

# Green Chemistry Project Inception Workshop, Brazil 2017

## Perú

*Green Chemistry Project Inception Workshop  
February 13-15<sup>th</sup>, 2017*



## Strategic lines of work

### Sustainable Business

#### **Centre of Eco-Efficiency and Social Responsibility (CER)**

- Resource Efficiency and Cleaner Production
- Environmental financial assistance
- Social responsibility
- Program of support to the public-private sector
- Carbon and water footprint
- Applied research and sectoral policies

### Sustainable Cities and Communities

#### **Sustainable Tourism Sustainable Education Sustainable Cities**

- Some successful projects:
- Project “Buena Voz”
  - Water trust (Aquafondo)
  - Project “Mundo Colca” (Arequipa)

# Current Status of Chemical Industry in Peru

## Chemical status in Peru:

- Imports around USD 11.3 millions per year (Chemicals for mining, agriculture, farming and pharmaceutical sectors)
- Exports around USD 1.3 millions per year (Mainly Polymers of ethylene and Oxides of Zinc to Colombia, Ecuador and the USA)



In 2015, the manufacturing sector represented 14,1% from the Peruvian GDP, including the chemical sector with 2%.

# Current Status of Green Chemistry in Peru

## At Political Level

Peru participated actively in the international negotiations for the adoption of the Sustainable Development Goals, and has also committed itself to its implementation, monitoring and evaluation of the progress achieved.

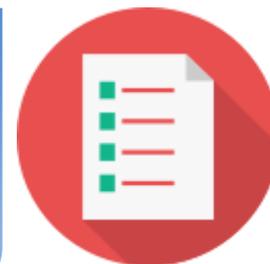


There is still no definition on Green Chemistry incorporated in our National Environmental Policy; however, there are Policy Guidelines related to Chemicals and Hazardous Materials.



Within the priority goals of the National Plan of Environmental Action / PLANAA - PERU 2011-2021, one of the strategic actions is to reduce and control environmental risks in the life cycle of chemicals (SSQQ) and hazardous materials.

The Environmental Performance Assessment is the first evaluation carried out by the OECD in our country and contains 96 conclusions and 66 recommendations relevant for the improvement of environmental performance. This evaluation includes recommendations and conclusions on Waste Management and Chemicals.



# Current Status of Green Chemistry in Peru

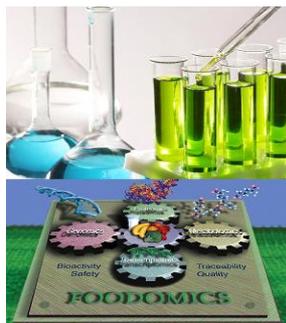
## At Technical Level

### Academy:

The Pontifical Catholic University of Peru has developed a Master Programme in Chemistry whose curricula includes a Green Chemistry course.



**PUCP**



The National Agrarian University La Molina is opening the 1st International Course on Green Chemistry and New Advanced Techniques of Analysis and “Foodomics”.

An example of regulations related to the proper disposal and management of chemicals in Peru is the case of Waste Electrical and Electronic Equipment (WEEE) for which the Supreme Decree No. 001-2012-MINAM has been established. WEEE contains chemicals that are considered as being hazardous.



# Some of our inputs

## At Technical Level

Case studies generated:

Company	Innovations Generated
MIMCO	Minimizing zinc consumption by on-site recovery from skimmings.
FARMEX	Substitution formaldehyde in pesticides formulation.
MATRITECH	A new business model and upgrading of processing technology that involves a take-back system of Point of Purchase (POP) articles after end of life.
AGROCOSMOS	Substitute Nonylphenol ethoxylate.
UNIVERSAL COLORS	Replace hazardous solvents in paints' formulation.



**SOLUCIONES  
INNOVADORAS  
EN QUÍMICOS**

# Expectations and Prospections for Peru

## Green Chemistry Project Prospections for Peru

Create and/or strengthen links between NCPCs and institutions for sharing and spreading experiences and good practices of sound management of chemicals.

Within the ODS, a 2020 target is to achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to the atmosphere, water and soil in order to minimize their adverse effects on human health and the environment.

The principles of Green Chemistry are disseminated and applied in the country

Create an online inter-institutional platform including Green Chemistry's study cases in Peruvian companies.

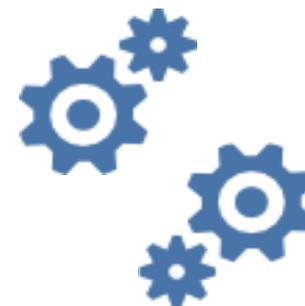
Create a Green Chemistry committee in the National Institute of Quality (INACAL) composed by representatives of ministries, universities and companies, in order to generate technical standards.

Encourage the creation of alliances between industries and the Academy in order to promote research in green chemistry.

Include a program of green chemistry within the curricula of the main universities of Peru.

Create financial trusts for research and projects of green chemistry.

Promote the use of renewable resources for the synthesis of chemical products.



**At Technical level**



Thank you for your attention



**Centro de Ecoeficiencia  
y Responsabilidad Social**