



WOWENERGY

" Nothing is lost, nothing is created, everything is transformed"
(Antoine-Laurent Lavoisier)



SUCEAVA
July 2013

Team members

Tatiana I
Elena-Alexandra C
Ionut
Andrei-Sorin B

Coordinator

Prof Daniela E

The whey industry



Whey



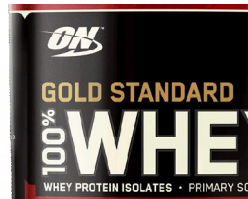
Athletes



Good for an average consumer

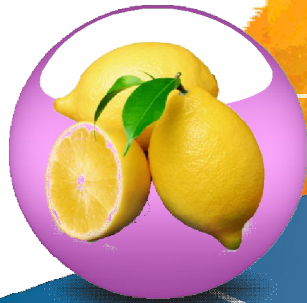


Good for kids



Whey protein

Ingredients for "WoWEnergy" beverage



lemons



whey



strawberries



peaches



psyllium fiber

Health in a cup

- high nutritional quality
- source of amino acids
- low in fat and sugar
- high biological value

Nutrition Facts	100 ml	Serving size	% Daily
		250 ml	Value*
Calories, kcal	45,2	113	6
Protein, g	0,7	2	4
Total Carbohydrates, g	10,2	26	9
Dietary Fiber, g	2,2	6	1
Sugars, g	8	20	5
Total Fat, g	0,1	0,5	< 1
Saturated Fat, g	0	0	0
Trans Fat, g	0	0	0
Cholesterol, mg	0,6	1,5	<1
Sodium, mg	0,03	0,07	2
Vitamin A, mg	0,5	1,2	1
Vitamin C, mg	15	38	63
Calcium, mg	62	150	18
Iron, mg	0,2	0,5	4

*Percent Daily Values are based on a 2000 calories diet

Merceological classification



Class 32- Beers, mineral and aerated waters and other soft drinks, fruit drinks and fruit juices, syrups and other products for beverages (Serial no. W 0225)

Analyses

Physicochemical analyses

- pH 3,51-3,56
- Acidity 122 °T

Sensorial analyses

- 80 people from Galati, between the ages 16 and 58
- 3% who taste and flavor
- 95% recommend to a friend

