PROAM
PROFESSIONAL
ADVANCED
MANAGEMENT

Presents

Holistic Agri-food Integrated Complex - HAFIC

CONCEPT & FORMAT

SHORT PRESENTATION

(extracted from pre-feasibility study)

HOLISTIC AGRI FOOD INTEGRATED COMPLEX
HAFIC

2023, MAY 15 REV 06

This dossier based on concrete and controlled data, was created to promote and make possible the production of Food and Livestock for human and animal nutrition, in desert and arid areas, both near and far from the coasts.

All the documents reported are a representative selection of a complete and complex study carried out by the authors available upon request for evaluation

However, it is possible to use our Concept also in climatically and geographically different areas, creating new formats by adapting costs, parameters and yields according to the actual local situation and according to the available arable area.

It is also possible to build it modularly, to adapt it to the number of inhabitants and users actually involved.
Our concept is based on the primacy of synergy between the various sectors involved but from time to time the various parameters must be evaluated, defined and calculated so that the synergy is always effective both from a technical and economic point of view.

A NEW MODEL OF LIFE STYLE
A NEW MODEL OF BUSINESS

- ✓ From and for human values
- ✓ From human intuition
- ✓ Through continuous development of innovation
- ✓ With faith in science and technology
- ✓ Respect for natural resources
- ✓ Respect for the environment
- ✓ From and for the enhancement of human resources
- ✓ From the valorisation of scraps and waste
- ✓ From and for the ethical concept of business

THE BASE LINE VALUES

MAIN PRODUCTION SECTORS

1. FISHING FARM
2. BOVINE BREEDING AND FEED PRODUCTION
3. FRUIT AND VEGETABLE PRODUCTION
4. BREEDING OF CHICKENS, SAYING HENS AND EGG PRODUCTION

COMPLEMENTARY AND FUNCTIONAL SECTORS – FACILITIES

TRANSFORM IN TO NEW BUSINESS

A. Forage production
B. Waste treatment
C. Food Processing - Processing plants
D. Electrical Energy Production
E. Desalination and Water Production Plant
F. Syn gas and Biofuel production
G. Employees accommodations

INTEGRATED SERVICES

TRANSFORM IN TO NEW BUSINESS

1. SCHOOL AND TRAINING
2. HOTEL AND ACCOMODATION
3. SHOPS
4. RESTAURANTS, FAST FOOD, BAR
5. RESIDENTIAL COMPOUND

OTHER SECTORS THAT CAN BE DEVELOPED AND SYNERGISTIC:

1. TIRES FROM TIRES
2. BUILDING MATERIAL FROM WASTE
3. CLOTHING FROM AGRICULTURE WASTE
4. BIO FUEL FROM WASTE
5. PROCESSING PRODUCTS FROM PROCESSING WASTE
6. DAIRY PRODUCTS MILK CHAIN
7. RESIDENTIAL COMPOUND

PERMANENT RESEARCH LAB

AN ESSENTIAL PART OF THE PROJECT WILL BE THE CREATION OF A PERMANENT RESEARCH LABORATORY IN WHICH MAJOR EXPERTS AND INNOVATORS IN THE FIELD OF AGRICULTURE FROM THE BEST UNIVERSITIES AND THE MOST ADVANCED ENTREPRENEURS IN THIS FIELD.

ALL THE TECHNOLOGIES SHOWN IN THIS DOSSIER ARE NOT EXPERIMENTAL OR PROTOTYPAL BUT ARE VERY INNOVATIVE AND IN USE IN DIFFERENT SECTORS WITH EXCELLENT RESULTS.
OUR CAPACITY IS TO OPEN NEW PROCESSING METHODS AND PROCESS OPTIMIZATION

SECTORS AND FACILITIES

CREATING ECONOMIC EFFICIENCY THROUGH THE SHORT CHAIN

1. KM 0 DIRECT SALE
2. SALE IN DIRECTLY MANAGED STORES
3. SALE THROUGH GDO ONLY REDUCED PERCENTAGE

- The Holistic Agro Food Integrated Complex is «Environmentally Sustainable» with a very **LOW CARBON FOOTPRINT NEAR ZERO**.

- Either agricultural and breeding processes or the life quality of the Complex are in full compliance with the paradigms of the **GREEN AND BLUE ECONOMY**.

- The 100% of the available **WATER** comes from desalination of the sea water, and/or desalination of the underground brakish water and/or sweet water of the local water table.

- The agricultural production, as well as the meat, eggs and fish production, presents the **LOWEST CONSUMPTION OF NATURAL RESOURCES** at worldwide level for arid Countries, with a very competitive performance in terms of LCA (Life Cycle Assessment).

- The project proposal is inclusive of a full «**CIRCULAR RE-USE» OF WASTES AND RESIDUES** of the Complex, either from agriculture and livestock activities or from the Urban Solid Waste and Dirty Urban Water.

- This «**CIRCULAR ECONOMY**» is allowed through patented special **ITALIAN TECHNOLOGIES** of the last generation.

- the **RURAL MANAGEMENT** allows a perfect distribution of resources, crop rotation, water management, soil work with mechanical machinery, distribution of agricultural crops and animal breeding in specialized units.

- **MODULAR** According to specific needs or requirements a modular solution of the base complex can be elaborated upon.

- **SITE INSPECTIONS** In order to prepare e detailed plan an in depth site inspection is mandatory. the cost of which is borne by the client.
- Further details follow in the LOI and the final Agreement.

