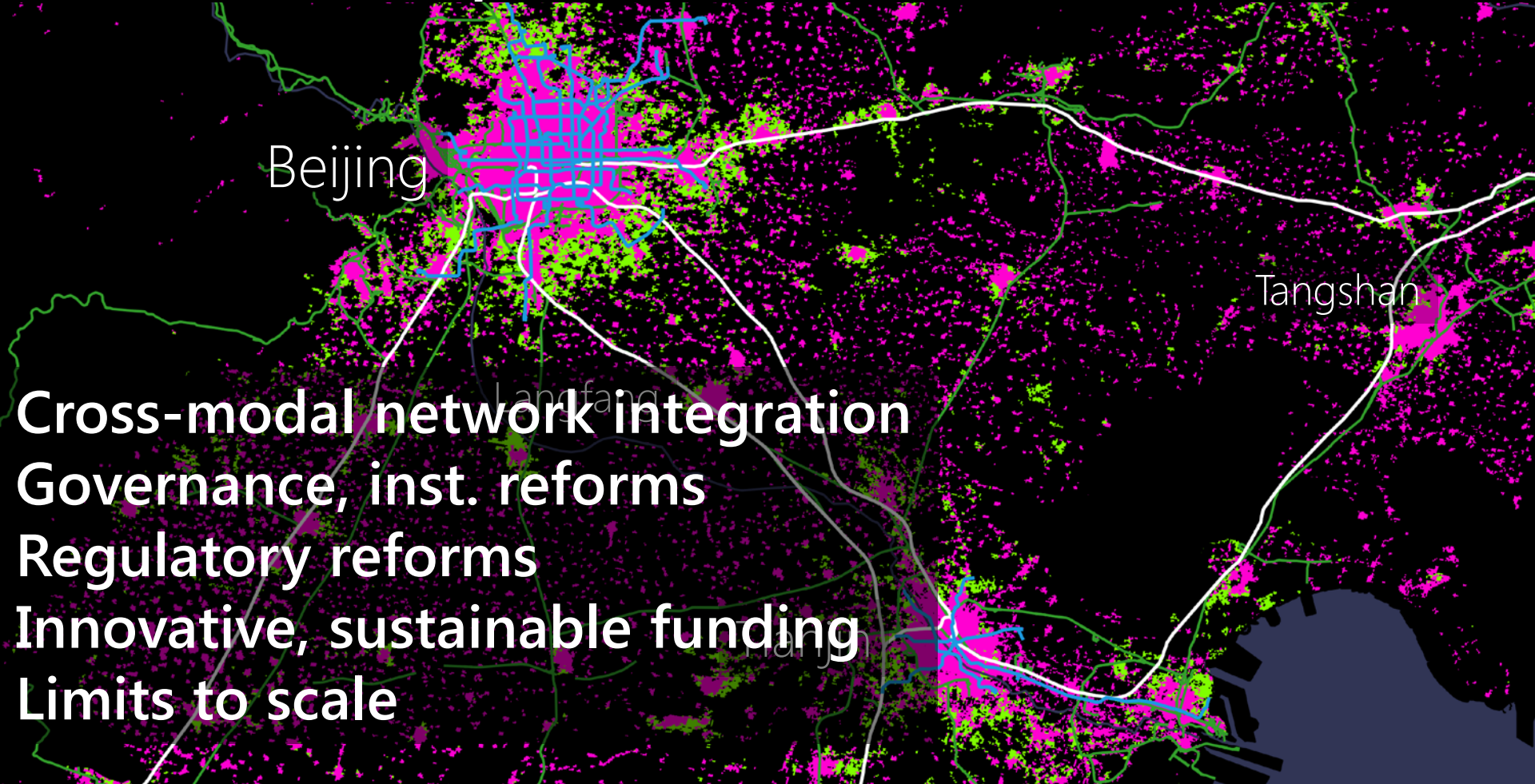
Urban land occupation – 2000, 2010



Urban land occupation – 2000, 2010



Urban land occupation – 2000, 2010



Cross-modal network integration
Governance, inst. reforms
Regulatory reforms
Innovative, sustainable funding
Limits to scale

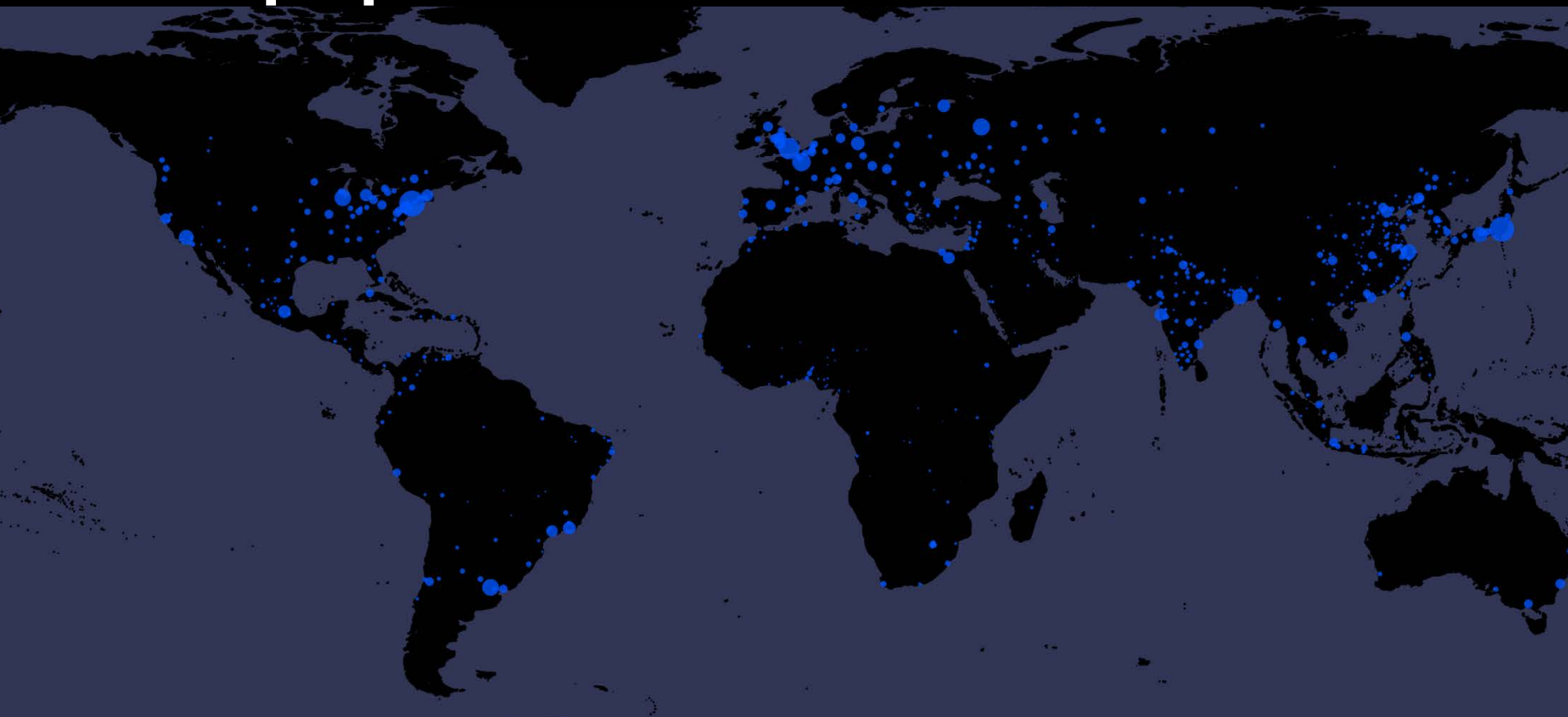
Roundtable focus:

Explore international experience and lessons learned from integrated transport development in large-scale urban regions and city clusters

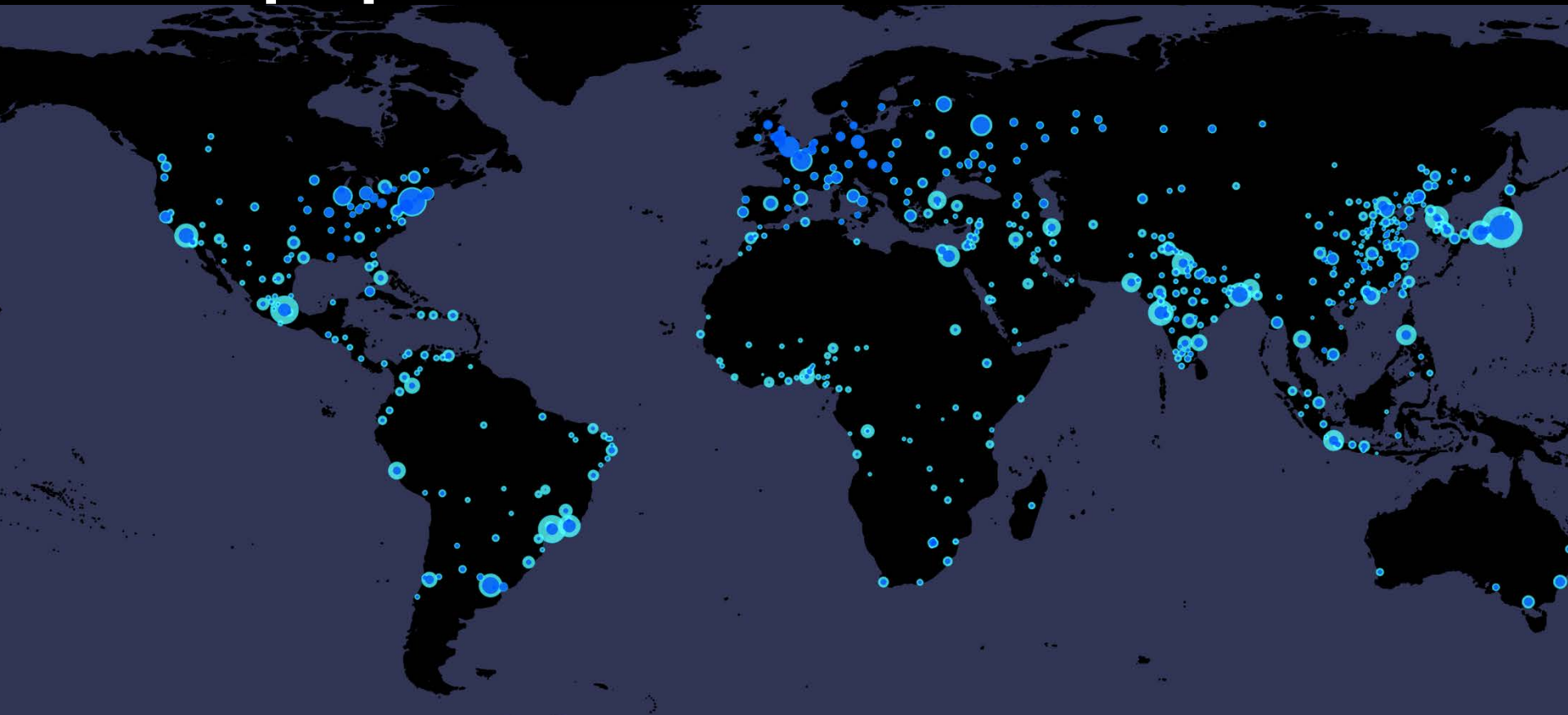
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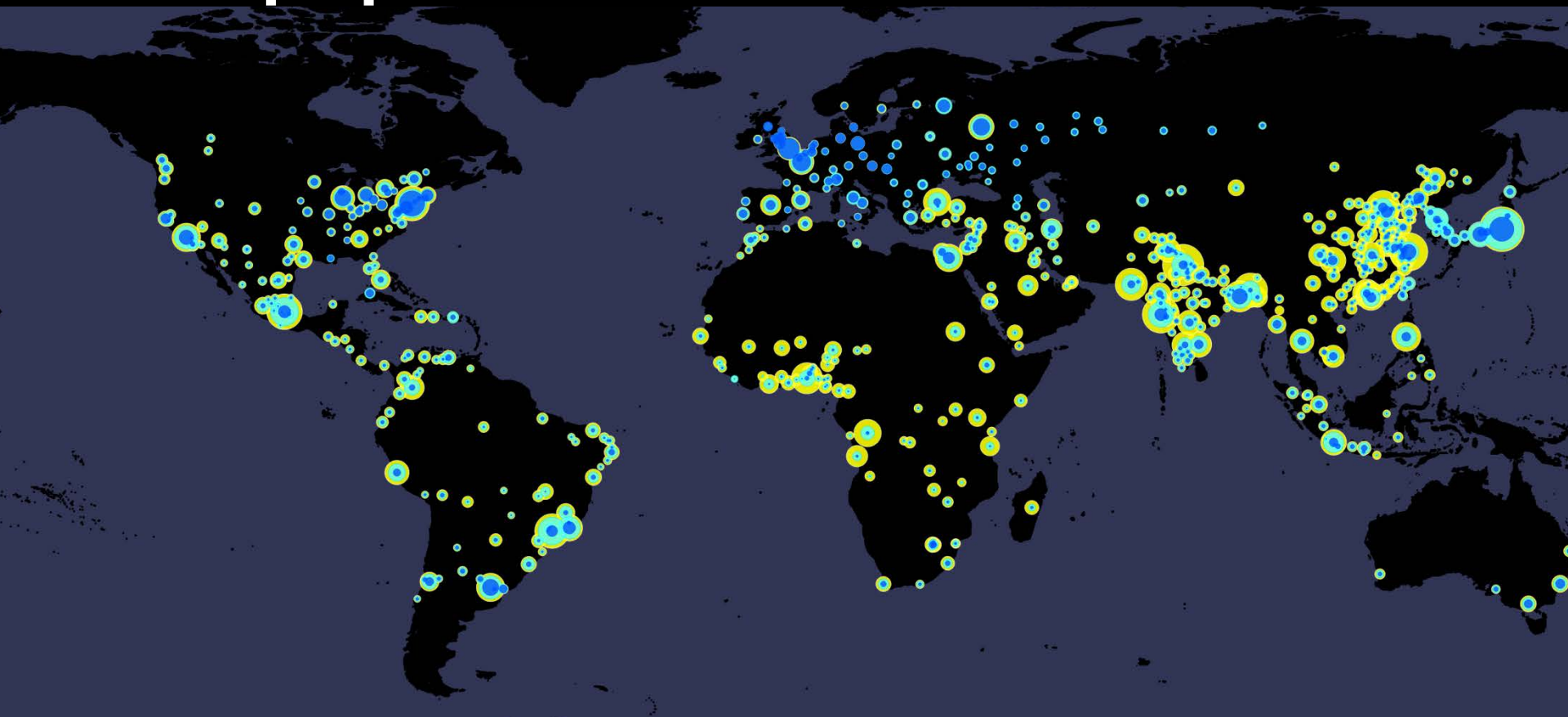
Urban population : 1950



