

## “Bio-Green-Economy”

Albert Einstein, 1954- Motto:

**“The future requires substantially new manner of thinking for the survival of humanity”**



[http://www.ssmic.com/UploadedFiles/image/Workshops/october2009bioeconomy/bioeconomy\\_web3.jpg](http://www.ssmic.com/UploadedFiles/image/Workshops/october2009bioeconomy/bioeconomy_web3.jpg)

The innovative ideas that through science and technology affect social development and help assess the economic direction of the future growth of innovation. Therefore a deep enhancement in sharing innovation and creativity it is necessary for improving new productive and social alternative development; unfortunately most can not perceive clearly this contemporary challenge. As a matter of fact, instead of believing in an opportunity of developmental change, people seem to hope for a recovery of the old industrial development that has founded the basis of scientific knowledge in the reductionism of ancient mechanical ideas, which are diametrically opposed to the need to understand life and its natural evolution. In spite of this, the mechanic reductionism of today, progressively and irreversibly generates “**entropy**” in the environment, **destroying bio-diversity** and with it, the opportunity to sustain consciously, the life of our planet. (1)

The **3\* workshop aims of Quantum Bionet** (2), would indicate a strategy for a new cognitive development and innovation in order to grow a better conscience that requires the overcoming of old ideas of limited mechanical science, because today, the ancient paradigm of science has no more value in promoting the need for an alternative development more appropriate for fostering the future of a **Bio and Green economy**.

***So that the mission of the 3\* QBN Ws. is focused on the following goals :***

- a) Changing the world will become possible only by changing the mechanistic ideas that are the intellectually deep cause of the high devastation of the world during the industrial epoch.**
- b) Developments in cognitive change oriented to an implementation of bio-economy, are necessary to promote the framework for the renewal of a green economy**

### **Some conceptual premises about the emergence of a Bio-Green Economy .**

Limits of classical mechanic-science was explored during the XIX-century by the studies of subatomic quantum particles. Therefore we know that fundamental biological processes that involve the conversion of energy into **quanta** are usable for bio-chemical transformations that are in its nature, based on quantum bio-physics. (3) One of the most important bio-quantum products involves chlorophyll's photosynthesis producing complex bio-chemical reactions that are essential for life processes. (4)

Also, because all living processes are regulated by genetic information, it become necessary to have a radical reinterpretation of biology in terms of "**quantum genetics**" as initiated in the experimental work of the Russian quantum physicist **Peter Gariaev** et al. They have demonstrated that electromagnetic signals are of key importance to understanding the workings of DNA in the regulatory functioning of life. (5)

It is important to remember that a new interpretation of the quantum aspect of life was indicated by the American quantum physicist, **David Bohm** (20 December 1917 – 27 October 1992). his works aim to develop a critical assessment of quantum mechanics through the study of **entanglement of minds**, to elevate the consciousness of people about the importance of quantum biology -transformation. (6)

The basis of the previous research of Gaiaev and Bohm is focused on **quantum entanglement** (7).

Quantum Entanglement was conceived by **Erwin Shroedinger** in 1926 and will better defined as a trasformation of wave-particle duality in the booklet of Schrödinger written in 1935, "**What is Life**". (8)

In syntheses, we now know that traditional Quantum Mechanics accepts the existence of wave-particle duality; hence each quantum has simultaneously both the behaviour of waves and particles that correspond to two diametrically opposed concepts: in fact, a wave extends in a non-local field of space, while single particles have each a definite location.

Unlike with **Entanglement**, in the special condition of trapped particles , the wave-particle duality undergoes a space-time transformation. Indeed, when two or more particles are entangled, two synchronous processes occur: the first is forming an extended field of energy in a new space-time dimension, *where is possible the simultaneity of information*, and thereafter the field of simultaneity of information can be reversibly dissolved, so that again there appear the independent (or localizable) quantum particles. (9)

Therefore simultaneity and synchronicity in the transfer of quantum dynamics can be seen as the most important terms of **quantum entanglement–disentanglement** innovation in quantum physics, that permit developing new concepts getting to the heart of the profound difference between mechanical concepts in classical and traditional quantum mechanics.

At the **3\* Workshop of Quantum BioNet** we will be co-organized with **EGOCREANET** to look for interdisciplinary bridges between science and art to show how the **focus of Nonlocality** of information through quantum entanglement could be of central importance to promote new technologies in a **Bio-and Green economy**, in order to develop new opportunities of growth and for giving a preliminary approach in improving the partnership, reply to the **European call KBBE.2011.4-06 on Bio-Economy Promotion** (10)



**Synchronicity (W. Pauli 1952) Motto:**

**"It would be most satisfactory if physics and psyche could be seen as complementary aspects of the same reality"**

#### **BIBLIO on LINE**

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- (3) - **bio-quantum-physics:** [http://www.edscuola.it/archivio/lre/bioquantum\\_physics.htm](http://www.edscuola.it/archivio/lre/bioquantum_physics.htm)
- (4) - **Photosynthesis:** <http://www.wbabin.net/science/manzelli86.pdf>
- (5) - **Gariaev :** <http://www.emergentmind.org/gariaev06.htm>
- (6) - **Bohm :** [http://www.quantumtransformationcenter.com/what\\_it\\_is.html](http://www.quantumtransformationcenter.com/what_it_is.html)
- (7) - **Entanglement :** <http://www.edscuola.it/archivio/lre/sole.pdf>
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