Microbiological analyses

- ISO 4833:2003
- vegetative cells including molds and yeasts are inactivated

The main technological operations



Figure 1. Flowchart of fruit juice

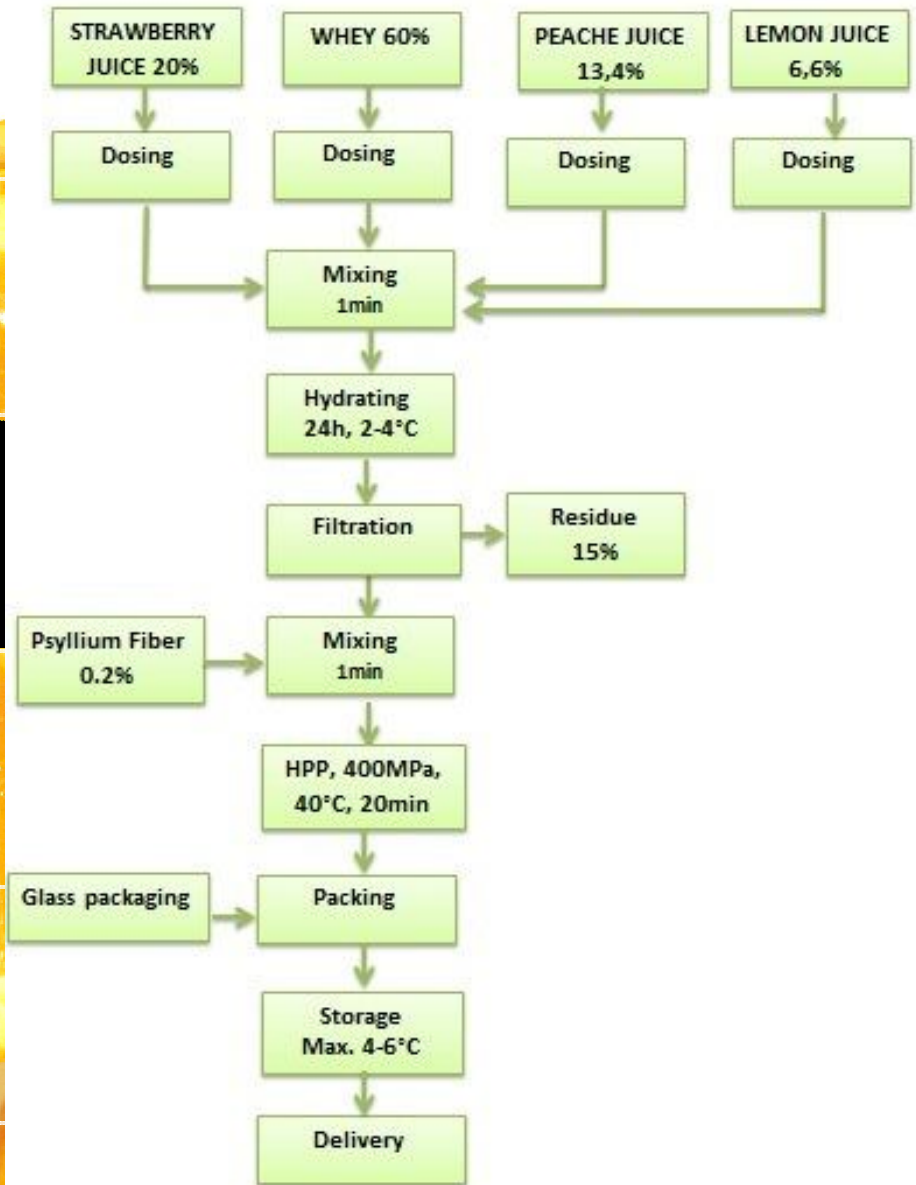


Figure 2. Flowchart of fruit and whey drink

HPLT treatment



improved
sensory properties

protects the nutritional
components

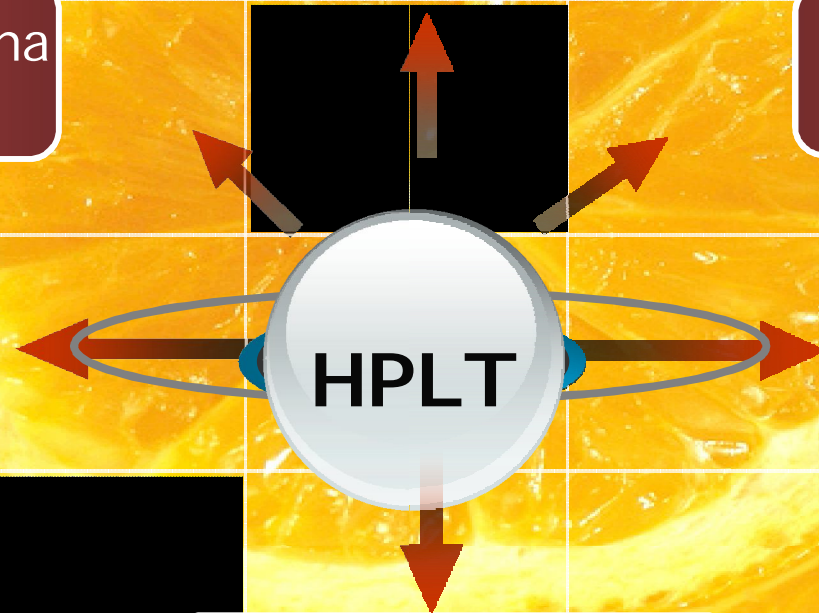
extended shelf-life

environmentally
friendly technology

inactivates pathogens
and spoilage organisms

HPLT

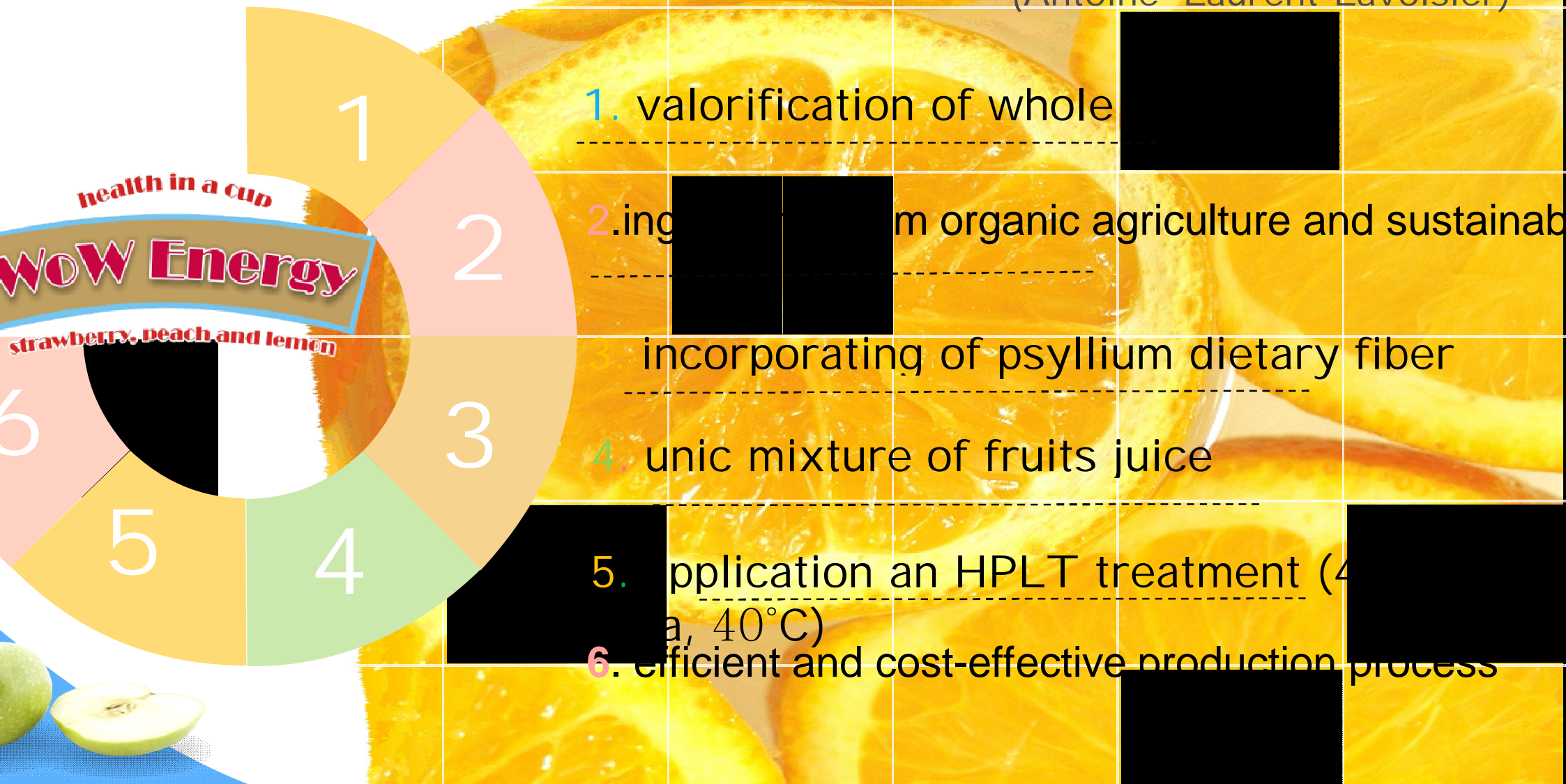
energy efficiency



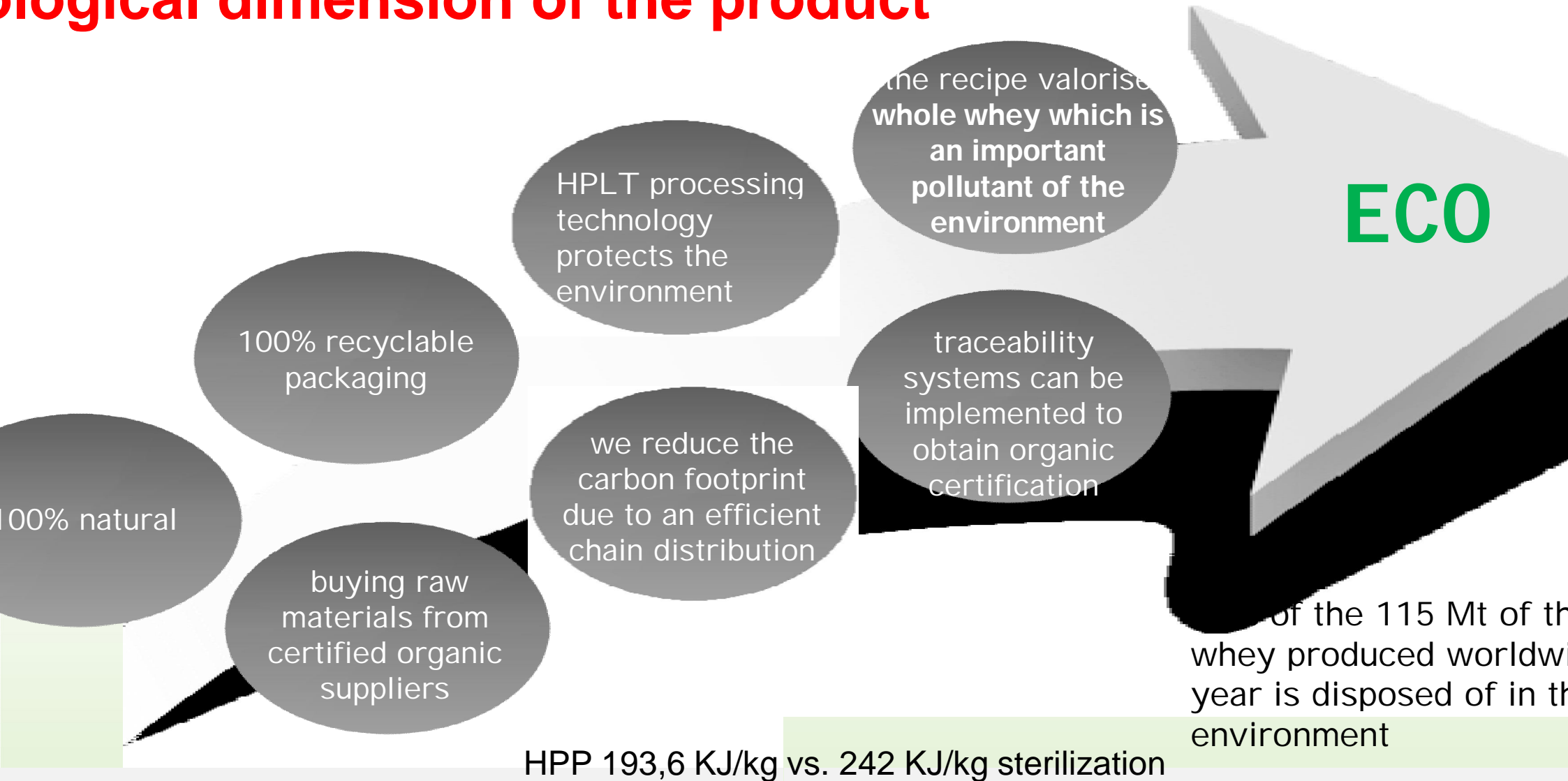
Innovative elements of the “WoWEnergy” beverage