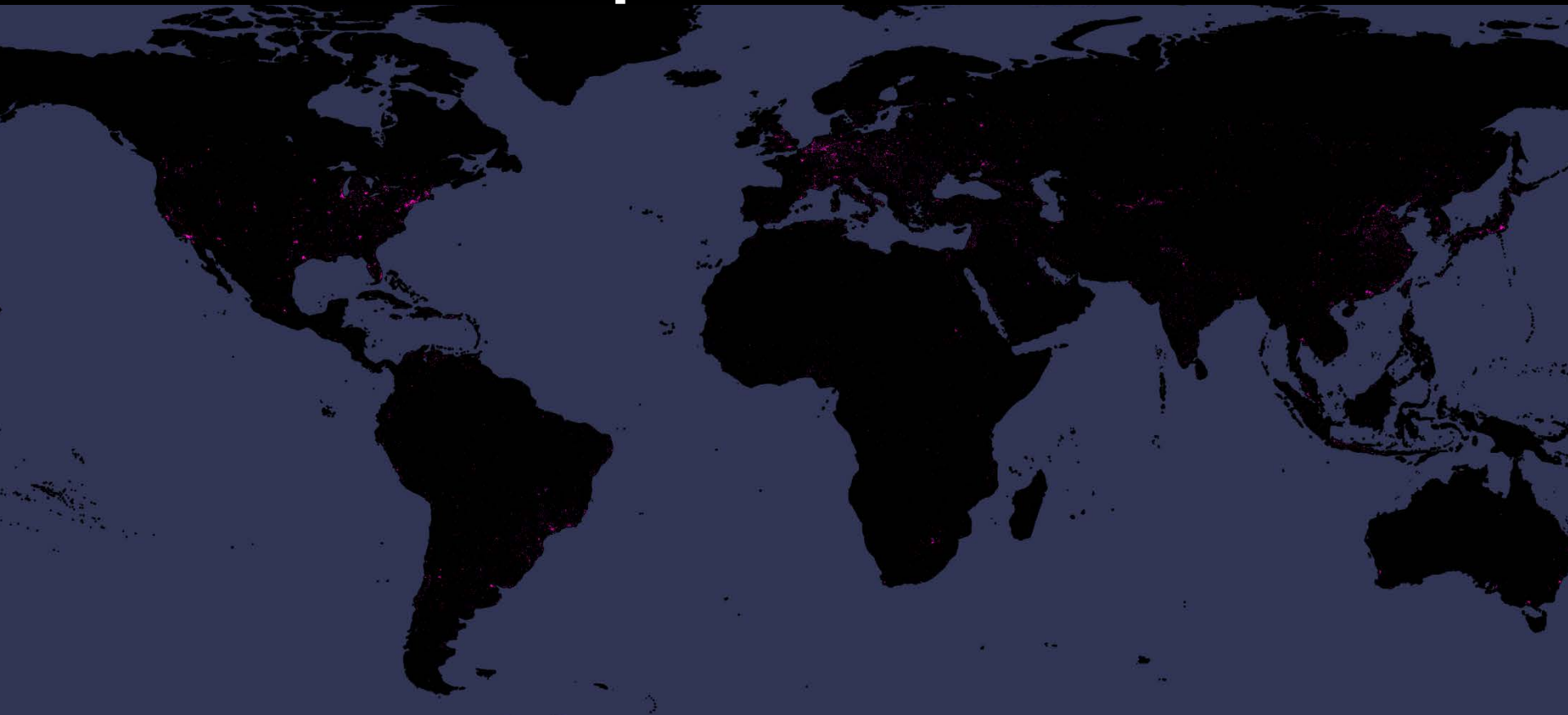
Urban population : 1950, 1990



Urban population : 1950, 1990, 2025

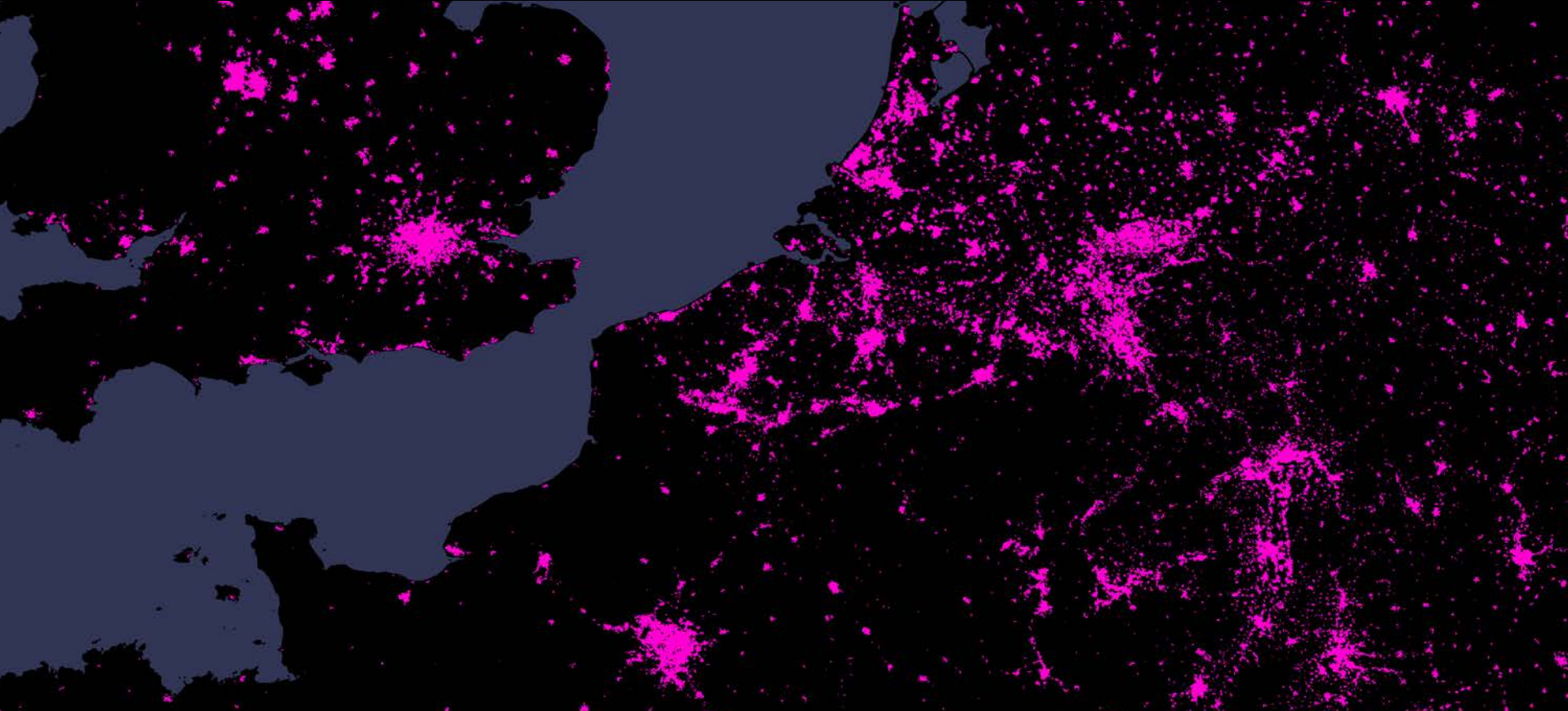


Urban land occupation, 2002

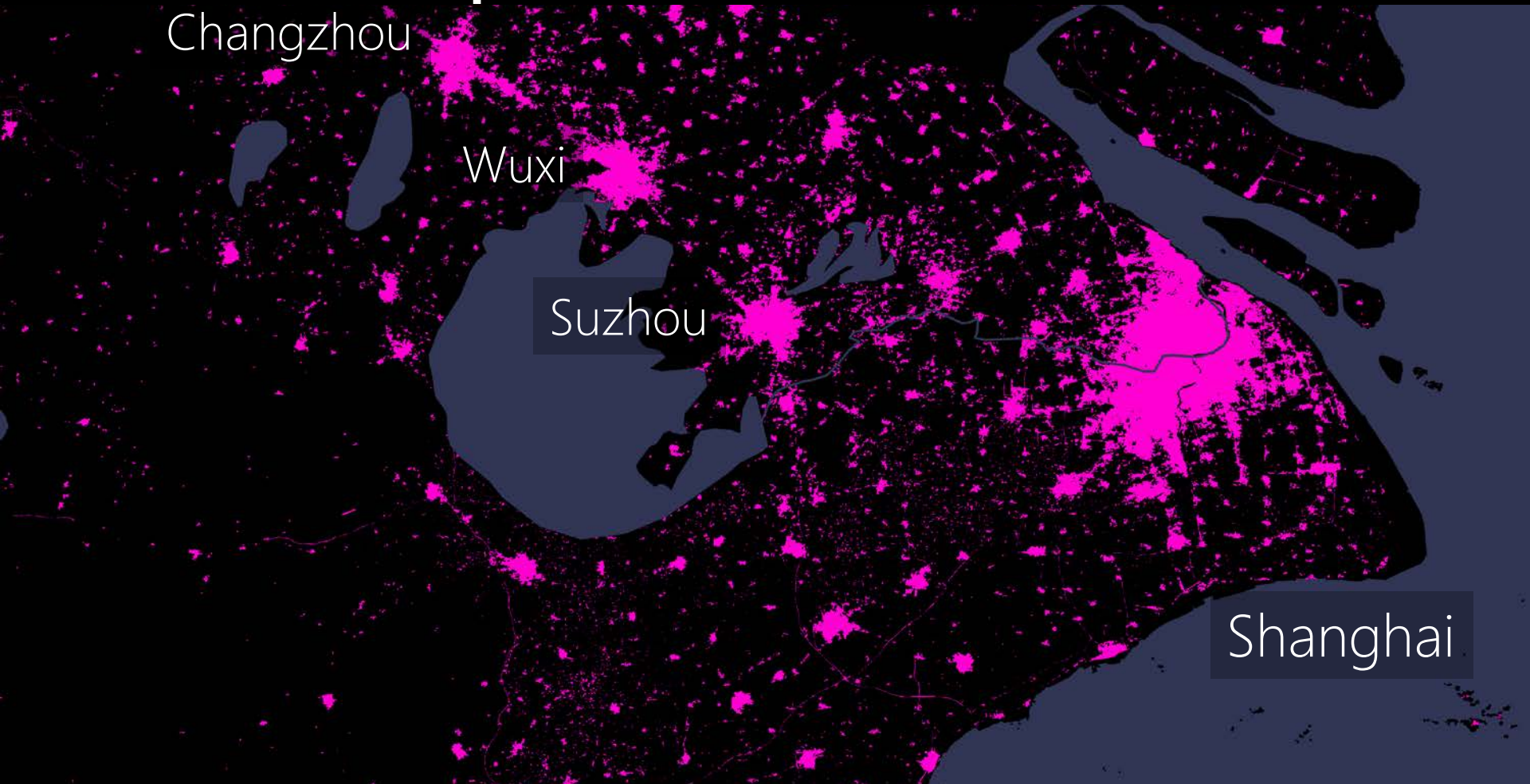




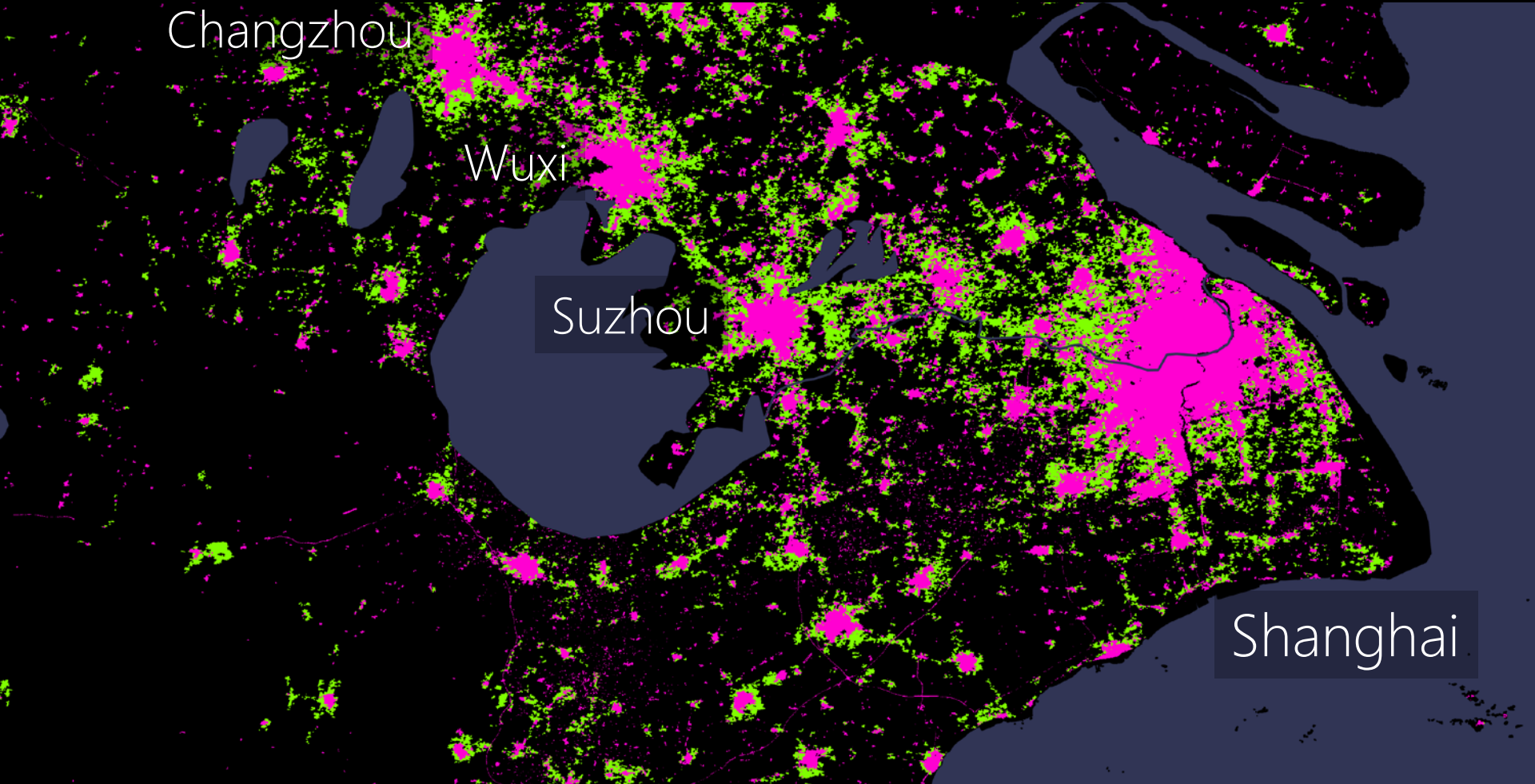
