

SUPPORTING THE EDUCATION OF OUR FUTURE LEADERS THROUGH RESEARCH

Education, applied research, transfer

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**Transforming Higher Education Workshop
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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?

Faculty Professors/researchers

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

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d'agronomie méditerranéenne



EDUCATION LINKED TO RESEARCH AND INDUSTRY

Innovation and
entrepreneurship
Professional integration



INNOVATION AND ENTREPRENEURSHIP COURSES

3rd year curriculum

5 steps innovation project:

1

From
Idea to
startup

2

Market
hovering
studies

5

Project
pitch:
prototype,
business
plan...



Student team



Company

- Problématique Solution
- I. Étude Bibliogra
- Les Bienfaits
- Composition
1. Hydrolat
 2. Huile d'ar
 3. Gel d'Alco
 4. Cire d'abe

Automated ECOBOTTECH

Compétitivité

Étude bibliographique Étude expérimentale Étude économique Marketing Business Model Compétitivité Stratégie

Marketing

sociétal

eco friendly

par réseau

Enquête

- 44% des personnes sont intéressés par un repas liquide.
- Les gens prêts à payer 1 à 3\$ pour ce produit touchent 58%
- La majorité a préféré que nos produits soient vendus dans les supermarchés et commercialisé sur 'Instagram' et 'Facebook'.

STP Les 4P

Étude bibliographique Étude expérimentale Étude économique Marketing Business Model Compétitivité Stratégie

Key partners <ul style="list-style-type: none"> Staff Farm Agriculteurs Grossistes 	Key activities <ul style="list-style-type: none"> Production: lyophilisation Recherche et développement Marketing Vente et service des clients 	Value propositions <ul style="list-style-type: none"> Eco friendly Contient tous les vitamines nutritionnelles Facile à préparer Variété de produits Originalité des recettes 	Customer Relationships <ul style="list-style-type: none"> Service automatisé 	Customer Segments <ul style="list-style-type: none"> Hôpitaux Ceux qui souffrent de problèmes dentaires, de malocclusion, ou d'apathie... Personne dont la régime de leur vie est acalé
Key Resources <ul style="list-style-type: none"> Ressources humaines Ressources intellectuelles Ressources financières Ressources matérielles 	Channels <ul style="list-style-type: none"> Supermarché Distribut directement aux hôpitaux 		Revenue Streams <ul style="list-style-type: none"> Vente directe d'un produit physique Volume et unité de vente 	
Cost Structure <ul style="list-style-type: none"> Coûts fixes Coûts variables 				

**KASSATLY
CHTAURA**

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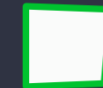
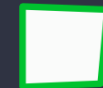
PROFESSIONAL INTEGRATION

5th 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
- Automatisation and GRAFCET
- Packaging
- Statistical management of processes



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APPLIED RESEARCH

Innovation, solutions,
profitability

Optimization of Arak distillation process considering distillates yield and quality



Optim invest
techni for

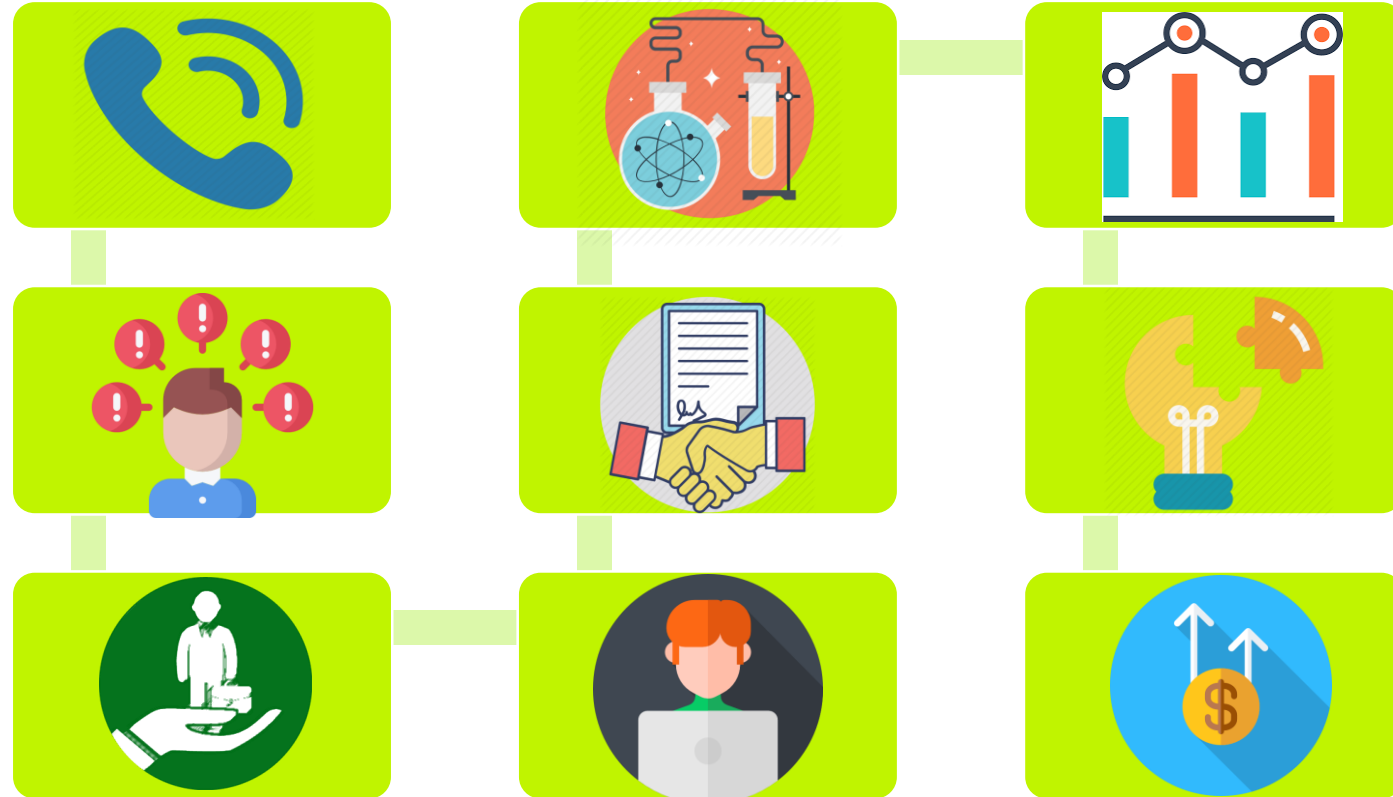
NO FEES !



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



APPLIED RESEARCH





TECHNOLOGY TRANSFER AND 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

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