“ Nothing is lost, nothing is created, everything is transformed”

(Antoine-Laurent Lavoisier)



Biological dimension of the product



Labeling

health in a cup

strawberry, peach and lemon

WOW Energy

Ingredients:
 sweet whey (60%), strawberry juice (20%), peach juice (13,4%), lemon juice (6,6%), psyllium fiber, vitamin A, vitamin C, calcium, iron, phosphorus, potassium.
 Fruit content: 40%

250 ml

Produced and packed at:
 Faculty of Food Science and Engineering, "Dunărea de Jos" University, Romania, Galați

Nutrition Facts	100 ml	Serving size	% Daily Value*
		250 ml	
Calories, kcal	45,2	113	6
Protein, g	0,7	2	4
Total Carbohydrates, g	10,2	26	9
Dietary Fiber, g	2,2	6	1
Sugars, g	8	20	5
Total Fat, g	0,1	0,5	< 1
Saturated Fat, g	0	0	0
Trans Fat, g	0	0	0
Cholesterol, mg	0,6	1,5	< 1
Sodium, mg	0,03	0,07	2
Vitamin A, mg	0,5	1,2	1
Vitamin C, mg	15	38	63
Calcium, mg	62	150	18
Iron, mg	0,2	0,5	4

*Percent Daily Values are based on a 2000 calories diet

250 ml

natural 100%

WOW Energy

Shake well before opening.
 Once opened, store upright in the refrigerator and consume within 3-4 days. Product preserved with high pressure low temperature (HPLT). Should be kept at 4-6 C
 period of validity: 1 month
 Best before: see date on cap
 CONTAINS NATURALLY OCCURRING SUGARS
 Contains lactose!