WATER :

POTABLE = FROM THE SEA BY DESALT PLANT
- IONIC RESINS
- COALESCENCE FILTERS
- SANITIZATION WITH OZONE
FROM AIR BY CONDENSATION

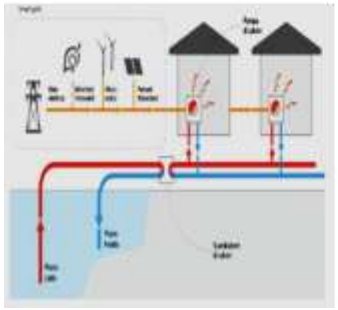
DRAINS = FROM THE SEA / WELLS BY DESALT PLANT
CHEMICAL, BIOLOGICAL AND MECHANICAL SEDIMENTATION
AND SANITIZATION WITH OZONE
FROM AIR BY CONDENSATION
REUSE DRAIN WATER FOR IRRIGATION

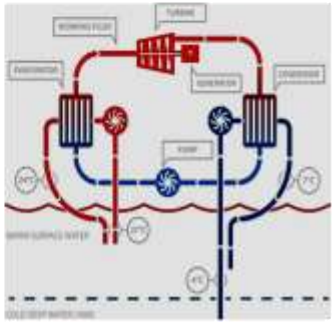
HOT WATER = SOLAR PANEL
ELECTRICAL HEAT POMP
IDRO – GEO THERMAL ENERGY
BIO REFINERY

