



ITU / BDT Regional Network Planning Workshop with Tool Case Studies for the Arab Region

Cairo - Egypt, 16–27 July 2006

Business Planning and Modeling

Oscar González Soto
ITU Consultant Expert
Strategic Planning and Assessment



Business Planning and Modeling Content

- Role of business Planning today. Basic concepts
- Telecom business modeling
- Typical evaluation results



Business Planning and Modeling Definition of business plan

A Business Plan presents the calculation of the financial indicators that enable the managers to evaluate the financial performances of an enterprise in order to take decisions.

A Business Plan summarises the results of the planning process:

- the objectives to reach (subscribers demand, sales)
- the description of all **activities** requested by the project;
- the future **revenues** expected from the project;
- the planned **expenses** (investment and operations);
- the accounting statements and the **financial indicators** characterising the profitability of the project.



Business Planning and Modeling Types of business plans

Strategic Business Plan for evaluating a strategy:

- aid for making internal decisions for the whole company
(strategic guidelines at the national level, all markets)

Tactical Business Plans for specific projects :

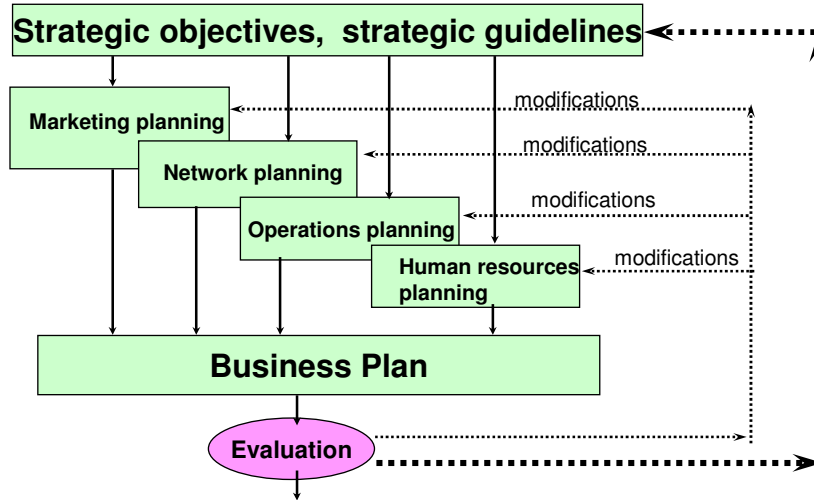
- aid for making internal decisions for a particular area, or a market segment: IN, mobiles, IP

Short term Business Plans for management control :

- aid for monitoring the implementation of projects
- preparation and follow-up of budgets,



Business Planning and Modeling Iterative process for evaluation



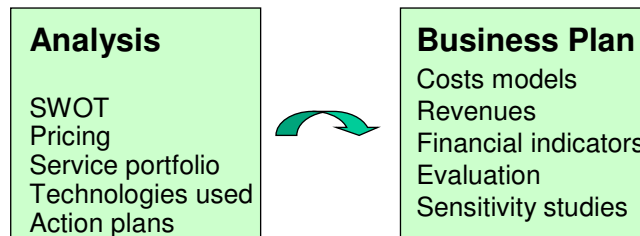
July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 5



Business Planning and Modeling Interaction between analysis and business plan



what parameters to improve, how to adjust models

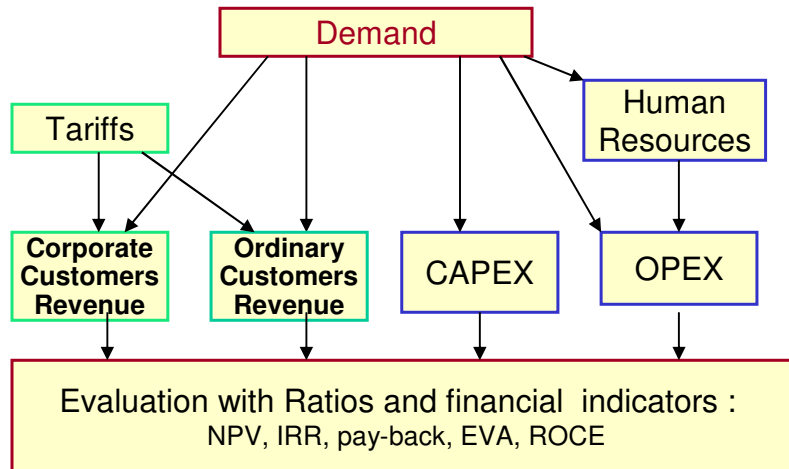
July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 6