Regulation (EC) No 1924/2006
 of the European Parliament
 and of the Council of
 December 2006 on nutri-
 claims made
 foods

Mission

Quality

Highest quality standards

Innovation

Delivering innovative products

Integrity

We stand behind our products, our recipe, our technology and our word

Objectives

1

Create a regional distribution center

2

Establish strong sales divisions

3

Maintain a tight control of cost and operation

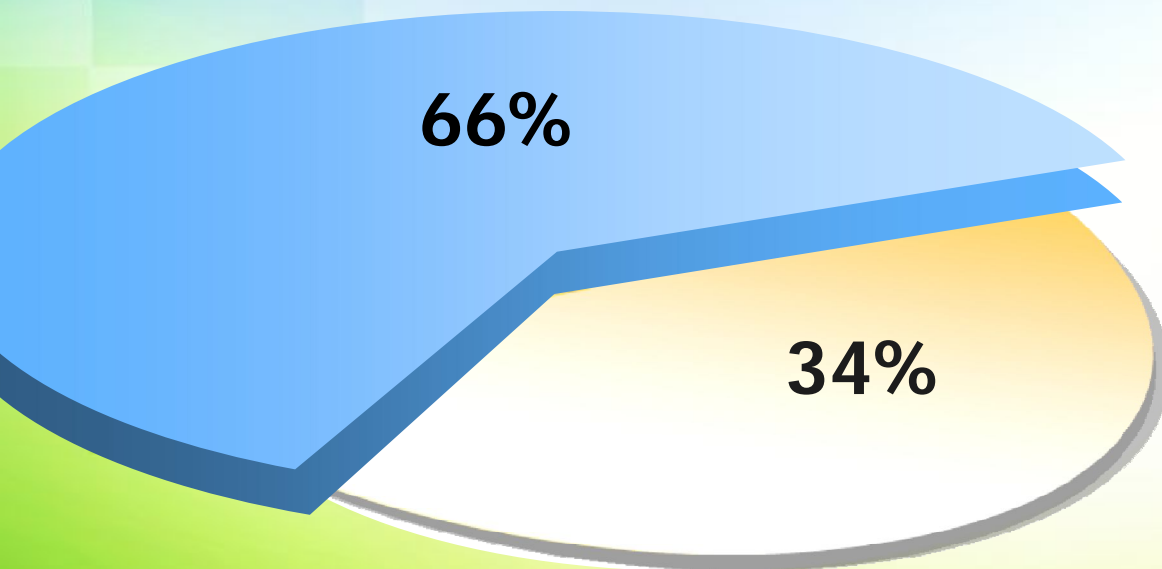
Consumers

- Modern consumers
- Urban areas
- Medium to high salary
- High interest in quality of life
- Premium price for an added value
- Adults, children and the elderly



The market

Noncarbonated beverages market



- Still drinks
- Nectar

Main competitors

- Tymbark, market share of 35%,
- Parmalat (Santal)
- Coca-Cola Hellenic (Cappy)
- Granini
- Pepsi Americas (Prigat)
- Pfanner and Rauch

The target for the company is to reach 1.76%.

- 102 million liters (2011)
- 2.88 mil litters

Competitors prices

Competitors Prices	Tymbark Nectar	Prigat Nectar	Granini Nectar	Santal nectar
250 cc*		1.14-1-54		
1L TetraPak**	1.05-1.08	1.15-1.20	1.30-1.39	1.16-1.21

* As seen in restaurants.