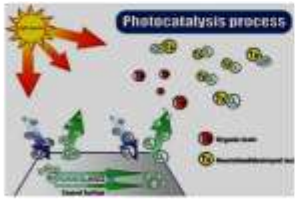
ELECTRICITY :
- PHOTOVOLTAIC SOLAR PANEL
- WASTE MANAGEMENT
- BIO DIGESTOR

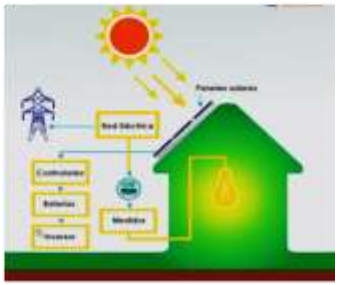
AIR CONDITIONING
- IDROTHERMAL FROM THE SEA
- ELECTRICAL HEAT POMP

PHOTOCATHALYTIC
PAVERS AND WALL





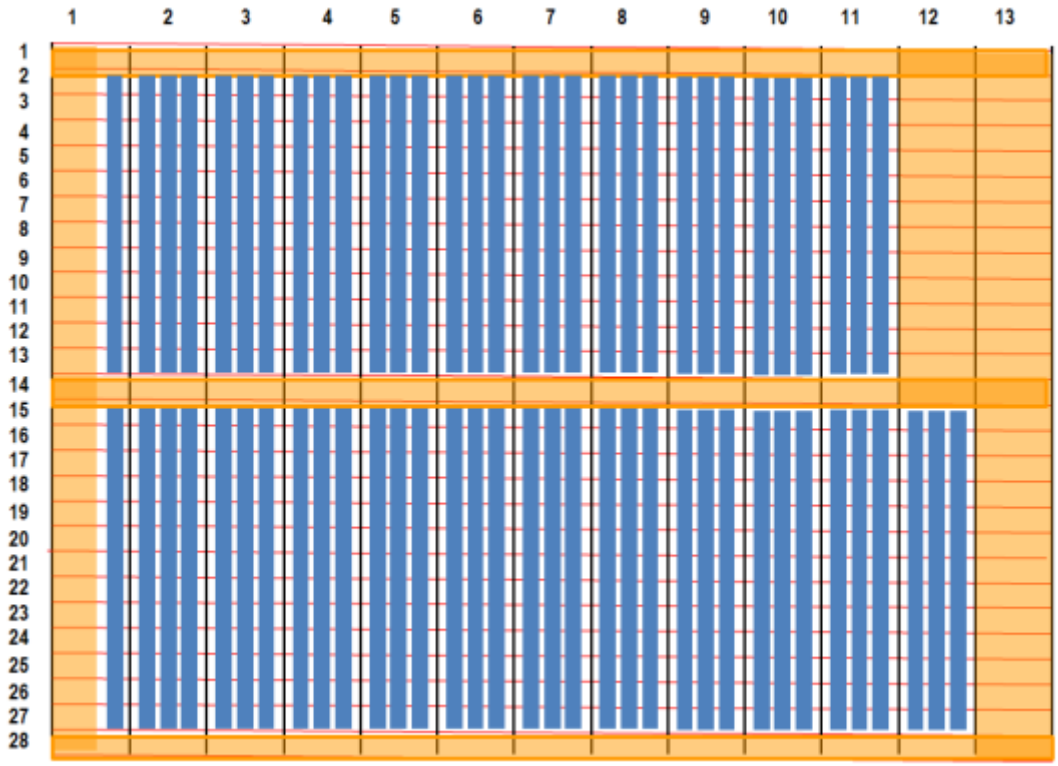


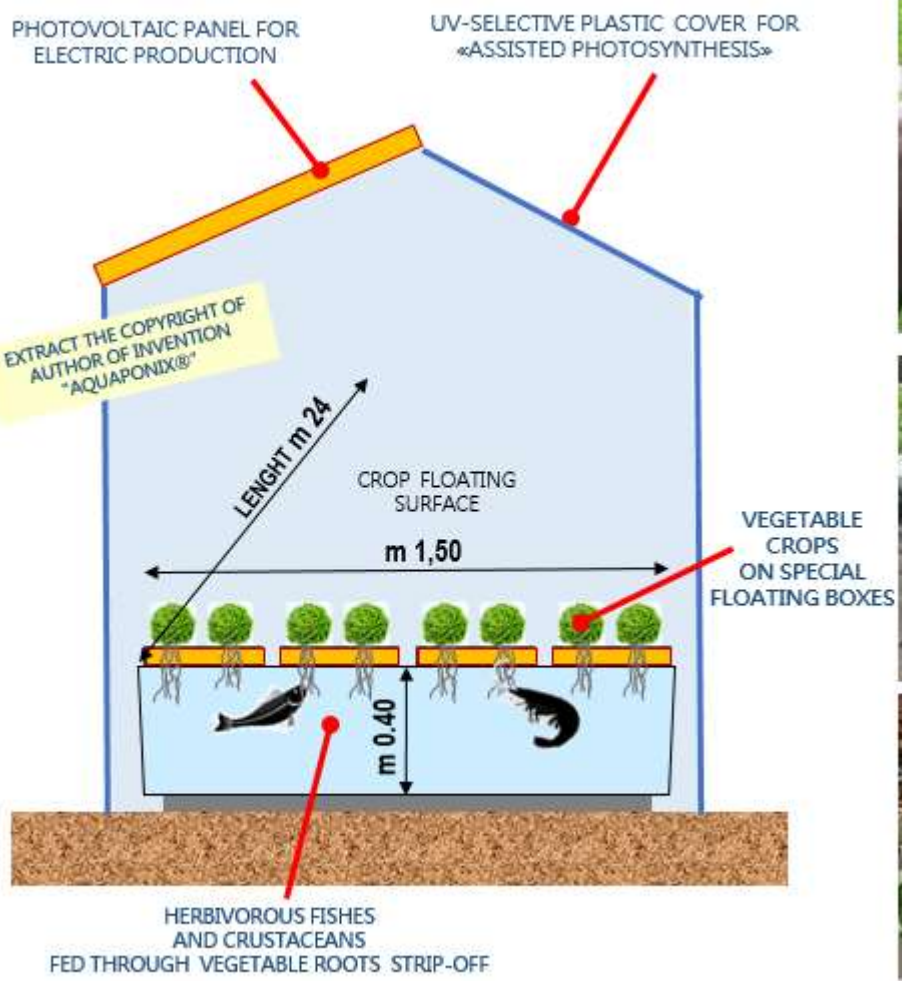


THINK GREEN APPROUCH

N ° 13 inter-pillar spaces with pitch from 9.58 m to 124.7 m

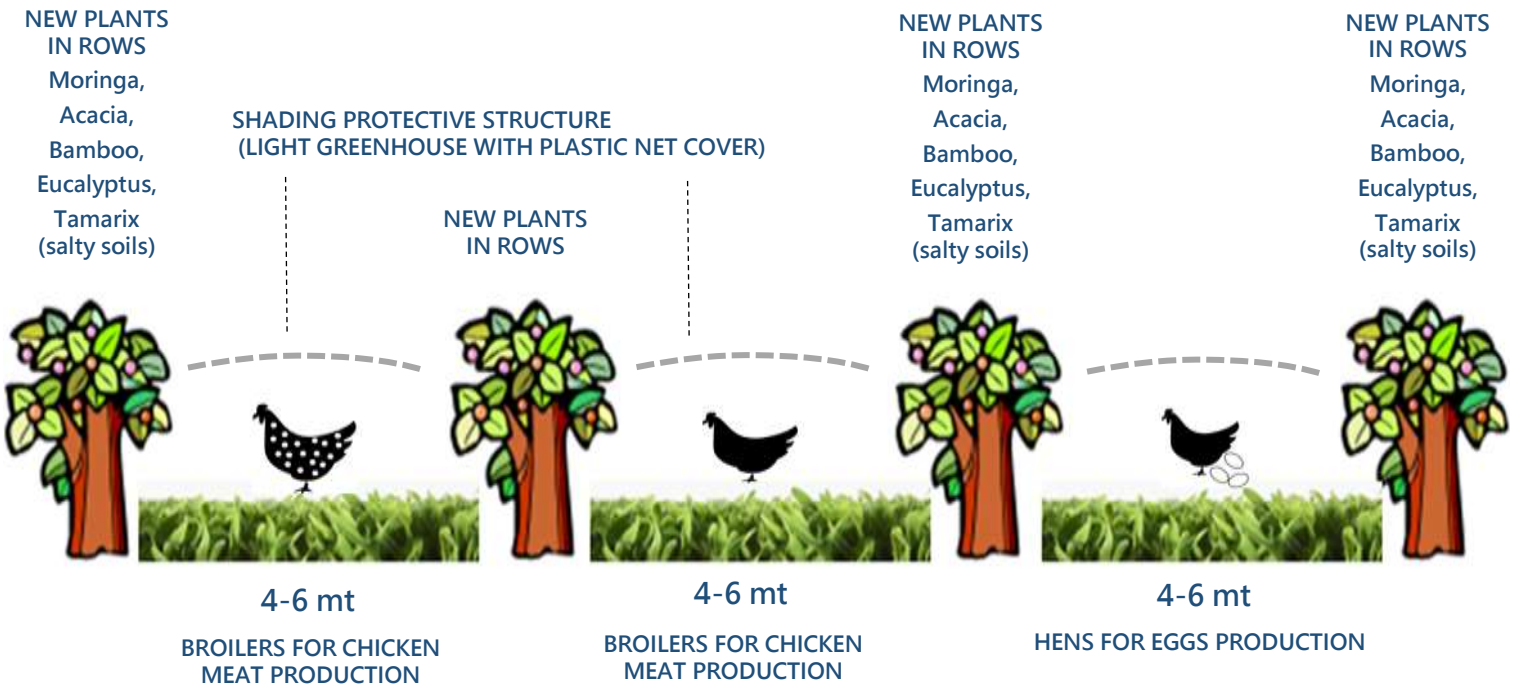
N ° 28 inter-pillar spaces with pitch from 4 m to 112 m





The rooting system of healthy and tasty salad plants in «Aquaponix» soiless floating crops

