



Business Game information

Description of the economic components of the software

Game scenario 2013

- Business Game
- Thesis upload
- Quickstart: Business Game Flow
- Budget
- ROA
- Market description
- Sale forecast
- News!

Business Game

Welcome to the Business Game!

- Inside this platform you will be able to manage your virtual company.
- You will be also able to upload your reports of the game
 - REL 1 Initial analysis and definition of business strategy
 - REL 2 Final Analysis

Thesis Upload

- You will upload your thesis using the Business Game software, in the Thesis platform upload. It *will be available from 18/03/2013*
- In order to save the 2^o decision of the Business Game you have to upload the thesis.
- When you will click on the SAVE button during the 2^o period, you will not be able to upload the first part of the thesis anymore.

Business Game Flow

LOGIN

To start the game, go in the *market* area and decide how to compete in it

TOTAL DEMAND		(per 1000)
Washing Machines		
period 1	1220	
period 2	1224 ▲	
Tumble Dryers		
period 1	565	
period 2	628 ▲	

then go to the *game parameters* area and try to build your offer with a sensitivity

PRODUCTION DEFINITION		
minimum efficiency of the nominal plant	70	(percentage)
maximum efficiency of the nominal plant	90	(percentage)
goal maintenance for manual line	410	(per 1000)
goal maintenance for semi-automatic line	520	(per 1000)
goal maintenance for automatic line	750	(per 1000)
minimum efficiency of the workers	80	(percentage)
maximum efficiency of the workers	98	(percentage)
maximum personnel for one shift (manual line)	770	
maximum personnel for one shift (semi-automatic line)	600	
maximum personnel for one shift (automatic line)	450	
standard production capacity	290	
standard inventory capacity	95000	
starting		
permanent personnel	450	
starting specialization (permanent)	50	(percentage)
number of hours	480	
maximum level of overtime	20	(percentage)
permanent personnel cost	5200	(per 1)
seasonal personnel cost	5700	(per 1)

You can save only once in a period!

SAVE

You are satisfied with the results

In case you are not satisfied with the results...

Change your decisions

Washing Machines		
industrial design	<input type="text" value="780"/>	(k€)
product technology	<input type="text" value="1040"/>	(k€)
product width	<input type="text" value="1"/>	
product depth	<input type="text" value="1"/>	
Tumble Dryers		
industrial design	<input type="text" value="1300"/>	(k€)
product technology	<input type="text" value="520"/>	(k€)
product width	<input type="text" value="1"/>	
product depth	<input type="text" value="1"/>	

Then insert your decision (click on CONTINUE) and test them with the **two** buttons

*Note: It's possible to change the co-design only at the beginning of the year.

Continue without generating the budget

Budget - You have 13 more click to see the budget.

5 clicks are free, each subsequent click will cost 200000 €, you will see their impact on the budget. Max for each period: 20 .

...and make necessary adjustments!

€€

Budget

Free

Continue without generating the budget

Total Personnel		
workers	450	(people)
level of specialization - workers	50	(percentage)
Contract		
permanent agreement	450	
seasonal agreement	0	
temporary agreement	0	
Personnel		
1st shift (Available)	2nd shift (Not Available)	3rd shift (Not Available)
<input type="text" value="5"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Plant data		
production capacity	319	(products/number of hours)
stock capacity	95	(products)
production hours	528	(number of hours)
plant efficiency	74	(percentage)
employees efficiency	89	(percentage)
PRODUCT DEFINITION		
Washing Machines		
internal production (in this period)	65	+
stocks (from the last period)	0	+

Budget

- When you insert the data the system will not save your decisions!
- You can save your decisions only once in a period. When you have clicked on save, the system will not accept any change in the decisions
- After you've entered the decisions you will be able to click on:
 - **BUDGET:** in order to see the forecast results. at the cost of 200.000€ for each budget
 - **Continue without generating the budget:** as many times as you want, always free.

Useful information

For the 1^o quarter

We suggest to fill the **sales forecast decision** with the value obtained by dividing demand forecast (you can find it in the market analysis page) by the total number of competitors.