Business Planning and Modeling Business model structure



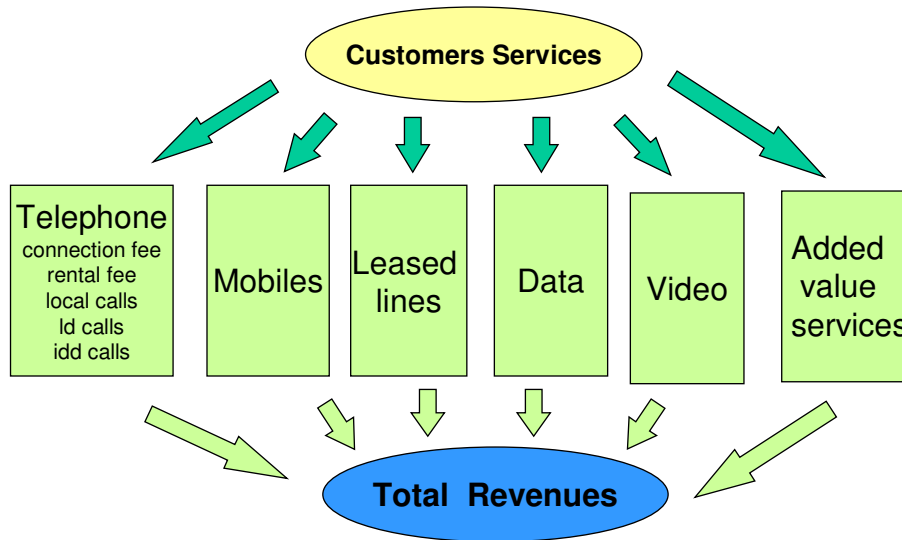
July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 7



Business Planning and Modeling Services Revenues calculation



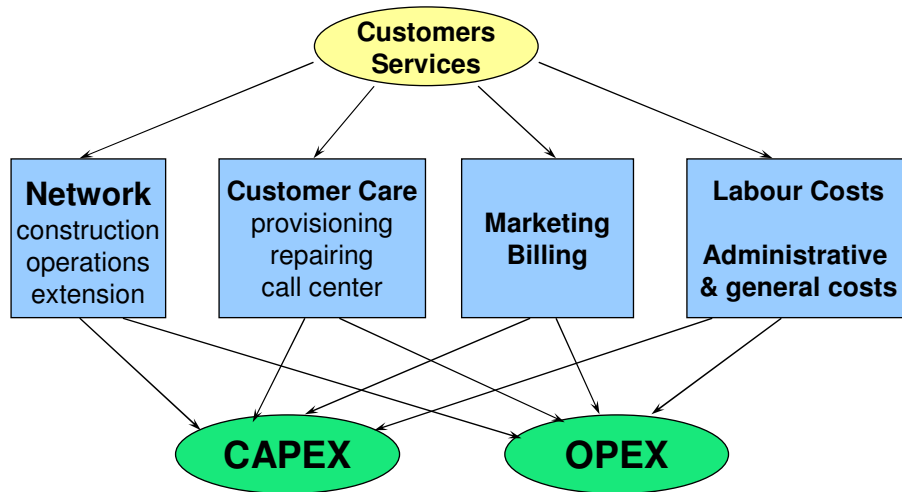
July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 8



Business Planning and Modeling Expenses calculation



July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 9



Business Planning and Modeling Financial Statement

- **Income Statement:**
Net income = revenues - expenses
- **Balance Sheet:**
Company capital = Assets - liabilities
- **Cash flow statement :**
Cash balance = Inflows - outflows

**All fundamental financial indicators are carried out
with the elements of these 3 statements**

July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 10



Business Planning and Modeling Financial indicators calculation

The most useful economical indicators are :

- Net present value (NPV)
- Internal rate of return (IRR)
- Discounted Payback period (DPP)
- Net cash flow (NCF)
- Discounted cash flow (DCF)
- Operating income
- Revenue per service/service class



Business Planning and Modeling The purposes of the accounting statements

Income statement

→ *to analyze potential profit*
is the profit enough ?

