





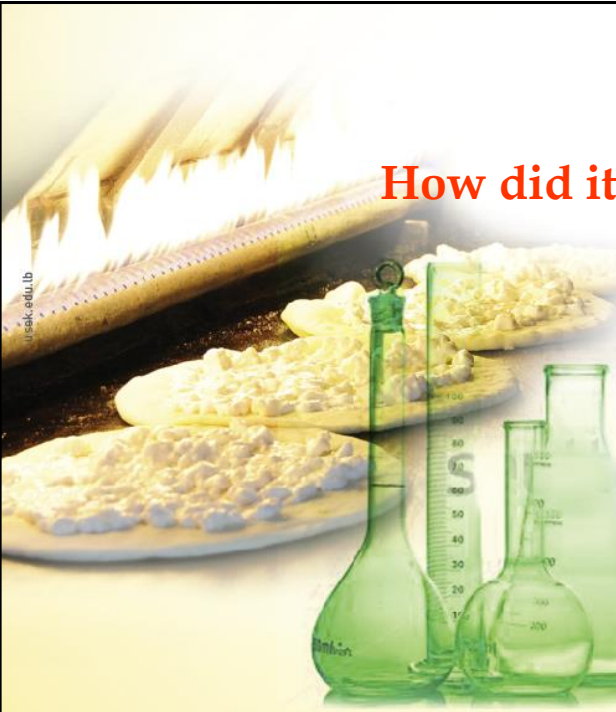


FOOD INNOVATION FROM TRADITIONS:


A satellite educative trip from Paris-Beirut-Doha to Montpellier

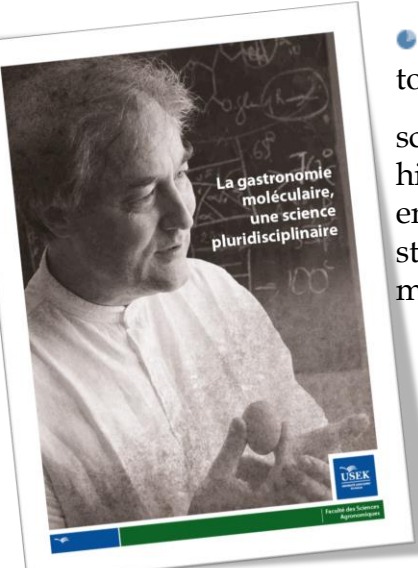
(and why not to the rest of the world)?

*Reine BARBAR , Jean-Marie MALBEC, Christophe LAVELLE
and Hervé THIS*



How did it start?





La gastronomie moléculaire, une science pluridisciplinaire

USEK
UNIVERSITÉ SAINT-ESPRIT
DE KASLIK

EVENTS SPECIAL HORECA 2011

HORECA keeps the beat in the spotlight once again


Series of seminars addressed to various audiences:

scientists, university professors, high school instructors, food engineers, chefs and university students specializing in hotel management.