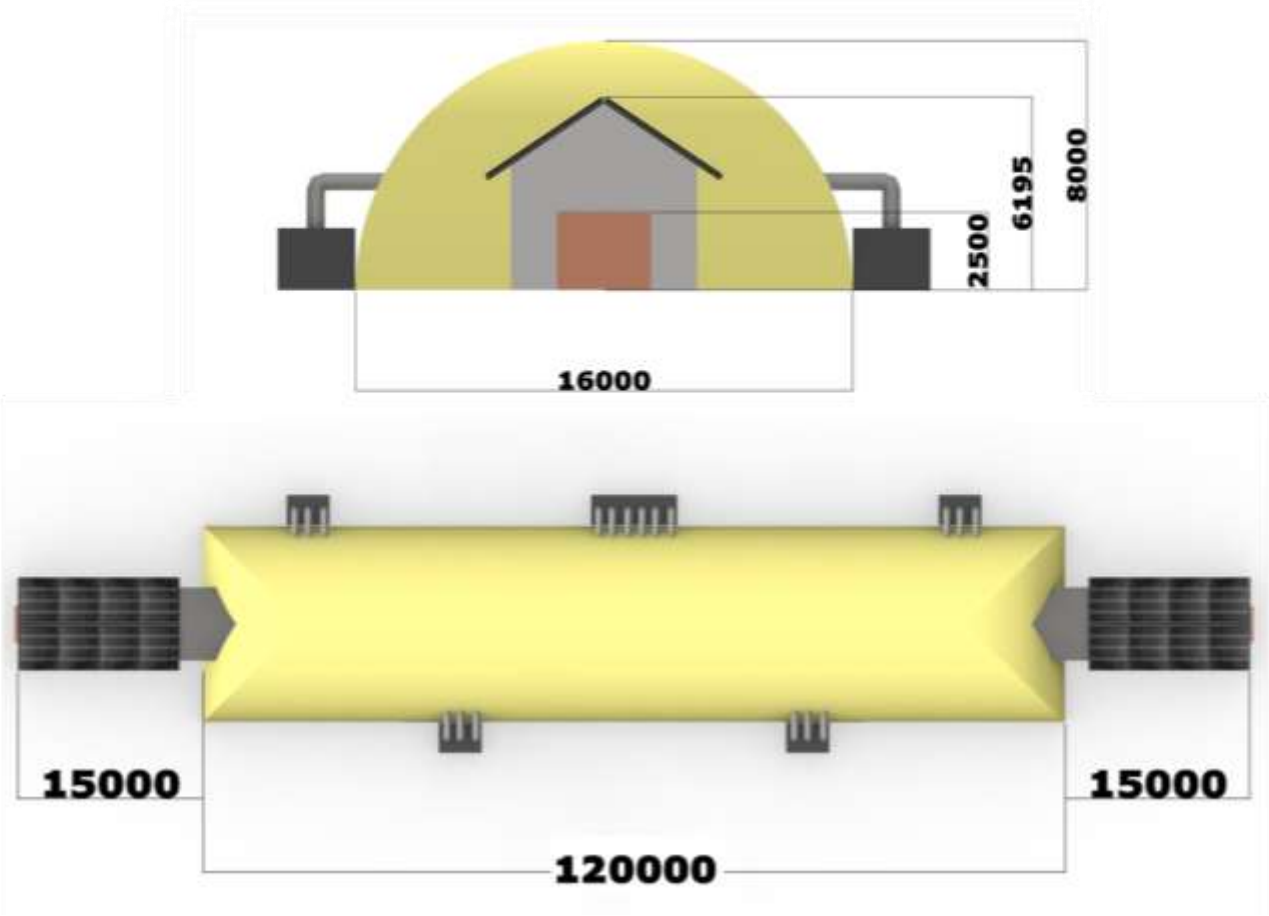
View of special boxes for salad production of «Aquaponix» soiless floating crops



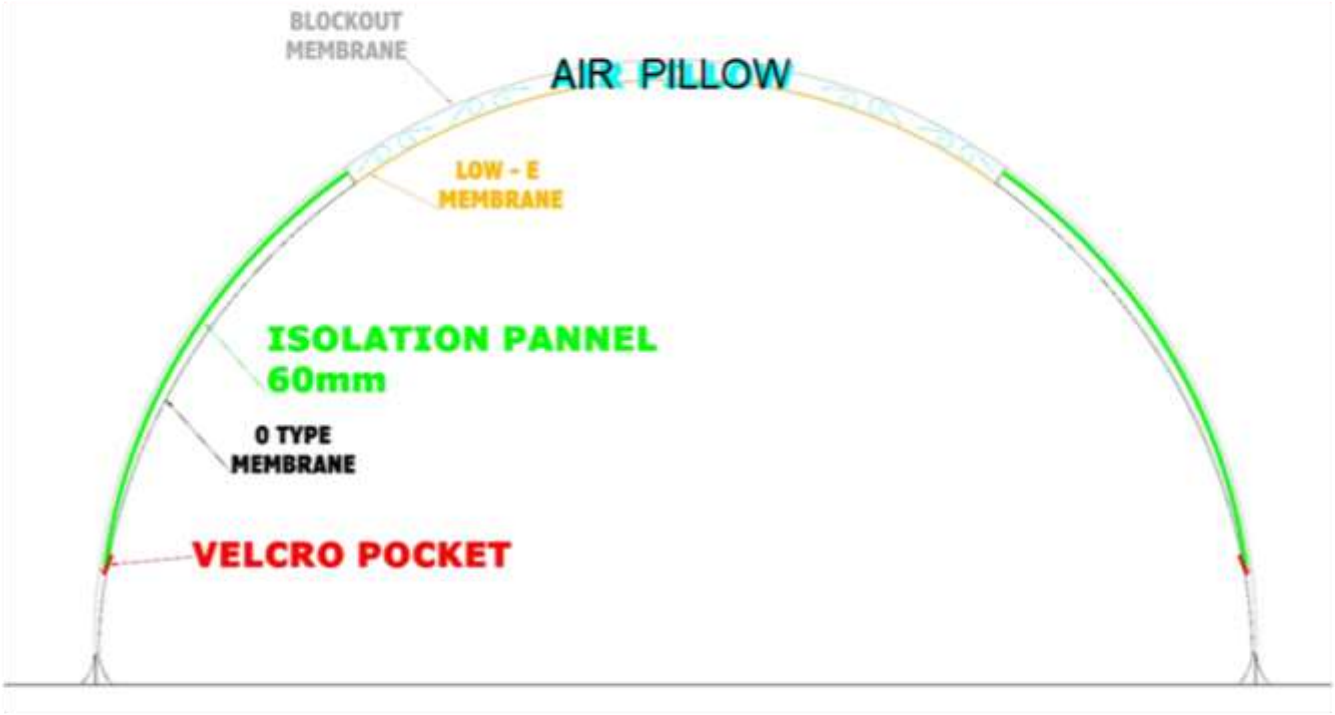
INNOVATIVE SUSTAINABLE ETHIC PRODUCTION
OF CHICKEN MEAT AND FRESH EGGS
FROM ANTIBIOTIC-FREE AND OPEN-AIR BREEDING UNITS
COUPLED TO SHRUBS & TREES PLOTS