BUDGET

- You generate your budget clicking on the **BUDGET** button:
- all the budget data are based on your sales forecast and your decisions
 - when you close the web page the system doesn't store your decisions
 - you can **save only once in a period** (clicking on **save** at the end of the page)

Next quarter

When all the companies save their decisions, the system will simulate. So the next quarter data will be available.

ROA: how it works in the game

Return on Asset is an accounting ratio used in finance, valuation, and accounting.

Inside the Business game it is evaluated with this formula:

$$\text{ROA} = \frac{\text{EBIT}}{\text{Capital Employed}}$$

Capital Employed has many definitions. In general it is the capital investment necessary for a business to function. It is commonly represented as total assets less current liabilities. In the Business Game is the total asset minus *Cash on hand*, minus *account payable*.

Market description



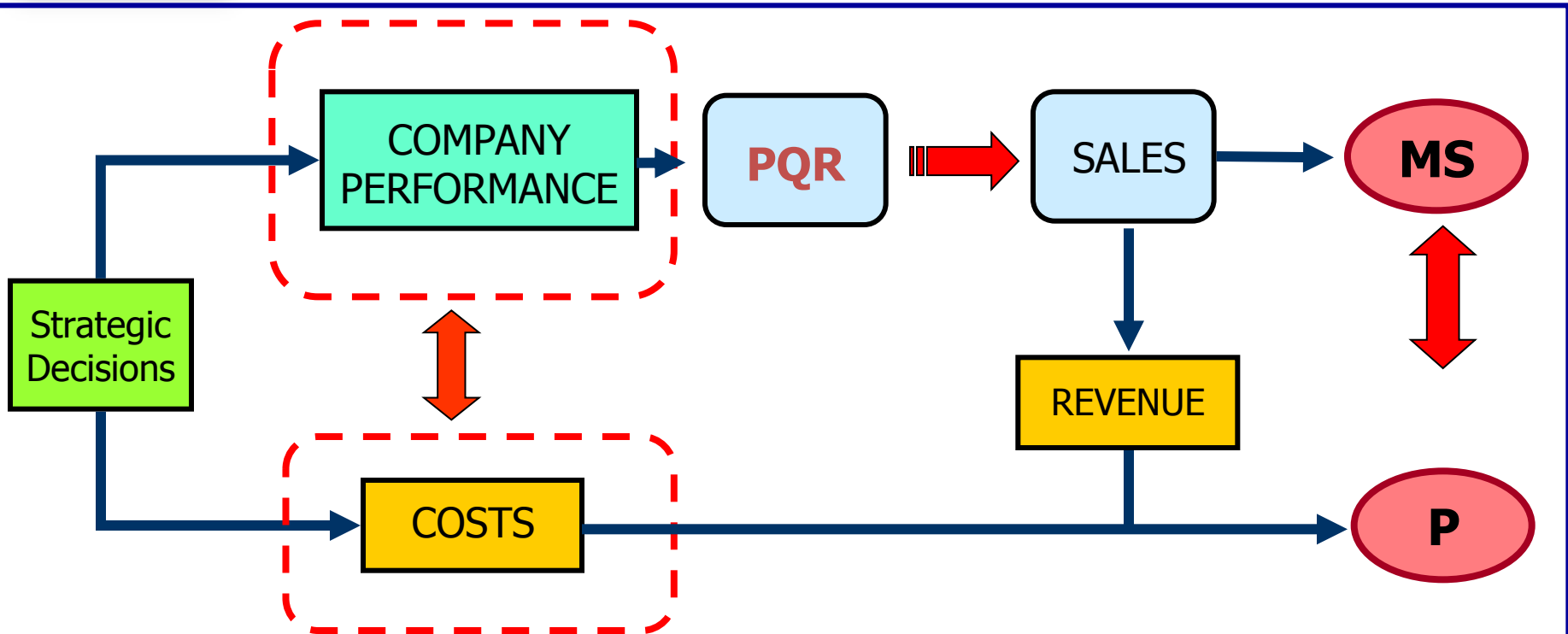
- **Business-to-Business (B2B)**
the customer will compare all the competitors decisions about the price, the product and the service offered
- The total offer is composed of all the companies products