Urban land occupation - 2000

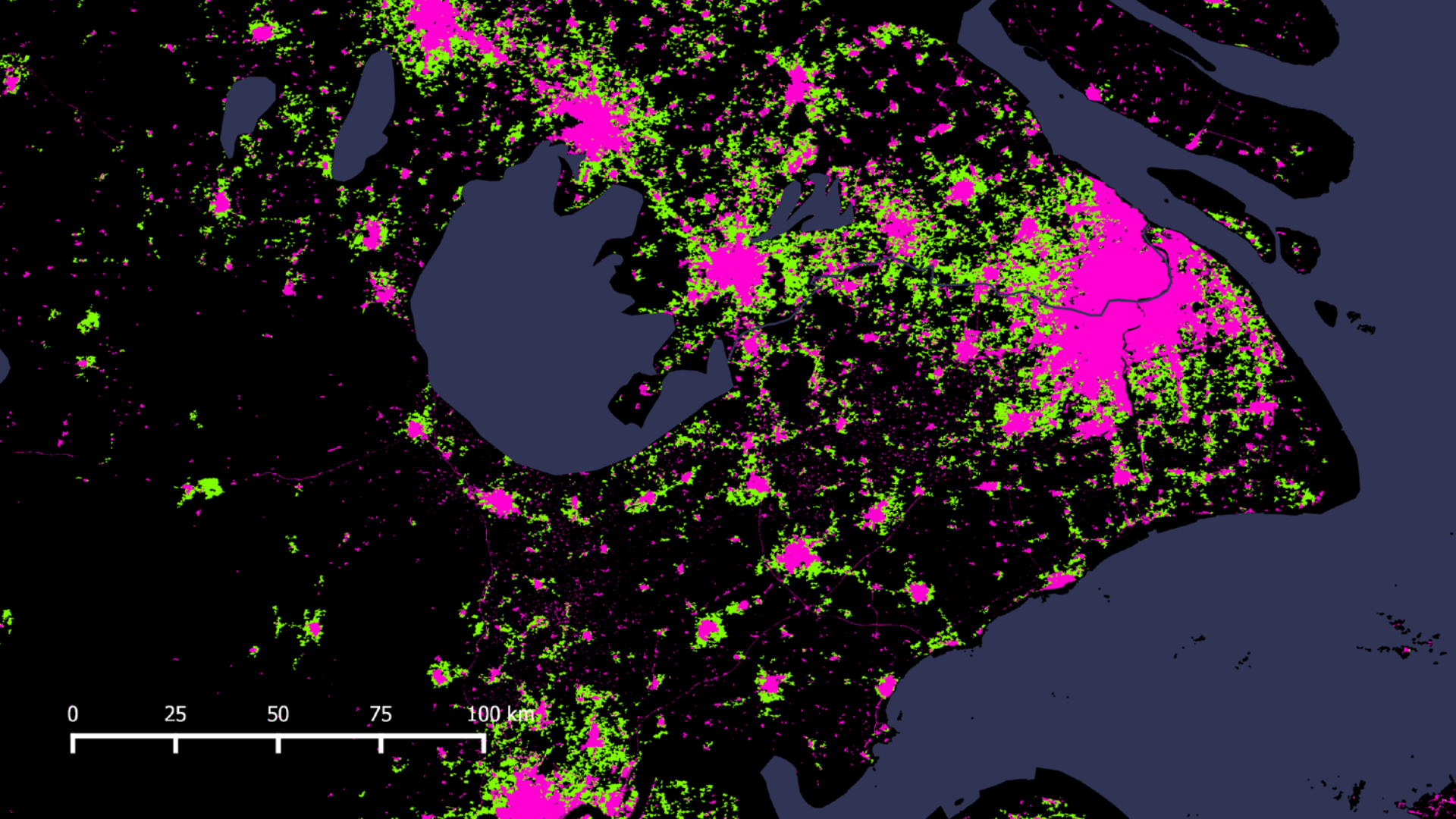


Urban land occupation - 2000



Urban land occupation – 2000, 2010

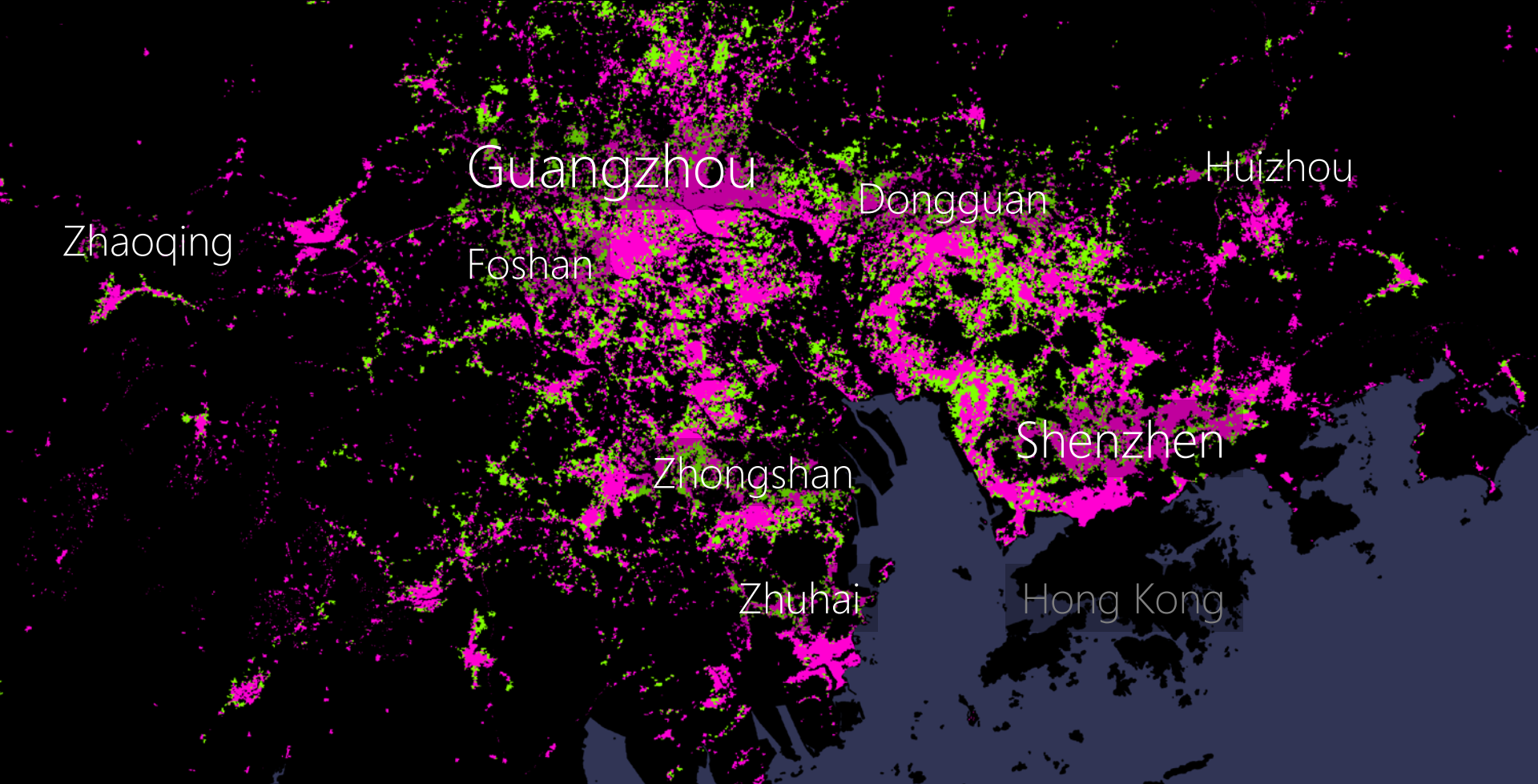




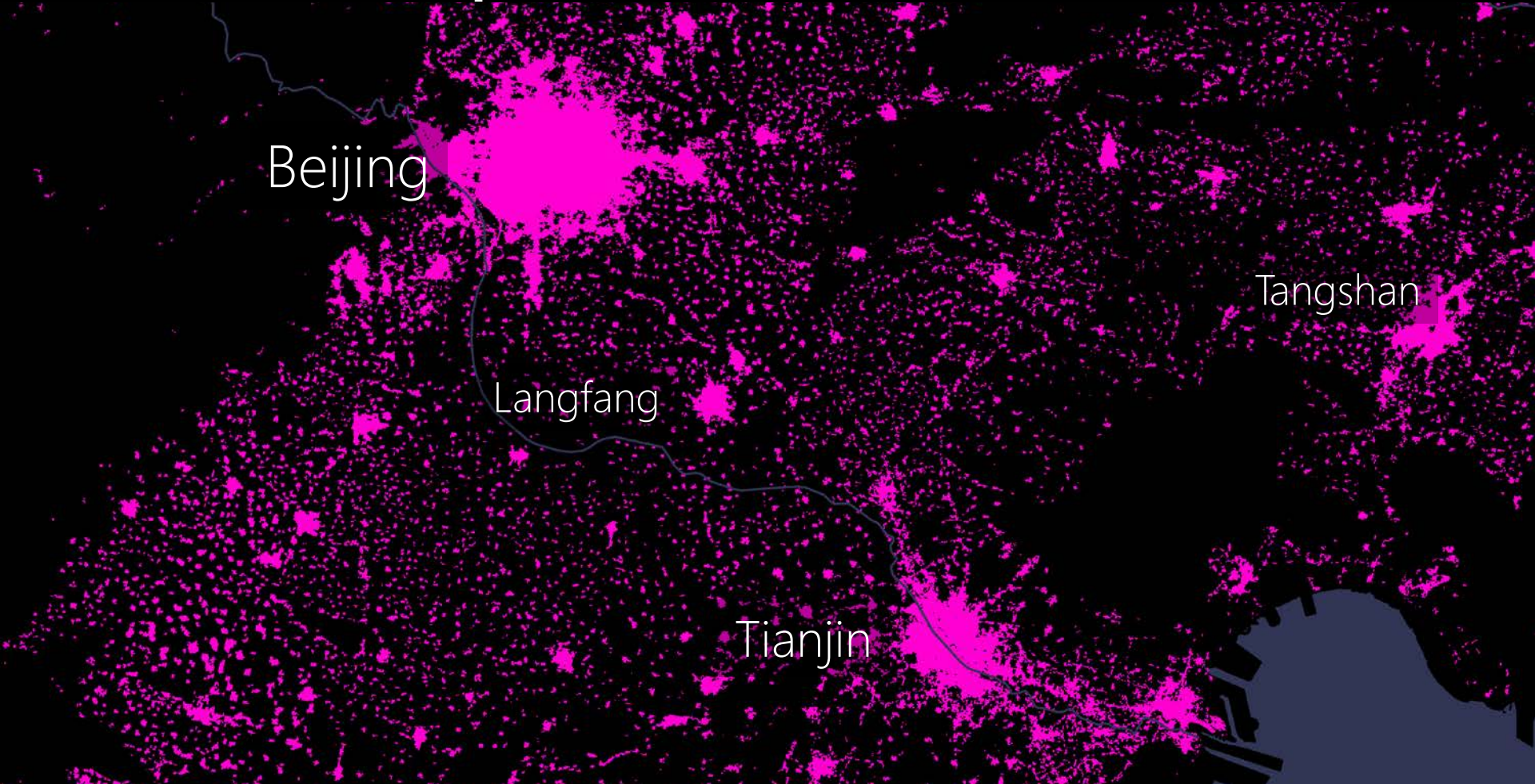
