

Interreg
POCTEFA

Fonds Européen de Développement Régional (FEDER)



UNIÓN EUROPEA
UNION EUROPÉENNE

TRIPyr

Kick-off meeting

25 June 2020, videoconference

Interreg
POCTEFA
TRIPyr



UNIÓN EUROPEA
UNION EUROPÉENNE

Programme

- **14:30** Welcome and presentation of TRIPyr
- **15:00** Presentation of each partner and role & tasks in TRIPyr
- 15:05** ICIQ
- 15:20** MEPI
- 15:35** AIN
- 15:50** SAPOVAL
- 16:05** ECOCENE
- 16:20** CHESO
- 16:35** LHFA
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- **17:30** *Break*
- **17:45** Administrative aspects
- **18:45** Closing remarks

TRIPyr a project of POCTEFA: a European Interreg Programme between Spain-France-Andorra

POCTEFA is constituted of 5 strategic axes:

TRIPyr



- Axis 1: Boost innovation and competitiveness



- Axis 2: Promote adaptation to climate change and risk prevention and management



- Axis 3: Promote the protection, valorization and sustainable use of local resources



- Axis 4: Promote the mobility of goods and people



- Axis 5: Strengthen competencies and inclusion in the territories

TRIPyr OBJECTIVES



TRIPyr aims to offer **innovative solutions** to recover **the residues associated with regional industrial activities**, based on **advanced catalytic methodologies**.

Thus, TRIPyr relates to the recovery of **industrial waste** present on both sides of the Pyrenees linked to the **fatty wastes** and **pesticides** (lindane and derivatives).



Thus, **TRIPyr** participates in improving the quality of the trans-Pyrenean environment through the **transformation of toxic industrial waste and residues** into products with **high added value** (polymers, alcohols and fatty amines ...)



TRIPyr trains young researchers with solid skills in the development of **circular chemistry**, key to the development of an industry that respects the environment.

- 1 communication assistant (ECOCENE), **Emilie Tisné** hired from March 2020
- 1 PhD student (LHFA), **Corinne Trabbia** hired from 1 Sept 2020
- 1 project management assistant (LHFA), **Ekaterina Mamontova** hired from 1 Oct 2020
- 2 post-docs (ICIQ)

TRIPyr CONSORTIUM

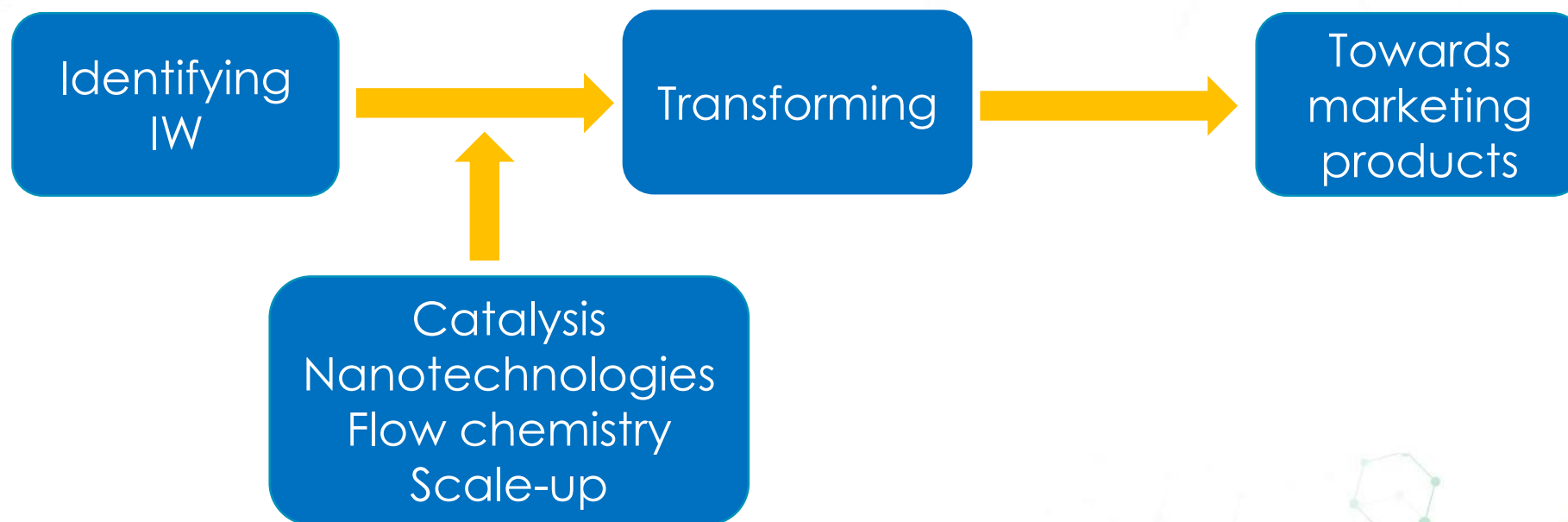
- 6 beneficiary partners
- 1 associated partner