Note : the number of companies and products are defined at the beginning of the game and cannot be changed

The Price Quality Ratio (PQR)

- It represents the synthesis of the customers' opinion about the company's products.
- **It sets the Market Share (MS)** of the company, therefore the sales are proportional to the PQR.
- The PQR is the **sum of the three external performances:**
 - The **product** offer
 - The **service** offer
 - The **price** of sale

Performance Model



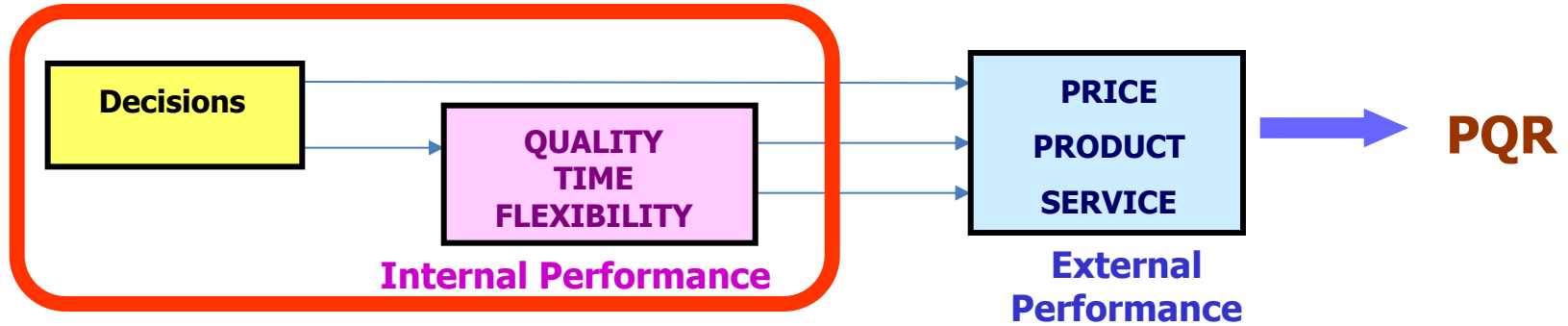
PQR = Price Quality Ratio

MS = Market Share
P = Profitability

trade-off

PERFORMANCE ↔ **COSTS**
MARKET SHARE ↔ **PROFITABILITY**

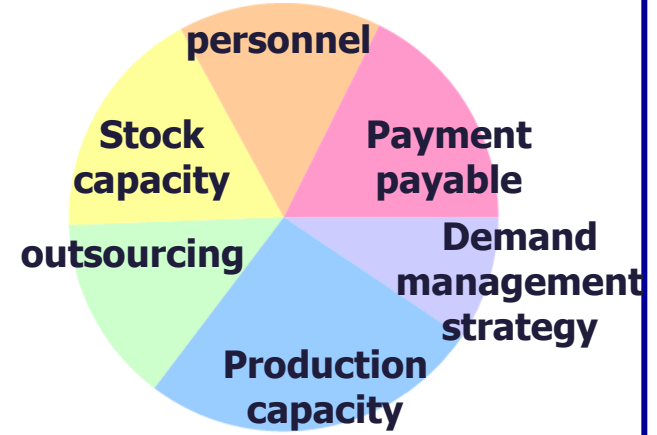
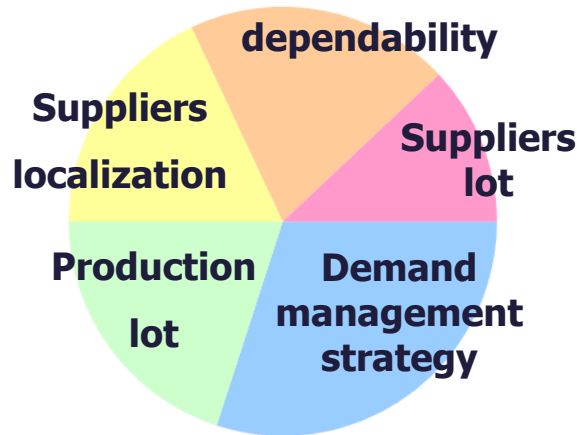
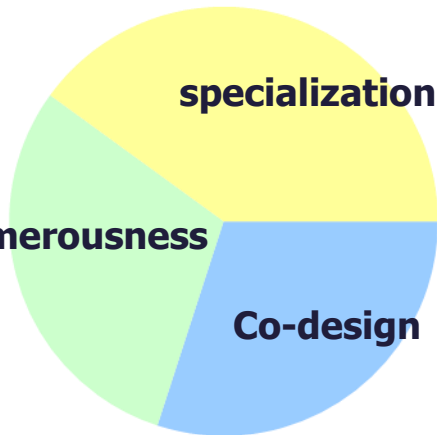
Qualitative analysis