Dimensions

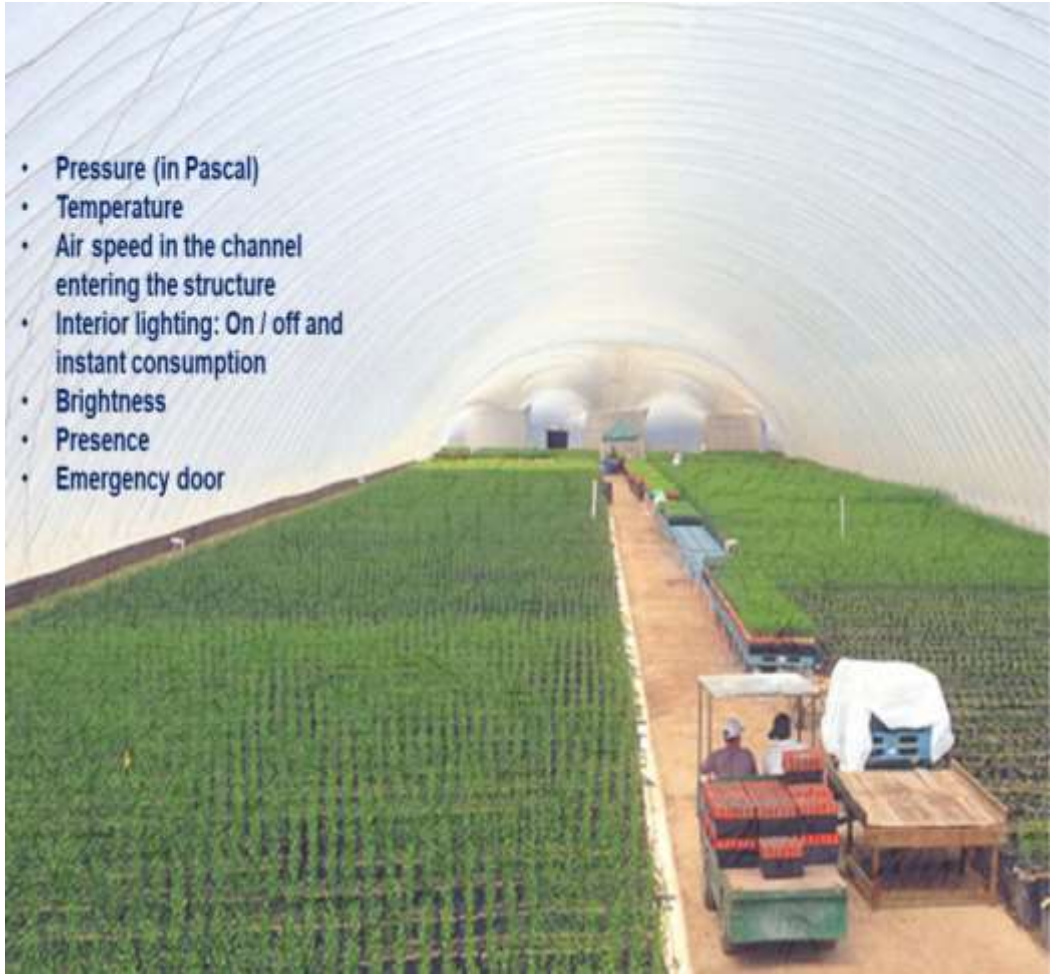
Airdome description - Pressostatic Climatised Greenhouse

