ITU / BDT- COE workshop

Nairobi, Kenya,

7 – 11 October 2002
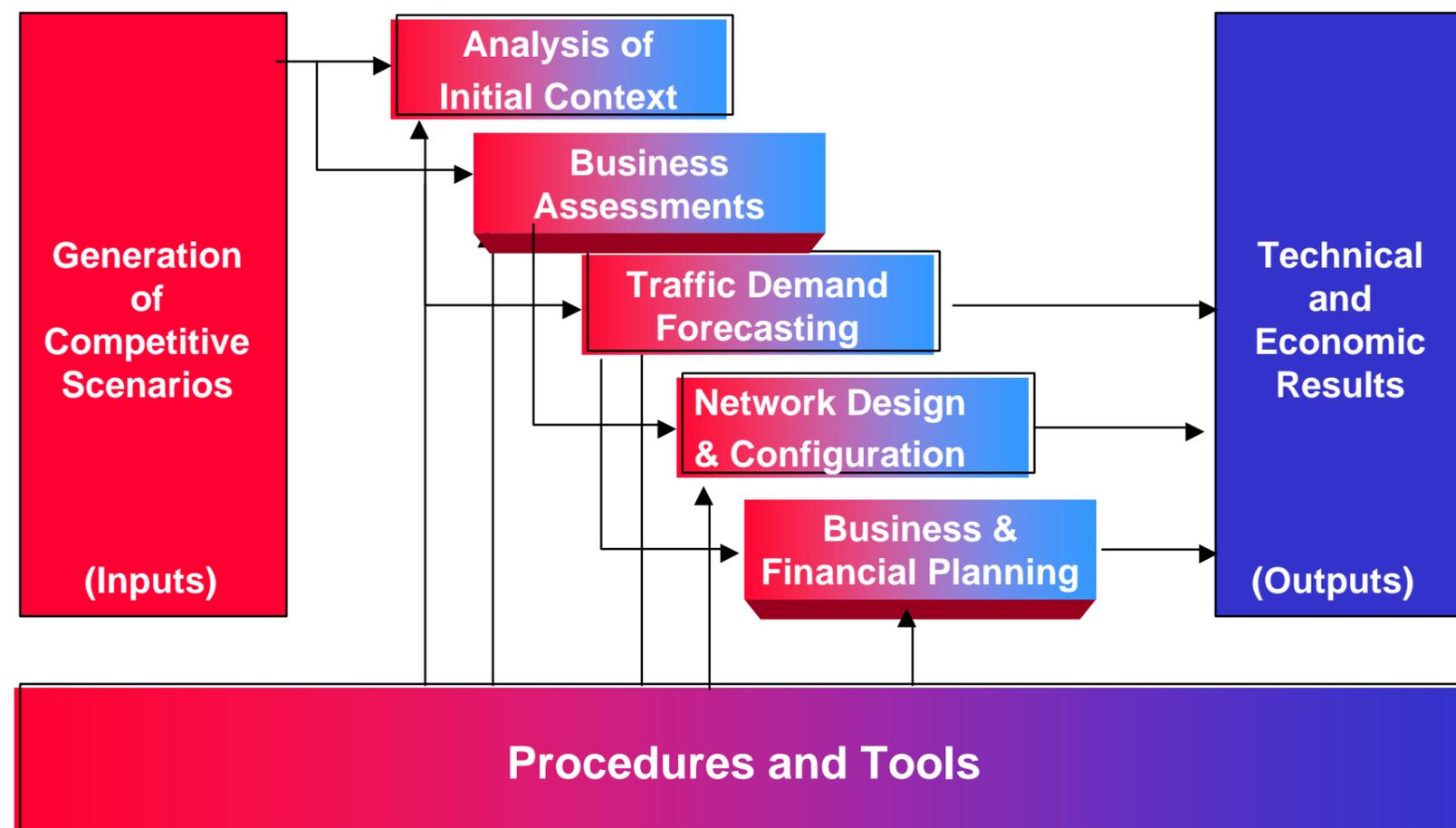
Network Planning

Lecture NP- 3.5

Business Planning

Content Chapter 3.5

- Role of business Planning today. Basic concepts

- Telecom business modeling

- Typical evaluation results

- Main actions to increase performance ratios

Planning Methodology:
Integrated Iterative Planning Process

Generation of Competitive Scenarios

(Inputs)

Analysis of Initial Context

Business Assessments

Traffic Demand Forecasting

Network Design & Configuration

Business & Financial Planning

Technical and Economic Results

(Outputs)

Procedures and Tools

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 entreprise 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.

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)
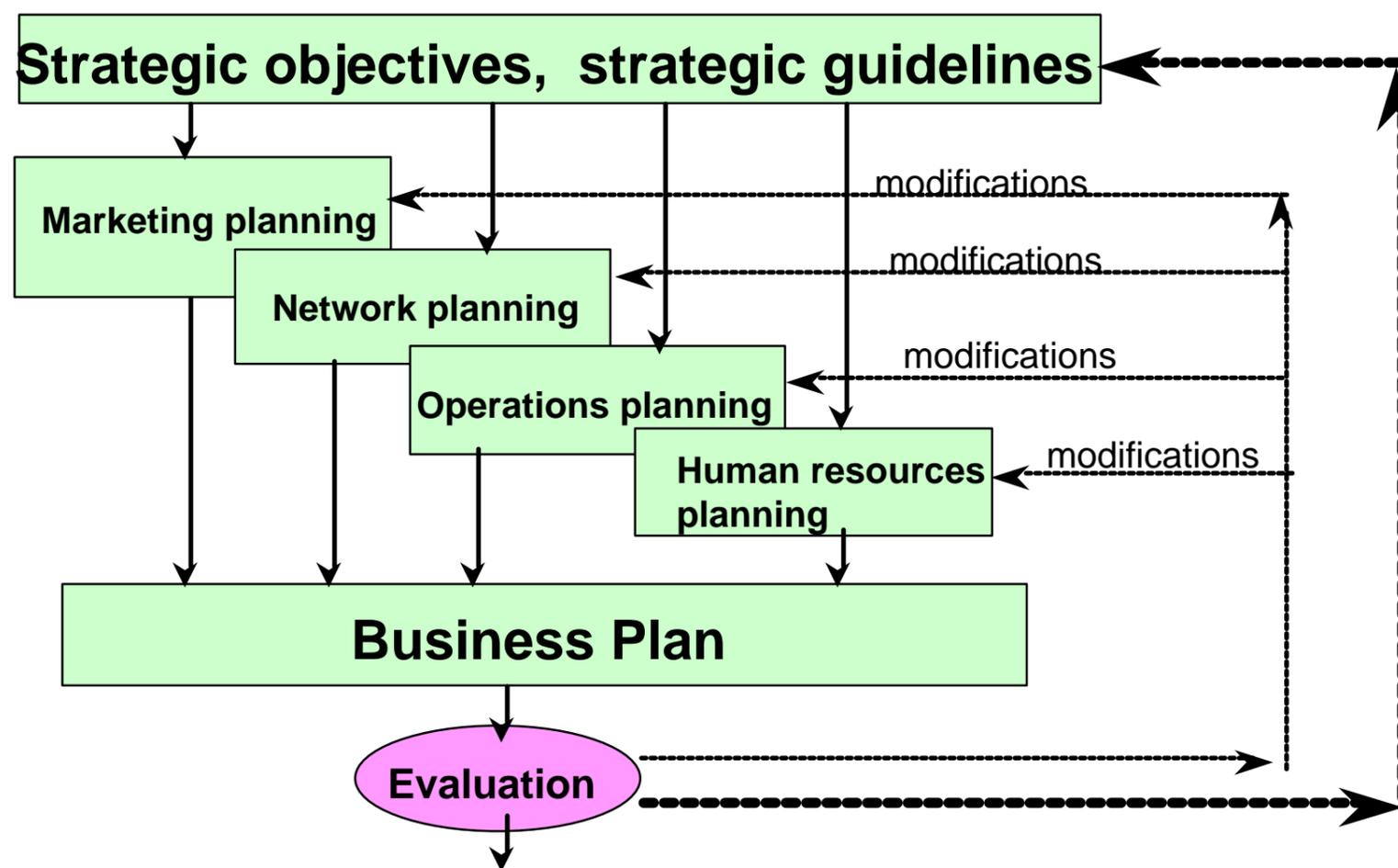
Tactical Business Plans for specific projects :

