ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

INNOVATIVE GOVERNANCE OF LARGE URBAN SYSTEMS

Block 1: Introduction to urban infrastructures

3. The main dimensions of urban infrastructures

Prof. Matthias Finger

Iglus.org

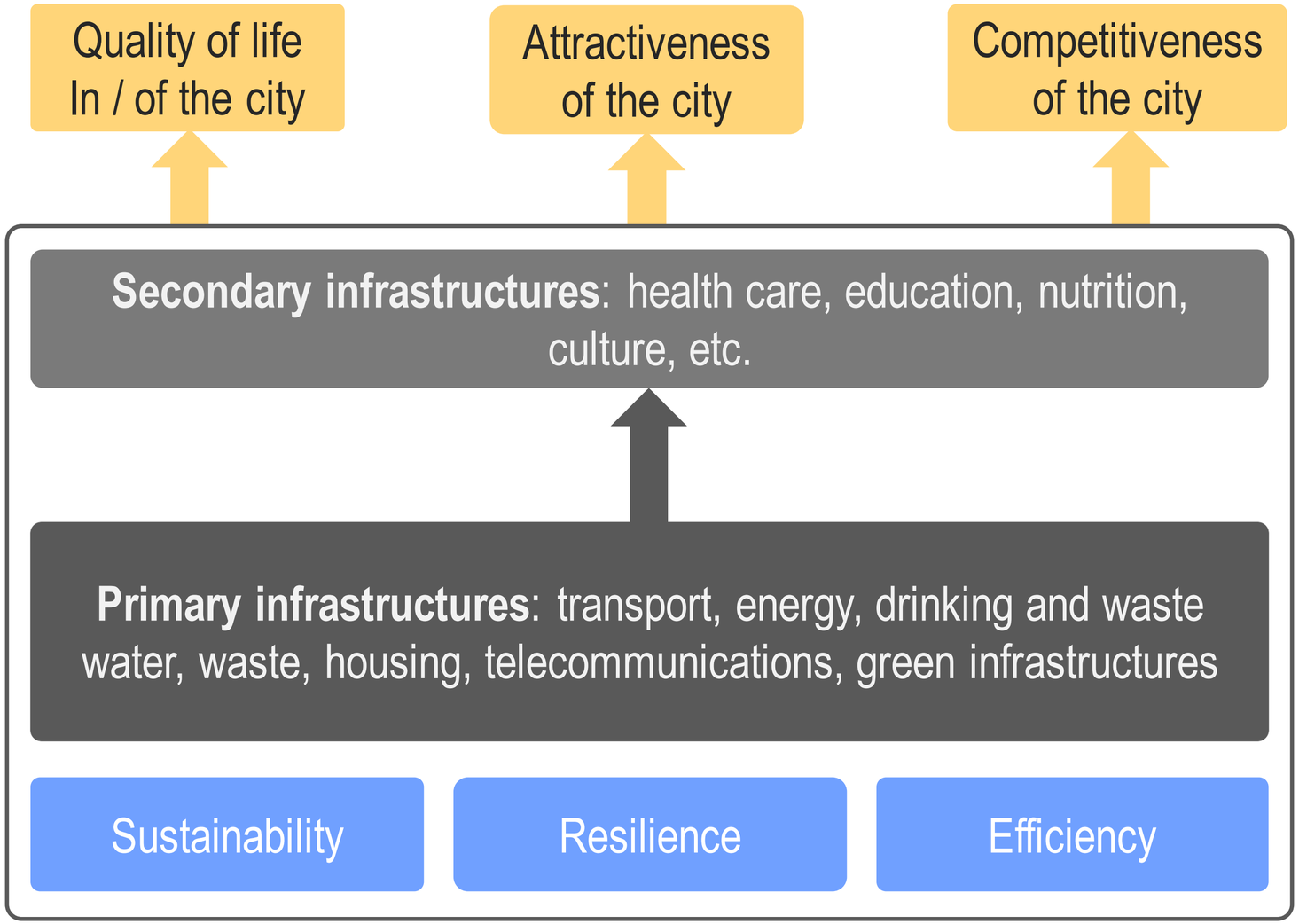
Session overview

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

In this session, you will be introduced to the main dimensions of urban infrastructure systems; I will do this in three steps:

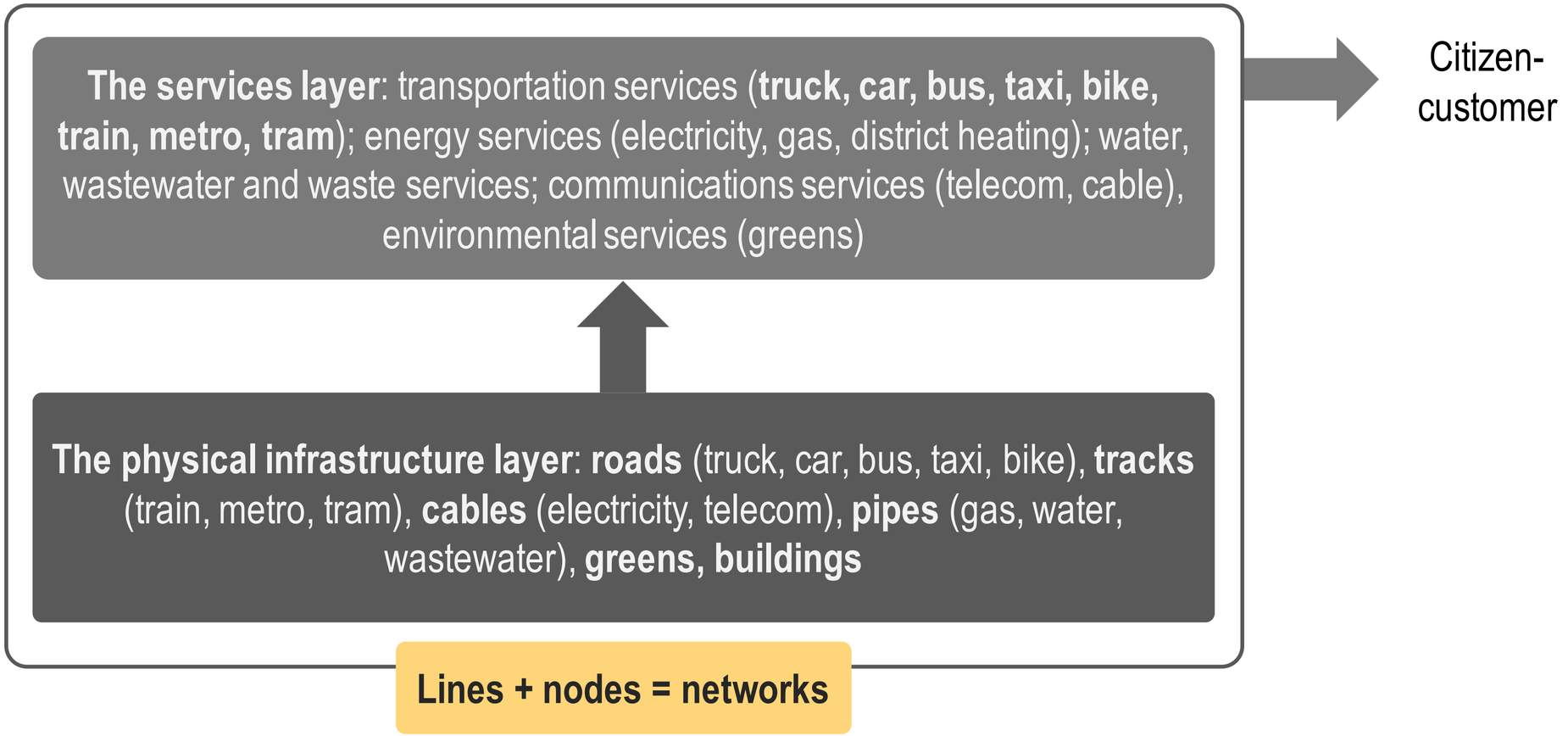
- Outline of our framework of city management and governance
- Presentation of the main dimensions of urban infrastructures, namely:
  - the technical dimension
  - the economic dimension
  - the jurisdictional dimension
  - the social dimension
  - the environmental dimension
- I will conclude by defining cities as dynamic socio-technical systems

