

Q4/1 and Q5/1 joint workshop on Challenges and opportunities of the use of USF for bridging the digital divide

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How to identify areas where the Universal Service Fund (USF) should intervene first?

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How to:

- 1 Identify areas where the universal service fund should intervene?
- 2 calculate the exact amount to be allocated?
- 3 Determine the best financing mechanisms for infrastructure deployment?

How to identify areas where the universal service fund should intervene?

A techno-economic analysis of the profitability of an optimal High broadband infrastructure deployment by geographic area.

Factual and quantified costs and revenues projections basis for discussions with the various market players

Revenues

Costs

Investment and Profitability by:
• Area
• Technology

Which areas require USF and which do not?

Alpha

Profitable over a 10 year period

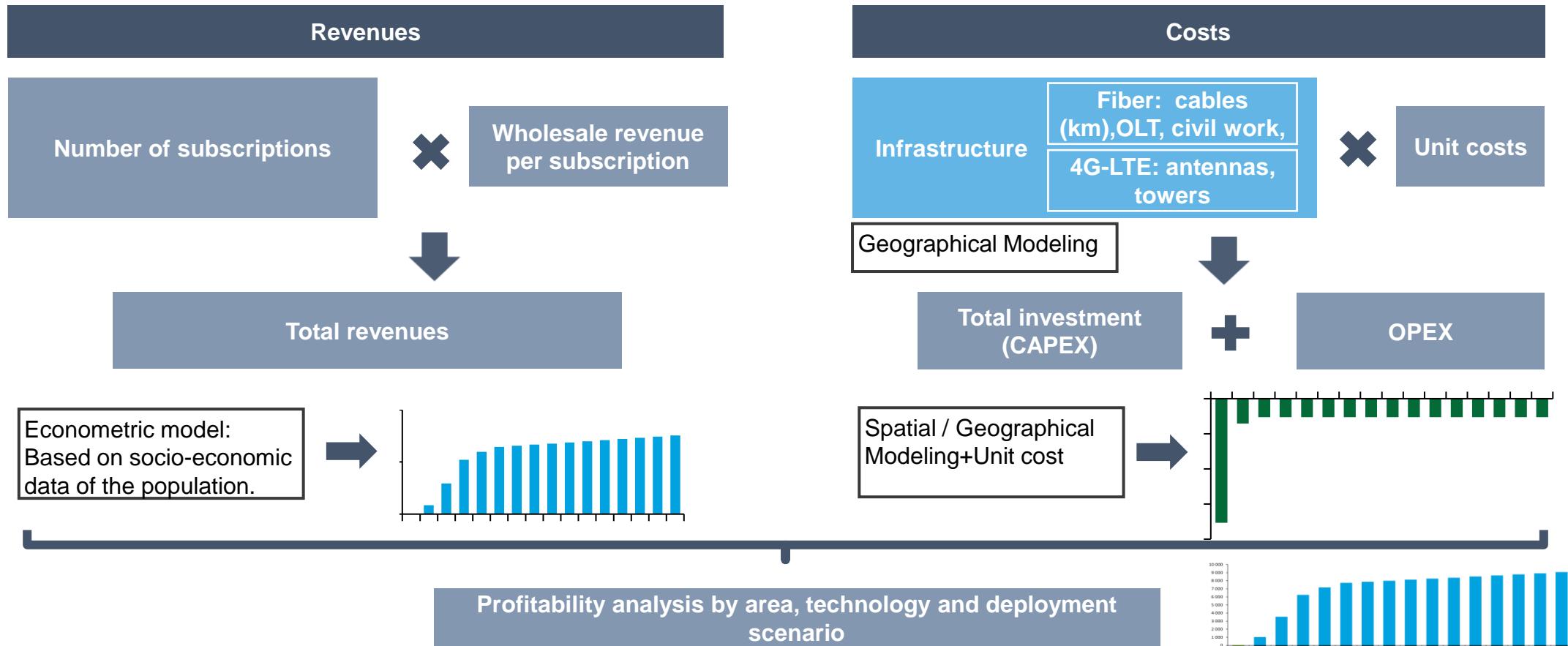
Bêta

Profitable over a 25 year period

Gamma
Not profitable and/or cost-effective

How to calculate the exact amount to be allocated?