Atelier Gourmand

Look out for daily live workshops by internationally renowned chefs

Atelier Gourmand



Francois Pozzoli | Herve This | Mauro Colagreco

France France Argentina





Preservation and development of
lebanese culinary heritage by means of
MG



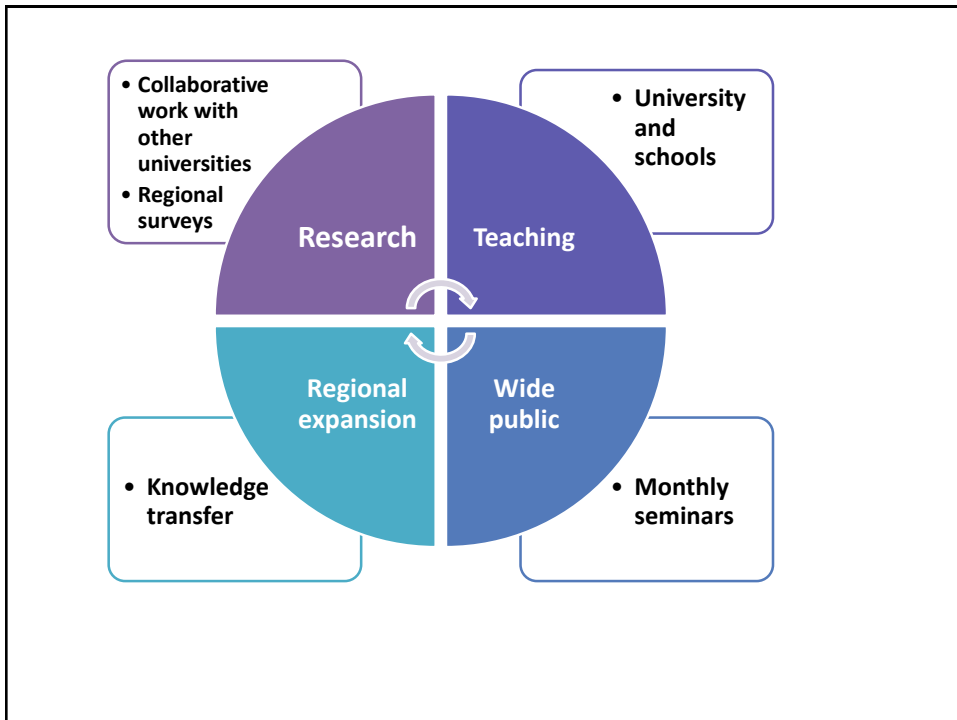
- Convention for the Safeguarding of the Intangible Cultural Heritage, UNESCO

Culinary heritage of Zahlé recognized by UNESCO

- Creative cities network- Gastronomy category
- https://youtu.be/nti_fsNUbII



- ~ Preservation of Lebanon's culinary heritage
- ~ Help in rural development by the valorisation of culinary ancestral know-how in Lebanese villages
- ~ Help in sustainable development through the development of local products
- ~ Help the development of agro-tourism in Lebanon by insuring a better visibility to Lebanese rural regions, their food as well as culinary resources




1. Research

Research topic	Objective
Optimization of non gluten kneffe bread	Strengthening links between academia and the private sector through research and development and innovation
Study of traditional Marzipan from Zouk-Mikael	Elaborate specific protection labels for local traditional products Support rural development and agri-tourism, by promoting Lebanese culinary ancestral know-how
Exploration and colloidal stability development of fermented milk drinks (ayran)	Explore by molecular gastronomy the molecular reasons of non-stability of certain Lebanese food products
Scientific exploration of culinary precisions of different preparation modes of Hommos Bi Tahine	Promoting traditional Lebanese products and their scientific development by molecular gastronomy
Development of a new Lebanese menu: explorative study	Understand the consumer's perception of traditional and new Lebanese recipes
Study of the emulsifying properties of chickpea cooking water as a by-product valorization of Hommos production	Valorization of a Hummus by-product Creat vegan Lebanese innovations based on chickpeas, its derivatives and by-products



2. Monthly seminars



Introduction to Lebanese Seminars of Molecular Gastronomy

What are we trying to do?
At these monthly meetings, cooks, scientists, teachers, engineers and food writers are considering open questions about culinary transformations (*home or restaurants*).

When?
Once a month - the second Monday of each month, from 4:00 p.m. to 6:00 p.m. (*no seminar in July and in August*)

Where?
Food Science Laboratories at the Faculty of Agricultural and Food Sciences - USEK, Kaslik.

Participation
Free, upon invitation (*sent by email*) and previous confirmation (*if possible*).

How do we work?
Each seminar has three parts:

1. The introduction presents news of Molecular Gastronomy activities in the world.
2. The participants begin with a presentation of the results they received from the previous seminar.
3. The group discusses the question of the month, preparing experiments to be done, in order to solve open questions. The participants decide the topic of the next seminar.

Why is it important?
This seminar helps to:

- Achieve clean culinary practices
- Promote scientific modelling of culinary practices
- Explore culinary "precision" (*all the advice that is added to the "definitions" of dishes given through recipes*)
- Modernize culinary teaching
- Add a research activity to culinary teaching
- Present new ingredients, methods, and hardware to the culinary world
- And more...