- 3 research labs: **CHESO**, **ICIQ**, **LHFA** (coordinator)
- 2 industrial steering associations: **AIN**, **MEPI**
- 1 communication steering association: **ECOCENE**
- 1 SME: **SAPOVAL**



TRIPyr PROJECT

- **Identify** industrial wastes / by-products (IW) in the POCTEFA regions: **fatty wastes** and **lindane residues**
- **Transform** IW into high added-value chemicals
- **Apply** sustainable approaches: catalysis, nanotechnologies, flow chemistry, batch processes, scale-up
- Towards **marketing products**: scale-up, technical & economic studies, pre-industrialization costs



TRIPyr ORGANISATION



TRIPyr ACTIONS

- **ACTION n° 0:** Proposal preparation
 - 08/03/2016: CHESO-ICIQ-LHFA meeting in Zaragoza
 - 07/06/2016: CHESO-ICIQ-LHFA on-line meeting
 - 30/09/2016: Partners meeting in Tarragona (AIN, CHESO, ICIQ, LHFA, MEPI)
- **ACTION n° 1:** Project management
Responsible partner: LHFA
- **ACTION n° 2:** Communication activities
Responsible partner: ECOCENE
- **ACTION n° 3:** Design of catalysts
Responsible partner: ICIQ
- **ACTION n° 4:** Catalytic transformations of industrial wastes
Responsible partner: LHFA
- **ACTION n° 5:** Valorisation of wastes at pilot scale
Responsible partner: AIN

TRIPyr Action n° 1 - Project management - ACTIVITIES

- **Communication** tasks: emailing, Newsletters coordination, website and social networks coordination
- **Organisation and planning** of meetings
- **Annual scientific and financial reports** (1 September 2020 – 2021 - 2022)
- **Reports of management committee** meetings (trimestral meetings)
- **Ekaterina Mamontova**, hired for the **project management assistant** position, from 1 October 2020.



Ekaterina MAMONTOVA

European Project Support Officer, LHFA

Date of employment: October 1st, 2020

Email before october: ekaterina.mamontova@umontpellier.fr;

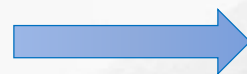
Email after october: [to be communicated](#)

Communication languages:

- English
- French
- Russian



Education Highlights



Scientific Experience

2017-2020

PhD

Institut Charles Gerhardt

Multifunctional

Nanomaterials based on
Coordination Networks



Skills

Synthesis:

Coordination, Inorganic chemistry, nanoscience

Physico-chemistry:

IR / UV-Vis spectroscopies, PXRD, TEM, SEM-EDX, SQUID magnetometry, photoluminescence

Valorization of scientific results

Master

2015-2017

Master in Chemistry and Materials Science
For Energy and Sustainable Development,
University of Montpellier, France

PhD

2017-2020

PhD Student in Materials Chemistry,
University of Montpellier, France

European Project Support Officer

Principal activities

- Monitoring the work plan;
- Participation in exchanges between partners;

- Preparation of newsletters in collaboration with project partners



Coordination of the project

Communication

Participation in research

Project tracking

- Participation in experimental projects (e.g., preparation of catalytic materials)

- Production of activity reports;
- Preparation of financial reports (collaboration with LHFA and CNRS financial managers)

TRIPyr Action n° 1 - Project management - **ACTIVITIES**

- **TRIPyr meetings**

- **Management committee meetings**

- **2-days meetings**

TRIPyr Action n° 1 - Project management - ACTIVITIES

• TRIPyr meetings

➤ Meetings of the management committee

- each 3-4 months in order to discuss about (the first in Sept 2020:

- ❖ Progress of the project: scientific & technical progress, evolution of expenses, indicators (twice per year)
- ❖ Risk analyses
- ❖ Mobility
- ❖ Programme of the 2-days meetings
- ❖ Relationships with the industrial sector
- ❖ Other aspects of interest

TRIPyr Action n° 1 - Project management - ACTIVITIES

- TRIPyr meetings

- **2-days TRIPyr meetings**

- Tarragona (September 2021)

- Cordovilla (May 2022)

Objectives, results and perspectives will be presented through **oral communications by the young researchers** of the project.