QUALITY

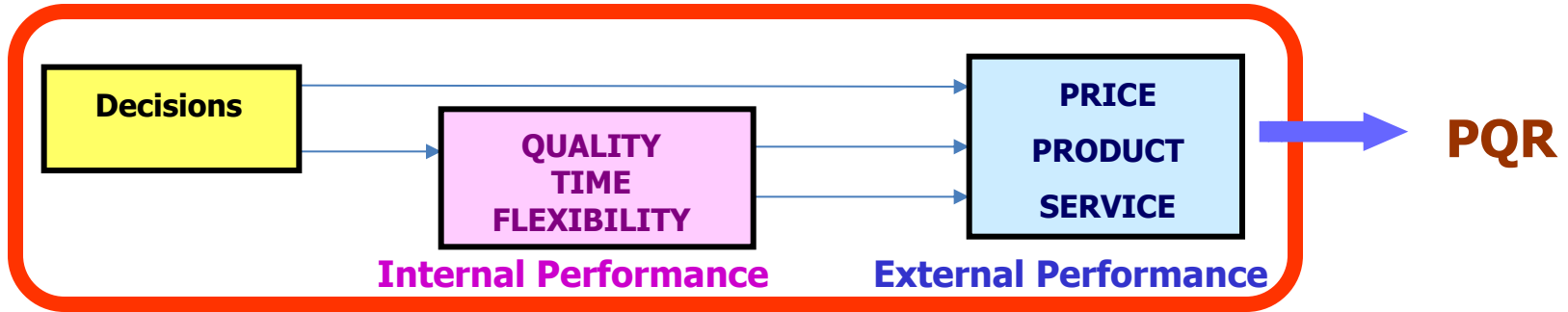
TIME

FLEXIBILITY



Note: these pie charts give you a qualitative analysis (pay attention at the amplitude of the angle) of the customer needs

