

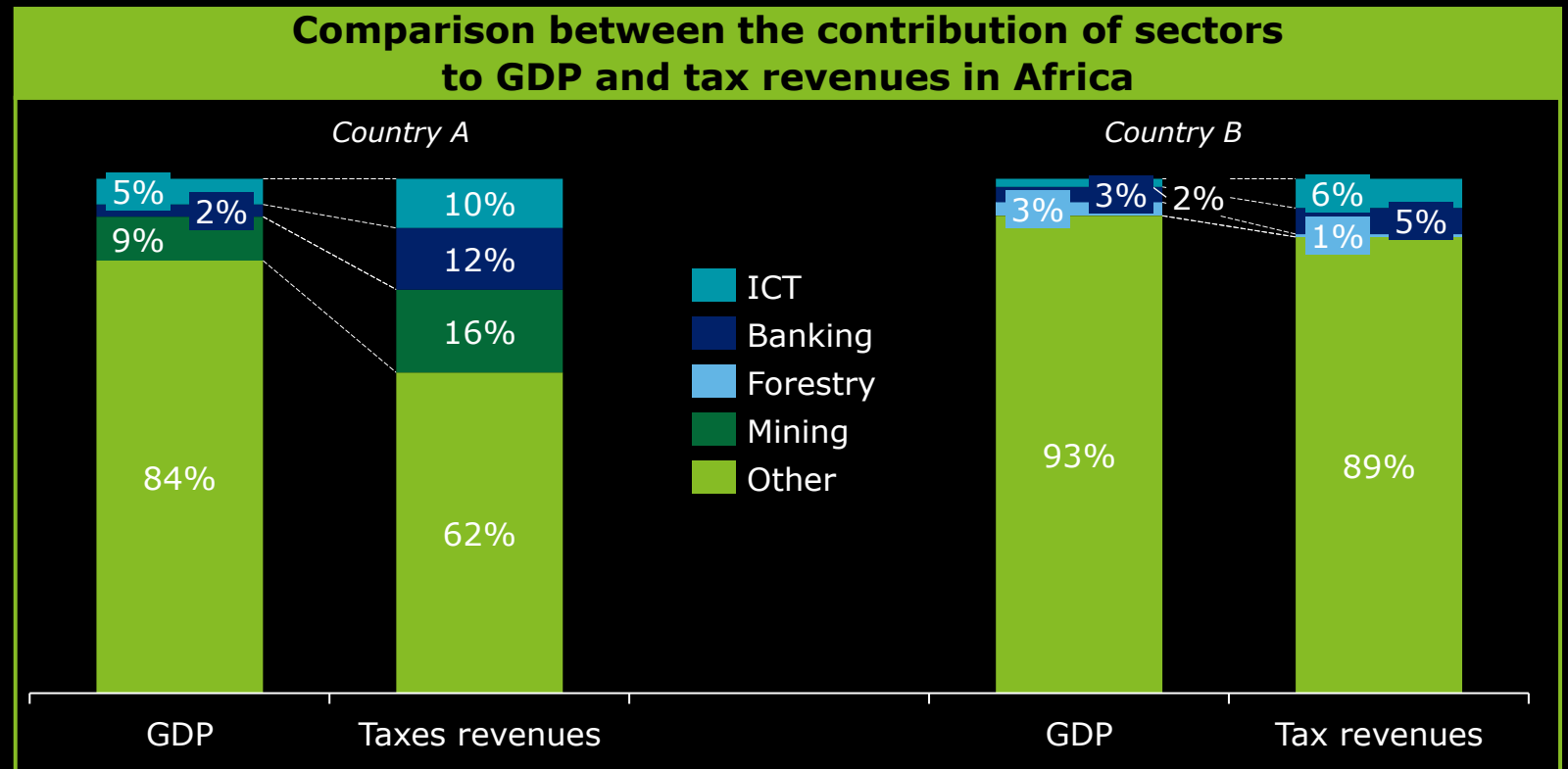
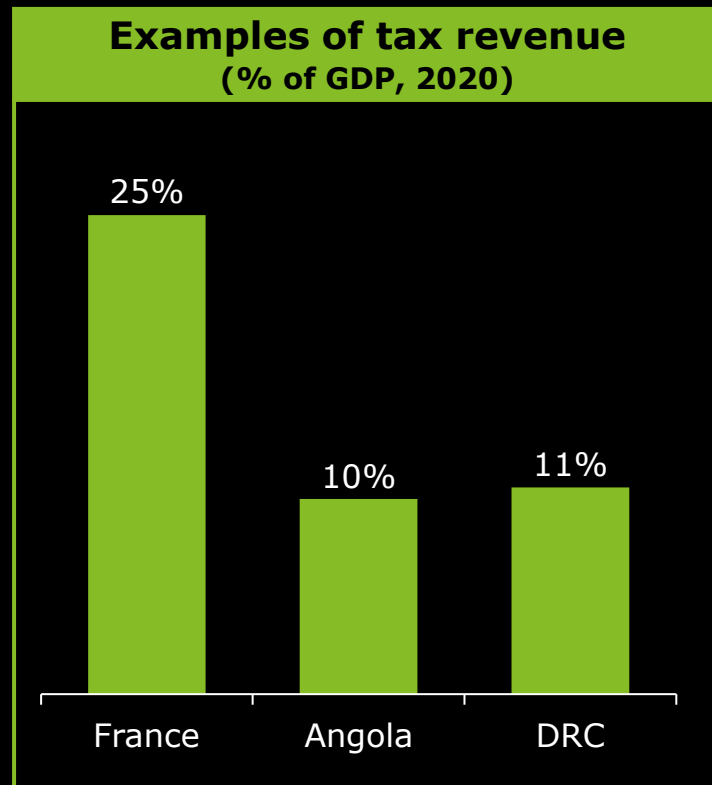
## Taxation in the telecommunications sector: what lessons can be drawn from an economic point of view?