Balance statement

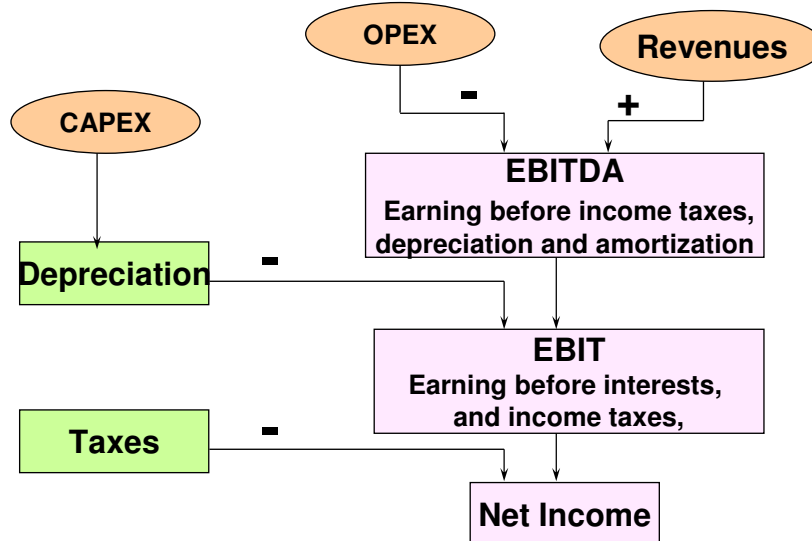
→ *to analyze the financial structure*
how to finance the development
enough / too much equity ? Enough/ too much debt

Cash-Flow statement

→ *to make payments at every due date*
to have the right cash at the right time



Business Planning and Modeling Income statement



July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 13



Business Planning and Modeling CAPEX: Capital Expenditures

CAPEX contribute to extend the fixed assets, and they are depreciated over an economic life time

CAPEX are necessary for extending the business or for improving the range of services provided by the operator.

Examples :

- Purchase of land & buildings,
- Network construction
- Purchase of information systems (hardware & software)

July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 14



Business Planning and Modeling OPEX= Operations Expenditures

OPEX are expenses which don't contribute to extend the fixed assets, and consequently are not subject to depreciation

OPEX are necessary for running the company,

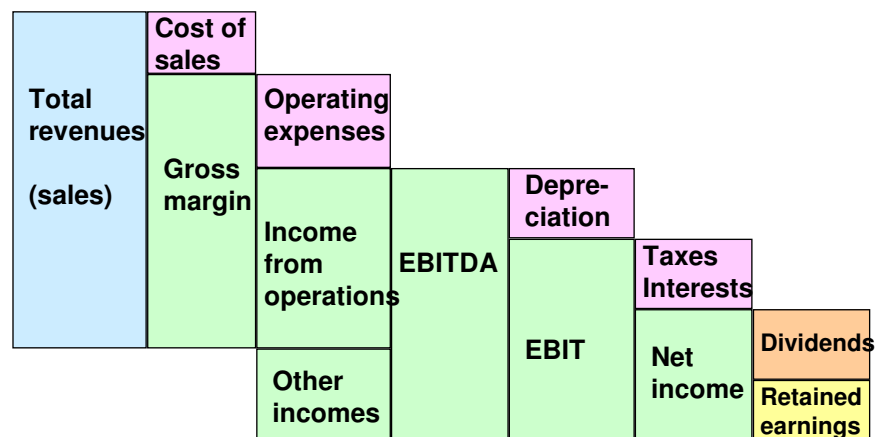
- **Technical operations** (switching, transmission, local loop,..)
- **Commercial operations** (marketing and sales)
- **Administrative operations** (support,..)

Examples :

- Labor costs for operations,
- Travelling expenses, periodic administrative costs,
- Rental of equipment, rental of cars, rental of buildings
- Interconnection fees