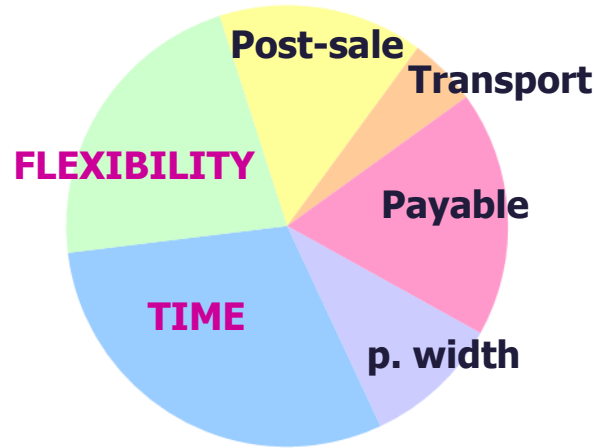
Qualitative analysis



PRODUCT



SERVICE

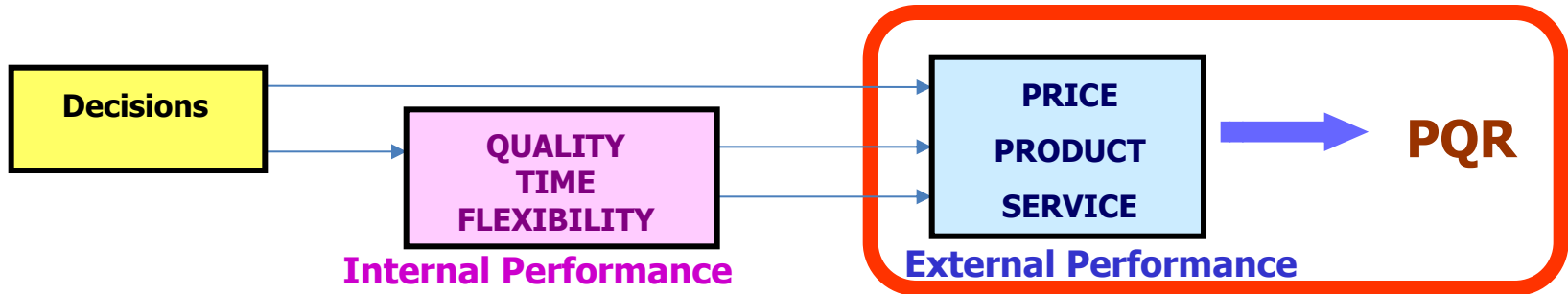


PRICE

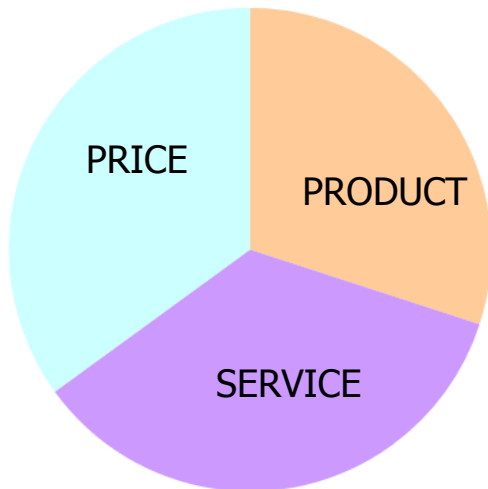


Note: Marketing, R&D decisions have different impact on the PQR in the 2 markets.

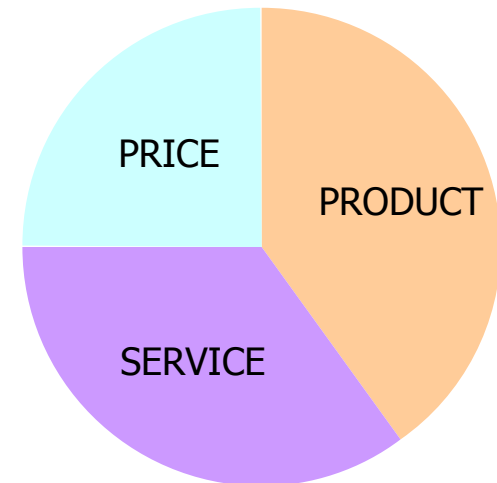
Qualitative analysis



Washing Machines



Tumble Dryers



Decisions – Performance Matrix (1/2)

Decisions	Internal Performance			External Performance	
	Quality	Time	Flexibility	Product	Service
Lot sizing		+			+
Co-design	+			+	
Supplier numerousness	+			+	
Suppliers lot sizing		+			+
Stock capacity			+		+
technology				+	
Overtime			+		+
Demand management strategy		+	o		
Design				+	
Accounts receivable period					+
Specialization	+		o	+	o

+ Direct Impact
o Indirect Impact



Decisions – Performance Matrix (2/2)

Decisions	Internal Performance			External Performance	
	Quality	Time	Flexibility	Product	Service
Suppliers localization		+			+
Product width					+
Production capacity			+		+
Advertising				+	
Post-sale					+
Outsourcing			+		+
Product depth				+	
Transportation					+
Suppliers Dependability		+			+
Trade Promotion				+	
Accounts payable period			o		o
Distribution channel			o		o

+ Direct Impact
o Indirect Impact



Sales Forecast

How to approach the game

The sales forecast (1)

It's the fundamental decision for managing the production volumes:

“This decision is useful to balance the product lines of the two goods”

It splits the production capacity between the two products.

