BIOBASED INGREDIENTS
FOR **FOOD**

VITAFYREN™

Innovative solutions for Natural food

AFYREN

GLOBAL CHALLENGES

As pressure on Resources continues to increase, our planet's biocapacity is gradually shrinking. Because of the ever increasing gap between demand and supply of natural resources, we would need the equivalent of 1.7 Earths to meet our current needs.

Today, it takes

1.7 Earths

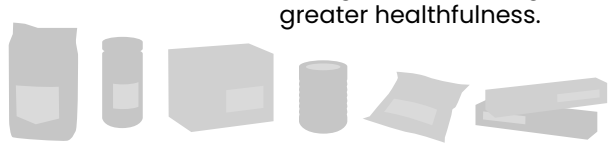
to meet our resource needs

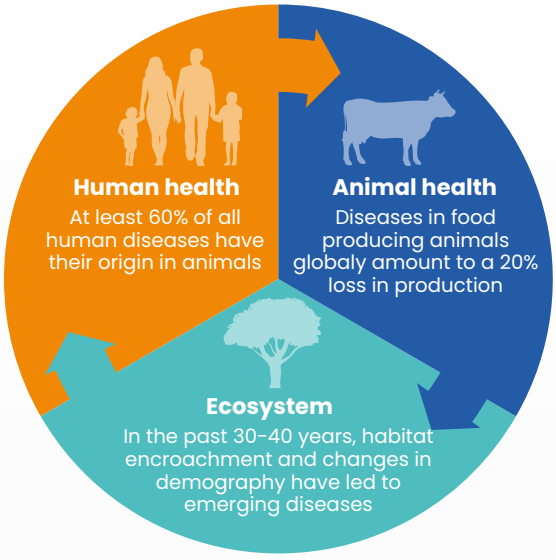
The global population keeps growing and should reach **11.2 billion people before the end of the century.** One of the consequences will be an increase in demand for food and more **specifically food of animal origin**.

Consumers all over the globe are becoming more aware about the ingredients in their food products and have actively started scrutinizing product labels.

11.2 billion people before the **end of the century**

6 out of 10 consumers feel that **"clean claims"** on ingredient lists align with greater healthfulness.





Increasing awareness of consumers about health benefits of natural and organic products.

People are ready to pay more for products that demonstrate socially and environmentally responsible practices.

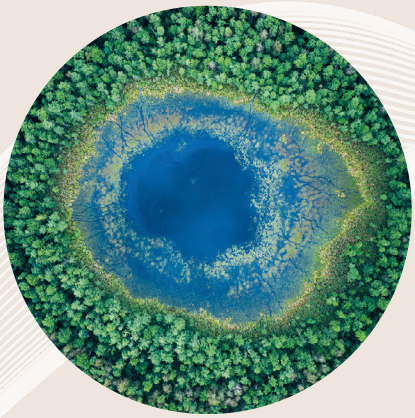
Clean labeling results of the booming interest in consumers for allergen free, minimally processed and natural food ingredients.

AFYREN'S COMMITMENTS

Afyren offers solutions that mitigate the impact of complex global problems and contribute to the development of a better balance between human needs and environmental ressources.

Reduce waste and optimize circularity

Limit climate change



Preserve natural resources and biodiversity

DECARBONATION OF PRODUCTION AND CONSUMPTION

- GHG emissions reduction
- Replacement of fossil resources

NATURAL RESOURCE PRESERVATION

- No additional land use
- Highly renewable resources
- Natural fermentation process
- Low water consumption

