



PROGRAM

Training Course

METHODOLOGY FOR CHEMICAL PROCESS INDUSTRIALIZATION

**Jacky Cheramy (CDP-Innovation)
Madeleine Delamare (Inesco-Conseil)**

2 days

**CDP-Innovation
BuroClub
Tour Part-Dieu
129 Rue Servient
69003 Lyon
France**

Day 1 (M. Delamare)

9h00-9h45	Lecture 1 : Chemical industry Context <ul style="list-style-type: none">- Role and Types of Chemical Industries- Principle of a chemical reaction and characterizations- The different phases of active ingredient development
10h30-10h45	Lecture 2 : Process research phase <ul style="list-style-type: none">- Route scouting methodology- Raw materials selection- Preliminary CoGs evaluation
10h30-10h45	Break
10h45-12h15	Lecture 3 : Process Development Methodology <ul style="list-style-type: none">- Scale-up & Chemical Engineering- Active ingredients characterisations- Effluent management
12h15-14h00	Lunch
14h00-15h30	Lecture 4 : Regulatory environment & Evolution of process development strategy
15h30-15h45	Break
15h45-16h30	Lecture 5 : Industrial Protection Strategy <ul style="list-style-type: none">- Industrial protection- Invention Statement- Soleau envelope- Patent- House secret
16h30-17h15	Lecture 6 : Technology transfer to sub-contractors

Jour 2 (J. Cheramy)

09h00-09h45	Lecture 7 : Design of the industrial plant <ul style="list-style-type: none">- Continuous processes, batch processes- Steps for the design of the batch unit- Required Documents and Methods
10h00-10h30	Lecture 8 : QHSE
10h30-10h45	Break
10h45-12h15	Lecture 9 : Economical aspects <ul style="list-style-type: none">- Cost estimates- Project profitability- Investment costs- Target costings
12h15-14h00	Lunch
14h00-14h45	Lecture 10 : Safe and Sustainable Processes: Environmental Indices
14h45-15h30:	Lecture 11 : Quality Risk Management, QRM
15h30-15h45	Break
15h45-17h15	Lecture 12 : Quality by design Approach