



Lesson1

# Introduction to business

Subject: Business I

Professor: Rocío Cortés Grao

1



- Introduction to business 1
- What is a business? 2
- The business as a black box 3
- The business as a system 4
- Subsystems of a business 5



2

1 Introduction to business

**Why do engineers need to study business?**

**General knowledge:**  
**World is all about Economy.**  
Who has heard about the crisis?  
CPI? Unemployment rate?  
Types of interest?

**Personal Reasons:**  
**Life is all about Economy**  
Do you want to buy a house or get a loan?  
Do you want to learn how to manage your income and expenses?



Global Economic Crisis:  
Financial Market

1 Introduction to business

**Why do engineers need to study business?**

**Employment Reasons:**  
**Work generates Economy**  
Will you get a job when you finish your degree?

OPTIONS:

1. Who thinks **it will get a job in a company?**
2. Who thinks **it will start its own business?**




4

1 Introduction to business

**Working for a company**

Which skills should an engineer develop in our times (XXI century)?



**Knowledge**

- High technical and scientific competences
- Languages (such as English)
- Ethical knowledge
- Environmental knowledge
- Humanities knowledge
- Be willing to learn

**Skills**

- Be a good communicator
- Management skills
- Team work
- Accept responsibilities
- Have common sense
- Be tolerant
- Be innovative
- Have imagination
- Be creative
- Have curiosity



5

1 Introduction to business

**Work for your own**

The key question is:

**Can I start my own business?**



**Juridical Forms**


```
graph TD; Q[¿Alone or with partners?] --> NP[Natural Person]; Q --> LP[Legal Person]; NP --> IE[Individual Entrepreneur]; LP --> SA[S.A. Corporation]; LP --> LC[Limited company];
```


Best-known

6

# 1

## Introduction to business





**Juridical Forms**

*Best-known*

<div style="background-color: #fff9c4; border-radius: 10px; padding: 5px; margin-bottom: 5px;"><b>Individual Entrepreneur</b></div> <div style="background-color: #fff9c4; border-radius: 10px; padding: 5px; margin-bottom: 5px;"><b>Unlimited Responsibility</b></div> <ul style="list-style-type: none"> <li><span style="color: #ffc107;">■</span> Personal assets from present to future</li> <li><span style="color: #ffc107;">■</span> Cheaper and faster</li> <li><span style="color: #ffc107;">■</span> Ideal for small businesses</li> <li><span style="color: #ffc107;">■</span> High tax rate</li> </ul>	<div style="background-color: #d1ecf1; border-radius: 10px; padding: 5px; margin-bottom: 5px;"><b>Limited Company</b></div> <div style="background-color: #d1ecf1; border-radius: 10px; padding: 5px; margin-bottom: 5px;"><b>Limited Responsibility</b></div> <ul style="list-style-type: none"> <li><span style="color: #17a2b8;">■</span> Minimum capital: <b>3.000 €</b></li> <li><span style="color: #17a2b8;">■</span> Preferential transmission to partners</li> </ul>	<div style="background-color: #f8d7da; border-radius: 10px; padding: 5px; margin-bottom: 5px;"><b>S.A. Corporation</b></div> <div style="background-color: #f8d7da; border-radius: 10px; padding: 5px; margin-bottom: 5px;"><b>Limited Responsibility</b></div> <ul style="list-style-type: none"> <li><span style="color: #ffc107;">■</span> Minimum capital: <b>60.000 €</b></li> <li><span style="color: #ffc107;">■</span> Free transfer of shares</li> </ul>
--	---	---

7

# 1

## Introduction to business



Cámara  
Valencia

### Legal Criteria



- **Individuals/Natural Person:**
  - Individual Entrepreneur
  - Community Property
  - Civil Society
- **Juridical Person:**
  - Trading Companies
  - S.A. Corporation
  - Limited Company
  - New Limited Company
  - General Partnership
  - Partnership Limited by Shares/Silent Partnership
  - Limited Partnership
- **Special Trading Companies:**
  - Labour Society
  - Cooperative Valencian Society

8



## 2 What is a business?

We will explain two visions of the business:

- ❑ Business as a system
- ❑ Business as a black box (economic vision)

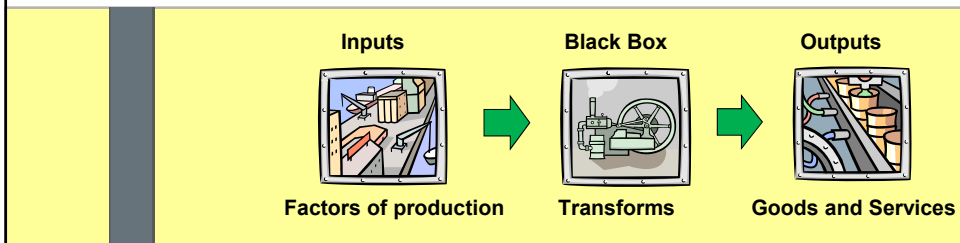


9



## 3 Business as a BLACK BOX


Business as a  
**BLACK BOX**



**Economic Vision**

Economic agent is the one that combines factors of production such as - **INPUTS** (natural resources, capital, work and management) - to produce goods and services for the market - **OUTPUTS** - and achieve some objectives, mostly economic ones.