WASTE REDUCTION AND FOSTERING CIRCULARITY

- Zero industrial waste
- Use waste or by-products as raw materials

TERRITORIAL REVITALIZATION

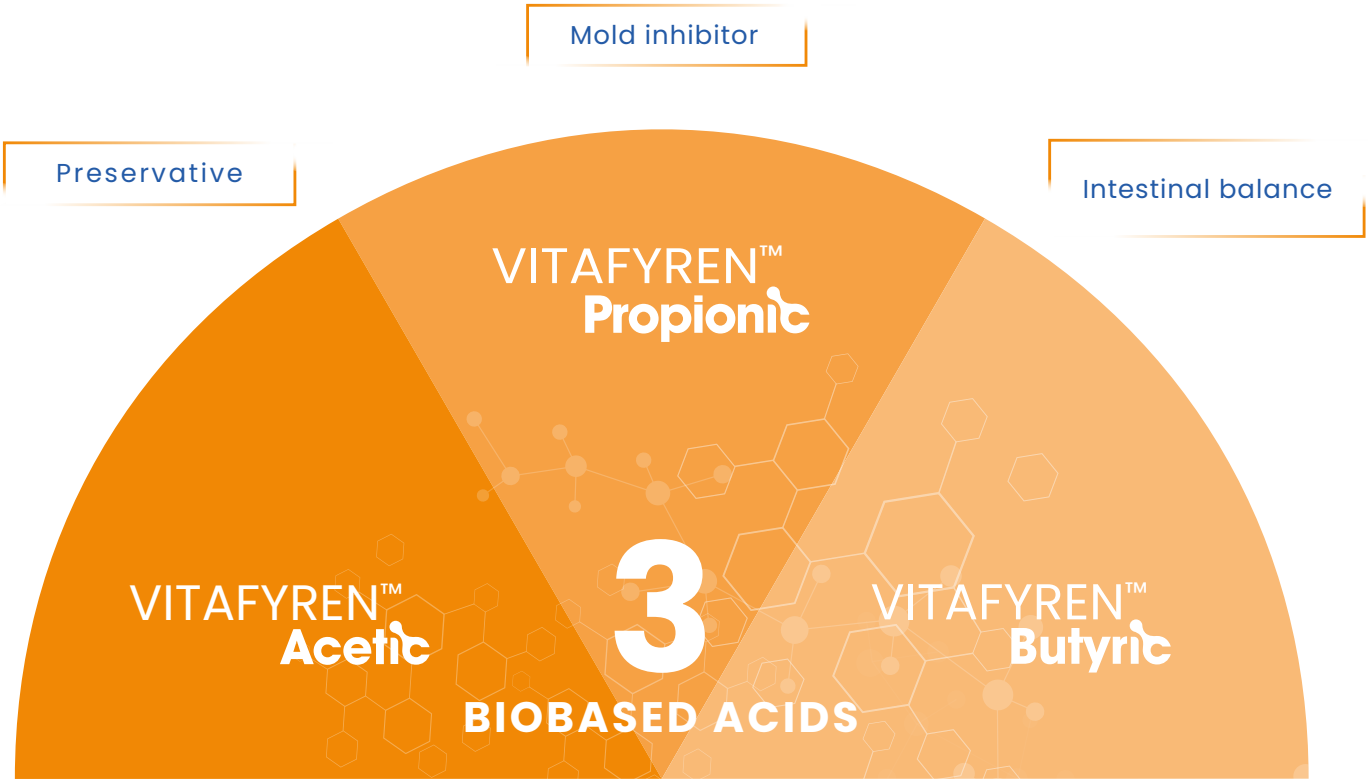
- Conversion of existing industrial sites
- Local value chains
- Employment

VITAFYREN™'S 100% **BIOBASED**

Unique high quality biobased acids with properties of mold inhibitor and preservative for for food ingredients.

All **VITAFYREN™ acids** are produced locally in Europe via a lean process, based on renewable natural raw materials and benefit from a high level of purity.

With VITAFYREN™, AFYREN offers **a relevant range of 3 biobased acids**.



FOOD SAFETY

SOLVENT RESIDUES	Compliance to good practices of 2009/32/CE.
PESTICIDE RESIDUES	Absence of pesticide residues as listed in Annex II of (CE) No 396/2005 regulation controlled.
FOOD ALLERGENS	Raw materials and products used in AFYREN's process neither contain nor come into contact with peanuts, soybeans, milk, eggs, fish, shellfish, tree nuts and/or wheat or gluten. AFYREN has no reason to expect that any of these compounds would be present in AFYREN products.
FSSC 22000*	The factory will produce acetic acid according to the FSSC 22000 Standard, guaranteeing food safety.
KOSHER*	AFYREN will be Kosher certified for the future plant and guarantees that acetic acid contains no ingredients of concern.
HALAL*	AFYREN will be Halal certified for the future plant and guarantees that acetic acid contains no ingredients of concern.

*Certification will be implemented for the manufacturing site

C2

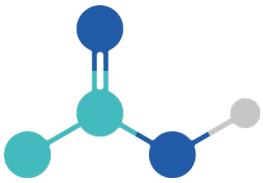
Pickled vegetables,
salt & vinegar type chips

C3

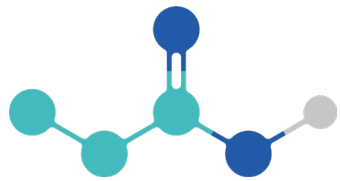
Bakery products
(bread, doughs...)

C4

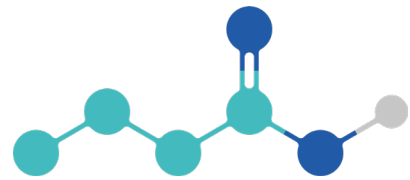
Nutritional supplements
for intestinal health



VITAFYREN™ Acetic



VITAFYREN™ Propionic



VITAFYREN™ Butyric

DID YOU KNOW ?

- Acetic acid is the main component of vinegar and gives, for instance, the characteristic sour taste to salt and vinegar potato chips. It also plays a important role in the conservation of vegetables.
- Propionic acid acts as a natural antimicrobial and mold inhibitor that allows for an extended shelf life of bakery products. As such it contributes to the reduction of waste in retail and grocery stores.
- Butyric acid is naturally found in dairy products such as milk and cheese. It contributes to good intestinal balance for infants as well as grown-ups.

Nature is the future.

Now, more than ever it is time to move forward together toward a sustainable, competitive, innovative industry, combining ecology and economy.
With its biomimetic process and its of range of seven 100% biobased acids, AFYREN is revolutionizing the world of chemistry, opening up a range of possibilities for innovation, new products and carbon footprint reduction.

JOIN THE AFYREN INITIATIVE AND SEIZE NEW OPPORTUNITIES FOR COMPETITIVENESS.

AFYREN

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