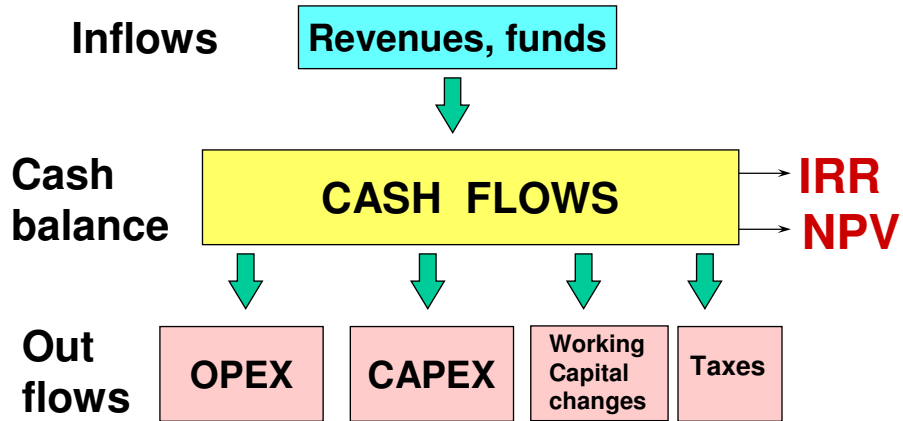


Business Planning and Modeling Income statement





Business Planning and Modeling Cash Flow



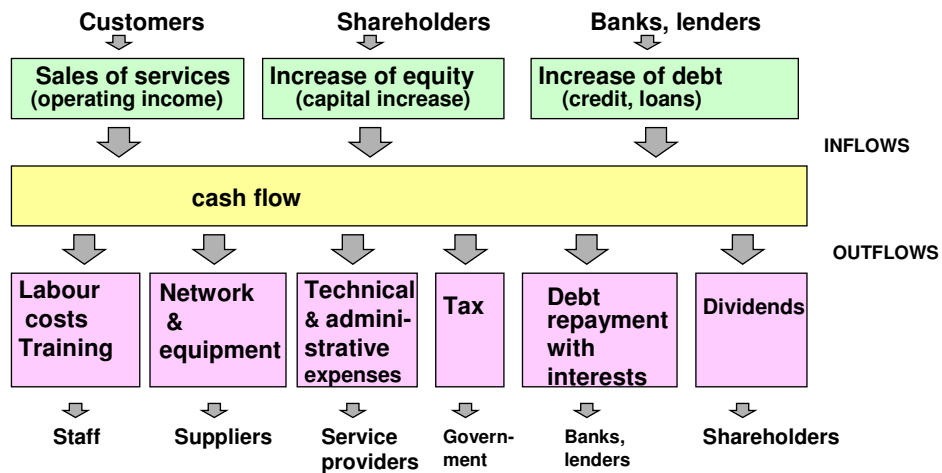
July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 17



Business Planning and Modeling INFLOWS and OUTFLOWS



July 2006

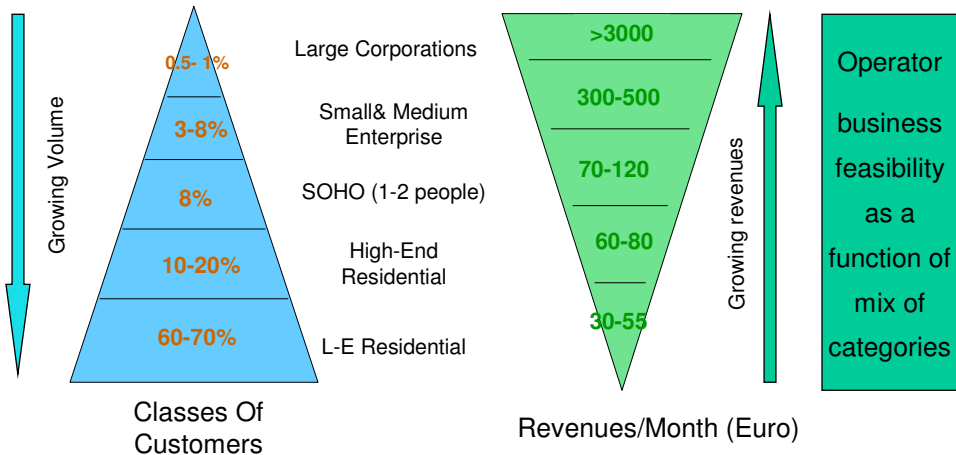
ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 18