10



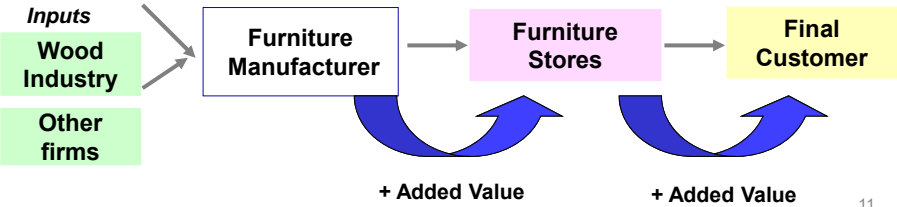
### 3 Business as a BLACK BOX

A company creates added value. The **added value** is the enrichment that the activity of a business generates in a certain period of time.


#### What is the Value Chain?

**Process of creating added value**

Inputs	Transformation	Comercial costs	Profit
--------	----------------	-----------------	--------



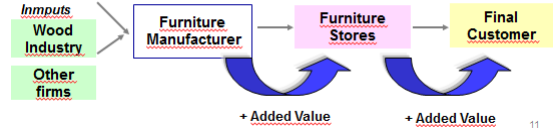
11




### 3 Business as a BLACK BOX

#### What is the Value-Added Tax (VAT)?

Inputs	Transformation	Comercial costs	Profit
--------	----------------	-----------------	--------






<http://www.youtube.com/watch?v=fmAbBu7VQjQ>  
<https://www.youtube.com/watch?v=fmAbBu7VQjQ>

11

**VAT tax paid by customers** when they buy products.

**VAT** is an **indirect tax**, that is, even though the tax is ultimately paid by the customer, the businesses are the ones that gather the money from the clients and give it to the State (Treasury). **VAT is not a progressive tax**, so “the rich people don’t pay more VAT than the poor ones”.

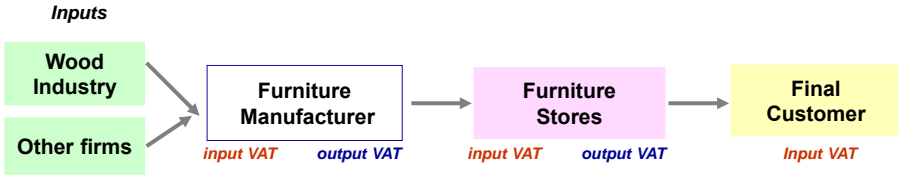
12



### 3 Business as a BLACK BOX

#### How is it calculated the Value-Added Tax?

*Inputs*



```


graph LR
    subgraph Inputs
        WI[Wood Industry]
        OF[Other firms]
    end
    FM[Furniture Manufacturer]
    FS[Furniture Stores]
    FC[Final Customer]
    WI --> FM
    OF --> FM
    FM --> FS
    FS --> FC
    
```

**Input VAT** : is the VAT that we pay when buying something.  
**Output VAT** : is the VAT we get when selling something.

VAT that we need to pay to the Treasury: **Input VAT – Output VAT**


■ The **output VAT** is finally paid by the **customer**.

13



### 3 Business as a BLACK BOX

#### Types of VAT



<https://www.youtube.com/watch?v=ygo-95bR7IQ>

*Increase of TVA from  
1/09/2012*

■ Without VAT=0%	<i>Hospitales and Oficial Education</i>
■ Extra-reduced VAT=4%	<i>Bread, eggs, milk, fruits, vegetables, textbooks</i>
■ Reduced VAT= 10%	<i>Pharmaceuticals, restaurants, hotels, transport, glasses, most foods</i>
■ Standard VAT= 21%	<i>Car, electricity, gas, telephone, clothes, footwear</i>

14

3

## Business as a BLACK BOX



**Who decides the VAT?**



Finance and Public Administration Minister, **Cristóbal Montoro.**


problems..



15

3

## Business as a BLACK BOX



### How do I calculate the Value-Added Tax?

#### Case Study 1

Ana has a clothing store. Her supplier is Luis, a clothing manufacturer.  
 What type of VAT will both have and who pays the VAT..

a) ... if Ana buys cloth to **resell it in her store?**

Luis, clothing manufacturer

→

Ana, cloth store

The amount is the same

**Output VAT= Input VAT**

*Output VAT*

*Input VAT*

- As the product is cloth, the VAT applied is the General VAT= 21%
- Luis sells the product, so he charges VAT (Output VAT).
- Ana buys the product for her company so she deducts the VAT (Input VAT).

