

# TECHNO-ECONOMICS AND BUSINESS MODELING OF ICT SOLUTIONS AND SERVICES

## Technological innovation leads to business opportunities and challenges



How to quantify the **savings** obtained by using smart services?

How do **strategic** and **economic** considerations affect the choice of IoT technology?

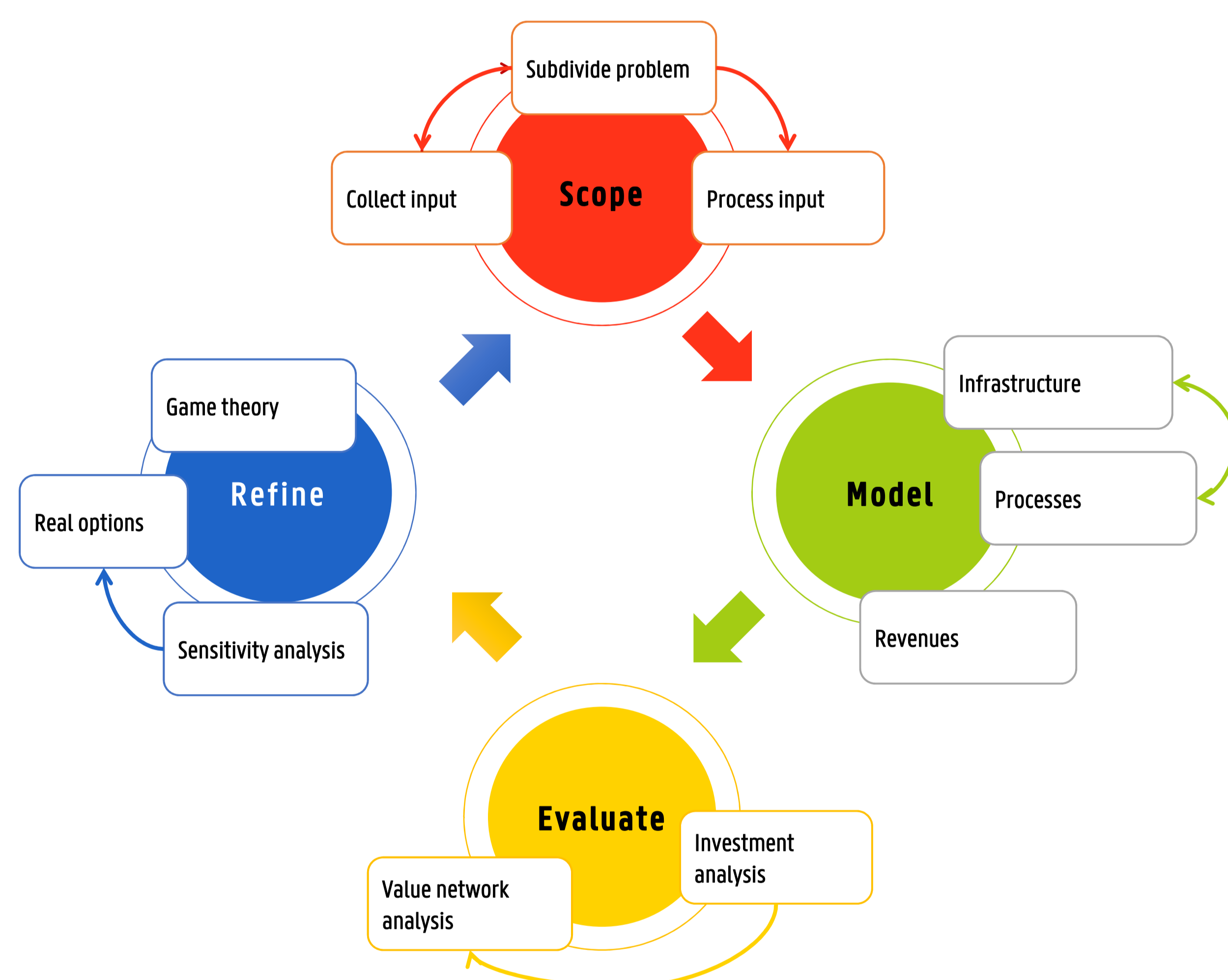
What is the impact of software-defined networks on the **operational cost**?