Business Planning and Modeling Business domains and trends

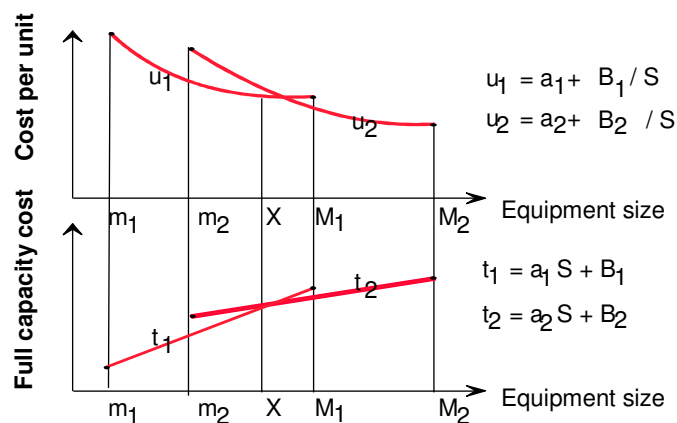
Illustration case for customer categories and revenues



“Customer stratification should be analyzed per country”



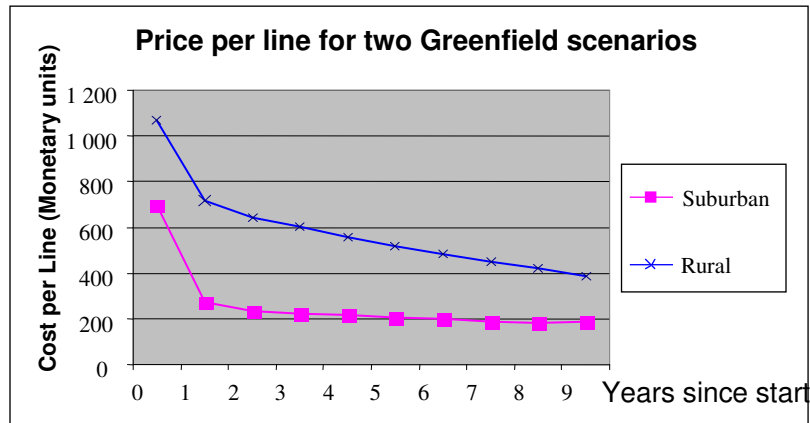
Business Planning and Modeling Importance of Modeling Economy of scale per technology and size



Impact by occupancy or fill-in degree



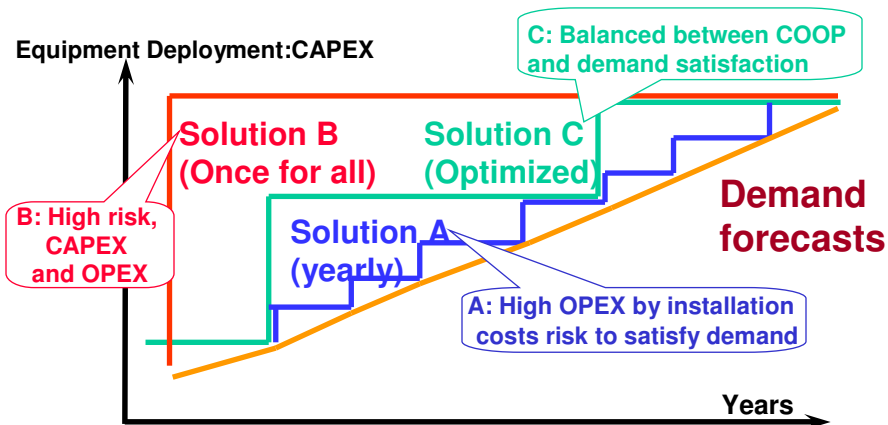
Business Planning and Modeling Importance of Modeling Economy of scale through time



Impact by customer volume



Business Planning and Modeling Importance of Modeling: Deployment Strategies

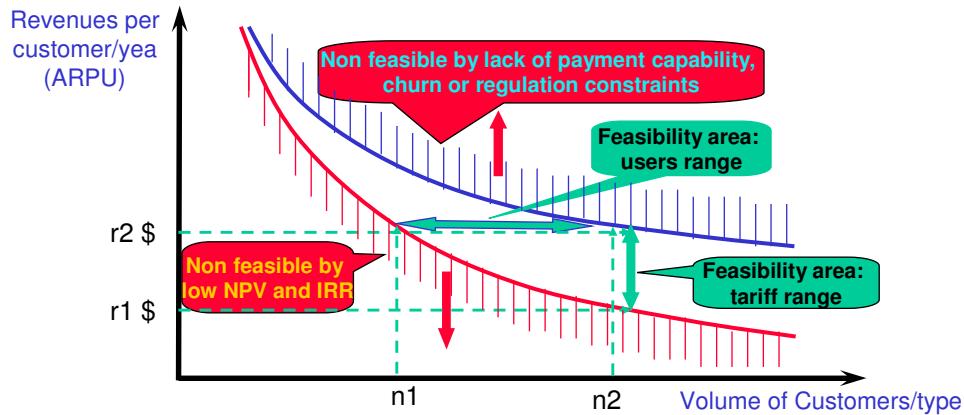


Major impact on CAPEX and OPEX



Business Planning and Modeling Key Factors in competition: Business feasibility

Business feasibility space as a function of volume and ARPU



Feasibility space highly dependent on country size and economical level

July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 23



Business Planning and Modeling Role of Business Planning

Evaluations to be based on robust techno-economical tools due to high number of alternatives and complexity