Luis will pay to the Treasury the Output VAT and Ana will ask the Treasury for a refund of the Input VAT. Ana and Luis are businesses people, so they are not impacted by VAT, they just gather the VAT for the Treasury.



**3 Business as a BLACK BOX**

**How do I compute the Value-Added Tax?**

**Case Study 1**

b) ... if Ana **buys cloth for herself**, as a final customer?

**Luis, clothing  
manufacturer**

*Output VAT*

→

**Ana, final  
customer**

*Input VAT*

The amount is the same  
Output VAT= Input VAT

- Luis sells the product, so he charges VAT (Output VAT).
- Ana buys the product for herself and as a final customer, she CAN'T DEDUCT VAT(Input VAT).

Ana pays the VAT for the operation to Luis that will give it to the Treasury.

17

**3 Business as a BLACK BOX**

**How do I calculate the Value-Added Tax?**

**Case Study 2**

Noelia, a saleswoman for an office equipment store, decides to buy from the grocery man 10 Kg of oranges at a price of 2,08 € per kilogram. During the buying process, the greengrocer told her that he bought them from the farmer at 1,04 € per kilogram, so he is making a good deal.

- a) Draw the value chain
- b) What % of VAT is applied to these operations?
- c) What type of VAT has Noelia? And the greengrocer? And the farmer?
- d) Who pays the VAT?

18

3
**Business as a BLACK BOX**

**How do I compute the Value-Added Tax?**

a) -

```

graph LR
    Farmer[Farmer] --> Greengrocer[Greengrocer]
    Greengrocer --> Noelia[Noelia  
Final customer]
    Farmer --- OV1[Output VAT]
    Greengrocer --- IV1[Input VAT]
    Greengrocer --- OV2[Output VAT]
    Noelia --- IV2[Input VAT]
            
```

b) The fruit has an extra-reduced VAT = 4%

c) **The farmer** charges the VAT (**Output VAT**)  
**The greengrocer** pays for the VAT of the farmer and charges Noelia in the Sale, so he has both types of VAT (**Input VAT and Output VAT**)  
**Noelia** bears the VAT. (**Input VAT**)

d) The Treasury gains money from the final customer, and it collects the VAT from the farmer and the greengrocer as the product is advancing through its value chain.

19

3
**Business as a BLACK BOX**

**How do I compute the Value-Added Tax?**

**Case Study 3**

In addition, the greengrocer buys from Noelia 2 folders at 1,5 € each one, 5 pens that cost 5,07 € all and a paper box who has 5 packs of 500 sheets at 2,5€ each pack so that his daughter could use them at school.

- Draw the value chain
- What % of VAT is applied to these operations?
- What type of VAT has the greengrocer? And Noelia?
- Who pays it?

20

3 Business as a **BLACK BOX**

What is the **Value Chain**?

The added value is created in all the departments of a business. The **business value chain**, or **value chain**, is a theoretical model to describe how the activities of an business generate value to its final client.



Michael Porter

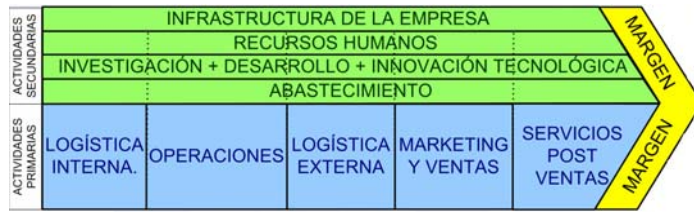
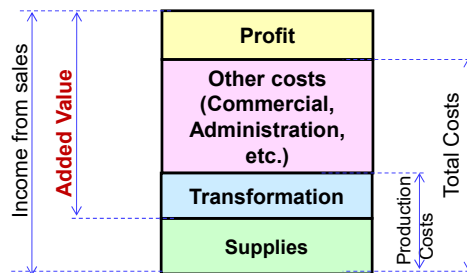


Illustration of the **Value Chain** inside a company

Concept created by **Michael Porter** in his book *Competitive Advantage: Creating and Sustaining Superior Performance*

3 Business as a **BLACK BOX**

How to measure the **Added Value**?



**Added Value =**

<b>Sales Income</b>	-	<b>Supply Cost</b>
Monetary value of a <b>business production</b>	-	Monetary value of the <b>goods and services</b> obtained from other productive units in order to carry out the production process



3

### Business as a **BLACK BOX**

#### How to measure the **Added Value**?

**English version:**

Production costs of an industrial company are 200 euros: 70% are supply costs and other costs are 30 euros. If the company keeps its share of benefits by 35% over their costs. What is the added value of this company?