Urban land occupation – 2000



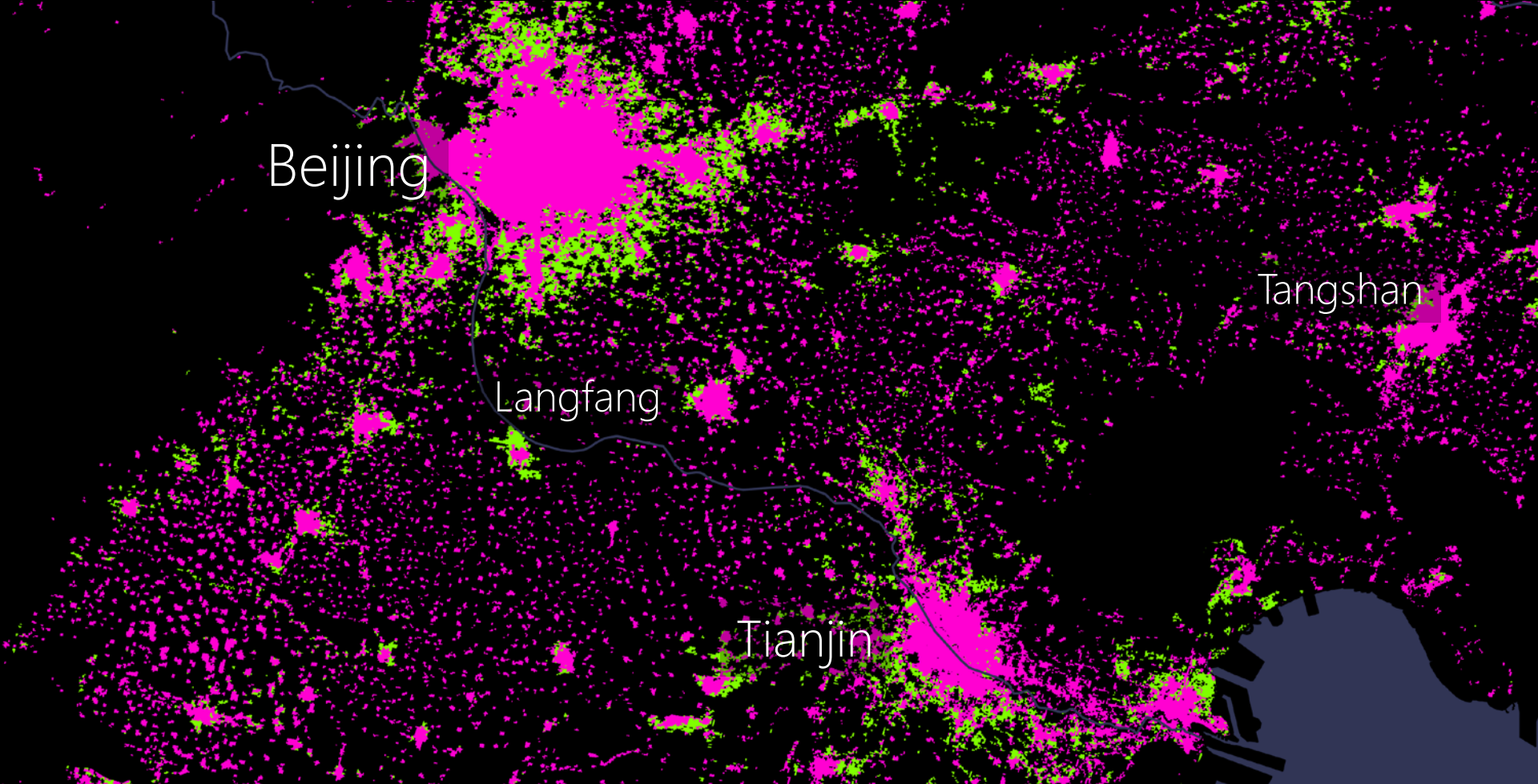
Urban land occupation – 2000, 2010



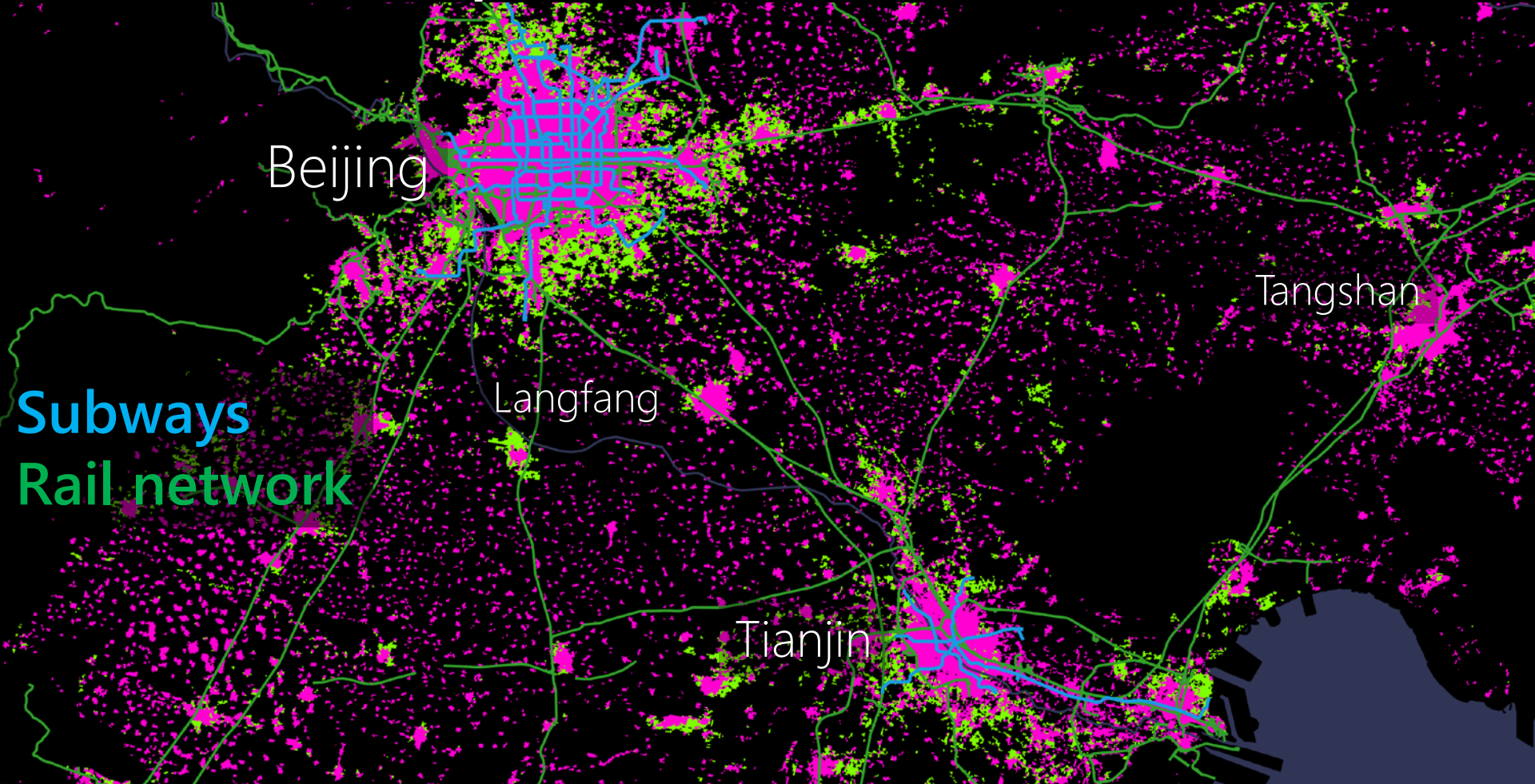
Urban land occupation – 2000



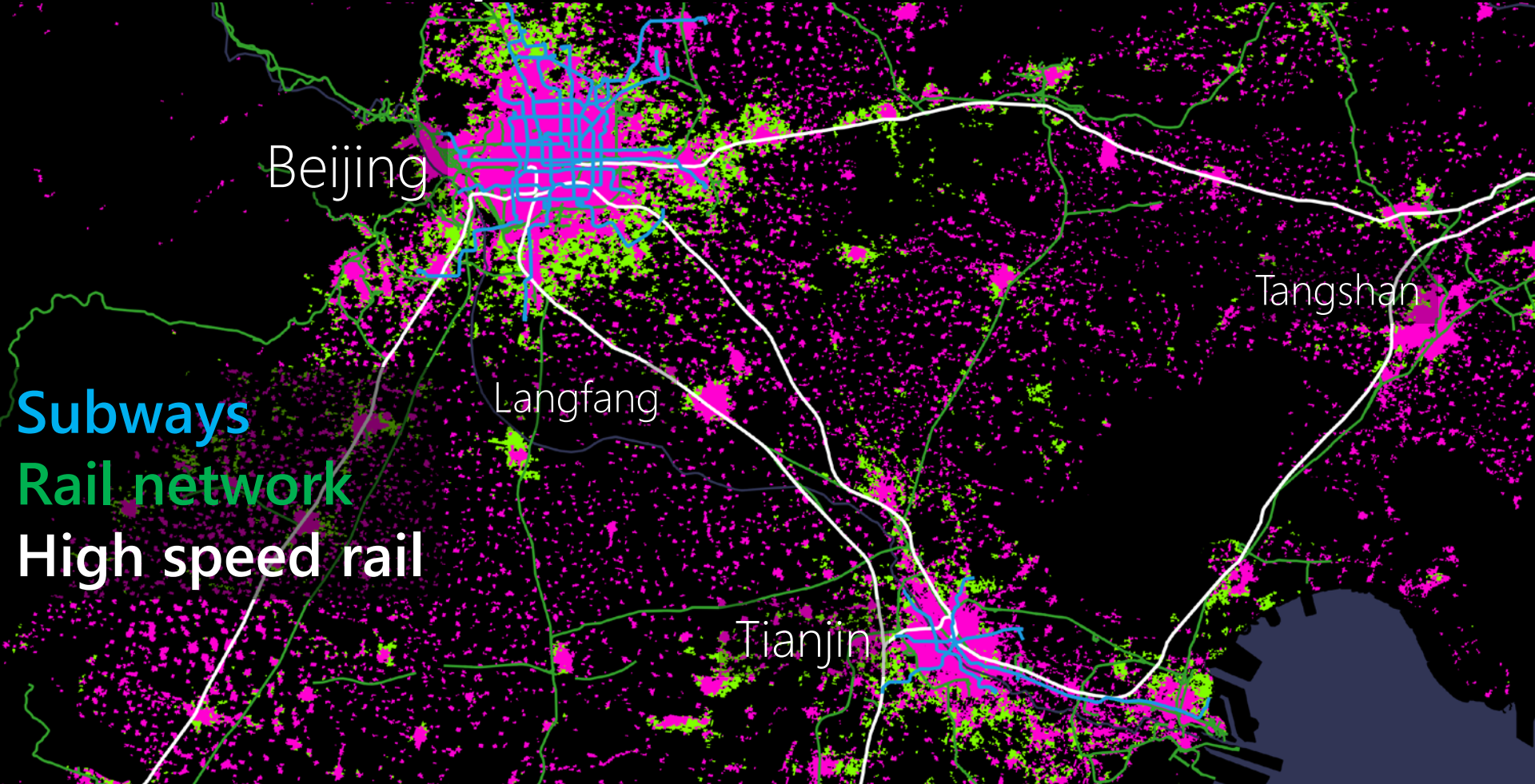
Urban land occupation – 2000, 2010