What is the impact of network topology choices on **deployment cost**?

## We build on a standardized methodology

The **scope** of the problem defines the actual research question. We gather input data and decide about needed level of detail.

Infrastructure and operational processes determine the costs. We **model** both costs and revenues.



We **refine** the analysis. Flexibility and competition are taken into account.

We **evaluate** the business model in a quantitative way. Value network analysis gives insight in a multi-actor setting.

## This is broadly applicable



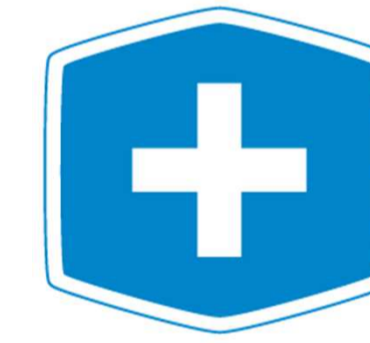
Is **ICT** innovation possible in a competitive duopoly?



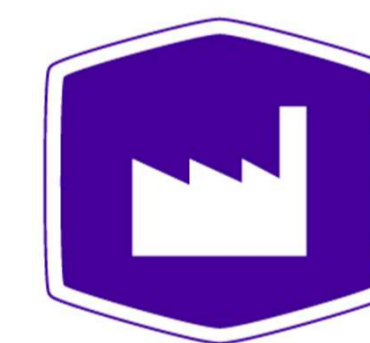
Is there a market for multiple competitive wireless networks in a **smart city**?



What are the costs of optimal energy storage in **energy farms**?



How to rollout **e-health** services optimal for all actors?



What is a sustainable sensor solution in **manufacturing** settings?