More details...

Example: sales forecasting

- Production capacity= 300 pieces (pcs)
- Sales forecast (washing machines) = 100 pcs
- Sales forecast (tumble dryers) = 50 pcs

The production will be balanced by the ratio:

$$\text{Washing machines / Tumble dryers} = 100 / 50$$

$$\left\{ \begin{array}{l} \text{Washing machines produced} = 200 \text{ pcs} \\ \text{Tumble dryers produced} = 100 \text{ pcs} \end{array} \right.$$



Example sales forecast (2)

If the forecast is lower than the stocks, that product will not be produced:

Washing machines stocks 100 pcs

Sales forecast washing machines 80 pcs

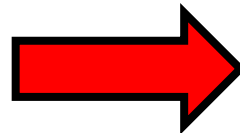
Total production

0 pcs

Forecast result

The sales forecast is useful to obtain the same reliable forecast results:

- After the “data input” page, the forecast results are available (obtained with hypothetical forecast sales revenue).



- Check it often!
- **At any period there may be information within 5 days before the deadline. Read the news before saving!**



 ? **Other questions?**

ASK ON FACEBOOK!



<http://www.facebook.com/groups/220262461738/>



University Management Competition

Cosa accade a chi vince...

La competizione Italiana di **Business Game** che coinvolge gli studenti delle principali università italiane all'interno dei loro corsi di laurea.



2013

Qualificazione Politecnico di Milano

University Management Competition

è una competizione italiana di Business Game che coinvolge gli studenti delle principali università italiane all'interno dei loro corsi di laurea.

I dati dell'ultima edizione:

- 16 facoltà italiane coinvolte
- oltre 2.000 studenti coinvolti (5000 studenti coinvolti negli ultimi 2 anni)
- 4 facoltà utilizzano il Business Game come tesi triennale
- 250 studenti coinvolti nelle semifinali online
- 11 squadre finaliste provenienti da tutta Italia

3° edizione della finale nazionale all'interno del Job Meeting a Milano

All'interno di un corso:

- Roma Tor Vergata (Ingegneria)
- Milano Cattolica (Economia)
- Milano Bicocca (Economia)
- Cremona Cattolica (Economia)
- Piacenza Cattolica (Economia)
- Brescia (Ingegneria)
- Modena e Reggio Emilia (Ingegneria)
- Salerno (Ingegneria)
- Pescara (Economia)
- Firenze (Ingegneria)
- Napoli II Università (Economia)
- Catania (Economia)
- Messina (Economia)
- Università degli studi di Cassino (Ingegneria)

Crediti riconosciuti

- Roma La Sapienza* (3 CFU - Ingegneria)
- Milano Politecnico* (3 CFU - Ingegneria)
- Bologna Ingegneria* (6 CFU - Ingegneria)
- Università di Padova* – Sede Vicenza (3 CFU - Ingegneria)
- Udine Ingegneria (3 CFU - Ingegneria)

**In questo caso i crediti formativi comprendono l'utilizzo del Business Game, la stesura della tesi triennale e la sua discussione davanti alla commissione di laurea.*

- Gli studenti dei corsi di Economia e Ingegneria Gestionale si registrano nel sito www.umc2.it e formano le squadre con i loro compagni di corso.
- Partecipano ad un torneo all'interno del loro corso.
- Il docente premia i vincitori
- Le squadre migliori classificate di ogni università sfidano i rappresentanti degli altri atenei durante le **semifinali online**
- Le migliori squadre semifinaliste partecipano alla finale che si svolge durante l'evento **Job Meeting** a Milano nel corso di una intera giornata
- I finalisti si affrontano con una versione più complessa del gioco a cui hanno partecipato durante le qualificazioni e le semifinali



VOI SIETE QUI