- Mixing order of arak with water
- Whitening effect on "Baba Ghanoush or moutabal"
- Salting eggplants before frying
- Marinating chick peas with sodium bicarbonate
- Browning of different fat sources used in Lebanon



3. Education at bachelor level

On the road of Lebanon's culinary heritage





4. Education at master level





5. Education at school level

✎ Explore culinary transformations from the perspective of technique, technology and science but also from cultural perspective (art, literature, history, society, languages).

✎ Study of culinary sayings regarding dishes from all over the world with a focus on French and Arab countries cuisines. This action was implemented in Doha (Qatar)





Le gâteau courant d'air

كعكة تيار الهواء



Réalisons un délicieux gâteau tunisien sans cuisson à base de biscuits trempés dans du café. Ce gâteau s'appelle « le gâteau courant d'air » ou « khobzet hwé » parce que les aïeules qui n'avaient pas de réfrigérateurs à l'époque le plaçaient dans un endroit frais et aéré, balayé par un courant d'air. Un gâteau typiquement tunisien, idéal en soirée, pour le café et surtout pour Ramadan !

هذه كعكة تونسية تسمى "خبزة كوران دار" و ذلك لأن العائلات قديما لا تملك الثلاجة فكانت تعد هذه الكعكة و تضعها في مكان بارد حتى تتماسك كل مكوناتها و تستطيع بعد ذلك تقطيعها بسهولة و الآن يسميها البعض كعكة البسكويت لأنهم أصبحوا يضعونها في الثلاجة

Protocole de mise en œuvre	1 ^{er} groupe Mélange « travaillé » au fouet 1 plat Réservé à l'air frais T =15°C	2 ^{ème} groupe Mélange « travaillé » au batteur À la même température T =15°C
<p>Etape 1 On a séparé les jaunes d'œufs, on les a placés dans un grand bol, on a ajouté le sucre et on les a travaillé au fouet jusqu'à ce que les œufs blanchissent. On a enfin ajouté le beurre ramolli puis travailler encore.</p>		
<p>Etape 2 Dans un moule, on a superposé les biscuits trempés dans le café, le mélange sucre-œufs-beurre et les fruits secs jusqu'à obtenir une hauteur de 4 couches.</p>		




Deuxième paramètre : La température.



Sur les trois moules restants, faisons varier la température de la façon suivante :

- A T = 2°C plaçons le moule avec le gâteau en bas du réfrigérateur.
- A T = 8°C plaçons le moule avec la gâteau en haut du réfrigérateur.
- A T = 29°C plaçons le troisième moule à l'extérieur de la pièce au cours d'une journée ensoleillée à Doha.

Quels résultats obtient-on ?




6. Continuing education and knowledge transfer



7. Local and International


Locally, this year new in Montpellier Supagro

The TRAD-INNOVATION module addresses the innovation of foods from the food heritage by integrating **multidisciplinary knowledge** with the aim to rediscover, claim local specificities, preserve and improve regional and local recipes and products, whether at artisanal or industrial scale.

CONCEPT – The TRAD-INNOVATION module should make it possible to analyze the **"typicity and authenticity"** of a traditional recipe (historical and heritage aspects) and to consider its **"innovative transformation under constraint"** (for example = adapting a recipe based on meat to a vegetarian consumer target; modify the nutritional value of a recipe for a specific target; modify the consumption methods of a traditional food).

Condensed module over 2 weeks, alternating conferences and learning by project

- **Step 1** - Search for **recipes and traditional products** from a French region (identify several (minimum 4) traditional dishes and explain the choice of one among the 4).
- **Step 2** - **Historical / anthropological** exploration of the selected recipe.
- **Step 3** - Identification of **know-how / variants / nutritional** qualities of the recipe (diversity of recipes).
- **Step 4** - **Creativity under constraint** around the identified recipe (eg food for seniors, food for children, vegetarian diet, etc.), with the same constraint for all groups of students.
- **Step 5** - Transformation of the selected innovative idea into a **technological flowsheet**, with the identification of key technical points.
- **Step 6** - Experimentation in an experimental kitchen to test a **physico-chemical or organoleptic** characteristic of the innovative recipe from a scientific perspective (analytical, sensory).
- **Step 7** - **Presentation** of the innovation project under constraint of a traditional food: exploration of the circle of possibilities.