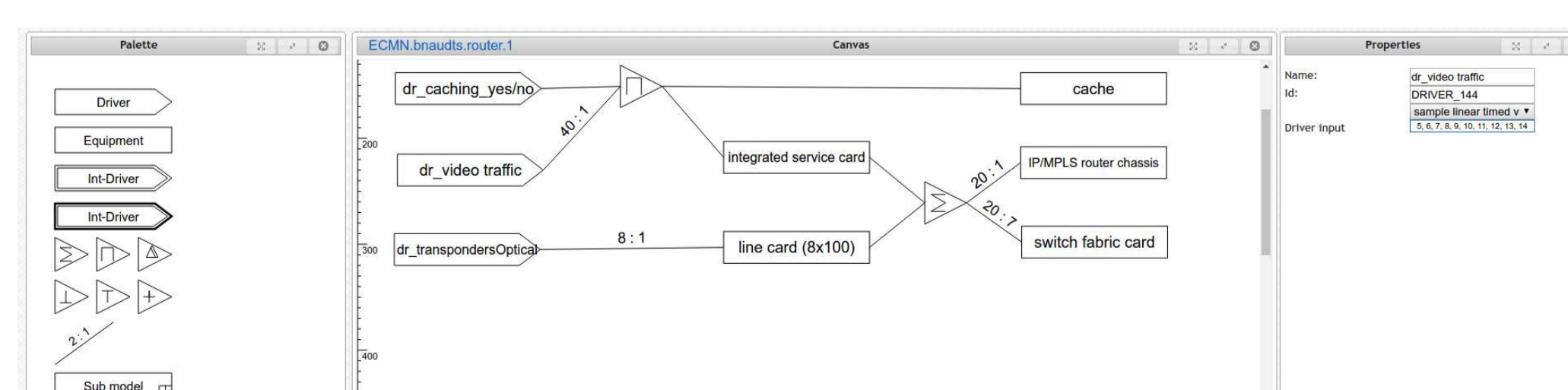
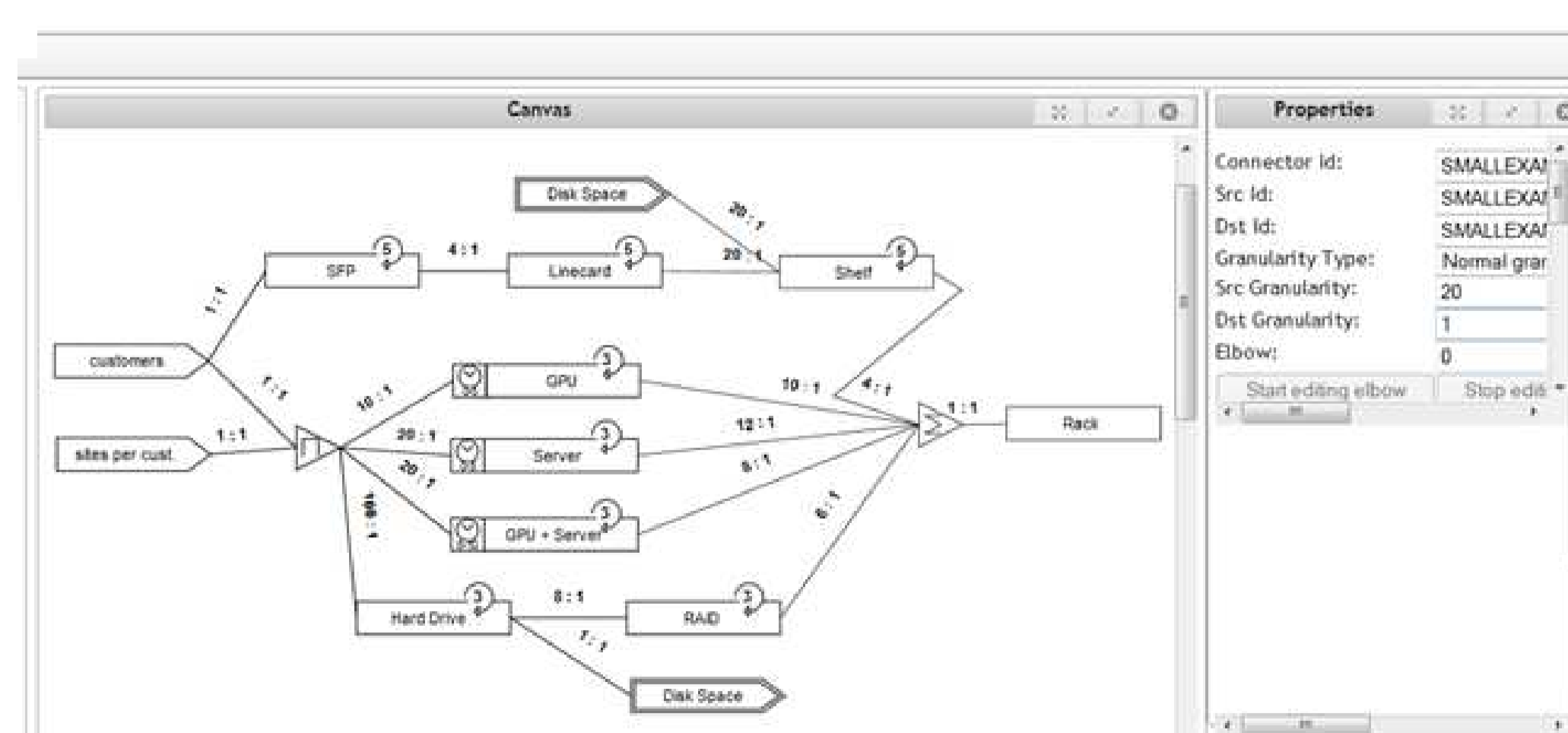


Do software solutions improve the efficiency of **media** delivery?

## Technical expertise is key

We develop **software toolkits**:

- **Dimensioning** calculates bill of resources (required equipment and manpower)
- **Optimization** supports cost-benefit trade-off (under given boundary conditions)
- **Standardized** language and notation (facilitates communication with field experts)



## More information?

[www.technoeconomics.ugent.be](http://www.technoeconomics.ugent.be)

[www.technoeconomicsportal.eu](http://www.technoeconomicsportal.eu)

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