**Spanish versión:**

En una empresa de fabricación de muebles, los costes de producción ascienden a 200 euros de los cuales el 70% son costes de aprovisionamiento, mientras que el resto de costes son 30 euros. Si la empresa mantiene que su porcentaje de beneficios es un 35% sobre sus costes. ¿Cuál es el valor añadido de esta empresa?



4

### Business as a **SYSTEM**

What is a ...


#### **SYSTEM**



**Set of elements** that interact with each other in order to achieve a goal.

# 4

## Business as a **SYSTEM**




Business as a

SYSTEM



The business is a complex and open technical/social system in which its subsystems interact and are well organized, building up an unitary whole and developing a range of functions in order to achieve its **goals**.

An open or a closed system?

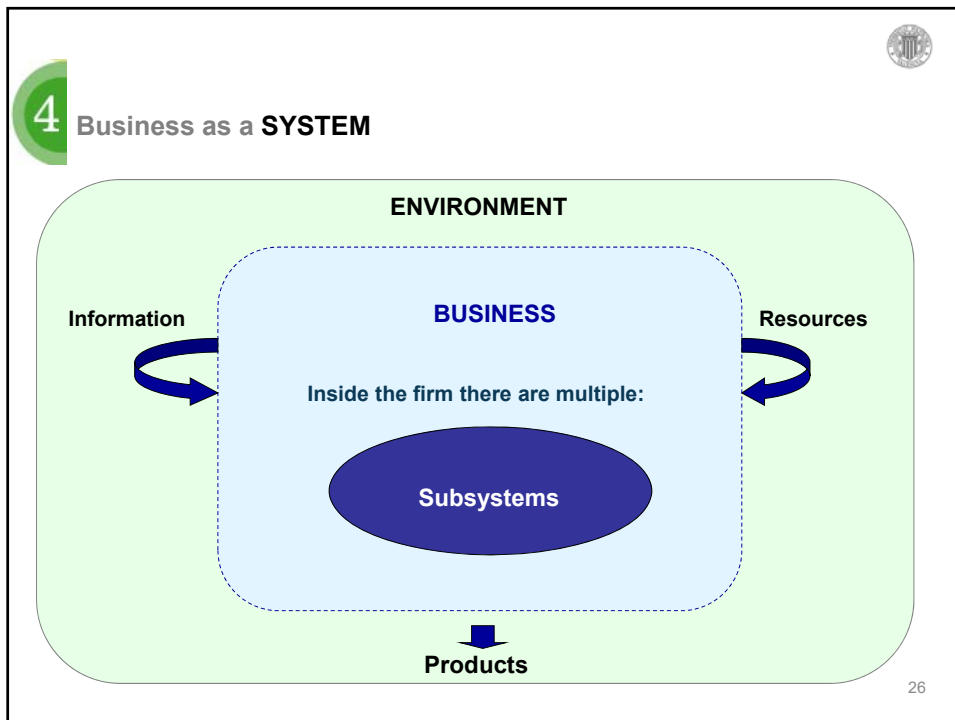


Open: Exchanges resources outside its "doors"

A simple or complex system?

Complex: A lot of parts interact with each other.



5 Subsystems of a business

How many **Areas** or **Functions** has a manufacturing company?

Marketing Human Resources  
Logistics Management R&D  
After-sales Supply  
Production Finances

27

5 Subsystems of a business

How many **Subsystems** has an industrial company?

**“Watches out for the fulfillment of the goals”**  
Management subsystem

Operational Subsystem Resources subsystem

**“Creates the product and delivers it to the customer.”**  
**“Obtains the resources and handles them”**

28

**5** Subsystems of a business

Match each area with its corresponding **Subsystem**

Ocasionaly, they may also be departments of a business.

29

**5** Subsystems of a business

30



## Exercises Lesson 1

We start our "fictitious business" plan.

### 1. EXECUTIVE SUMMARY

The executive summary is a brief analysis of the most important aspects of your project..

#### 1.1 Business Idea.

Brief overview of what is the initial business idea about. Cover up information such as the activity, location, number of employees. Draw and explain the production process diagram (value chain). Identify the subsystems that your business will have and its functions, and any other information that you consider relevant.

#### 1.2 Promoters of the business.

Description of the group members that will form the company.

#### 1.3 Products or Services

What type of product/service you plan to offer? What differences or innovative elements it has against its competition?

#### 1.4 Choice of legal form

Once we have the idea, the choice of the juridical form should be one of four first steps in order to execute and launch our company. Explain your choice.

We will correct next class.. 31



Thank you very much  
for your attention