Dr. Sidy Diop, Partner Economic Advisory, Deloitte France

ITU Workshop on "Economic and fiscal incentives to accelerate digital transformation of data and applications over telecommunication infrastructure"

# Taxes are one of the main contributors to African States budgets

- African States have weak tax bases (informal economy)
- Formal sectors (important in size and visible) are subject to significant taxation
- ICT is one of the main contributors to tax revenues in comparison to its GDP's contribution



# Lowering taxes is a simple way to lower the total costs of operators

For operators:

1. Impacts positively net results with 3 possible impacts on: consumers, shareholders, investments
2. For investments: it can impact network coverage (and broadband penetration)

However for States:

- Lowers tax revenues of States



But increase in network coverage can have a positive impact on economic growth

## Interesting issue

- Provide quantitative elements to shed light upon the trade-off: taxation, broadband penetration
- Techno-economic modeling can be useful

# **Taxation in the telecommunications sector: what is it about?**

# Taxation in Africa

Category	Type	Definition	
 <p><b>Taxes on consumer</b></p>	<b>Taxes based on mobile device purchase</b>	<p>Custom duties</p> <p>Custom duties are levied ad valorem on imported goods. HS code for mobile devices is 8517. This includes tariffs and other statistical and / or regional community taxes.</p> <hr/> <p>General taxes on goods</p> <p>Taxes on goods include value-added taxes and other possible contributions on value added like additional cents.</p>	
	<b>Taxes based on mobile service usage</b>	<p>Excise taxes</p> <p>Excise taxes can be levied based on calls duration, number of SMS and data consumption. These taxes can also be a percentage of mobile-package price excluding VAT.</p> <hr/> <p>General taxes on services</p> <p>Taxes on services include value-added taxes and other possible contributions on value added like additional cents.</p>	
	 <p><b>Taxes on operator</b></p>	<b>Taxes based on revenues and regulatory activities</b>	<p>Universal Service obligation</p> <p>Taxes on services include value-added taxes and other possible contributions on value added like additional cents.</p> <hr/> <p>Termination &amp; interco. fees</p> <p>Universal Service Obligation are taxes levied to feed a fund for covering "white areas" or other purposes decided by government.</p> <hr/> <p>Numbering fees</p> <p>Termination and interconnexion fees include taxes on international incoming traffic, surtax on termination rate</p> <hr/> <p>Spectrum fees</p> <p>Spectrum fees are usually based on bandwidth utilization of electromagnetic frequencies. They can be expressed as a percentage of operators' revenues</p>
		<b>Taxes based on profit</b>	<p>Corporation taxes</p> <p>Corporate taxes are expressed as a percentage of company profit (EBITDA).</p>