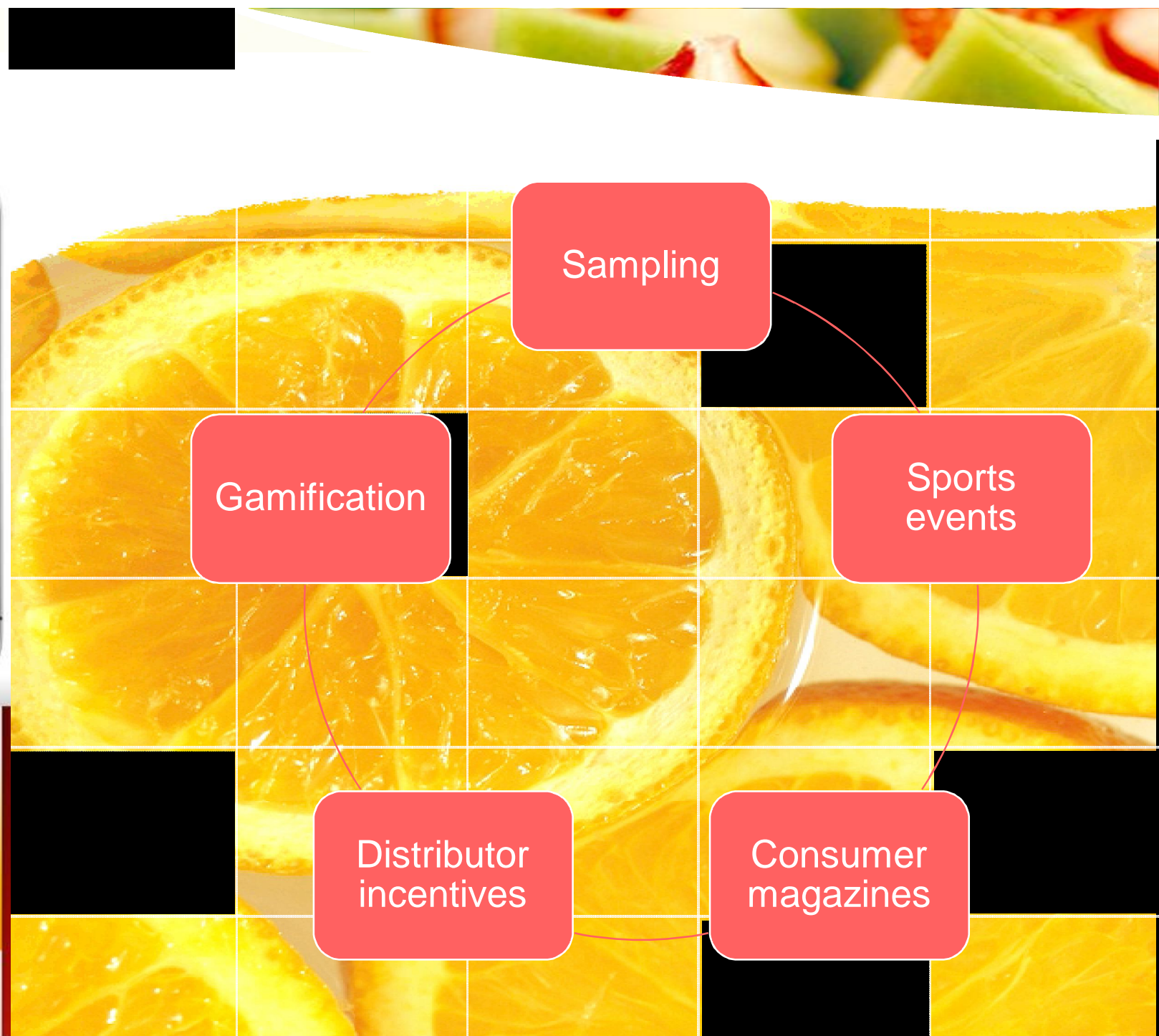
** As seen in Metro, Kaufland, ... XL

Product	Cost of raw materials	Production cost	Packaging cost	Marketing cost/unit	Profit	Price/unit	Retailer selling price
250 cc Glass Bottle	0.07 €	0.095 €	0.26 €	0.04 €	0.135 €	0.60€	1.20
1L Tetra Pak	0.28€	0.38€	0.12€	0.04€	0.18€	1€	1.24

Initial investment

Type of expenditure	Estimated investment low, €	Estimated Investment High, €
Fruit processing unit	150.000	225.000
Cold press processing and extracting unit	300.000	370.000
HPP unit	900.000	1.500.000
Bottling line	45.000	75.000
Packaging line	32.000	40.000
Cold storage unit	90.000	110.000
Costs	1.517.000	2.320.000

