



Press Release

Gaiago and UniLaSalle create the research and innovation chair *Biomechanisms for Soil Life & Plant Nutriprotection*

Saint-Malo, 14 juin 2021 - Gaiago and UniLaSalle combine their expertise through the *Biomechanisms for Soil Life & Plant Nutriprotection Chair*. This organization, dedicated to innovation, aims to accelerate the agro ecological transition. The creation of the chair was signed on June 10th at the UniLaSalle Rouen campus, in the presence of Philippe CHOQUET, Managing Director of UniLaSalle, Karine LAVAL, Research and Development Director of UniLaSalle, Isabelle TRINSOUTROT-GATTIN, Director of Research and Development in the Aghyle unit (Agro-ecology, Hydrogeochemistry, Environnement & Resources) as well as Jean-Pierre PRINCEN, Chairman of Gaiago and Aude BERNARDON-MERY, Regulatory and Development Director of Gaiago.

Microbiology as a lever for productive and sustainable agriculture

UniLaSalle and Gaiago share the conviction that a better knowledge of microbiology is a major lever for the implementation of the agro ecological transition: healthy, efficient and sustainable agriculture.

The work carried out by the *Biomechanisms for Soil Life & Plant Nutriprotection Chair* will be part of an integrated approach to cropping systems and will focus, in particular, on the microbial ecology of soils and plants, at the root interface and at the phyllosphere.

Holistic management of cropping systems

The *Biomechanisms for Soil Life & Plant Nutriprotection Chair* synergizes two complementary worlds: the academic world and the business world. Gaiago's innovative Agtech solutions and UniLaSalle's research are both based on a holistic approach to agro-systems in the diversity of production methods and crops.

The work of the *Biomechanisms for Soil Life & Plant Nutriprotection Chair* is part of a systemic approach to cropping systems, which addresses all production methods (organic, conservation, reasonable, etc.) and all types of crops. Gaiago represents Agtech innovation and has become a research partner of UniLaSalle. This chair will be made up of a multidisciplinary team of researchers and agronomists.

Understanding the health of the plant through the holobiant concept

In line with the One Health approach - which links the health of soils, plants, animals and people - UniLaSalle and Gaiago are working on a global approach to ecosystems for the benefit of all its parts. This new paradigm is essential in facing the challenges of reducing the chemical inputs used to feed plants while protecting them from disease. It requires a better understanding of the complexity of plant-microbiota interactions.

This approach integrates the interaction of multiple symbionts, from the host and the environment, into a new understanding of the efficient use of nutrients and the etiology of disease in plants. It is thus a question of de-compartmentalizing Nutrition and Protection in the management of crops to address the health of the plant through the

overall concept of Nutriprotection.

From laboratory to field: integrative and multi-scale research

The topics dealt with in the *Biomechanisms for Soil Life & Plant Nutriprotection chair* are based on knowledge in plant, agronomic and microbiological sciences. The experiments will integrate simplified laboratory approaches, miniaturized and controlled ecosystem models and real field conditions. The diversity of the different study contexts is an essential element in the reliability of the scientific approach and the validation of the concept of Nutriprotection.

The Chair has defined 5 work themes:

- Biostimulant & soil fertility;
- Biocontrol & plant health;
- Seed and microbiota treatments;
- Plant phyllosphere and nutriprotection;
- Repository & diagnostic tools for plant health.



For Jean-Pierre PRINCEN, President of Gaiago, *“This chair is a major mark of recognition for the work that Gaiago and UniLaSalle have been undertaking for almost 2 years, in order to write a new chapter in the history of agriculture. This holistic agronomic approach also applies to the agricultural value chain: we are delighted with this involvement of renowned academic partners to accelerate the rise of scientifically proven solutions for the agro-ecological transition for farmers, distributors, technicians, consultants and more generally for the entire sector which has such an important role to play for the future of our food and our planet”.*



For Philippe Choquet, Managing Director of the UniLaSalle Polytechnic Institute, *“We are pleased to enter in to a long-term partnership with the company Gaiago through this collaborative research & innovation program. Dedicated to the knowledge and know-how necessary for agro-ecological and food transitions, this hybridization of our skills should make it possible to invent and assess at different scales, from the laboratory to the field, practical and responsible solutions to sustainably produce and preserve the biodiversity and the functioning of soils for "one health, one planet”.*



For Sébastien Windsor, President of UniLaSalle, *“I am delighted to see the engineering school UniLaSalle, of which I am president, joining forces with the company Gaiago to promote its scientific expertise, for the benefit of the agro-ecological transition of agricultural sectors and in particular biocontrol solutions”.*

About Gaïago

Labelled Greentech Innovation, Gaïago is a Breton company that has been creating innovative solutions since 2014 - based on the activation of microbiology - mainly in soils, but also in relation to the seed and the plant, with a view to revitalizing agro systems.

These products allow for the development and diversification of soil and phyllosphere micro-organisms, thus generating numerous agronomic, nutritional and environmental benefits. Gaïago products are universal and are currently distributed in 8 countries in Europe. Gaïago, a company based in Saint Malo, aims to be the independent leader in soil revitalization.

<https://gaiago.eu/>

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About UniLaSalle

UniLaSalle is an engineering school which brings together energy, digital and ecological transitions and offers training from degree level (Bac + 3) to Master degree level (Bac + 6). UniLaSalle has 4 campuses (Amiens, Beauvais, Rennes, Rouen), 3800 students and 20,000 alumni. Its research is structured around 7 research units, 6 corporate chairs, 12 technological platforms and other innovation centers. The scientific themes, revolving around the challenges of sustainable development, accompany the changes in the sectors and territories.

The UniLaSalle Rouen campus trains engineers in the fields of agronomy and agro-industry. The research activities carried out there contribute to systemic thinking for agro-ecological production, taking into account soil/plant/microorganism interactions (AGHYLE), but also the human dimension that is essential for accompanying transitions (INTERACT). Lastly, UniLaSalle is innovating for the environment through the non-food valorisation of agricultural resources and co-products, particularly in the form of bio-sourced materials (UTA-VAM2IN) in the context of the circular economy.

The school is part of the La Salle global education network which includes 72 universities worldwide.

UniLaSalle is a member of the Conférence des Grandes Écoles and has the EESPIG label.

<https://www.unilasalle.fr/aghyle>

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