Regional and POCTEFA representatives will be invited.

Two external speakers of the consortium, specialists in the fields developed by TRIPyr, including industrial people, will be also invited.

Summer School “Catalysis: from understanding to applications”, Albi, June 2021
(organized by the group of Catalysis@Toulouse)

TRIPyr Action n° 2 – Communication - ACTIVITIES

- **Tools for dissemination** of TRIPyr results:
 - Website design and management, design of TRIPyr documents (slides, Newsletters, poster, letters...)
 - Educational kit for schoolchildren and high school students
 - Writing press articles
- **Scientific dissemination** of the progress and results of the project **to different actors in society:**
 - Educational exhibition for the general public
 - Local relay training
 - Animations on forums
 - Interviews
 - Dissemination of a synthetic booklet

TRIPyr Action n° 3 – Design of Catalysts - ACTIVITIES

- **Metal-based nanocatalysts**, synthesis and full characterization
 - immobilized in a liquid phase
 - immobilized on a solid support
- **Molecular catalysts**, synthesis and full characterization
 - Organometallic complexes
 - Organocatalysts
 - Supported molecular catalysts

TRIPyr Action n° 4 - ACTIVITIES

Catalytic transformations of industrial wastes

- **From fatty wastes**, production of:
 - Polycarbonates, including CO₂ activation
 - Isocyanate-free polyurethanes
 - Polyesters
 - Fatty acids
 - Fatty alcohols
 - Fatty amines

- **From lindane**, production of:
 - Chloro-benzenes (selective synthesis of mono, di, tri-substituted derivatives)
 - Phenols, anilines, thiophenols and aromatic boronic acids
 - Cyclohexylamines and alcohols (Inositol derivatives)

TRIPyr Action n° 5 - ACTIVITIES

Valorisation of wastes at pilot scale

- **Batch**

- Optimisation of parameters up to 20 L for the best transformations developed in the academic labs
- Analysis of the reaction products

- **Process intensification**

- Study of conditions for the processes identified by the academic labs
- Study of analytical techniques for the monitoring of the reactions
- Flow processes at micro- (mL/min) and mesometric (L/min) scale

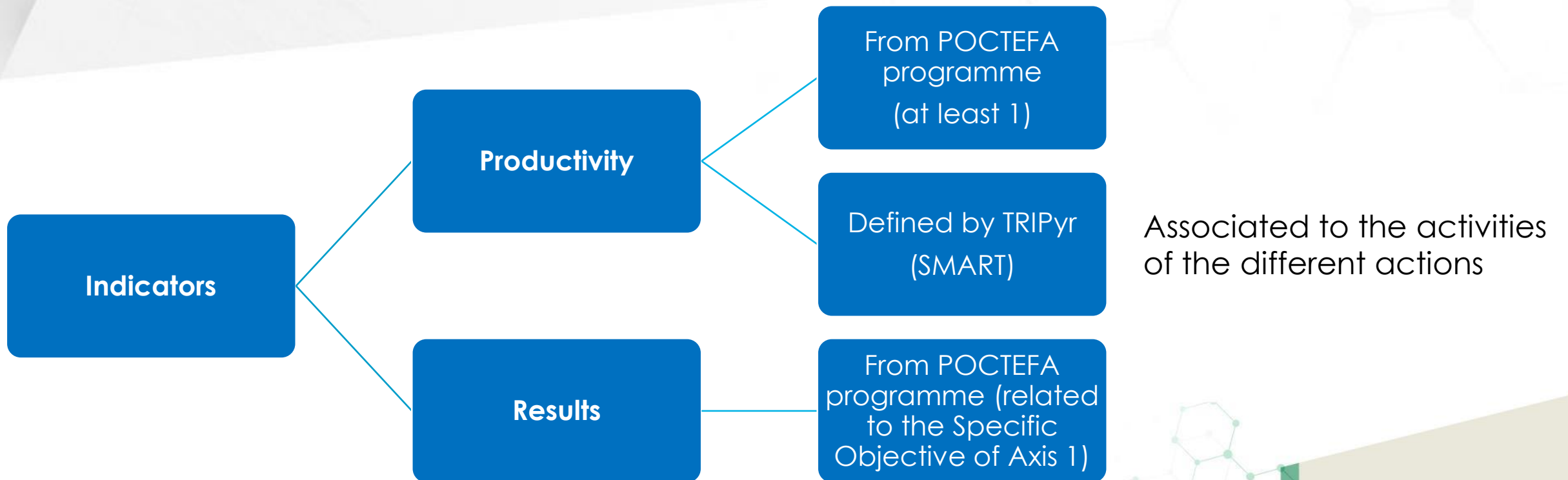
- Technical and economic studies, pre-industrialization costs