- 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
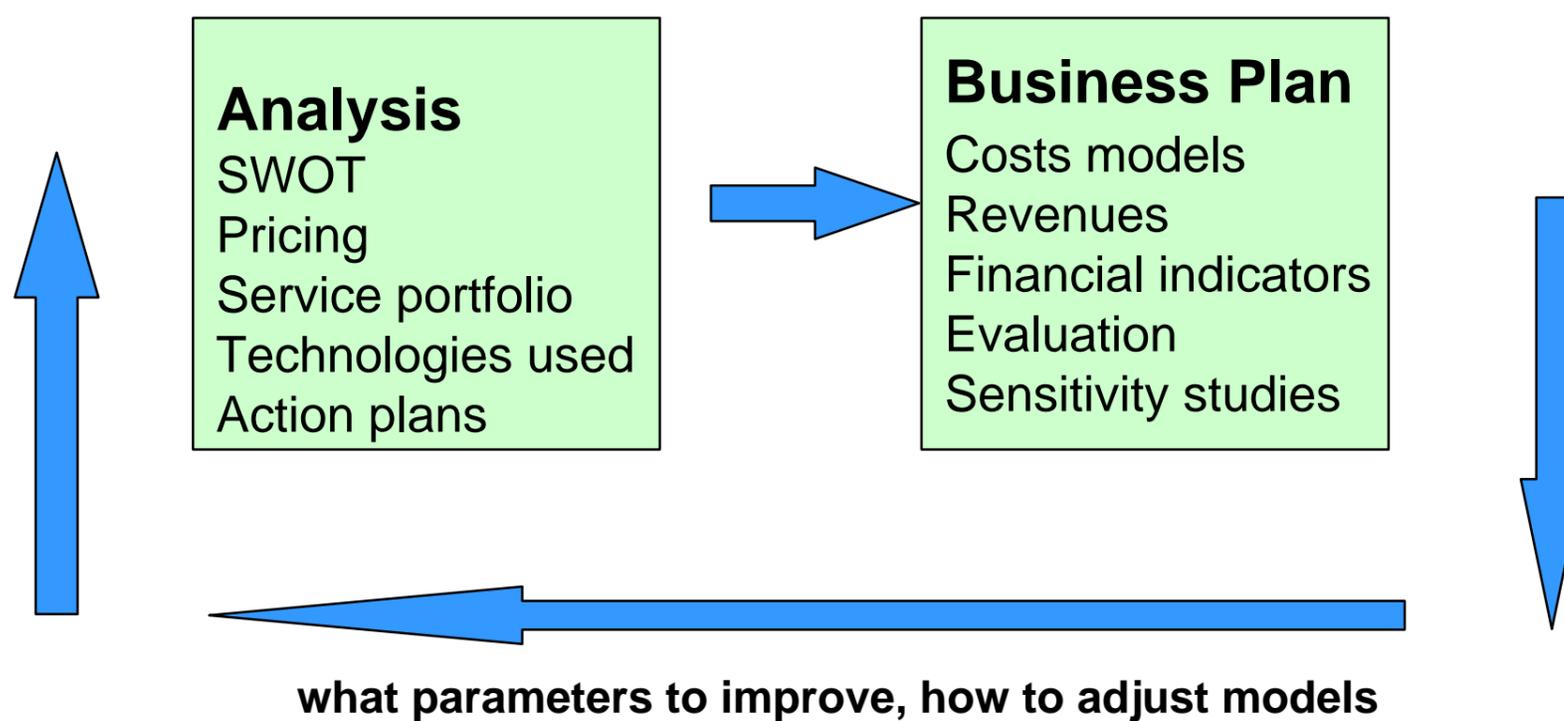- preparation and follow-up of budgets,

Iterative process for evaluation


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Strategic objectives,  strategic guidelines ◄┄┄┄┄┄┄┐
        │              │              │       │      │
        ▼              ▼              ▼        ◄┄┄modifications
  Marketing planning◄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┐       │
        │       Network planning◄┄┄modifications│       │
        │         │         Operations planning◄┄┄modifications
        │         │              │    Human resources◄┄┄modifications
        │         │              │    planning
        ▼         ▼              ▼         │
  Business Plan
        │
        ▼
    Evaluation ┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄
        │
        ▼
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Interaction between analysis and business plan