Case study for medium size country with mixes of customer classes and **triple play** services domains:

- Multiservice IP Network with integrated operation available
- Three service categories: Voice, Data/Internet, Video distribution
- Modeling demands, multiservice traffic flows, dimensioning, network resources, CAPEX, OPEX and financial results for different levels of competition
- Evaluate differential future Cash-flows, NPV, IRR, etc. for a 10 years period

July 2006

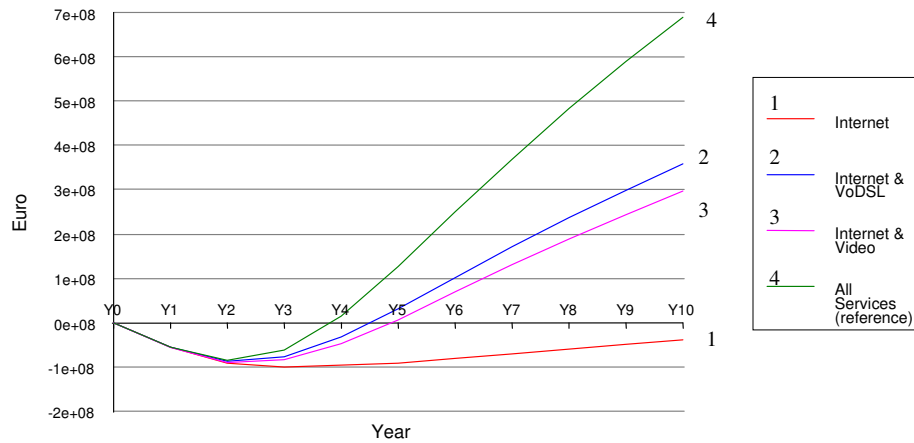
ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 24



Business Planning and Modeling Example for what-if economical analysis

Network NPV for new multiservice network operator
Effects of the mix of services on Reference Scenario (Low Competition)



July 2006

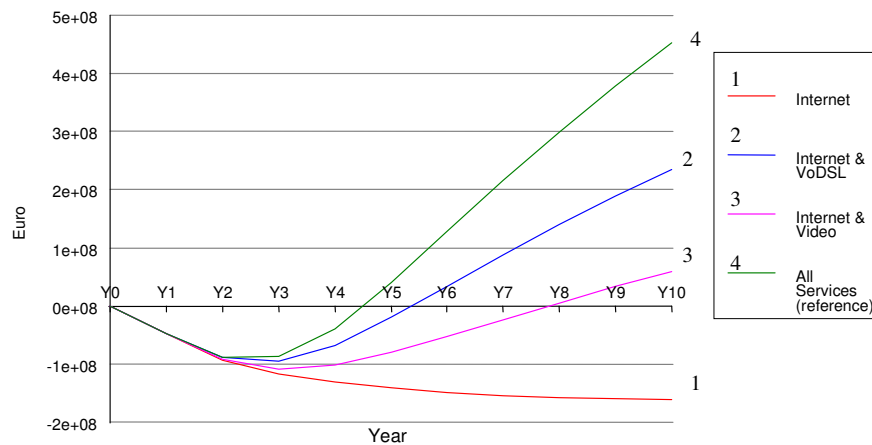
ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 25



Business Planning and Modeling Example for what-if economical analysis

Network NPV for new multiservice network operator
Effects of the mix of services with **decreased revenues (30%) in High Competition**



July 2006

ITU/BDT Network Planning/ Business Planning - O.G.S.

slide 26



Business Planning and Modeling Summary Remarks

- Ensure proper **modeling of key techno-economical factors** and professional tools
- Focus on multiple customers, **multiple services domains**
- Take benefit of **all economies of scale**
- Maintain business indicators within **benchmark margins in competition**