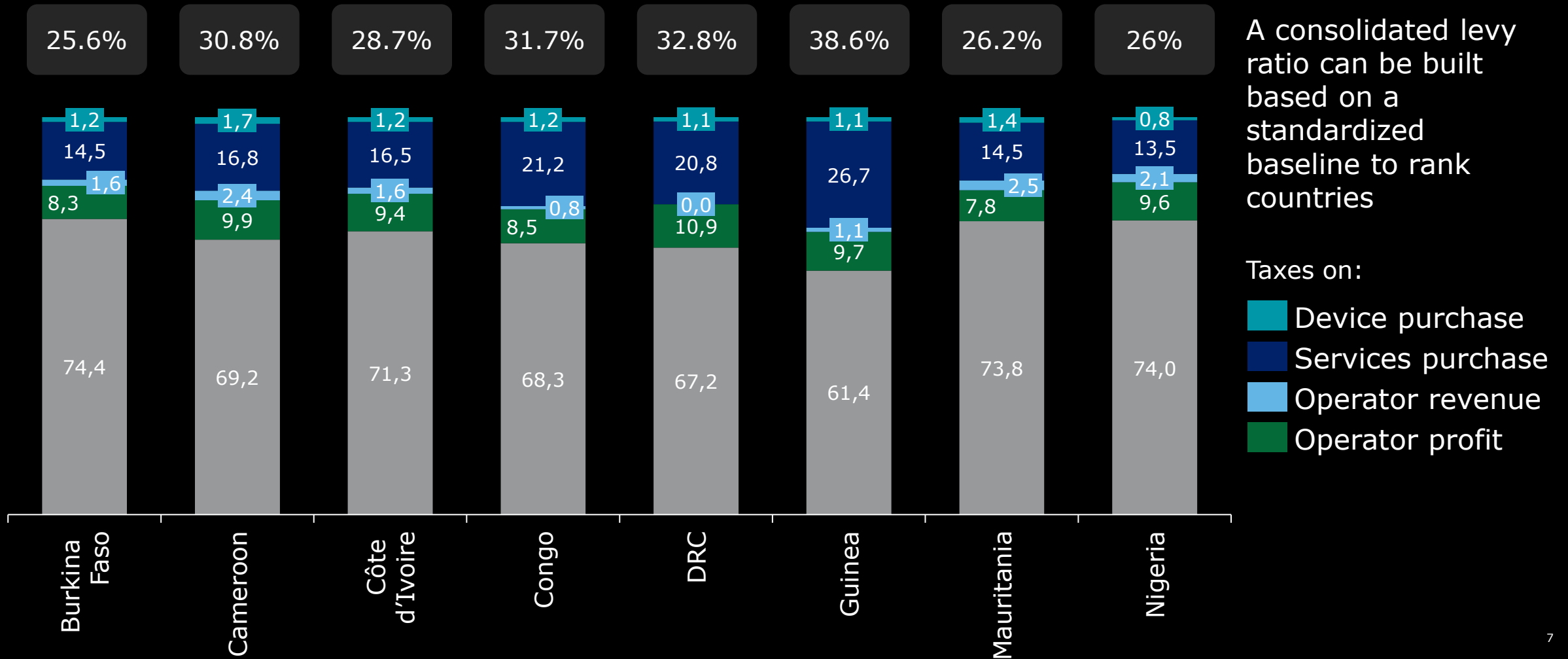
## Example of benchmark between African countries

<u>Tax vs. device value</u>		<u>Tax vs usage value</u>		<u>USO vs. revenue</u>		<u>Tax vs. profit</u>	
Nigeria	19%	Nigeria	16.5%	DRC	0%	Mauritania	25%
DRC	28%	Mauritania	18%	Congo	1%	Burkina Faso	27.5%
Guinea	29%	Burkina Faso	18%	Guinea	1.5%	Congo	28%
Côte d'Ivoire	31%	Côte d'Ivoire	21%	Burkina Faso	2%	Côte d'Ivoire	30%
Burkina Faso		Cameroon	28%	Côte d'Ivoire	2.5%	Nigeria	33%
Congo		DRC	29%	Nigeria	3%	Cameroon	35%
Cameroon		Congo	36%	Cameroon		Guinea	
Mauritania	40%	Guinea		Mauritania		DRC	