Analysis
SWOT
Pricing
Service portfolio
Technologies used
Action plans

Business Plan
Costs models
Revenues
Financial indicators
Evaluation
Sensitivity studies

what parameters to improve, how to adjust models

Business model structure

```
                            ┌─────────────────┐
                            │     Demand      │
                            └─────────────────┘
                                                    ┌──────────────┐
     ┌──────────┐                                   │    Human     │
     │ Tariffs  │                                   │  Resources   │
     └──────────┘                                   └──────────────┘

  ┌───────────┐   ┌───────────┐   ┌───────────┐   ┌───────────┐
  │ Corporate │   │  Ordinary │   │   CAPEX   │   │   OPEX    │
  │ Customers │   │ Customers │   │           │   │           │
  │  Revenue  │   │  Revenue  │   │           │   │           │
  └───────────┘   └───────────┘   └───────────┘   └───────────┘

  ┌──────────────────────────────────────────────────────────────┐
  │  Evaluation with Ratios and financial  indicators :           │
  │         NPV, IRR, pay-back, EVA, ROCE                          │
  └──────────────────────────────────────────────────────────────┘
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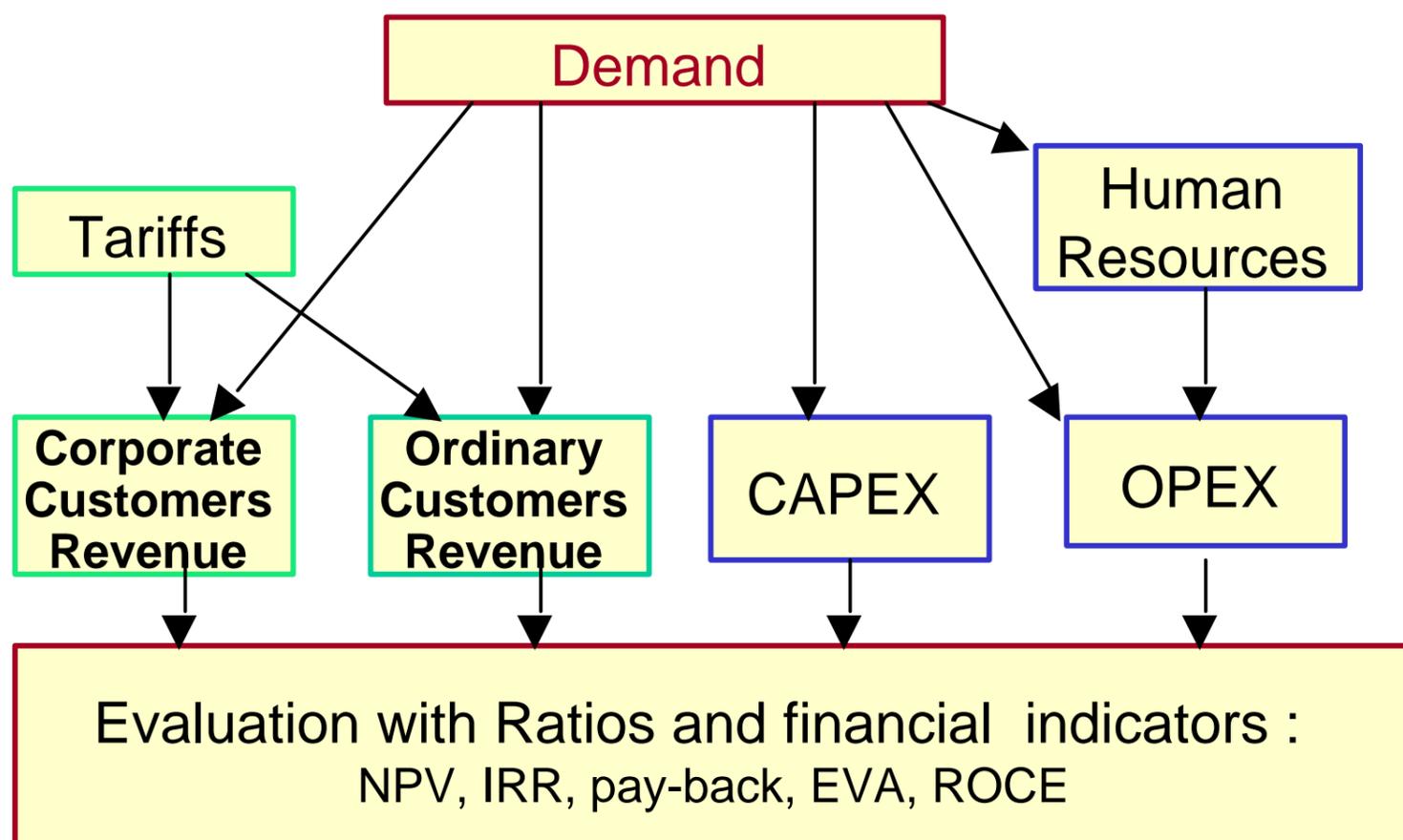
Business model:
Services Revenues calculation

Customers Services

Telephone
connection fee
rental fee
local calls
ld calls
idd calls

Mobiles

Leased lines

Data

Added value services

Total Revenues
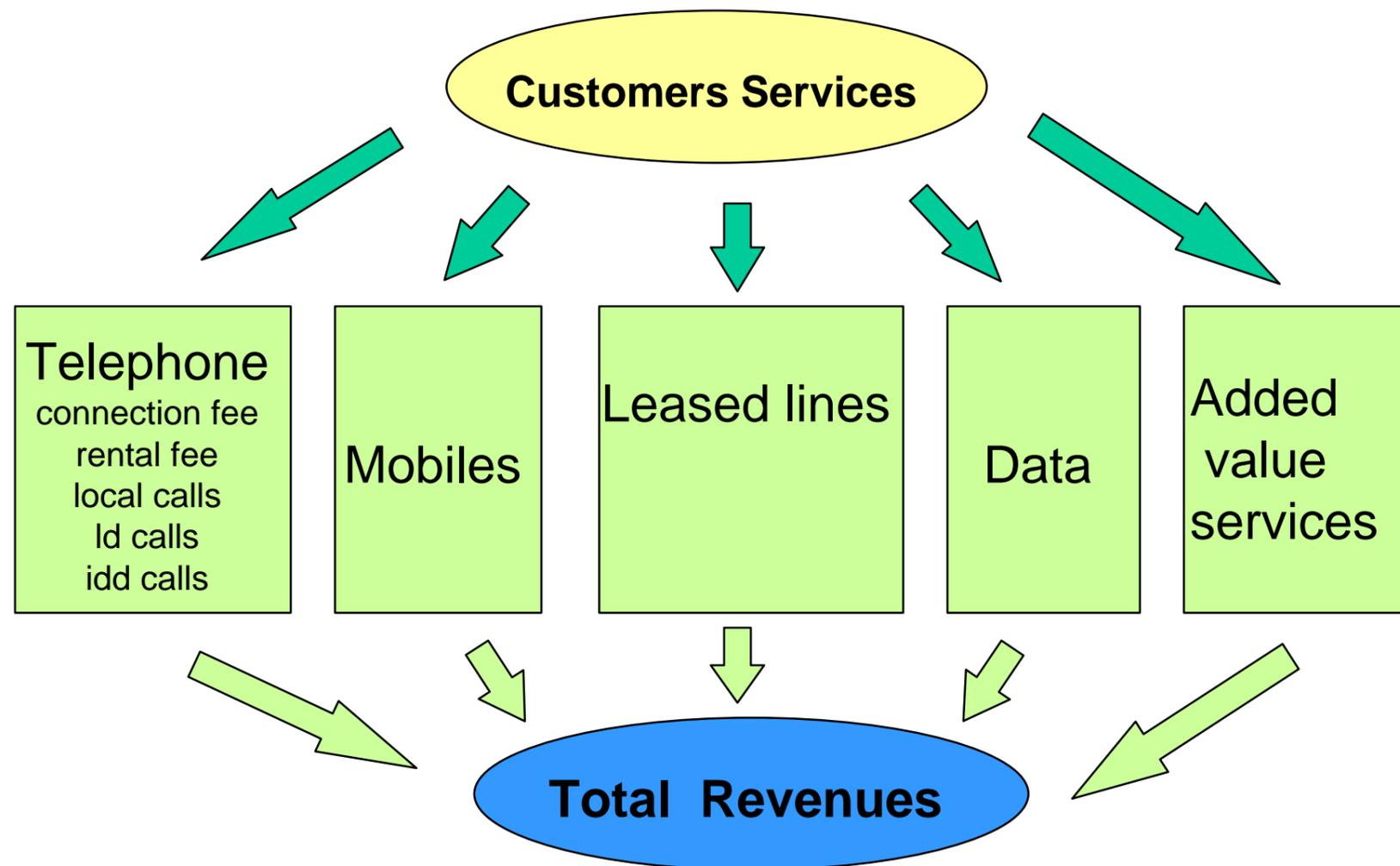
Business model :
Expenses calculation

Customers
Services

Network	Customer Care		
construction	provisioning	Marketing	Labour Costs
operations	repairing	Billing	Administrative
extension	call center		& general costs

CAPEX

OPEX
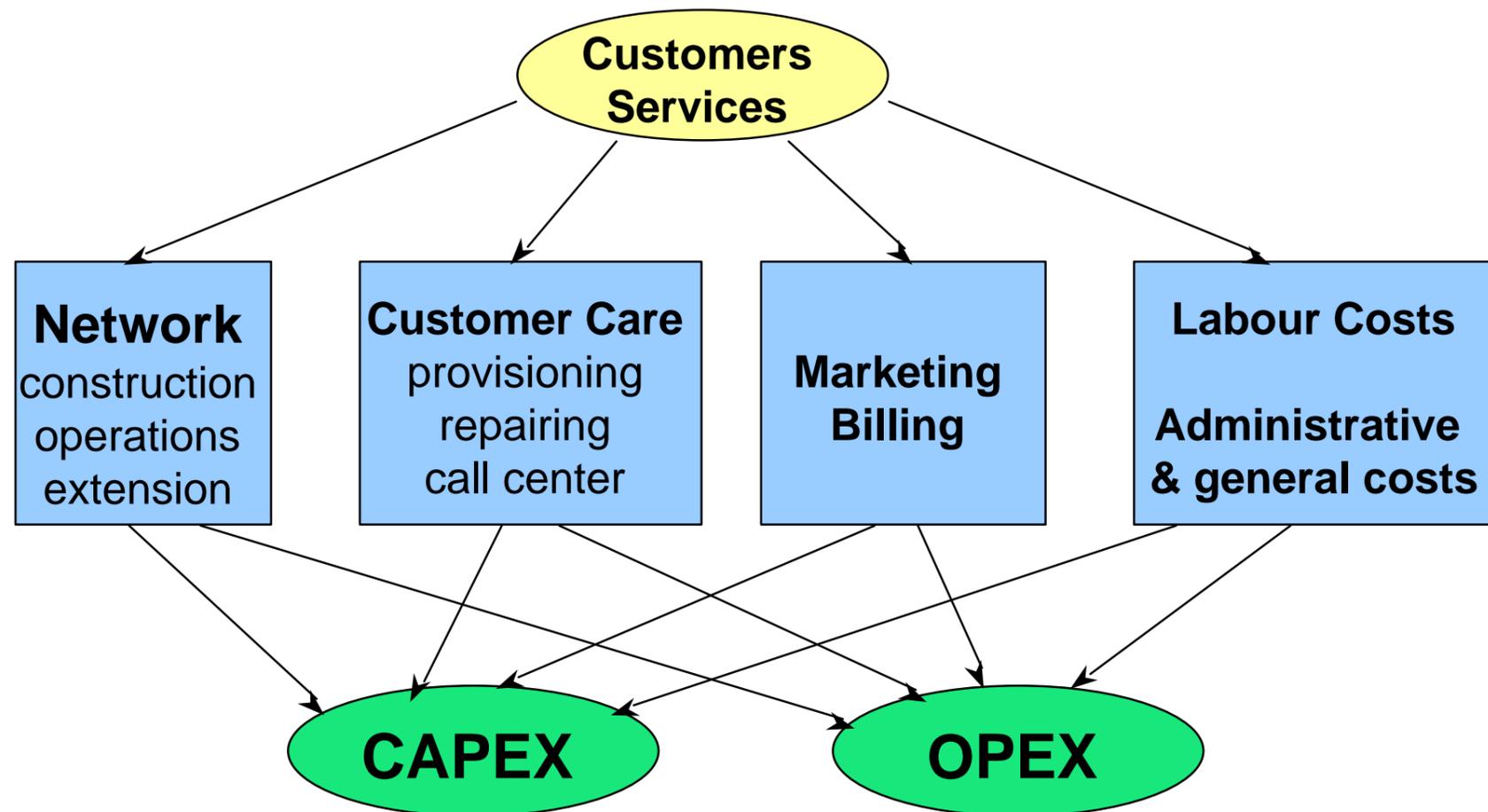
Business model: Financial Statement

- **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

Business model
Financial indicators calculation

The most useful economical indicators are :

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

The purposes of
the accounting statements

Income statement

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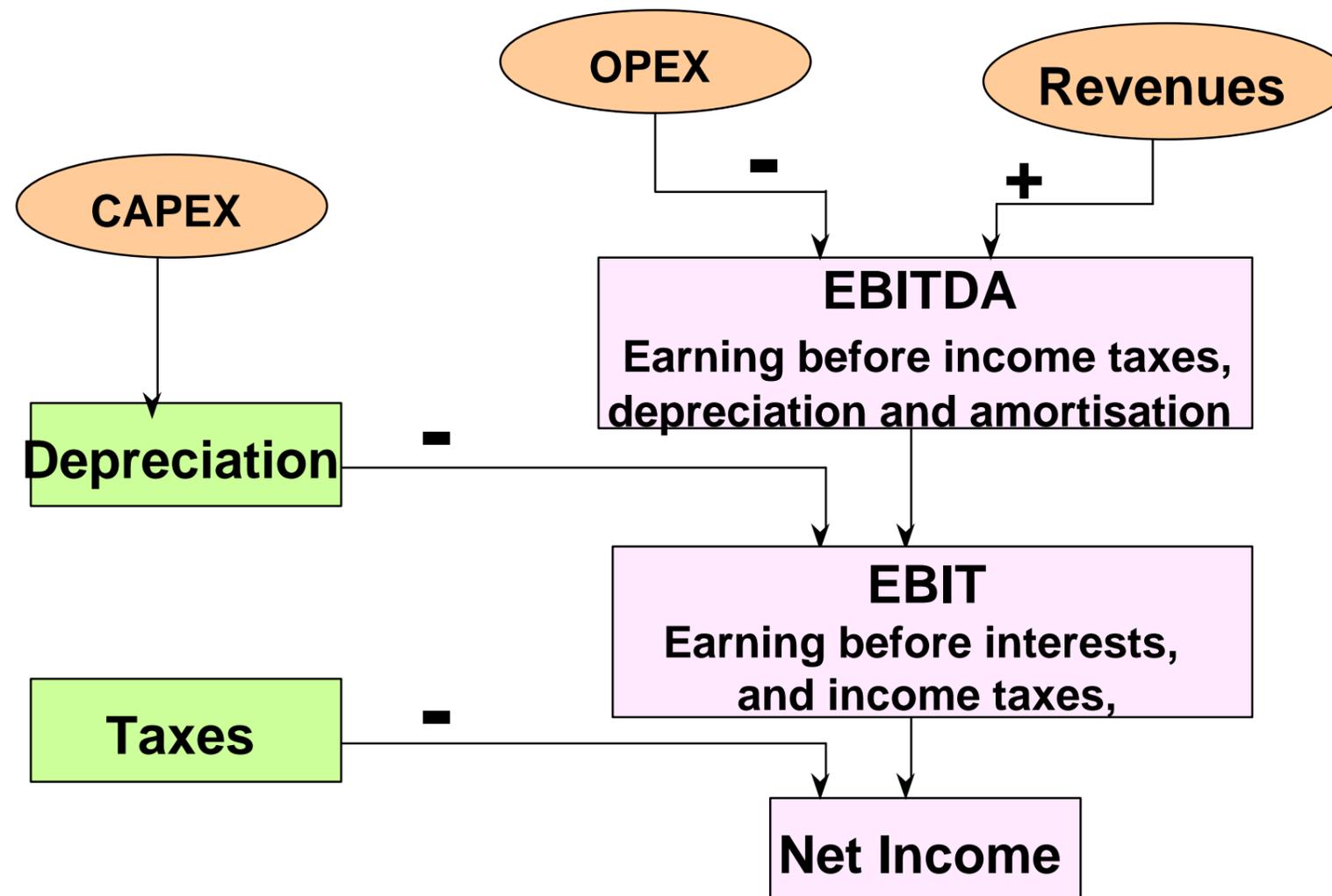
is the profit enough ?

Balance statement

→ *to analyse 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 rigth cash at the rigth time

Business model
Income statement

OPEX

Revenues

CAPEX

-

+

EBITDA
Earning before income taxes,
depreciation and amortisation

Depreciation