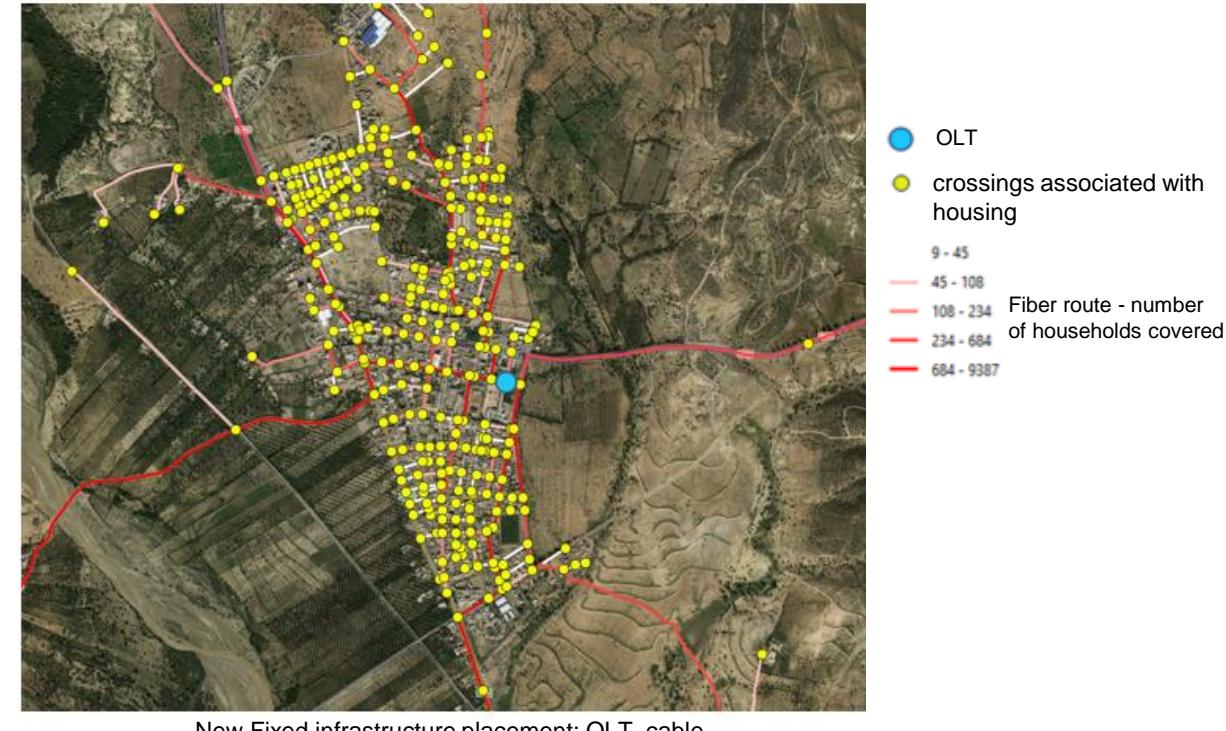
Modeling : Quantity of equipment using GIS model, cost and revenue using unit costs, demand estimation and spreadsheet



Geographic modeling applied to the calculation of mobile and fixed infrastructure costs

Benefits

- Accurately consider existing infrastructure (passive and active).
- Rely on precise data of **the population** distribution on the territory, based on **satellite imagery**.
- Determine the equipment required to **connect** populations, companies, households for different parts of the territory **regarding geographical characteristics**.
- Determine **the minimum costs** using algorithms that **optimize** infrastructure placement.



The best financing mechanism adapted to each area?