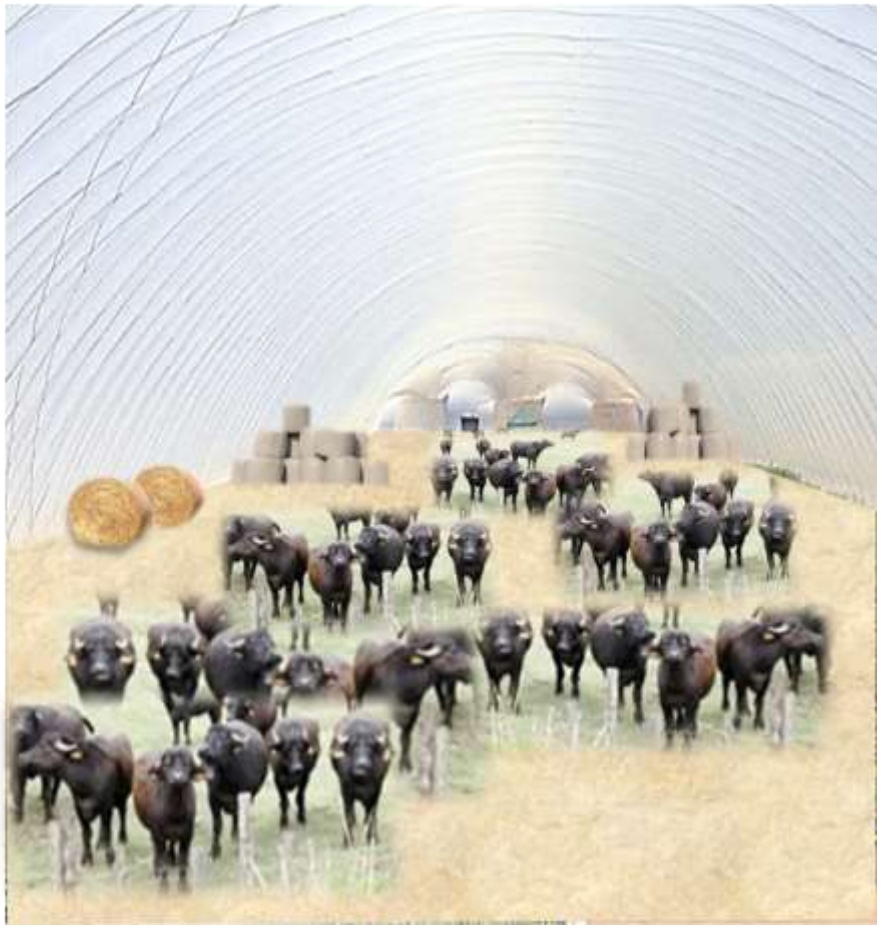


Technical specifications – membrane layers



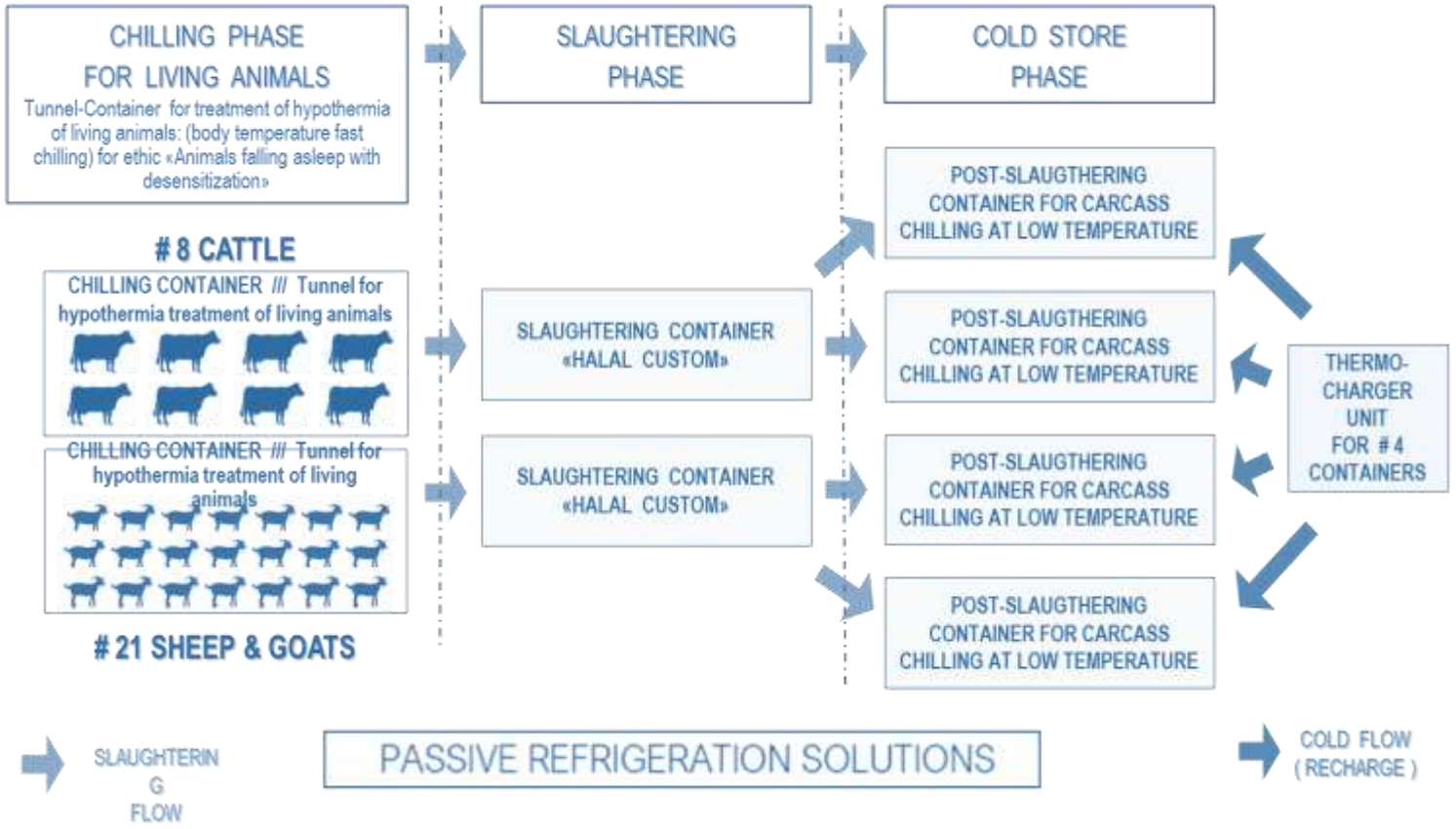
There is a gap on the top of the structure that allows the lowering of the temperature of the external membrane through the inflow of fresh air.


• Pressure (in Pascal)
• Temperature
• Air speed in the channel entering the structure
• Interior lighting: On / off and instant consumption
• Brightness
• Presence
• Emergency door



BUFFALOES & COWS BREEDING AND FODDER SILAGE references

SCHEMES OF THE « CONVEYABLE & CONTAINERIZED SLAUGHTER HOUSE »



GENERAL SCHEME

81,9% Energy Saving

Horticultural Logistics

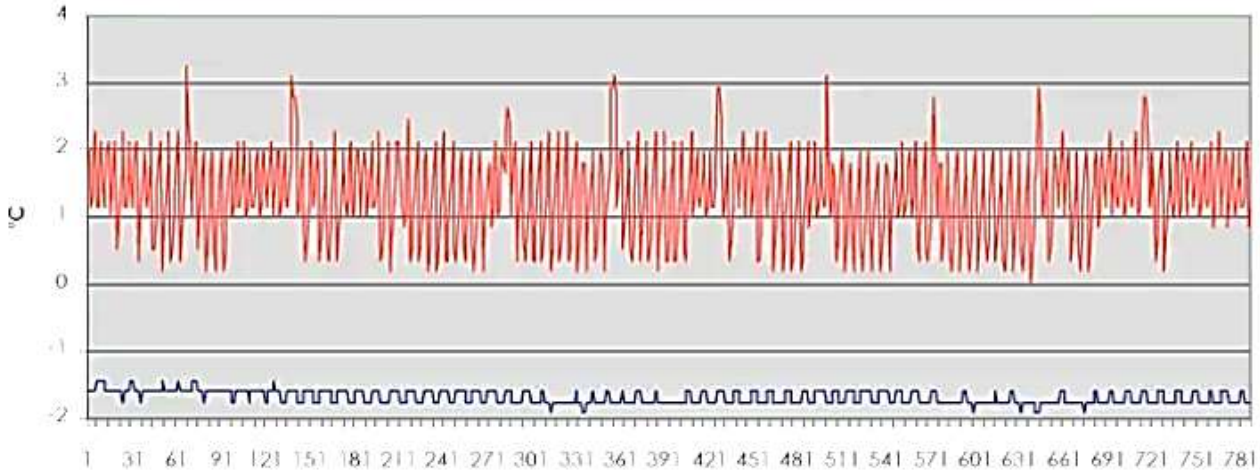
Meat & Poultry Logistics

Dairy Logistics

Fish Logistics

PRS Cold Stores fulfils with the fundamental requirements for optimal preservation of fresh foodstuff as defined by ASHRAE (American Society of Heating Refrigeration and Air-conditioning Engineers):