-

EBIT
Earning before interests,
and income taxes,

Taxes

-

Net Income

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)**

OPEX= Operations Expenditures

OPEX are expenses which don't contribute to extend the fixed assets, and consequently are not subject to depreciation
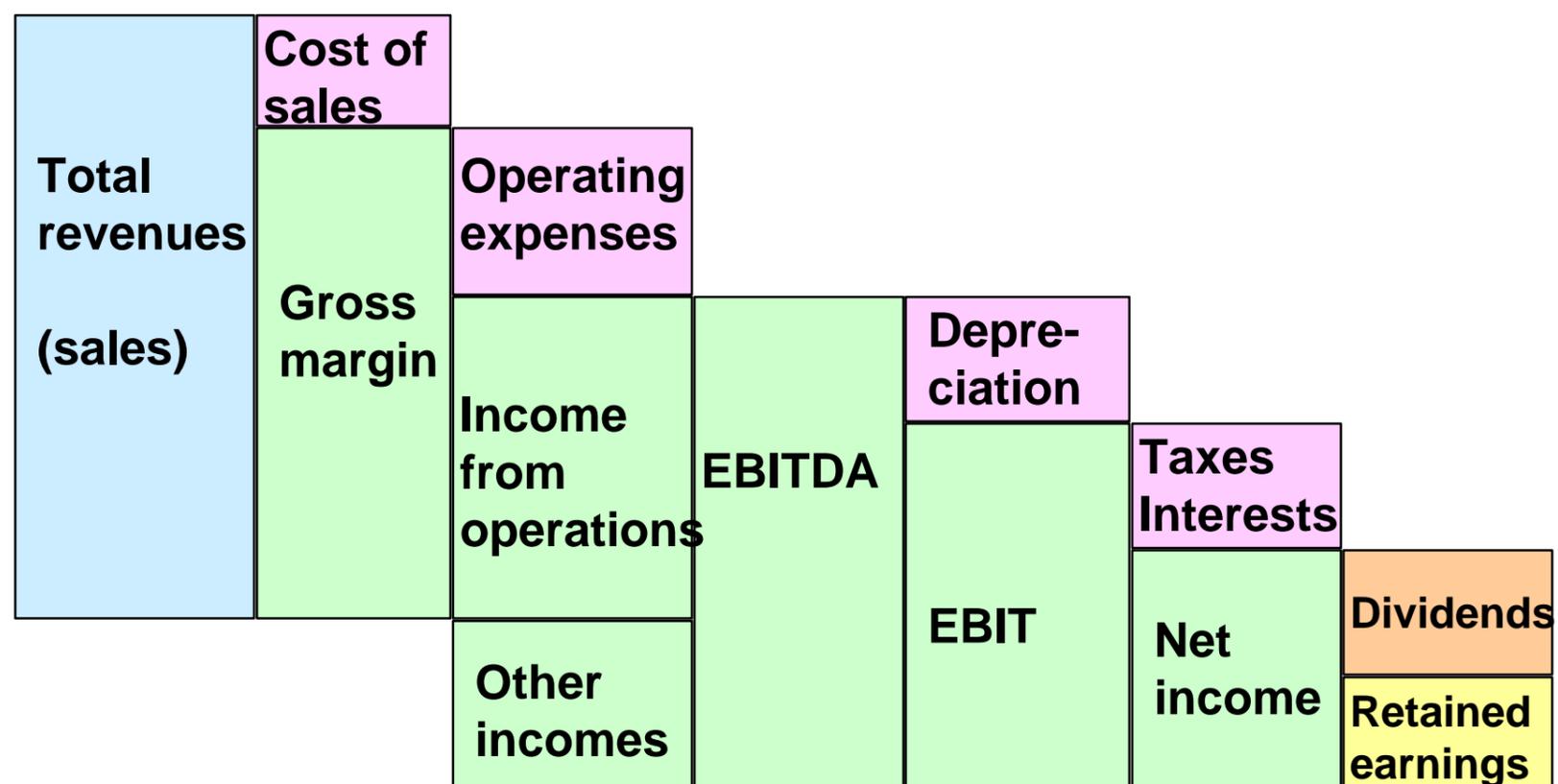
OPEX are necessary for running the company,
- **Technical operations (switching, transmission, local loop,..)**
- **Commercial operations (marketing and sales)**
- **Administrative operations (support,..)**

Examples :
- Labor costs for operations,
- Travelling expenses, periodic administrative costs,
- Rental of equipment, rental of cars, rental of buildings
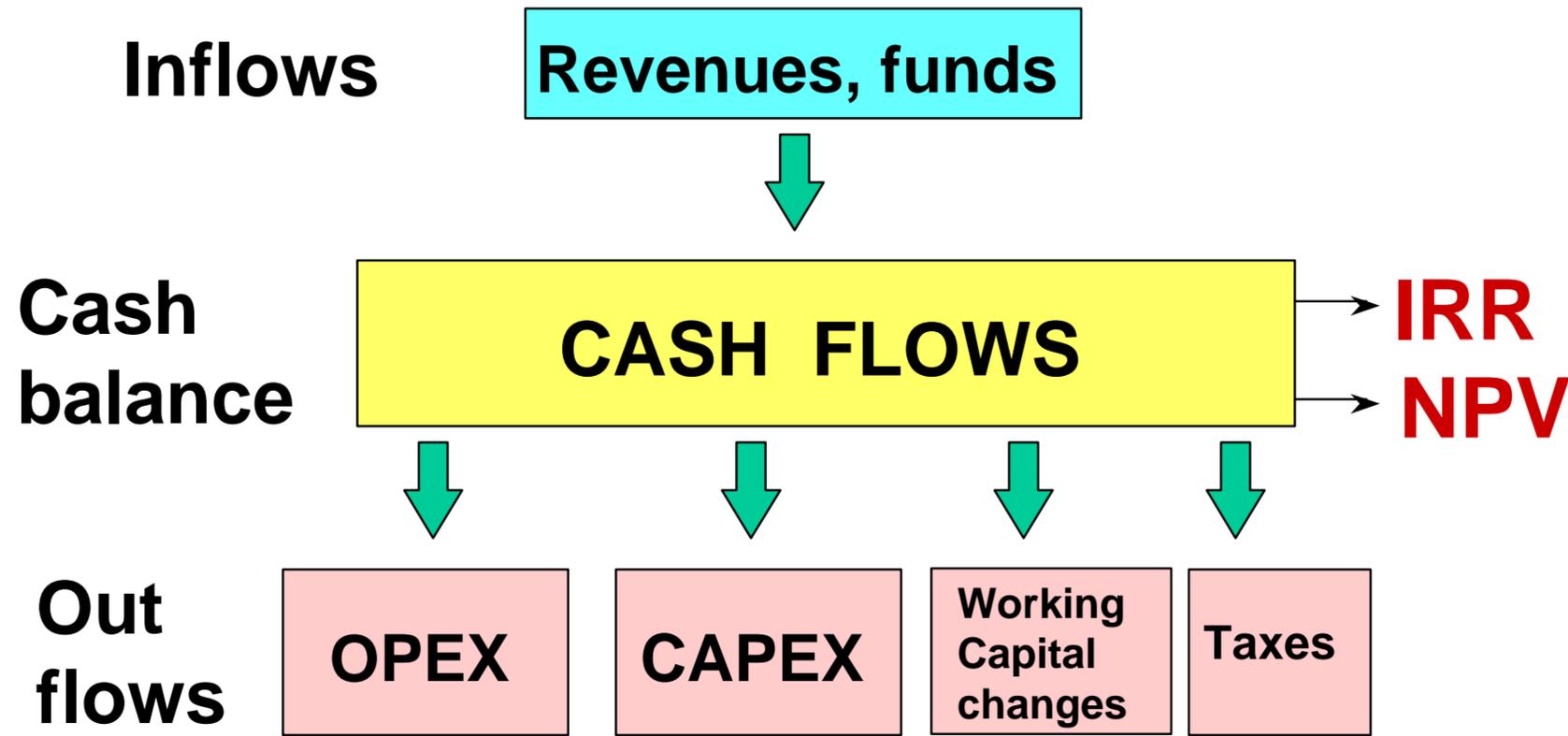- Interconnection fees
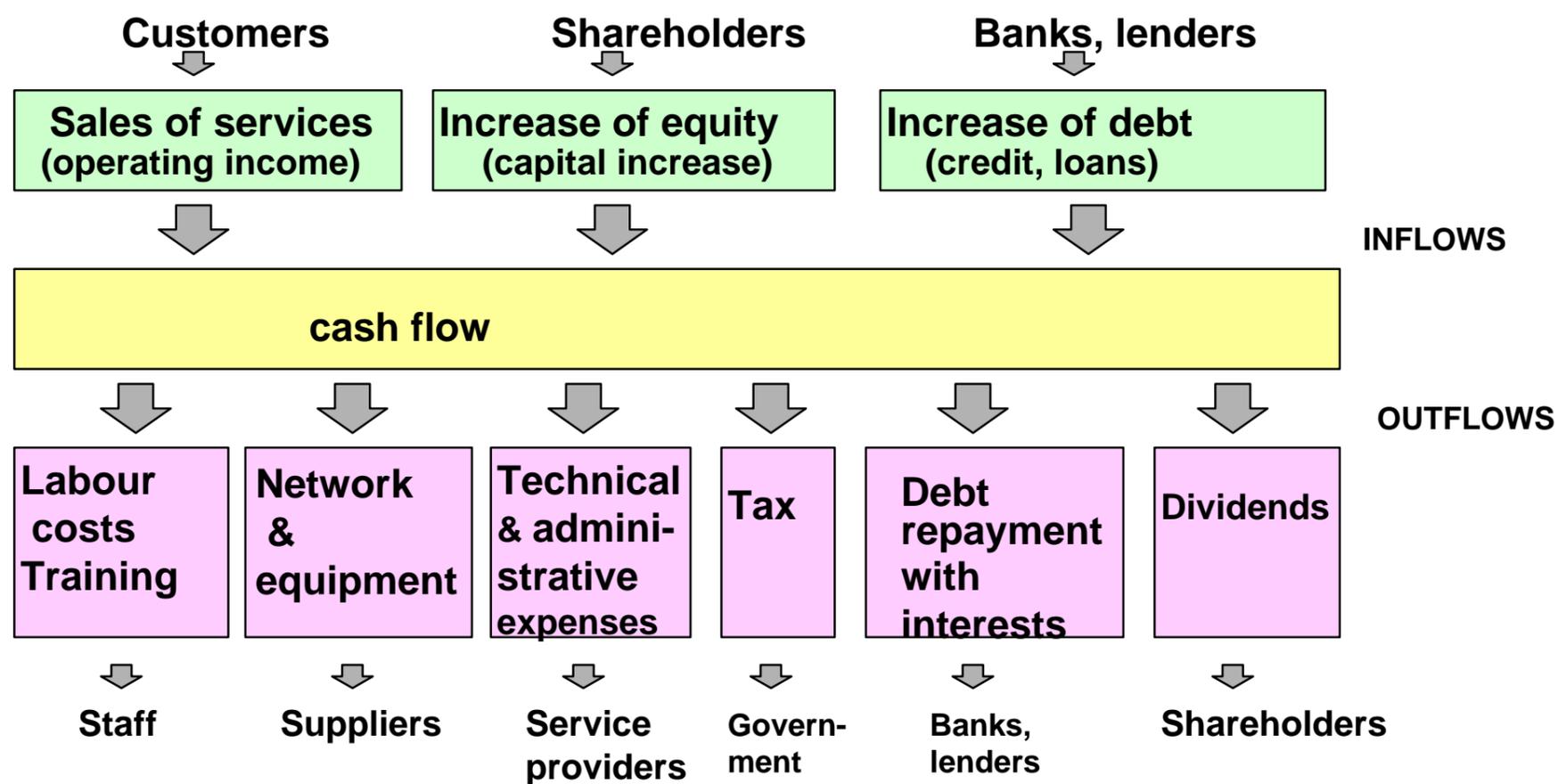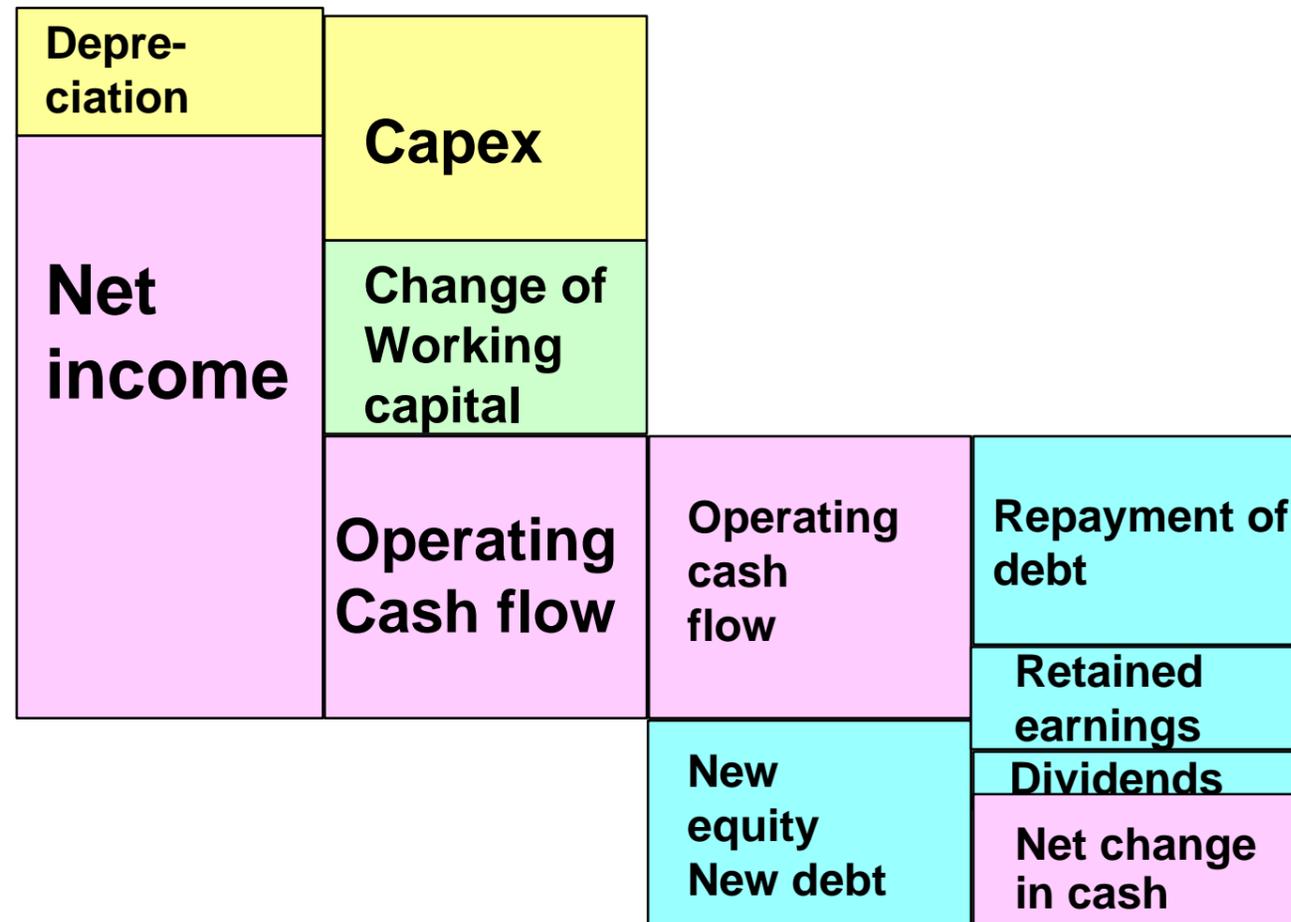
Business model
Income statement

Total revenues (sales)	**Cost of sales**						
	Gross margin	**Operating expenses**					
		Income from operations	**EBITDA**	**Depre-ciation**			
				EBIT	**Taxes Interests**		
		Other incomes			**Net income**	**Dividends**	
						Retained earnings	

**Business model
Cash Flow**

Inflows   Revenues, funds

**Cash
balance**   CASH FLOWS → **IRR**
→ **NPV**

**Out
flows**   OPEX   CAPEX   Working Capital changes   Taxes