Our framework of city management and governance

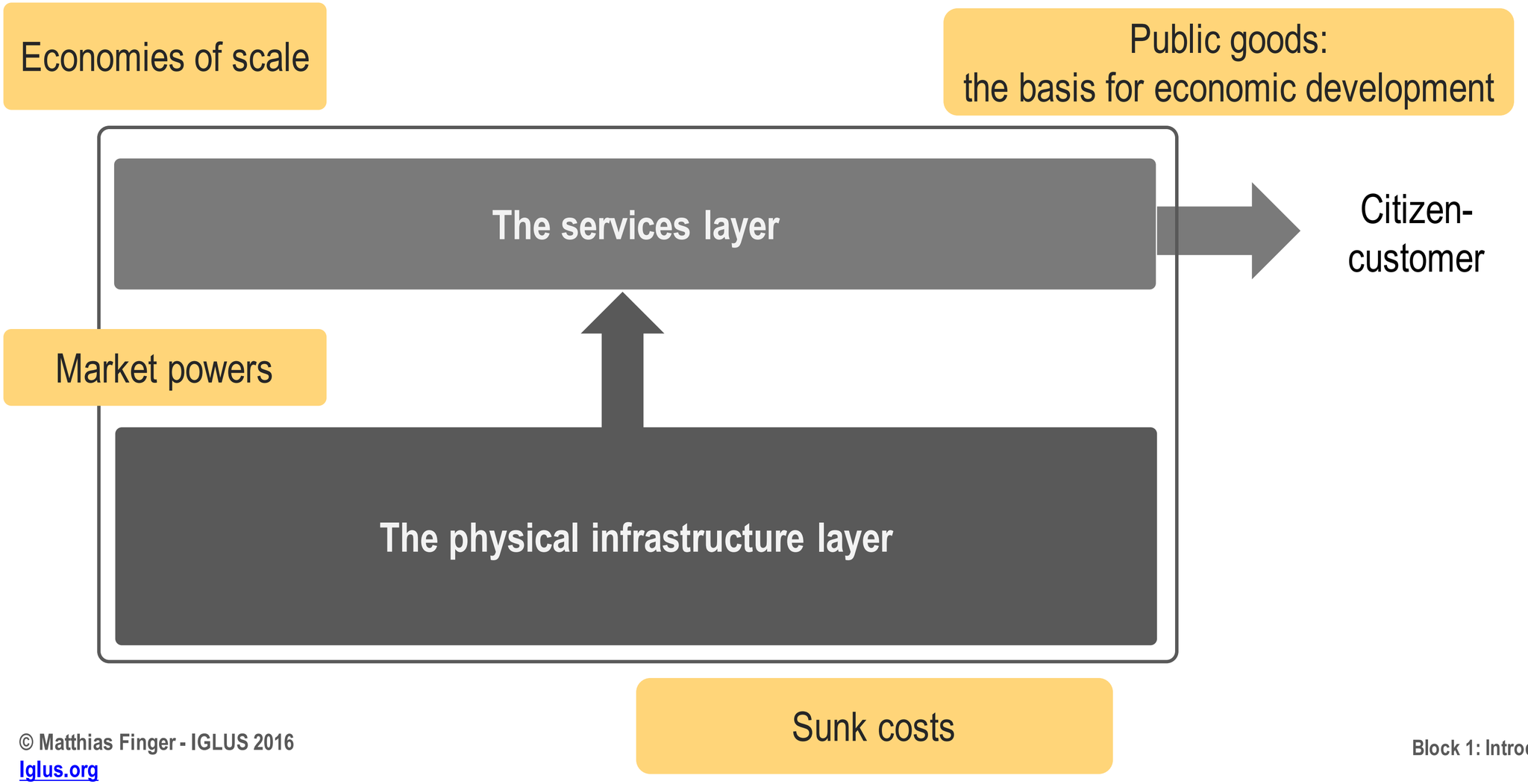


Urban system

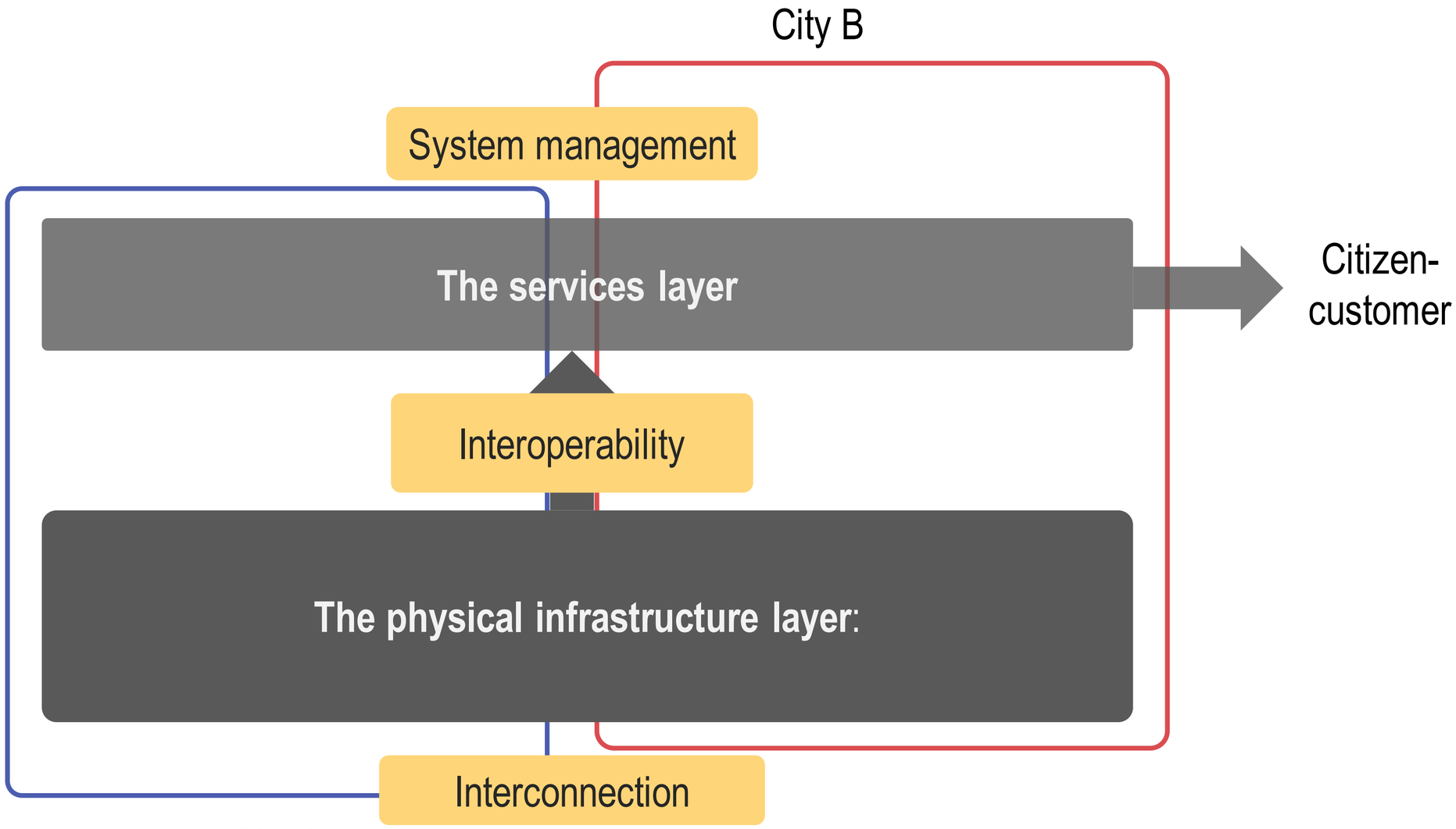
The technical dimension



The economic dimension

