



# Bioentrepreneur Japan Evening

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Profession: Bio-Entrepreneur 2005

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**Comité Adebiotech**

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[www.bio-entrepreneur.net](http://www.bio-entrepreneur.net) &  
[www.adebiotech.org](http://www.adebiotech.org)

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# French Bio-industry : What about the Adebiotech Directory Book

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**It is difficult to define what is/what are biotechnology(ies) and how many French companies could be considered as Bio-Industries**

**The best is to consider OECD definition :**

"The application of Science & Technology to living organisms as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services".

OCDE 2002 (www.oecd.org)



## OCDE Biotechnologies definition (suite 1)

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- **DNA (the coding):** genomics, pharmaco-genetics, gene probes, DNA sequencing/synthesis/amplification, genetic engineering.



# Biotechnologies definition (suite 2)

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- **DNA (the coding):** genomics, pharmaco-genetics, gene probes, DNA sequencing/synthesis/amplification, genetic engineering.
- **Proteins and molecules (the functional blocks):** protein/peptide sequencing/synthesis, lipid/protein glyco-engineering, proteomics, hormones, and growth factors, cell receptors/signalling/pheromones.



# Biotechnologies definition (suite 3)

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- **DNA (the coding):** genomics, pharmaco-genetics, gene probes, DNA sequencing/synthesis/amplification, genetic engineering.
- **Proteins and molecules (the functional blocks):** protein/peptide sequencing/synthesis, lipid/protein glyco-engineering, proteomics, hormones, and growth factors, cell receptors/signalling/pheromones.
- **Cell and tissue culture and engineering :** cell/tissue culture, tissue engineering, hybridisation, cellular fusion, vaccine/immune stimulants, embryo manipulation.



# Biotechnologies definition (suite 4)

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- **DNA (the coding):** genomics, pharmaco-genetics, gene probes, DNA sequencing/synthesis/amplification, genetic engineering.
- **Proteins and molecules (the functional blocks):** protein/peptide sequencing/synthesis, lipid/protein glyco-engineering, proteomics, hormones, and growth factors, cell receptors/signalling/pheromones.
- **Cell and tissue culture and engineering :** cell/tissue culture, tissue engineering, hybridisation, cellular fusion, vaccine/immune stimulants, embryo manipulation.
- **Process biotechnologies:** Bioreactors, fermentation, bioprocessing, bioleaching, bio-pulping, bio-bleaching, biodesulphurization, bioremediation, and biofiltration.



# Biotechnologies definition (suite 5)

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- **DNA (the coding):** genomics, pharmaco-genetics, gene probes, DNA sequencing/synthesis/amplification, genetic engineering.
- **Proteins and molecules (the functional blocks):** protein/peptide sequencing/synthesis, lipid/protein glyco-engineering, proteomics, hormones, and growth factors, cell receptors/signalling/pheromones.
- **Cell and tissue culture and engineering :** cell/tissue culture, tissue engineering, hybridisation, cellular fusion, vaccine/immune stimulants, embryo manipulation.
- **Process biotechnologies:** Bioreactors, fermentation, bioprocessing, bioleaching, bio-pulping, bio-bleaching, biodesulphurization, bioremediation, and biofiltration.
- **Sub-cellular organisms:** gene therapy, viral vectors.



# Adebiotech Directory considers that :

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- ⇒ Companies which produce « **biotechnological products** »,  
=> *But it is difficult to separate companies which :*
  - *try to find a new drug/protein*
  - *to others companies which produce proteins for others companies*  
*ie : enzymes or monoclonal antibodies*
  - *or produce microorganisms, cells, genes, transgenic animals, GMOs, ...*
- ⇒ Other companies could be considered as « **biotech technical services** »
- ⇒ There are also companies using « **a biotechnological process** » **in a chemical production**, (bioconversion, ...) Big Pharma, Fine Chemistry, ...
- ⇒ And also companies which use **biotechnological research** to find a new product which could be produced by a **chemical process**

# In the Directory book we can consider that :

**More than 1000 companies have the Head office in France** (one address per entreprise)

**It is possible to consider that 500 of them are « directly » on Biotechnology.**

- **150** companies « **new Biotech product** »,  
*this product could be, one day, a new drug ! companies need money, patents, ...*
- **188** companies « **Biotech services and technology** »  
they work for other companies (often Pharmaceuticals or Diag) and they need also money ! And some have patents also.
- But there are also others « **old companies** » which produce « **biotechnological products** »  
*(microorganisms, genes, cells, enzymes, named often « products »...)* **35 companies**
- **108** companies producing **new equipments** for Biotech (ex : Apibio, Bionisis, ...) **108 companies**  
*( gene synthesizers, sequencers, ...)*
- **47** companies work on **Green Biotech**, some of them work for Pharmaceutical companies,  
ex : Meristem Therapeutics, Greenpharma, ..
- **5** companies on **Animal Biotech**, ex : Bioprotein,
- **37** companies on **Environmental Biotech and Dépollution**, using biotech process, ex : Néobio Systems

**and other companies** on Advices (64), Cosmetology (13), CRO (11), Drug (107), Fine Chemistry (109),  
Medical Devices & Equipment (44), Food, Pet food (88), Informatics (20 ex : Sibio),



# Have we, in France : 250 or 500 companies ?

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- **If we take, as in all countries, the OECD definition,** which considers the « **old** » and the « **new** » **Biotech,**
- If we take into account that some **Green Biotech** could **be useful for Drug,** (ie Meristem Therapeutics or Green Pharma)  
**or Animal Biotech** (ie Bioprotein)
- Biotechnologies are **INITIALY TECHNOLOGIES** which could be used by industries  
(Drug, Fine Chemistry, Environment/Energy, Agriculture, ...)



# Comité Adebiotech is the result of the merger of ADEBIO and Comité Biotech at the SCI

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Main activities :

- Editing, every two years, a **Directory Book which** includes **ALL the actors of Biotechnology in France** : Companies, public labs, Education, Incubators, organisations, ...(more than 2000 adresses)
- **Organisation of scientific seminars** at the national and international levels in order to promote collaborations and industrial development.
- **Promotion of education and employment.** Diffusion of résumés and job offers.  
...
- **Liaison between all associations** in the field of biotechnology in France, french speaking countries, [European Federation of Biotechnology](#) (EFB) and international (International Biotechnology Federation (IBF) which is managed by the US association [BIO](#)).
- **Delivering specific informations to the enterprises**

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