Business model
INFLOWS and OUTFLOWS

Customers   Shareholders   Banks, lenders

Sales of services (operating income)	Increase of equity (capital increase)	Increase of debt (credit, loans)

INFLOWS

cash flow

OUTFLOWS

Labour costs Training	Network & equipment	Technical & admini-strative expenses	Tax	Debt repayment with interests	Dividends

Staff   Suppliers   Service providers   Govern-ment   Banks, lenders   Shareholders

Cash flow calculation

|			
Depre-ciation	**Capex**		
Net income	**Change of Working capital**		
	Operating Cash flow	**Operating cash flow**	**Repayment of debt**
			Retained earnings
		New equity New debt	**Dividends**
			Net change in cash

Network Solutions Optimization
Example for what-if economical analysis

Network NPV

Effects of the mix of services on Reference Scenario (Low Competition)

Legend:
- Internet
- Internet & VoDSL
- Internet & Video
- All Services (reference)

Network Solutions Optimization
Example for what-if economical analysis

Network NPV

Effects of the mix of services with decreased revenues in High Competition

Legend:
- Internet
- Internet & VoDSL
- Internet & Video
- All Services (reference)
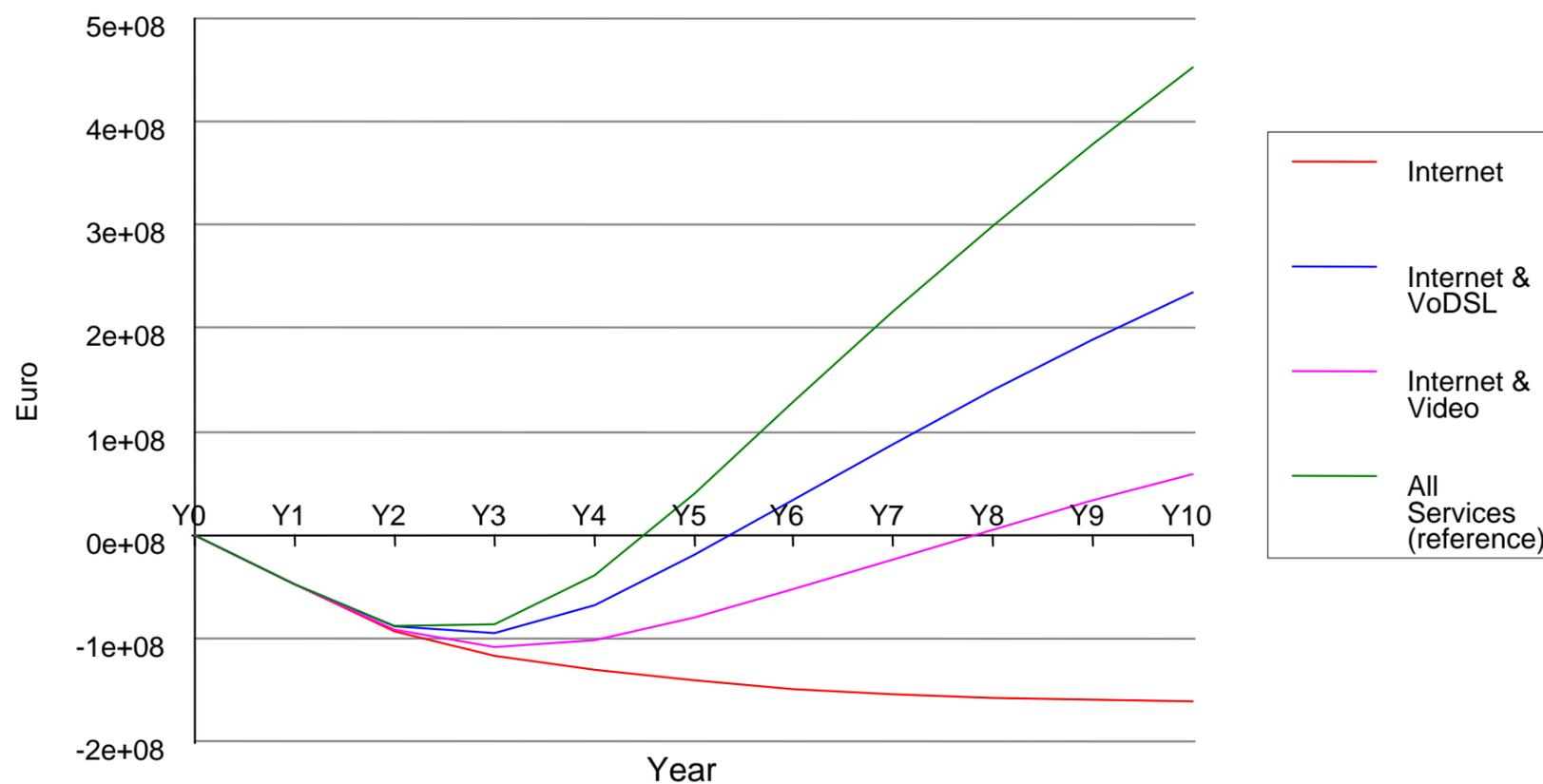
Typical guidelines
for Cashflow improvements