# Example of benchmark between African countries

## Tax burden on telecommunications sector for a sample of African countries

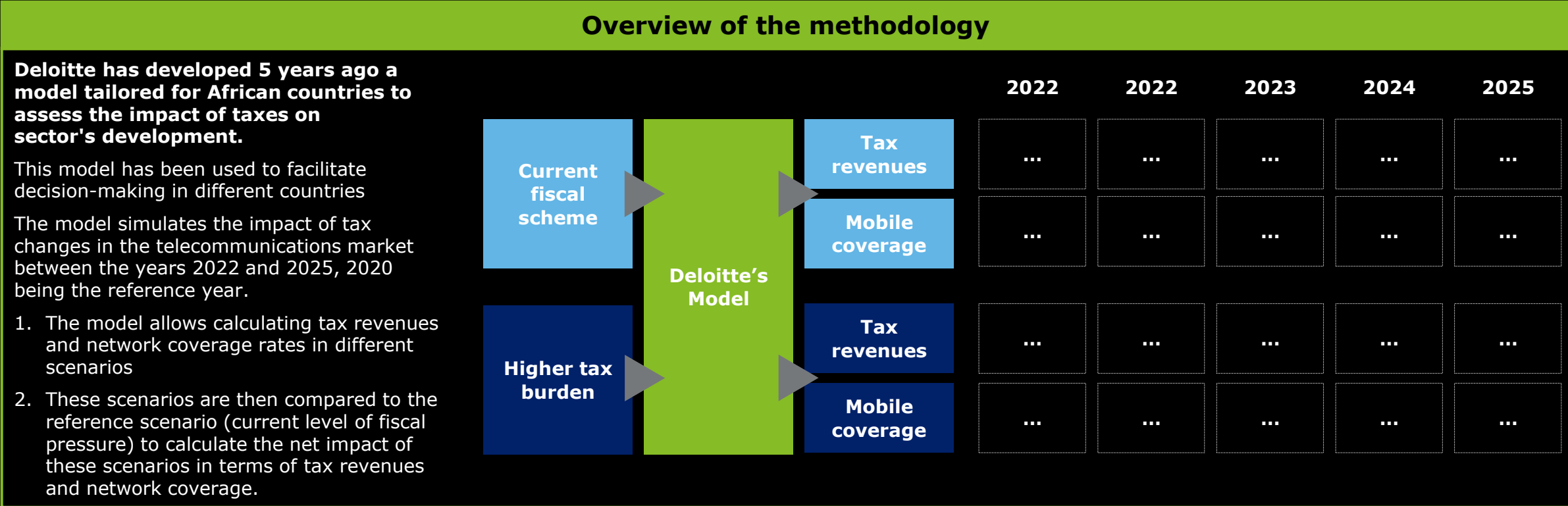
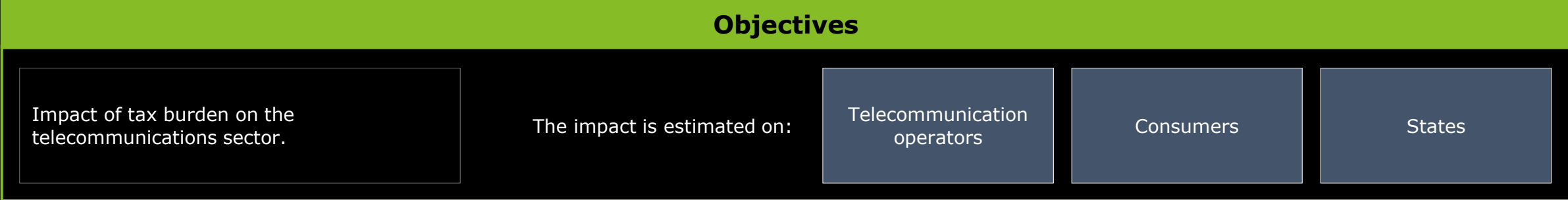
## Tax vs. profit