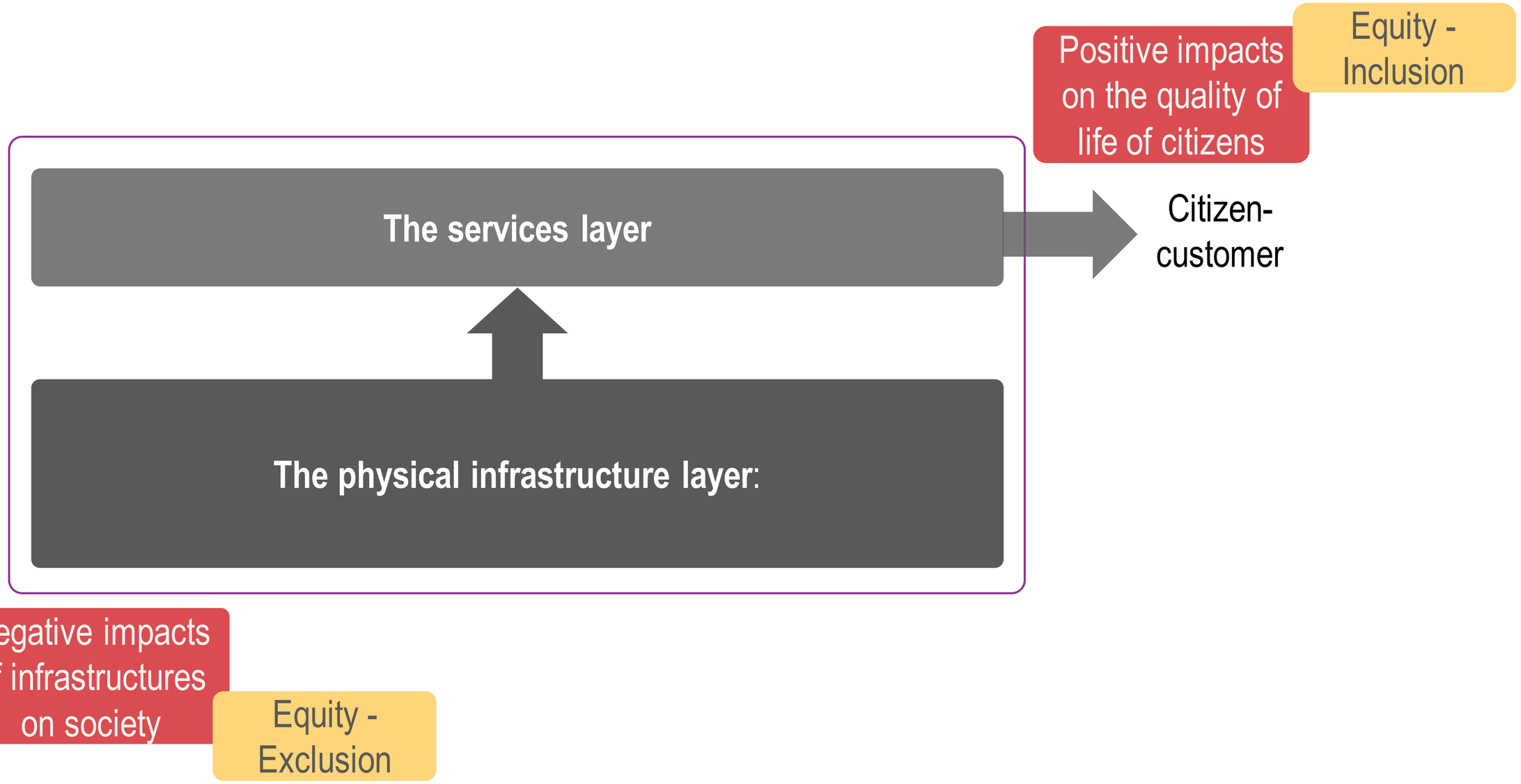


The jurisdictional dimension



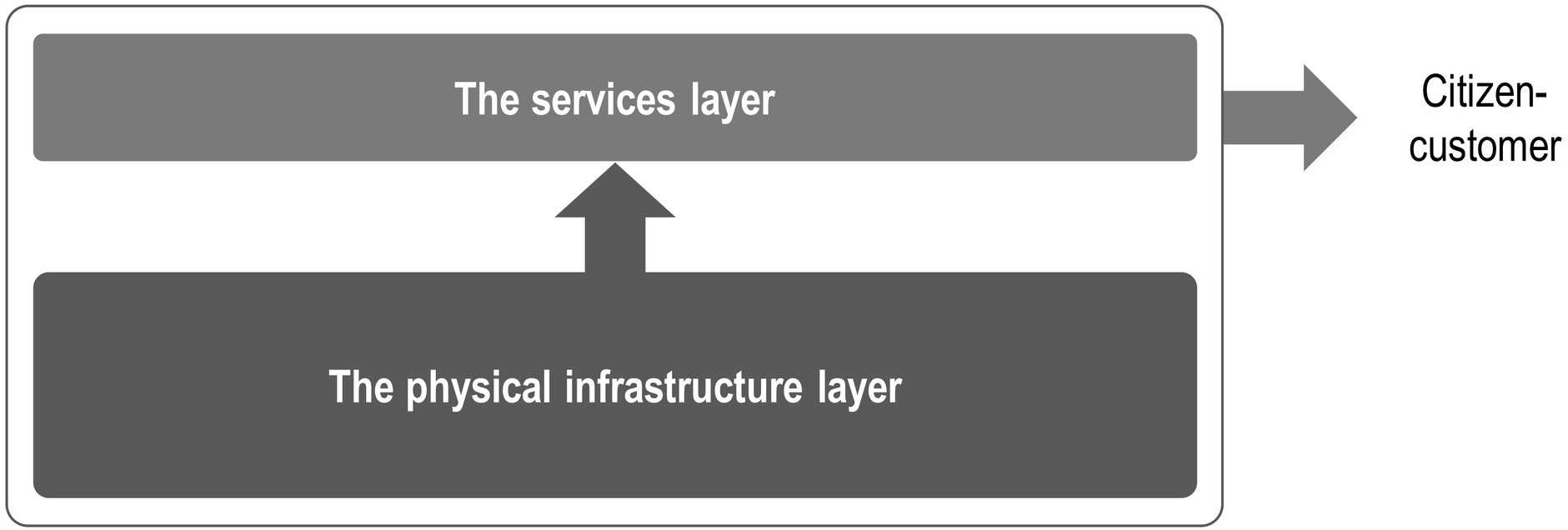
Iglus.org

The social dimension



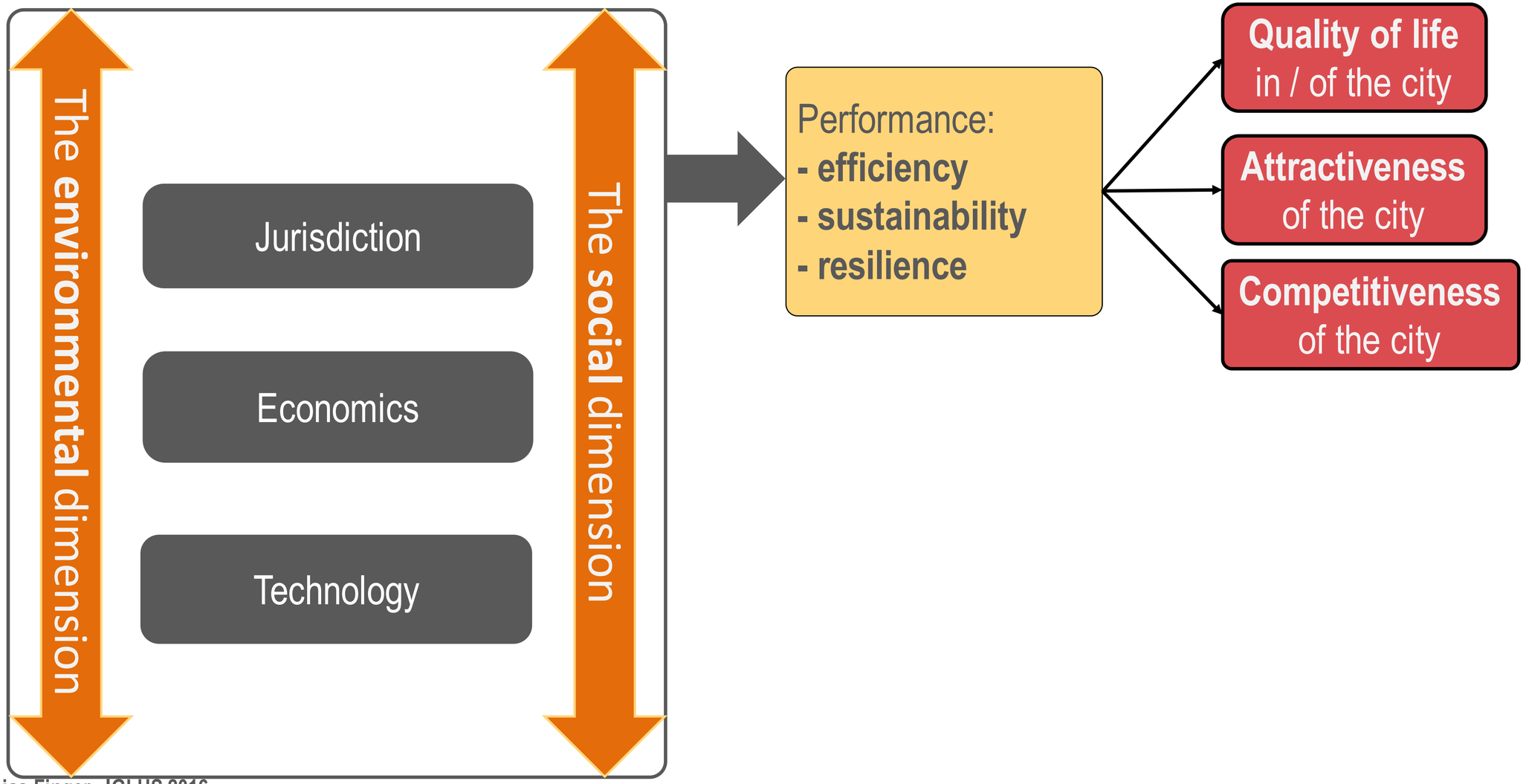
The environmental dimension

Positive environmental impacts (e.g., green infrastructures; clean energy)



Negative impacts of infrastructures on the environment (e.g., CO_2 emissions, noise, pollutants, land use)

The city as a complex socio-technical system



Conclusion

- In this session we have seen the different dimensions of urban infrastructure systems
- In the next session, you will hear from a practitioner how this all plays out in reality
- I will then come back to present the two main analytical perspectives for approaching urban infrastructure systems