Blanquette de veau

Esther Blié, Bénédicte Koffi, Jérôme Dumas, Mathis Pellerin

1. Introduction

- La blanquette de veau : une recette traditionnelle française de la cuisine bourgeoise et repas préféré de 28% des Français.
- 1720 : première mention dans un livre de recette.
- A l'origine, servie en entrée avec champignons et oignons pour accommoder les restes de rôti de veau.
- Surnommée "blanquet" par les britanniques, car ressemblant à une couverture blanche.

2. La recette classique

Préparation d'un bouillon contenant : viande de veau, carottes, champignons, oignons, sel et bouquet garni.

Préparation d'un roux avec 50% de beurre et 50% de farine, ajout de jus de bouillon concentré et de crème épaisse mélangée à un jaune d'œuf.

Incorporation des légumes du bouillon, de la viande et de la sauce blanche dans un plat et servir avec du riz.

3. Proposition de rénovation

Une blanquette déstructurée mais qui conserve les saveurs du plat sous une forme plus ludique.

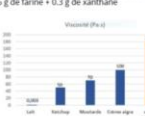
Piquer des boulettes composées de viande, légumes et riz et les tremper dans une sauce blanche.

Un plat à partager pour les plus jeunes après quelques minutes passées au micro-ondes.

4. Précisions culinaires : tests et résultats

Recherche d'une sauce adaptée pour napper les boulettes et suffisamment homogène.

- Test 1: 15 g de farine
- Test 2: 15 g de farine + 2 g de xanthane (si-dessous)
- Test 3: 15 g de farine + 0,3 g de xanthane



La viscosité de la sauce doit être adéquate pour enrober les boulettes de riz.

Le Paris-Brest

TRADINNOVATIONS: Sur la route de notre patrimoine culinaire

BARRILLON Constance, LAPORTE Clémence, RABASTE Romane, ROUAULT Ombeline

OBJECTIF

Réinventer cette pâtisserie pour l'adapter aux enfants !

LA RECETTE

INGRÉDIENTS

- Pâte à choux : œuf, eau, sucre, beurre, farine, sel
- Crème : œufs, sucre, maïzena/farine, beurre
- Craquelins : cassonade, beurre, maïzena, farine

Recette crème pralinée

- Beurrer les jaunes d'œuf et le sucre jusqu'à blanchissement
- Ajouter la maïzena tamisée
- Incorporer le lait bouillant
- Mélanger sur le feu jusqu'à épaississement
- Ajouter le beurre en fouettant
- Laisser refroidir

ANALYSE DE TEXTURE

La crème pralinée ne doit pas couler quand l'enfant croque dedans !

Propriétés visuelles de l'aspect	Texture
10 g de maïzena	Éclaboussure ?
5 g de maïzena	Éclaboussure ?
Pâte de farine et maïzena	Liquide/écoulement
10 g de farine	Faible écoulement ?
10 g de maïzena	Trop compacte

Plus il y a de maïzena, plus le plat est ludique et donc on aime ça !

ANALYSE SENSORIELLE

Plus il y a de maïzena, plus le plat est ludique et donc on aime ça !

Proposition de rénovation : le Paris-Brest pour les enfants

Donut de pâte à choux fourré de crème pralinée et recouvert d'un craquelin. Consommable sous forme de sandwich, idéal pour les enfants.

Crème mousseline profilée forme d'œuf

Pâte à choux

Craquelin croustillant !

