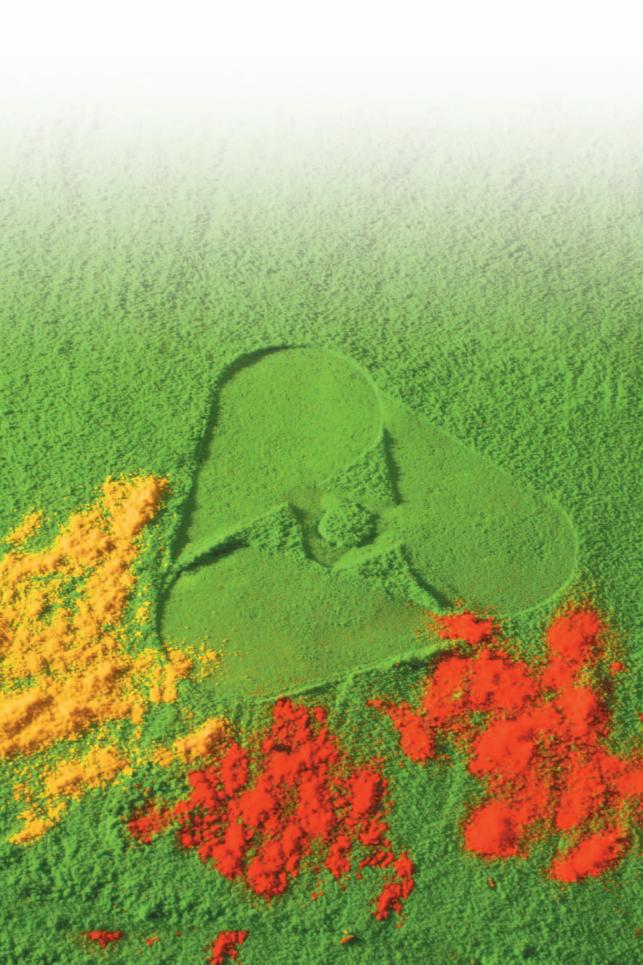


POWDER DESIGNER







# EUROPEAN LEADER YOUR FULL SERVICE POWDER DESIGNER FOR TOLL MANUFACTURING CONTRACTS

The "tailor-made" in low temperature spray drying, agglomeration, micro-encapsulation and coating technologies for the best preservation of active functional ingredients.

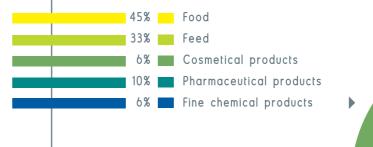
#### RANGE OF MORE THAN 600 PRODUCTS

- flavours
- probiotics
- micro-granulated enzymes
- gel gums
- food supplements
- plant extracts
- vitamins
- APIs and excipients

### WHY DESIGN THE SHAPE OF A POWDER?

- Getting homogenous particle size distribution between 50  $\mu m$  to 3 mm
- Controlling the density
- Reducing the hygroscopicity
- Adjusting the residual humidity
- Making the powder free flowing for easy dosing
- Standardization of wettability
- Instant dispersibility
- No dust powders
- Making direct compressive powders
- Protecting the active ingredients against aggressive environments

#### 78% OF THE TURNOVER IN FOOD INDUSTRY



EXPORT SALES: 28% of the turnover







PLANT EXTRACTS
Low temperature drying
High preservation of functionalities
Control of hygroscopicity
High wettability
Instant dispersibility



FEED ADDITIVES
Alternative to freeze drying technology
Bioavailability
Free flowing powders
Instant cold water dispersibility



HIGH PERFORMANCE ENZYMES
Micro-granulated powders
No dust powders
Free flowing
High preservation of activity
Temperature barrier

LOW CALORIE SWEETENERS
Instant cold water dispersibility
Free flowing powders
Crunchy feeling
Spoon for spoon concept



TEXTURIZING INGREDIENTS
No dust powder
High speed of rehydration
Free flowing
Instant soluble

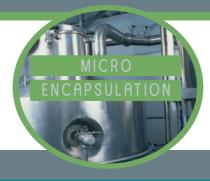


AROMAS AND FRAGRANCES
Micro-granulated powders
Control of essential oils droplets
Oxygen barrier
High stability





NATURAL COLOURINGS
High protection against oxidation
High stability
Extended shelf life



PREBIOTICS
High speed of rehydration
Free flowing
Instant soluble
Reduced hygroscopicity



OILS AND FATS
High fat content powders
Free flowing powders
No free fat release
Protection against oxidation

VITAMINS
Protection against oxidation
Free flowing
Direct compressive powders
High bioavailability



FOOD SUPPLEMENTS
Low temperature drying
High preservation of functionalities
Control of hygroscopicity
High wettability
Instant dispersibility
Hot melt coating



PROBIOTICS
Alternative to freeze drying technology
High preservation of functionalities
Control of hygroscopicity
High revivifiability and extended shelf life
Instant dispersibility
Bioavailability





OMEGA 3 POWDERS
Fish oil rich in EPA and DHA
High protection against oxidation
High stability
Free flowing powders
Taste masking



FATS AND WAXES From 50°C to 90°C melting point Very homogeneous particle size distribution (from 50 µm to 3 mm)



NATURAL MIXED CAROTENOIDS Low temperature process High preservation of functionalities High wettability

#### OPTIMISATION OF PHYSICAL PROPERTIES

- Wettability
- Flowability
- Instant Solubility
- No fine particles

# PRESERVATION OF FUNCTIONALITIES

- Barrier effect
- Taste masking
- Sustained release





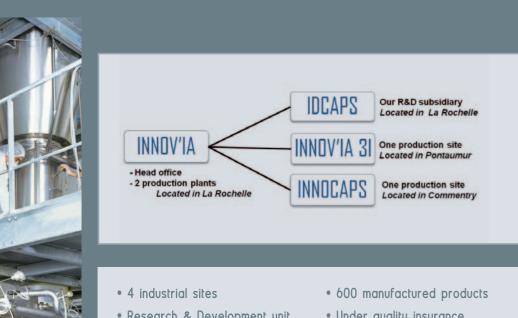
The "must" in continuous processes to obtain regular particles size from  $\,$  20  $\,\mu m$  to 3 mm Drying, Spray Drying, Spray chilling, Spray agglomeration, Coating

# INDUSTRIAL EQUIPMENT

## PROCESSING FACILITIES

La Rochelle (3h from Paris by TGV)

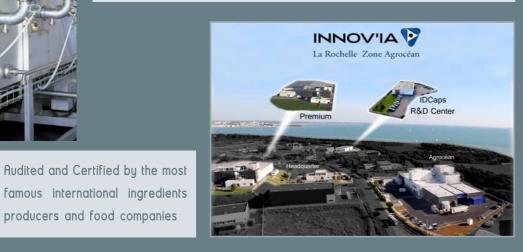
Pontaumur (4h from Paris by Motorway, close to Clermont Ferrand, center of France) Commentry (3h from Paris to Montluçon, center of France)



- Research & Development unit
- More than 150 employees

producers and food companies

- Under quality insurance
- FSSC 22 000







SECURITY

**PRODUCTIVITY** 

QUALITY