Temperature control in the overall cold store with +/- 0.2°C accuracy vs. the set point. It allows keeping the product temperature very close to the maximum freezing point (0°C).
Figure hereafter shows a comparative temperature recording of a PRS Cold Store and a conventional cold store
Relative humidity higher than 90%, avoiding desiccation
Air velocity lower than 0,1 m/s, avoiding desiccation.



Comparative temperature recording of a PRS Cold Store vs. a conventional one.

Ripple in conventional cold store: ± 1,63°C
Ripple in PRS Cold Store: ± 0,24°C
Ripple of conventional cold store vs. PRS: +679%

Product	Average storage life without packaging	
	Conventional reefer	PRS Reefer
Salad (baby leaf)	4 days	> 30 days
Ripe peaches	7 days	> 30 days
Cow meat - sub-primal cuts	15 days	> 30 days
Wild mushrooms	5 days	> 20 days

Rocket Salat After 19 Days Preservation

- Original weight: 1.190 g
- Weight after 19 days: 720 g
- Weight loss: -39,5%

- Original weight: 1.130 g
- Weight after 19 days: 1.050 g
- Weight loss: -7,1%

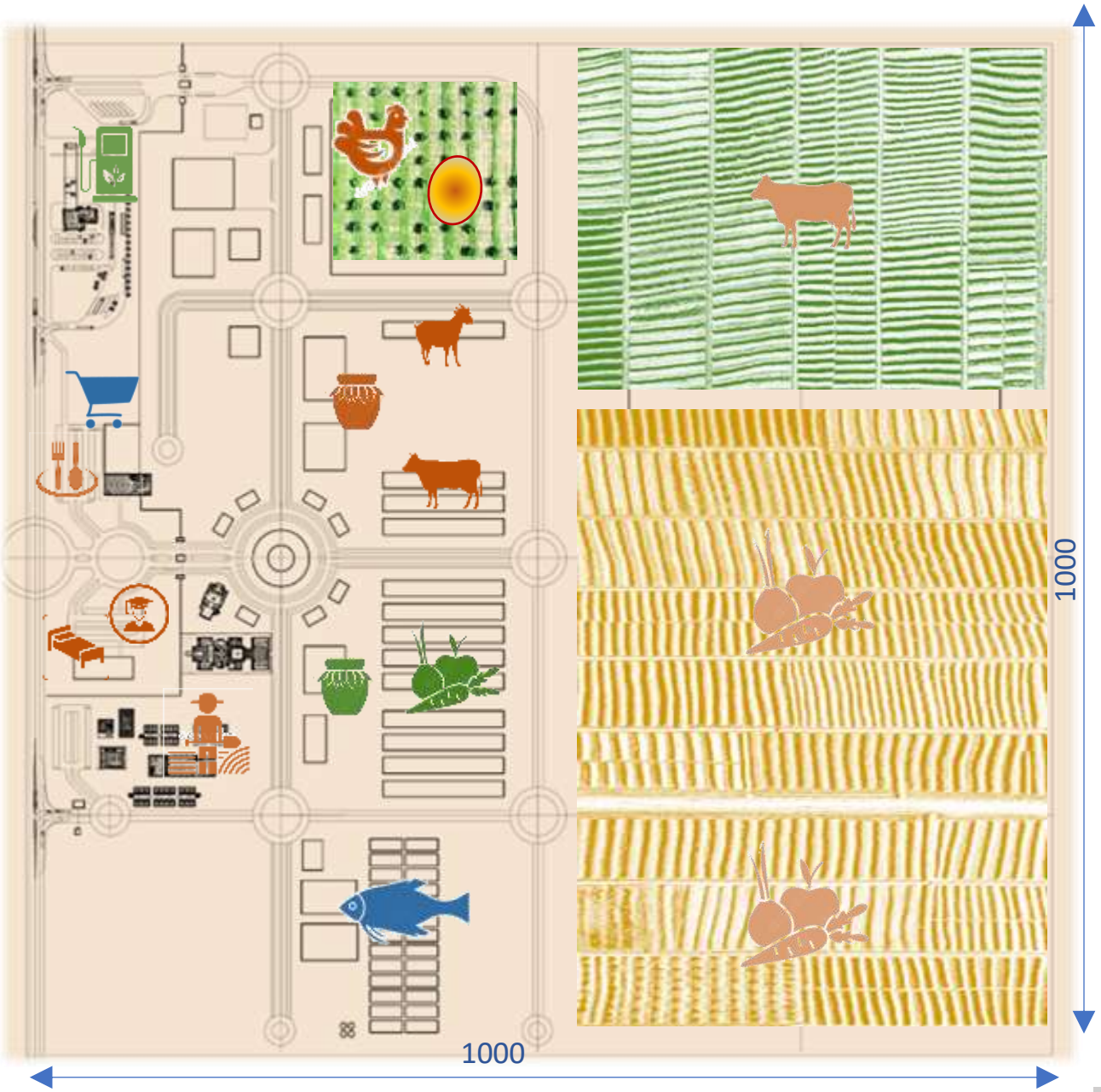
Radish After 19 Days Preservation

- Original weight: 2.520 g
- Weight after 19 days: 1.325 g
- Weight loss: -47,4%

- Original weight: 2.470 g
- Weight after 19 days: 2.320 g
- Weight loss: -6,1%

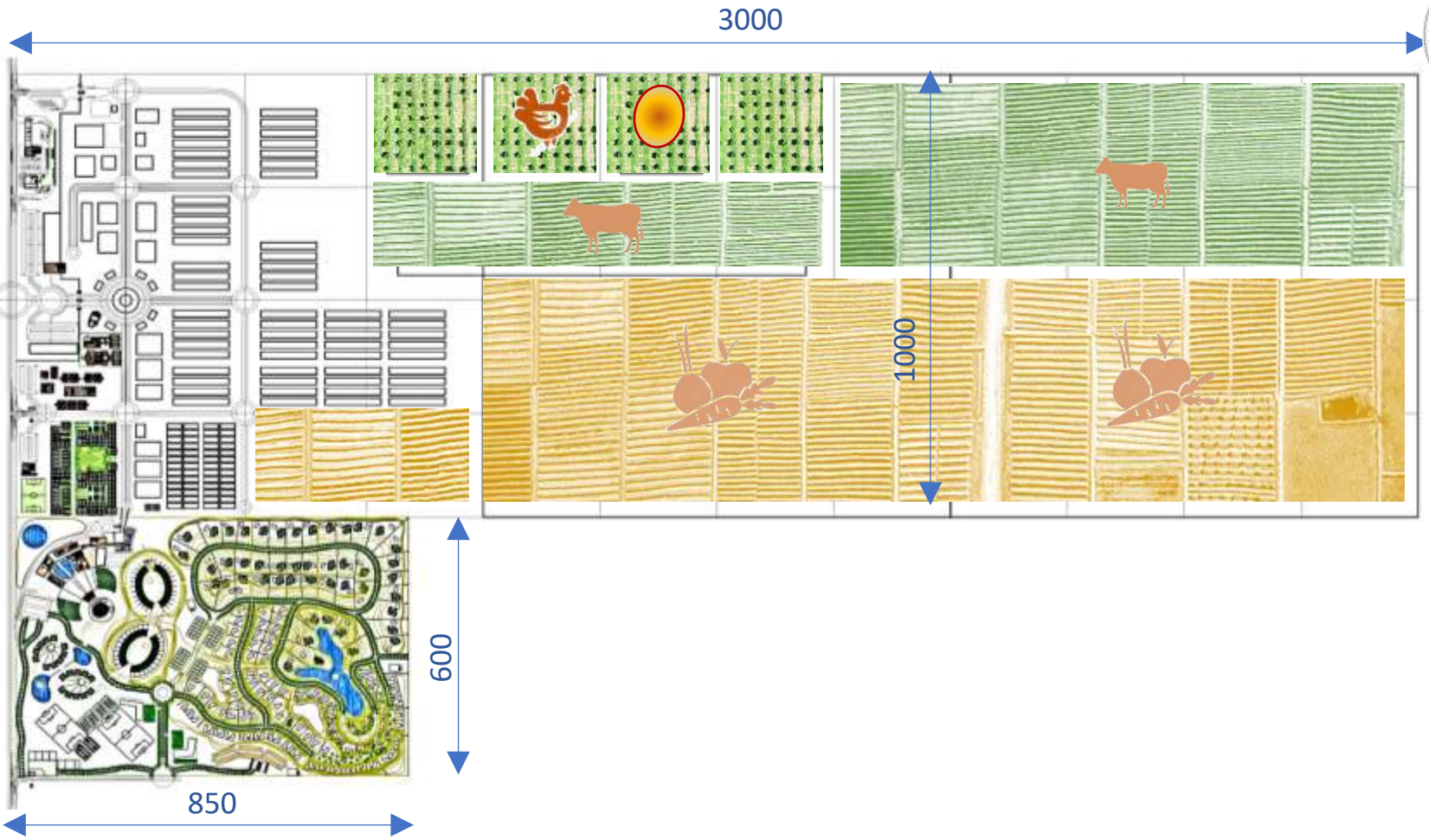
COMPARISON OF PERFORMANCE

1. MINIMUM SURFACE = 50 ha
2. MINIMUM INVESTMENT = 50 ML USD
3. MEDIUM ROI = 30 %
4. SHORT TIMING = 1 YEAR



FORMAT 1° PHASE

IMPLEMENTATION 2° PHASE - DETAIL



IMPLEMENTATION

General Coordinator
Alessandro Temponi

Project Manager and Designer
Maurilio Citterio
Architect

Academic Advisor
Pubblicità e Progresso President
Prof Andrea Farinet

Tax Consultant and Fiscal Advisor