REPERES BIBLIOGRAPHIQUES

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- Jean Louis Flaudou, Novembre 2002, extrait livre "La Blanquette de veau, Histoire d'un plat bourgeois"
- "UP agricole les salades de viande", from <http://cuisinegourmet.com/Flaudou/Blanquette>
- Shelley Wang, September 2005, "Blanquette de veau glacée", from <http://cuisinegourmet.com/Flaudou/Blanquette>



Local &.....International

Virtual Food Challenge Day

Street Food (Truck)



Tuesday 12th of January 2021
09:00 a.m. to 05:30 p.m.

l'institut Agro
agriculture • alimentation • environnement



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Context

*Virtual Food Challenge Day
12th of January 2021*

**BIENVENUE à tous
Welcome to All!**

And thanks to COVID 2019

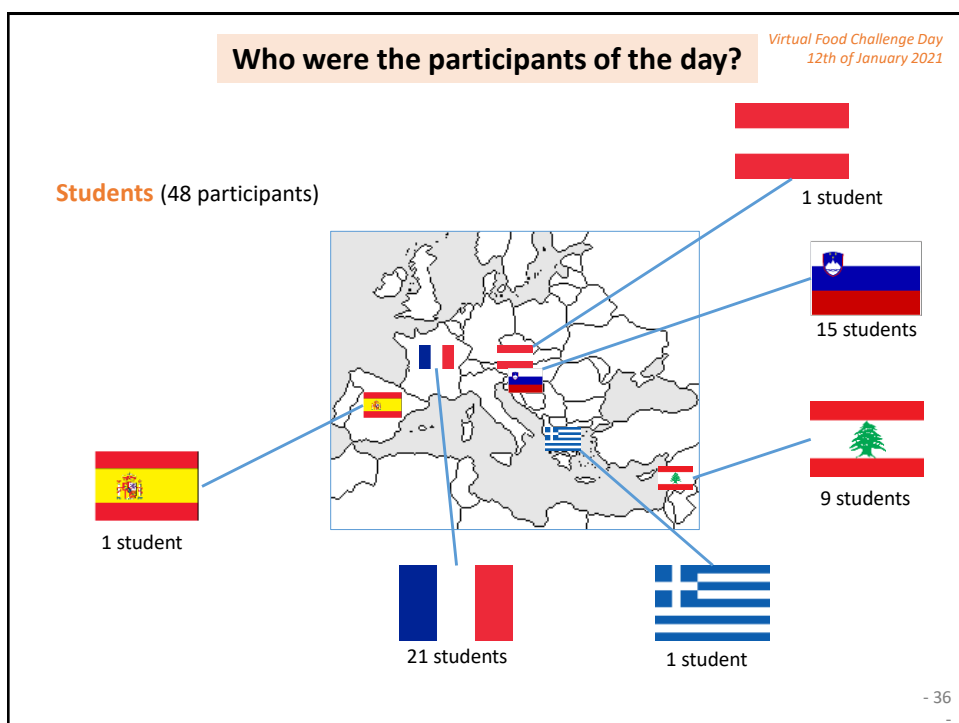
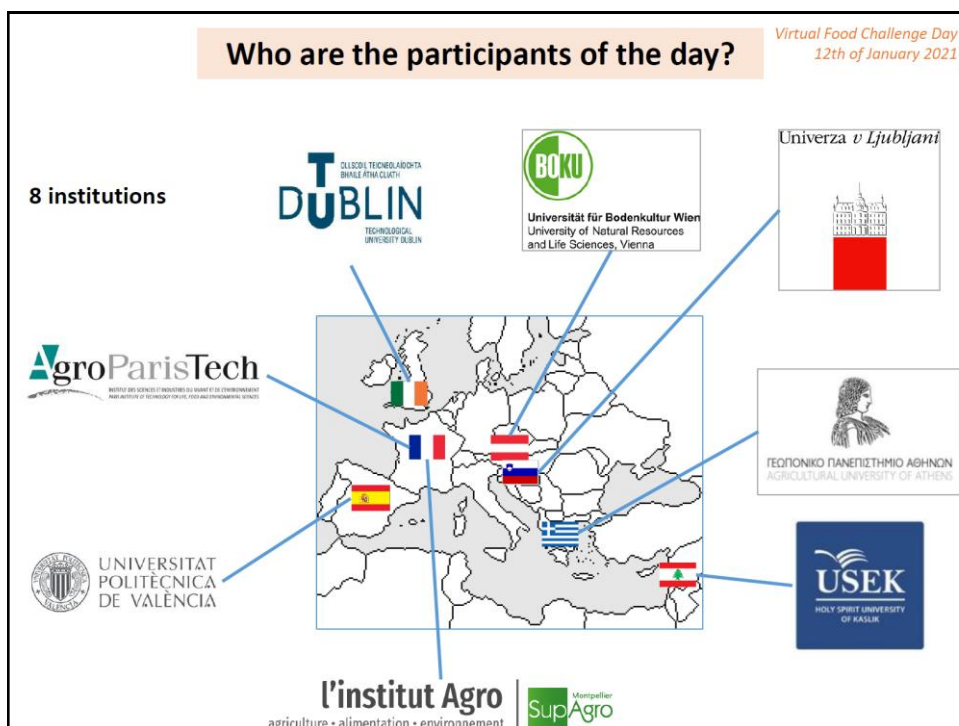
For allowing us to imagine this Day!!!!