- **Training** on scale-up approaches

TRIPyr INDICATORS

POCTEFA webinar: 1 July 2020

- Indicators will be controlled twice per year
- 2 types of indicators:
 - Indicators of results (from the POCTEFA programme)
 - Indicators of productivity (from POCTEFA and own TRIPyr indicators)



ACTION/REALISATON (R)	PRODUCTIVITY INDICATOR	FINAL GOAL
Action 3 / R1 Synthesis of metallic nanocatalysts	Number of metallic nanocatalysts, both in liquid and solid phase	20
Action 3/R2 Synthesis of molecular-based catalysts	Number of homogeneous catalysts, both in homogeneous and polymer-supported phase	25
Action 4/R1 Developpement of polymers	1P2: Innovative technologies to develop the rational use of natural resources	1
Action 4/R2 Obtention of fatty acids, amines, alcools	Catalytic technologies for the transformation of waste into products with high added value	3
Action 5/R1 Optimisation and production of products of added value	Number of processes optimized for the valorization of fatty waste and lindane in the two scale-up modes, in discontinuous and continuous flow	12
Specific objective corresponding to the investment priority of the Programme	RESULTS INDICATOR	FINAL GOAL
Strengthen cooperation between the various players in the territory on both sides of the border in terms of R + D + i	1R1: Agreements between companies and research organizations that have led to the development of marketable products	2
Strengthen cooperation between the various players in the territory on both sides of the border in terms of R + D + i	1R2: Companies benefiting from the innovative tools developed	3

TRIPyr WHO DOES WHAT



TRIPyr WHO DOES WHAT

**Fatty raw material:
analysis, supplier,
marketing studies**
SAPOVAL

**Synthesis of fatty derivatives
(carboxylic acids, amines,
alcohols)**
LHFA

**Fatty
wastes**

**Synthesis of (co)polymers:
polycarbonates –
polyuréthanes**
ICIQ

**Transformations of
lindane**
LHFA, CHESO

Lindane

Catalysts

**Design of (nano)catalysts:
ICIQ, LHFA, CHESO**

**Scale-up platforms
Marketing studies**
AIN (batch)
MEPI (continuous flow)

TRIPyr DEVELOPMENT OVER TIME

04/2020

05/2022

April 2020
ECOCENE
SAPOVAL

Sept-Oct 2020
ICIQ
LHFA
CHESO

Spring - Summer 2021
AIN
MEPI

Each partner interacts with all partners

..... preparation

TRIPyr NEXT MEETINGS and ACTIONS

- Opening **website** June 2020
- **Technical-scientific meeting** focused on raw materials July 2020
- **Management committee meeting** Sept 2020
- **Newsletters** publication from July 2020
- **Young researchers**, start in the lab from Sept 2020
- **Lecture of Prof. Ana Aguiar-Ricardo**
President of EuChemS-Division of Green and Sustainable Chemistry:
general public lecture on Green Chemistry, firstly scheduled 25 June 2020 Oct-Nov 2020

TRIPyr FORMAL & ADMINISTRATION ASPECTS

- **Communication**
- **Control of indicators**
- **Annual financial reports:** 1 September 2020, 1 September 2021, 1 September 2022
- **SIGEFA platform**

... after the break

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TRIPyr FORMAL & ADMINISTRATION ASPECTS

- **Communication**

- Poster
- Stamp
- Others

- **Control of indicators**

- followed by the pilotage committee throughout the year
- POCTEFA agency: twice per year, in January and in September

- **Annual financial reports:** 1 September 2020, 1 September 2021, 1 September 2022

- Our secretary staff, Maryse Béziat and Florence di Clemente, have followed the different webinars.
- Even if we have spent less than 10% of the budget, we have to make the report, but it will not be controlled.

TRIPyr FORMAL & ADMINISTRATION ASPECTS

- **SIGEFA platform**

- Each partner has access to SIGEFA in order to upload all the documents and files related to invoices, purchasing processes, meetings, etc.
- All documents must be written in Spanish or French.
- Practicing SIGEFA