



UNITED NATIONS

الشرق الأوسط  
ESCWA



Université Saint-Joseph de Beyrouth  
Faculté d'ingénierie  
École supérieure d'ingénieurs  
agroalimentaires



## STRATEGY OF THE OF ESIAM –USJ AND RESULTS ACHIEVED

### LINKAGES BETWEEN ACADEMICS AND INDUSTRY

Curriculum, research, expertise  
**Yolla GHORRA CHAMOUN**

**Context-based Technologies to Enhance the Efficiency and  
Resilience of Agri-food Systems in Lebanon**

**26 August 2019**



# A QUICK OVERVIEW

Université Saint-Joseph  
de Beyrouth  
ESIAM - ESIA

# USJ

## Who are we?

A private university founded in 1875, member of 9 international associations

- ✓ 13 faculties, 14 institutes and 5 higher schools
- ✓ 4 university chairs and 1 professional center of mediation
- ✓ 12 000 students, 2000 lecturers and 500 administrative staff
- ✓ 19 research centers, 31 laboratories, 3 research units, 1 observatory and 1 tissue bank
- ✓ More than 350 international agreements
- ✓ 5 campuses in Beirut, 3 regional campuses, 1 center in Dubaï and 1 office in Paris
- ✓ Technology poles (PTS, Berytech...)



**École supérieure d'ingénieurs  
agroalimentaires**

**École supérieure d'ingénieurs  
d'agronomie méditerranéenne**

# ESIA-M

Who are we?

History and mission

- ✓ Founded in 1979 in the Faculty of Engineering of USJ
- ✓ Mission to contribute to the development of **food value chain** sector in Lebanon and the region through **education**, **research** and **technology transfer**



École supérieure d'ingénieurs  
agroalimentaires

École supérieure d'ingénieurs  
d'agronomie méditerranéenne

The background of the slide features a photograph of four young adults in a park-like setting. On the left, a man in a red and white plaid shirt sits on a green bench, looking at a smartphone, while a woman in a yellow top stands next to him. On the right, a man in a purple polo shirt and a woman in a black top are standing and talking. The scene is bright and sunny with trees in the background.

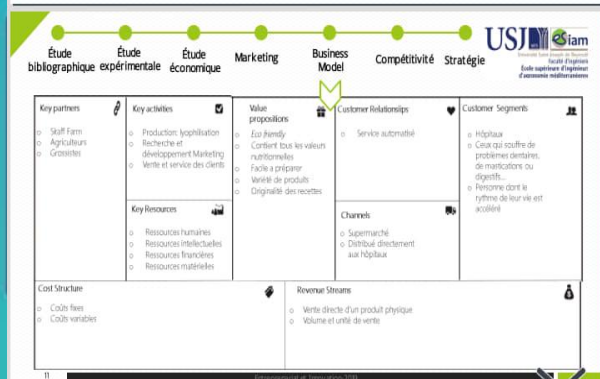
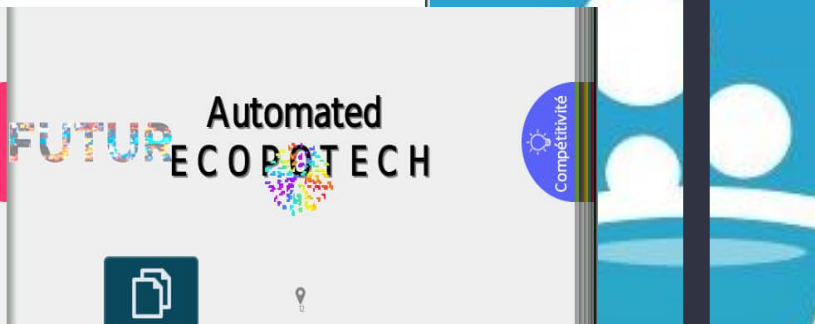
# CURRICULUM

Innovation and  
entrepreneurship  
Professional integration



Le Secret D'Eve

- Problématique Solution
- I. Étude Bibliographique
- Les Bienfaits
- Composition
1. Hydrolat
  2. Huile d'olive
  3. Gel d'Aloe
  4. Cire d'abeille



# INNOVATION AND ENTREPRENEURSHIP COURSES

3<sup>rd</sup> year curriculum

5 steps innovation project:

1

From  
Idea to  
startup

2

Market  
hovering  
studies

5

Project  
pitch:  
prototype,  
business  
plan...



Student team



Company

**KASSATLY**  
CHTAURA

**tanmia**



ميشالاني  
**Mechaalany**

# PROFESSIONAL INTEGRATION

5<sup>th</sup> year curriculum of ESIA

6 months training within the enterprise

## List of courses to be chosen by STUDENT and COMPANY:

- Integration reporting
- Industrial processes
- Supply chain management
- Quality management
- Industrial residues management
- Management and marketing strategy
- Unitary operation
- Energy management
- Automatisisation and GRAFCET
- Packaging
- Statistical management of processess





# APPLIED RESEARCH

Innovation, solutions,  
profitability

Optimization of Arak distillation  
process considering distillates yield  
and quality



Optimizing investment  
techniques for

**NO FEES !**



Increase of line efficiency on 4.75-  
liter oil production line while  
maintaining the product quality and  
respecting food safety standards



## APPLIED RESEARCH





# COMMUNITY SERVICE

Lab analysis  
Expertise



# LAB ANALYSIS

## Food analysis

- Honey, olive oil, wine, bread...
- Chemical and authentication parameters

## Soil and water analysis

- Physio-chemical soil analysis
- Physio-chemical water analysis
- Soil and plant hydric state

## Fruit and vegetables analysis

- Organoleptic measures (sweetness, color, firmness...)
- Post-harvest measures (gas equilibrium)



# EXPERTISE

## Consultancy

- Ongoing national and international projects

## Professional trainings

- To producers, engineers, scientists...
- Ongoing national and international projects

## Conferences and seminars

- To producers, engineers, scientists...





# THANK YOU

ESIA-M - USJ  
**Yolla GHORRA CHAMOUN**