- The 2019 COVID crisis is impacting populations and activities.
- The 2019 COVID crisis no longer allows us to teach "as we used to do"
- The 2019 COVID crisis forces us to be innovative in order to continue teaching.
- The 2019 COVID crisis allows us to have very good ideas to continue to interact with professionals and students in the agri-food industry.

This year and due to sanitary constraints, we are turning it into an **unique experience** that can reach your students as well!

- Idea to travel without a visa and without stepping into an airplane? and without taking a covid-test? Food Hackathon
- International contacts : FEEDtheMIND (Slovenia, Spain, Greece, Austria, France) + personal contacts (Lebanon, Ireland, France)

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Coaches, experts and jury members

Virtual Food Challenge Day
12th of January 2021

- **13 coaches, experts and jury members**
- Professors/researchers/pedagogical engineers in food science area



Samar
AZZI
ACHKOUTI



Reine
BARBAR



Marc
BOU ZEIDAN



Róisín
BURKE



Bernard
CUQ



Purificación
GARCÍA
SEGOVIA



Stéphane
GUILBERT



Mojca
KOROŠEC



Aleš
KUCHAR



Claire
MANGANI



Javier
MARTINEZ
MONZÓ



Paloma
POIREL



Hervé
THIS

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The Street Food Challenge

Virtual Food Challenge Day
12th of January 2021

CHALLENGE

Imagine and develop the concept of an innovative food resulting from the fusion of **2 traditional foods from your countries**, for one specific consumption context = "**street food and food truck**".

One emblematic food recipe + One emblematic food recipe
= One innovative Street Food sold in a Food Truck
Fusion of food culture & food engineering



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Virtual Food Challenge Day
12th of January 2021

TEAMS

Team A - Žlinkroflette

Team B - Fala'basa

Team C - štrumita

Team D - Loco cheese

Team E - Chuletta

Team F - Potikish breton

Team G - Traveller eclair

Team H - Pitalafel

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Virtual Food Challenge Day
12th of January 2021