Promotion



Sampling

Gamification

Sports events

Distributor incentives

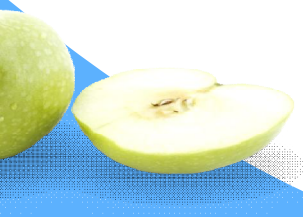
Consumer magazines

Distribution and production



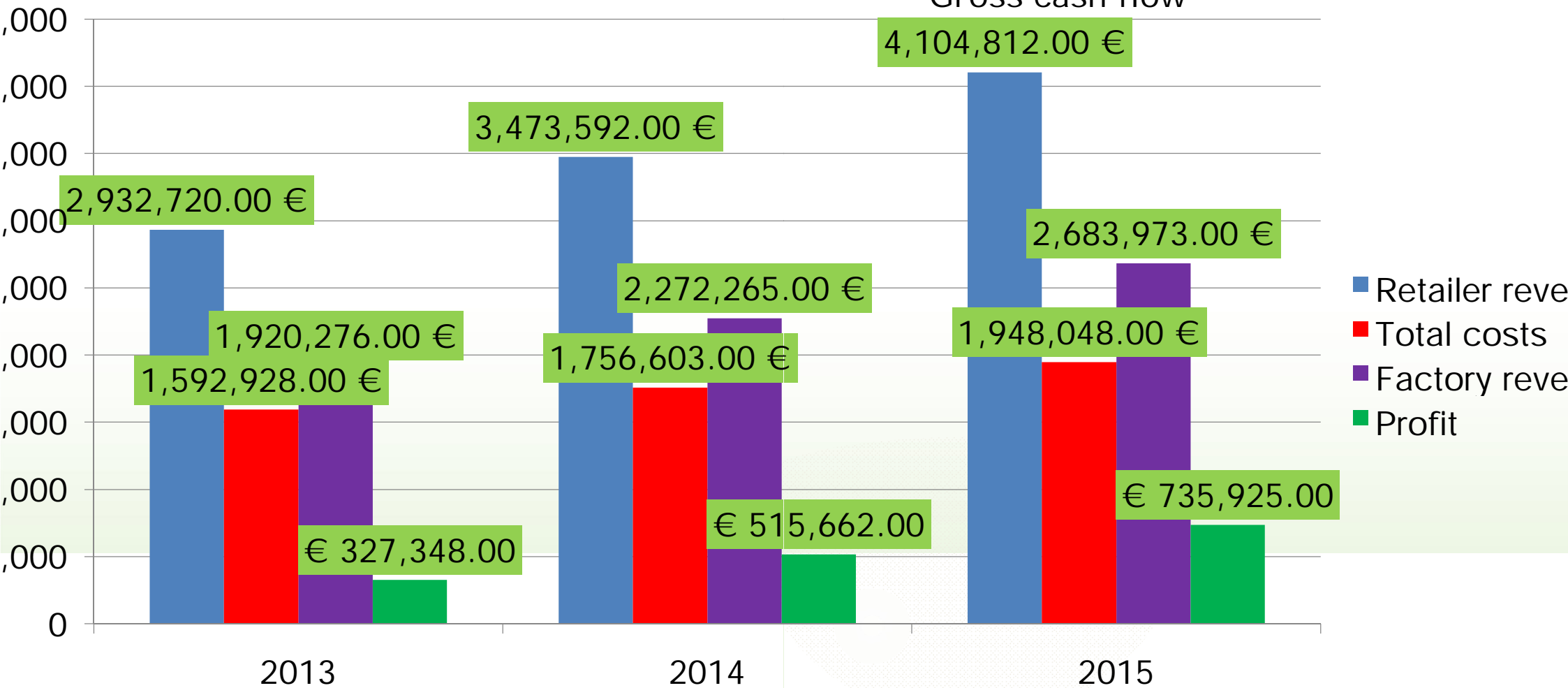
Distribution

1. Brasov
2. Navodari, Constanta
3. Bucharest
4. Craiova
5. Arad
- 6.
- 7.



sales forecast

Three year forecast of sales, costs of production and Gross cash flow



Conclusions

This beverage it's an excellent choice for an average consumer, athletes, kids and elderly

Can be consumed anytime and anywhere

Only 11% of fruit juice obtained worldwide is based on HPLT and we want to extend this

Consumers will love/be attracted by the equilibrated nutritional formula, price, aspect and wish every day for a bottle of juice

We want to promote this idea to the International Conference Euroalime that will take place in October in Galati

Thank You!

Acknowledgement

Authors wish to thank Re-SPIA project
(13177) for the infrastructure