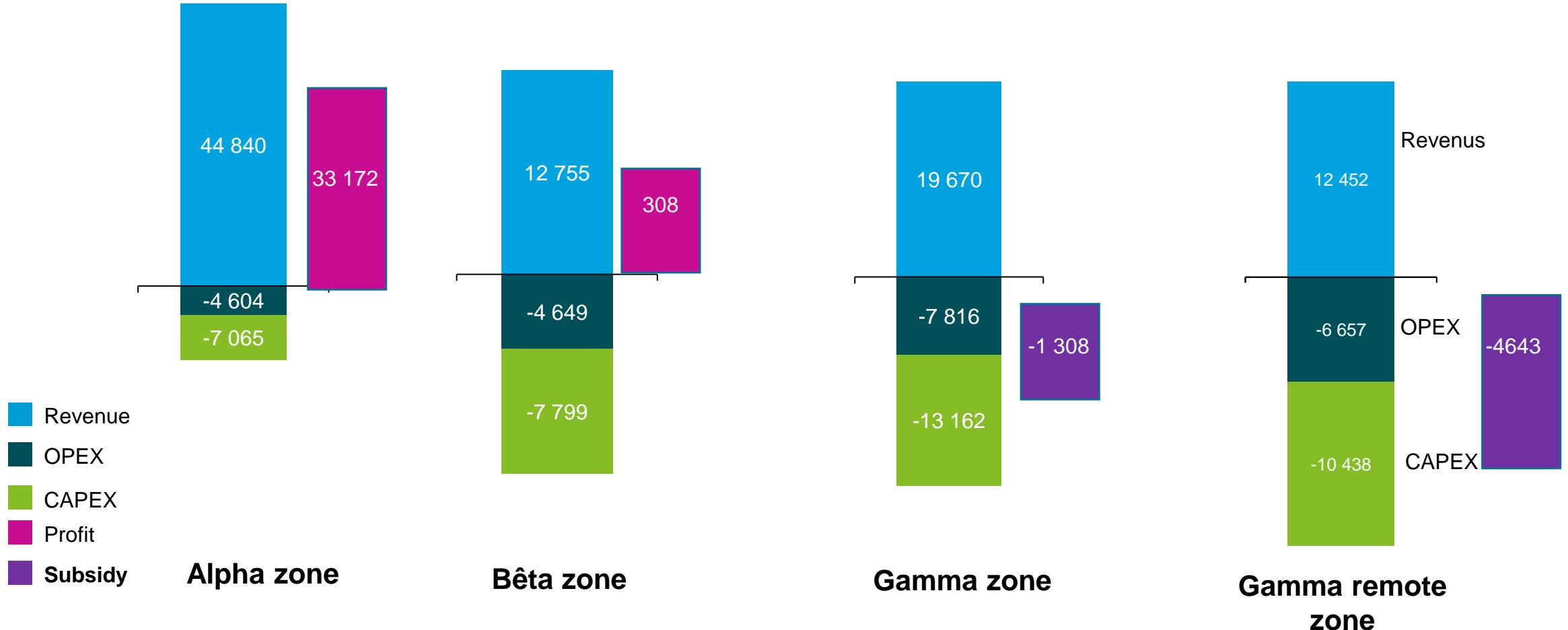
Zoning resulting from a technico-economic model

4 Types of zones are defined according to their level of profitability

	Alpha zone	Beta zone	Gamma zone	Gamma remote zone
Level of profitability	Profitable for a private investor (over a 10-year horizon).	Profitable for a public investor (over a 25-year horizon), but not for a private investor	Profitable for neither a private nor a public investor. The ratio between the necessary subsidies and the CAPEX does not exceed a predefined threshold (between 20% and 30% depending on the scenario), indicating that a deployment with the financial support of the Government is envisaged.	Cost-effective for neither a private nor a public investor The ratio of required subsidies to CAPEX exceeds a predefined threshold, indicating that deployment of the technology in question will not be realistic in these areas. A less expensive technology is preferred.
Financing	No need for external financing.	Public investment / PPP		Subsidies / USF

The value of USF in Gamma Areas?

Results: The need for subsidies is around €6 million.



- 1 Using economic and engineering methods, it is possible to identify precisely the areas where the universal service fund should intervene first.
- 2 Gamma areas are the best candidates for USF.
- 3 On the reverse side, the amount calculated could give an approximation of the cost of the universal service.

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