# **Our in-house economic model: methodology and results**

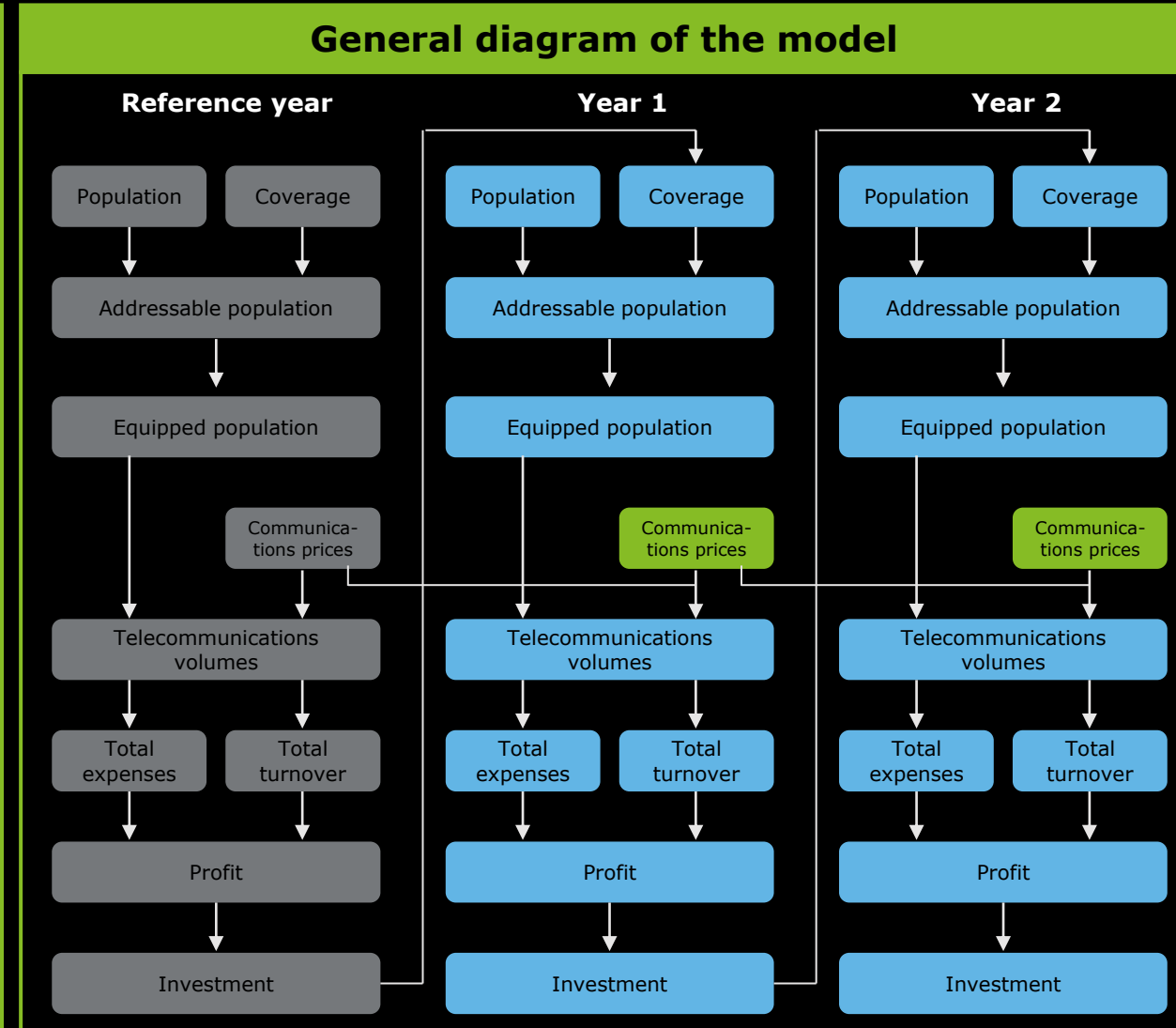


# Overview of the Methodology



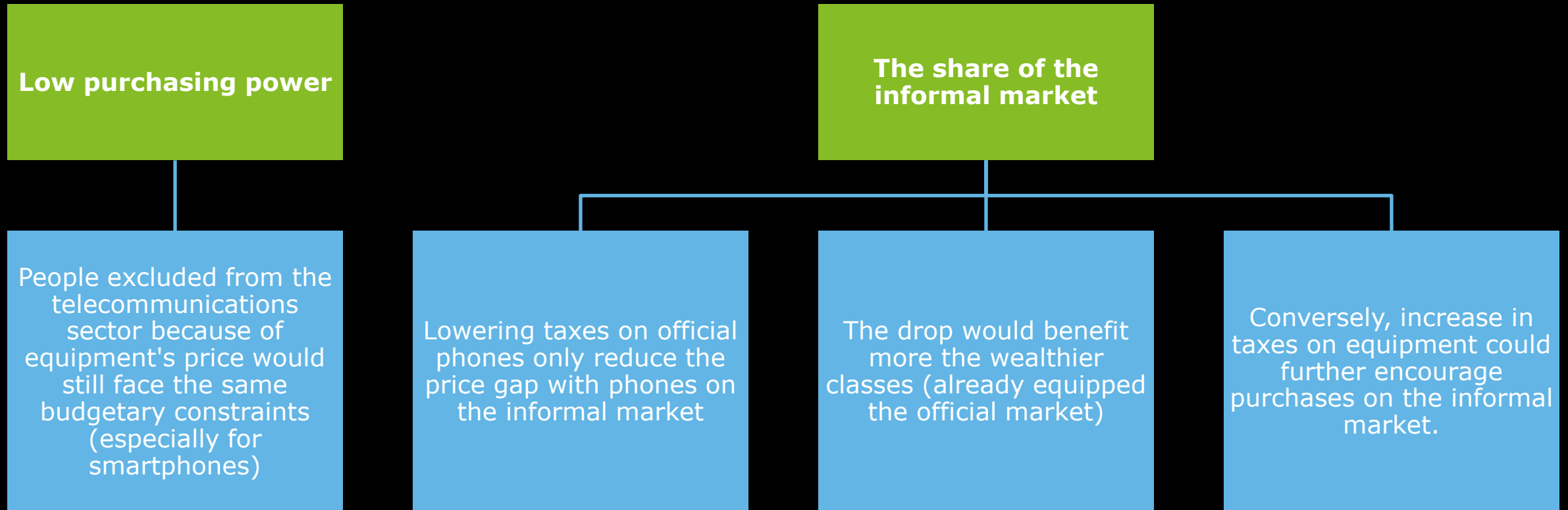
# Our model is based on an approach linking the demand of final consumers, the business plan of operators and the revenues of the State

- The population that can be addressed is calculated from the coverage rates by technology and the population
- The prices of basic terminals and smartphones are estimated based on the taxation to calculate the number of people equipped
- The prices of communications and data and corresponding volumes are also estimated based on taxation
- From the prices and volumes, the turnover and expenses of the sector are computed
- The investment capacities of operators are based on the trade-off between dividend and investment
- The assessment of a change in tax policy then rely on:
  1. The forecast on population
  2. The price elasticity of demand
  3. The fixed share of turnover invested in network coverage
  4. Network coverage is derived from the current one and the new investment estimated from stage 3