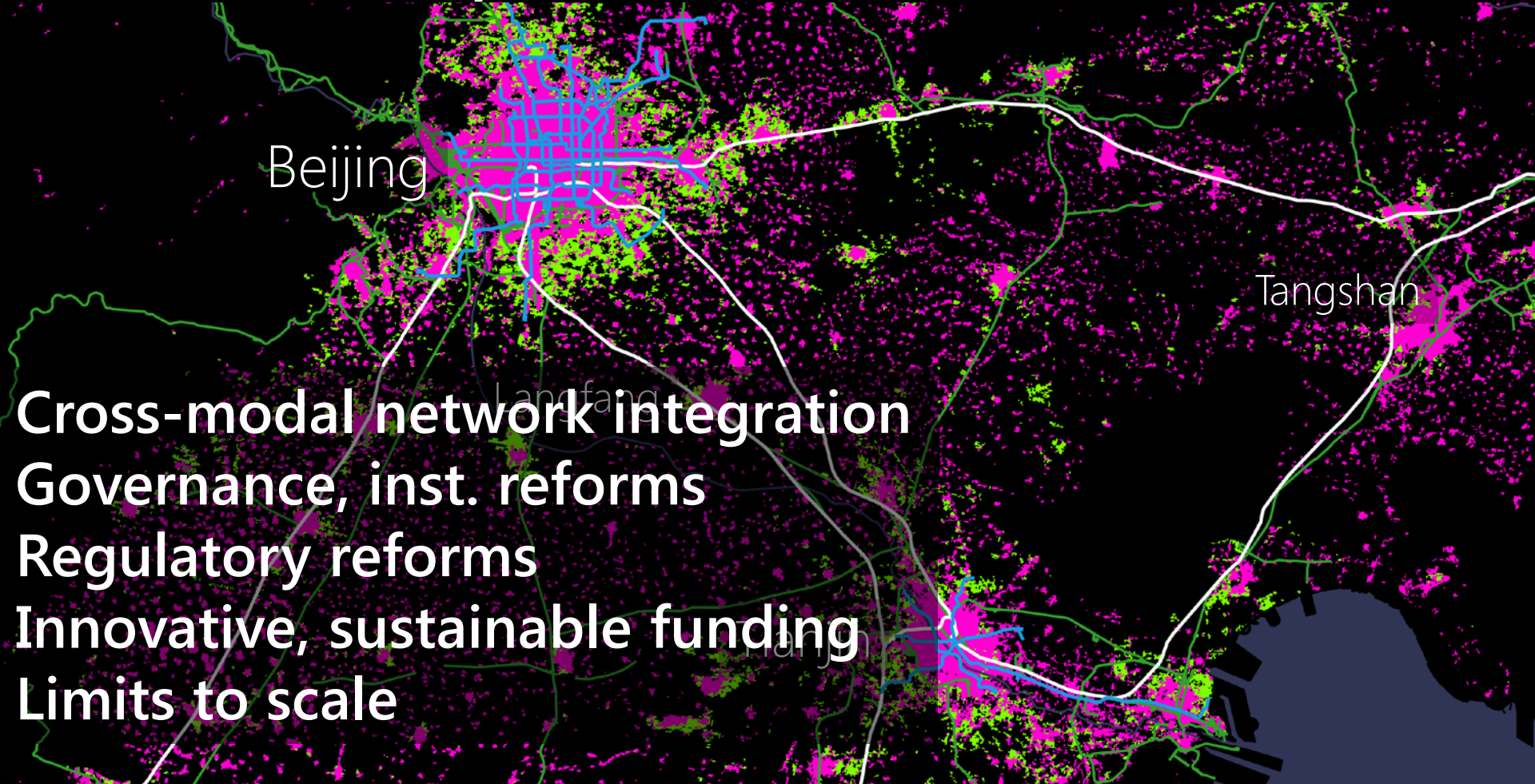
Urban land occupation – 2000, 2010



Urban land occupation – 2000, 2010



Urban land occupation – 2000, 2010



Beijing

Tangshan

Lanzhou

Jinan

Cross-modal network integration
Governance, inst. reforms
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Limits to scale







Policy insights:

Freed space must be managed to lock-in benefits

Policy insights:

Managing increases in travel
will not be trivial

Policy insights:

Policy focus is on self-driving vehicles, not on their use

Policy insights:

Public transport, taxis and
governance must adapt

Policy insights:

New business models (and
car models) required



Policy insights:

Data will be the fuel of 21st
century urban mobility

Thank you!