- To increase the number of new customers

- To keep the loyalty of present customers

- To increase the sales of new lines

- To introduce new services/service bundle in the portfolio

- To increase the paid revenue per customer

- To minimise expenses by improving management

Typical Action plans
for Cashflow improvements

To improve the customer segmentation,
   better identification of major accounts
   better statistics for each market segment

To carry out market research studies
   Impact of potential competitors on the market shares

To carry out customer satisfaction surveys

To improve the Portfolio of products and services,
   Impact of new technologies (internet, mobiles, satellites)

Increasing the sales of new lines

Waiting list management
      where are people waiting for new lines

Field survey
      where are people who will demand a line later

Construction of complete lines ready to sale
      how matching capacity and demand

Sales promotion
      how to speed up the sales of available lines

Service provisioning
      how to speed up service delivery

Waiting list

• Objective : to know the number of waiting people at the right level for optimising construction (faster and cheaper)

- Values of waiting list must be collected at the level of distribution point (DP), because the local loop is often the most difficult part,
and values at cross connection point and switching level are carried out from them by aggregation.

- When the waiting list is high and extensions are possible,
- Weekly review is compulsory by computer tools.
- Residential and business customers must be distinguished.

Field survey

• **Objective : to anticipate the future demand and to design the infrastructure according to long term forecasts.**

- A field survey determines the possible number of lines to be installed in the future, based on the penetration of telephone lines in the houses and the business buildings that are surveyed.

- Surveyors scan local service areas, street by street, and count the number of houses and business buildings by category.

- A penetration rate is assigned at each category.

Service provisioning

• **Objective : to speed up service delivery**

Many types of units are involved in the process and must be coordinated :

- administrative tasks for the commercial file

- billing file to be activate

- charging system in the switching unit

- customer care

- open-wire to be installed and connected

- MDF (main distribution frame) to be updated

- CPE to be installed and connected