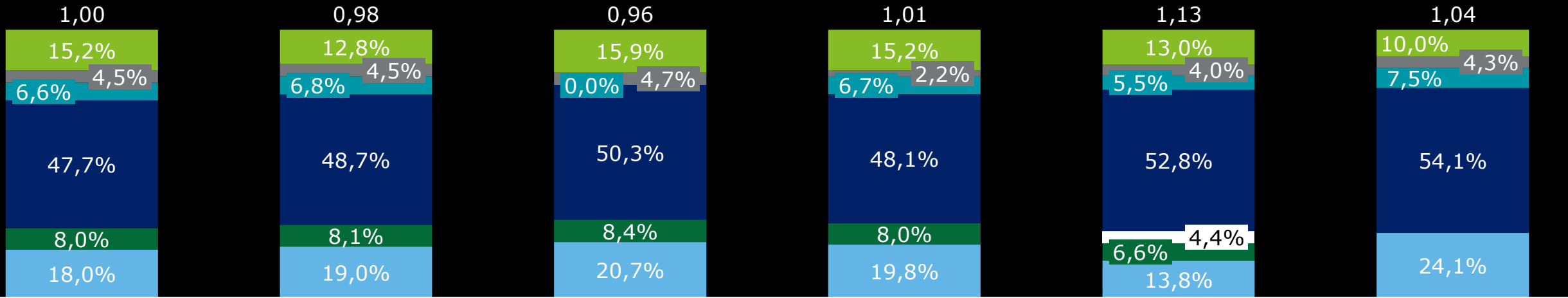
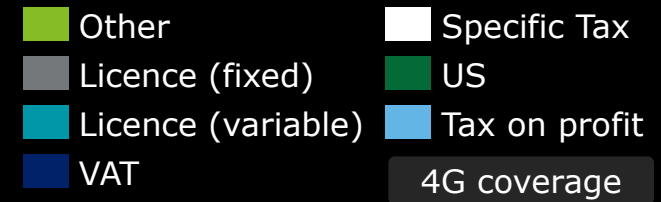


# Examples of Results

# Taxation on mobile phones : weak impact on equipment rate



# Scenarios and modeling results



Baseline

Scenario 1

Scenario 2

Scenario 3

Scenario 4

Scenario 5

63%

67%

67%

69%

58%

75%

- prevailing tax policy

- lowering taxes on turnover by 1%
- no impact on consumer (prices)

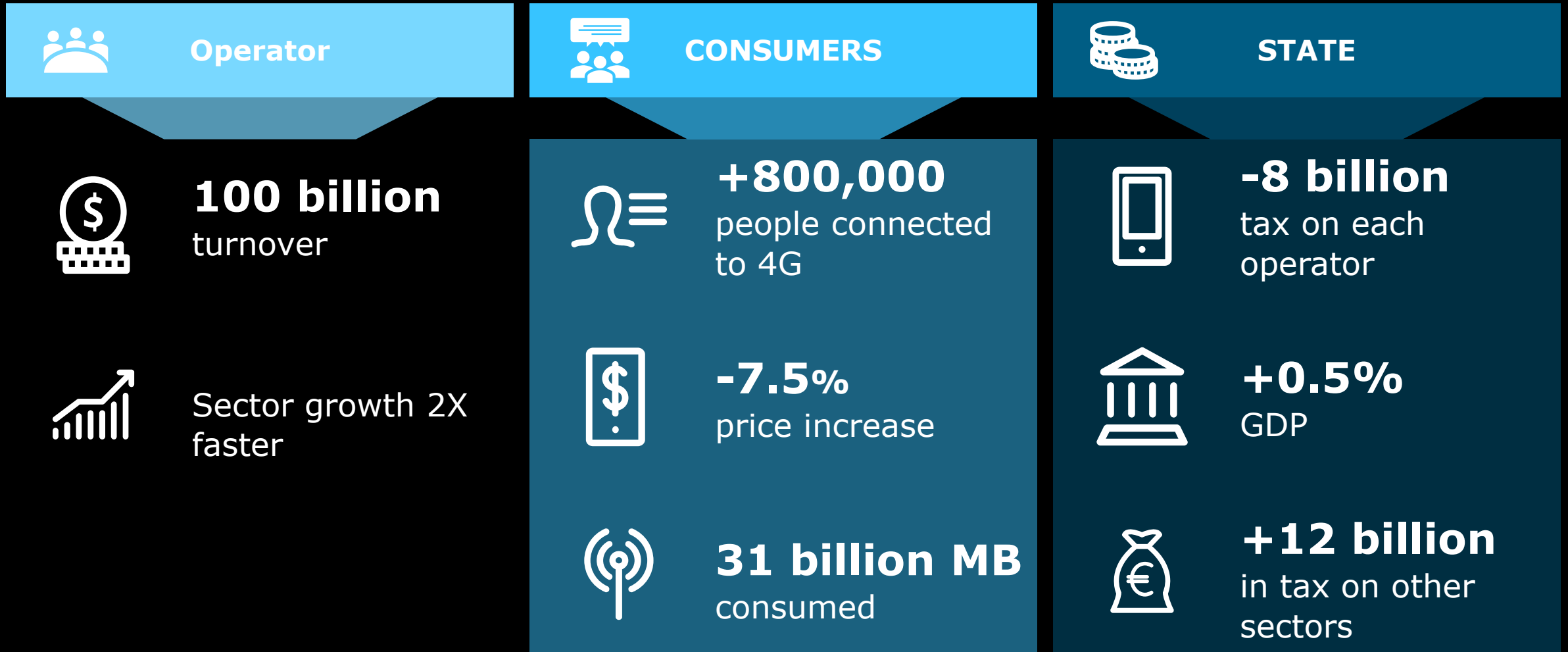
- greater reduction (2.5%)
- no impact on consumer (prices)