AWARDS

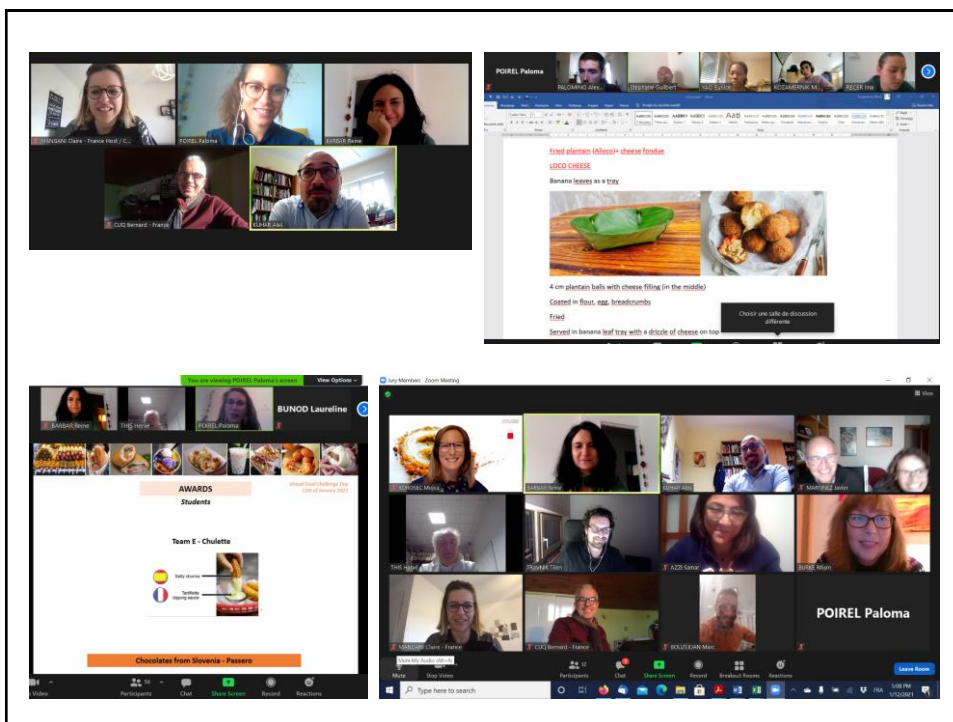
Jury members

1

2

3

40



8. And Now?

FEEDtheMIND



*Food-related European Education in the Digital era
to Motivate Innovative New-product Development*
programme ERASMUS+ 2019-1-FR01-KA203-063034

FEEDtheMIND project intends to demonstrate that the European food education requires a systemic, interdisciplinary approach based on a food innovation education of excellence and a project-based approach.

Duration: 3 years [1/09/2019 – 31/08/2022]

Objectives:

- adapt, test and implement a digital pedagogical platform focusing on the development of an innovative food product;
- facilitate the exchange of pedagogical methods between the different European HEIs partner organisations;
- contribute to the rethink of the curriculum design by enabling HEIs to provide online courses.

Ultimately foster entrepreneurship among students attending food-related degrees.

FIPDes
Food Innovation & Product Design



Funded by the
Erasmus+ Programme
of the European Union

And the group of MG

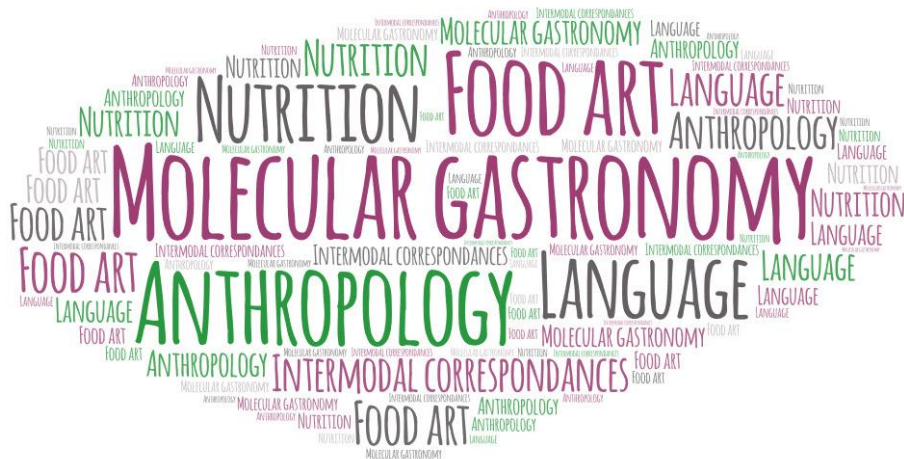
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MAIN THEMES FOR A FUTURE PROJECT



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MAIN DISCIPLINS



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