Dr. Andrea Martinelli

TOP TEAM

TEAM'S VALUE: ALESSANDRO TEMPONI

Alessandro Temponi is an expert in real estate investments and touristic and hotellerie investments.
From 1999 to 2001 Coordinator and minority shareholder in a company that build one of the first hotels in Cabo Verde Sal Island – "Hotel Vila do Farol" Bravo Club for Ifil-Alpitour 250 Rooms.

His personal interests are learning trough reading, travel and writing.

He travelled for passion and for work in many places, as Malta island, Madeira island, Balearics, Canary island, Capoverde (from 1988 to 2004), PhiPhi Island, Fiji, Man island, Sardinia and Corsica.

He travelled many times to Maldives, Bali, Sulawesi and Thailand.

TEAM'S VALUE: MAURILIO CITTERIO

Maurilio Citterio is a worldwide known architect graduated in Architecture (100/100) at the faculty of the Polytechnic of Milan in 1990.
He developed hundreds of projects in Italy and all over the world: Dubai, Russia, Romania, Kenya, Cambodia, Thailand, Senegal, Eritrea, Burkina Faso, Ireland, Malta, Fuerteventura etc.

Holistic Architect
Expert in Bio-Ecological Architecture with qualification in the European field.
Designer with over 30 years of experience in the high quality and efficient prefabrication and wood construction sector.
Expert in integrated eco-sustainable design and energy redevelopment of existing real estate complexes.
Speaker at various conferences and seminars in Italy and abroad on the issues of energy efficiency, bio-ecological architecture, energy from waste, the relationship between health and the environment.
Expert in Ayurvedic philosophy, Feng Shui and Vastu-Vidia applications.

MORE DETAILS ARE AVAILABLE ON REQUEST

15-05-23 rev 06