- 5% drop in the fixed amount paid by operators for licenses
- no impact on consumer (prices)

- introduction of a specific tax of 2%.
- impact on consumer (prices)

- 5 % reduction in turnover taxes +
- impact on consumer (prices)

# Summary in 2025 of impacts induced by a decrease of 7.5% of tax in 2020 (in turnover)



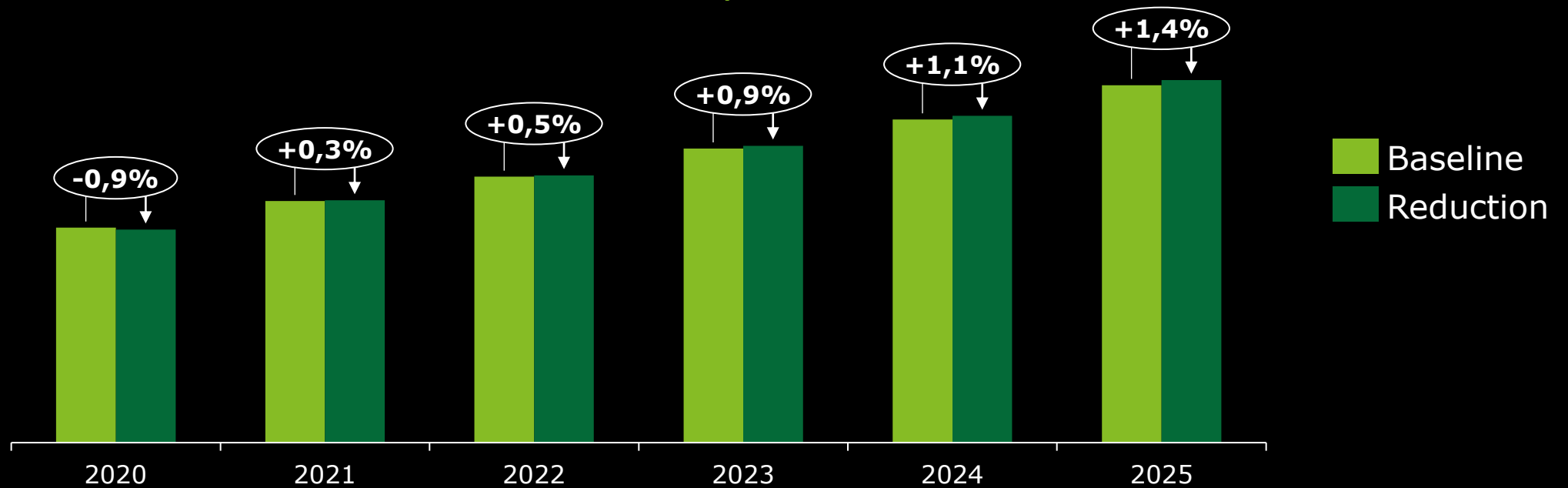
Higher penetration of mobile Internet services has an impact on GDP. This link is estimated at 0.12 point of GDP\* for 1 point of mobile internet coverage.

## Impact of a 1% tax reduction on the variable (in 5 years)

Country A	Country B	Country C
<b>+15 million</b> Turnover for operators	<b>+4 million</b> Turnover for operators	<b>+8 million</b> Turnover for operators
<b>+110,000</b> <b>(0,6%)</b> Persons with 4G	<b>+92,000 (2%)</b> Persons with 4G	<b>+300,000</b> <b>(1,5%)</b> Persons with 4G
<b>-1.5 Bn</b> tax in ICT <b>+2.5 Bn</b> tax in other sectors	<b>+50 M</b> tax in ICT	<b>-1 Bn</b> tax in ICT

# Reducing fixed license fees : a way to quickly recoup lost tax revenue

Amount collected by the State in the reference scenario and with the reduction in the fixed portion of licenses



Impact of reduction in the fixed price of GSM licenses on 4G coverage (% of population) and cumulative tax revenue

	2020	2022	2022	2023	2024	2025
<b>4G (% population)</b>	0 %	+ 2,1 %	+ 2,2 %	+ 2,5 %	+ 2,5 %	+ 2,7 %
<b>Taxes revenues (sum, MUSD)</b>	-0.3	-0.2	0.1	+0.5	+1	+1.5



# Should we control how taxes impact price?

## Impact of a 1% tax reduction on the variable (+5 years)

### Without impact on consumer

Reducing turnover taxes by 1% without impact on the consumer leads to:

- an increase in coverage of 1.7 points in 2025 (2.2 points in 2030) and
- a decrease of USD 3 million in the amounts collected by the State for the year 2025 (5 million for 2030)

### With impact on consumer

Reducing turnover taxes by 1% with impact on the consumer leads to:

- an increase in coverage of 2.4 points in 2025 (2.2 points in 2030) and
- A decrease of USD 2 million in the amounts collected by the State for the year 2025 (3 million for 2030)

**Conclusion**

**From economic modeling to reality**

# Should we control how taxes impact price?

## MADAGASCAR

**A tax reduction policy has been implemented with a decrease in excise duties of 10% in 2019.**

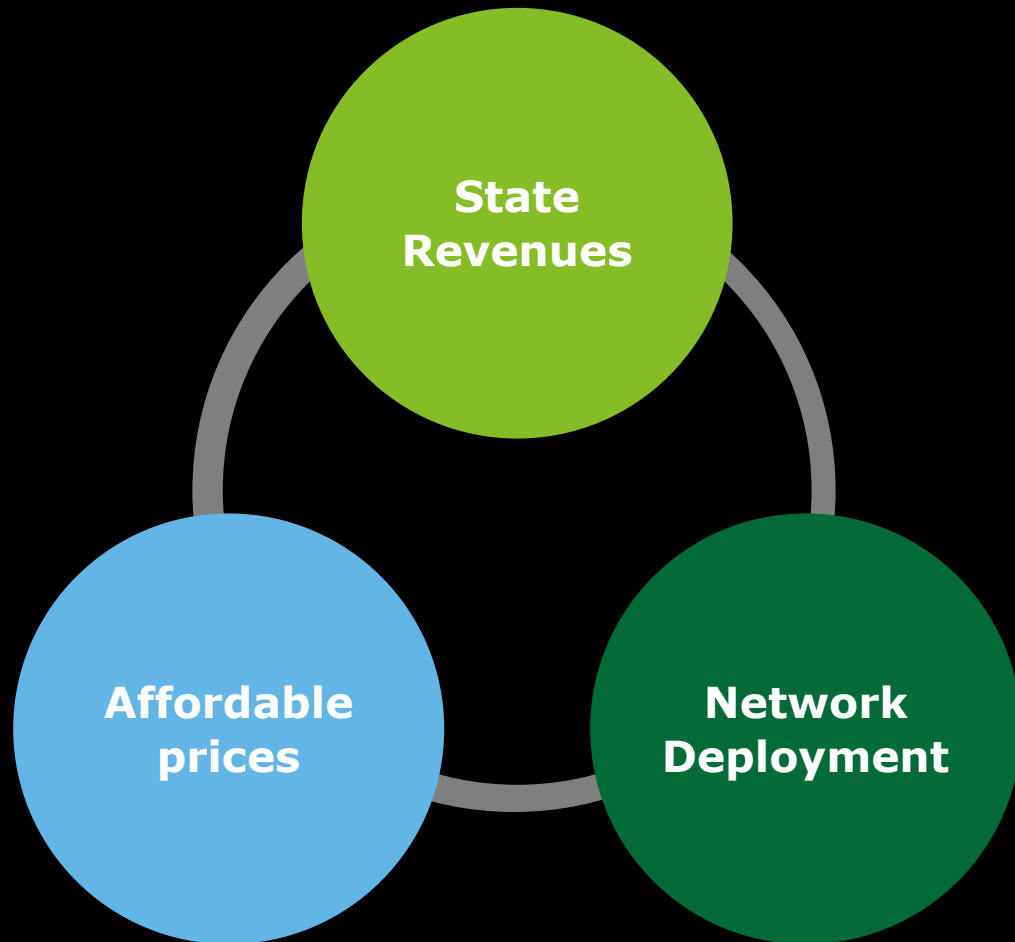
- The operators *“undertake to invest an amount equivalent to the reduction in excise duties on mobile telephony, to accelerate the population’s access to digital services”*.
- However, the tax reduction was only effective for one year and the government of Madagascar restored the excise duties in the 2020 finance law.
- For the government: the cost of telecommunications did not fall as hoped, and significant decrease of tax revenues for the State

## With impact on consumer

**Such a policy was implemented in France under the name of “New mobile deal” in 2018.**

- Rather than favoring a financial criterion, the State had decided to direct operators' efforts towards investment in 4G coverage,
- By providing for strong coverage obligations in the specifications.
- According to ARCEP, *“the results presented made it possible to highlight the concrete results of the New Deal Mobile and to underline the maintenance of a strong dynamic of deployment”*.

## Impossible to meet all 3 targets



1. If you loosen one constraint (State revenues) you can meet one of the other targets
2. Network deployment is an interested target (impact on GDP)
3. Short term vs long term allocation for states

**Long term approach is needed in African Economies**



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