
VeBeCot d.o.o.
PRESENTING
5MW SOLAR POWER PLANT & FUTURE OF FISH FARMING
LAND BASED RECIRCULATION SEA WATER FISH FARM
FOR PRODUCTION OF SERIOLA LALANDI (YELLOWTAIL KING FISH)
BARAMUNDI, SEA TILAPIA AND GREY MULLET
PLOCE, DALMATIA, CROATIA
ECO PROJECT
SESTRUN

Mission statement

The goal of VeBeCot is to be the one of the largest and most profitable producer and seller of healthy fish and other products in the southern part of the eastern Adriatic region, and the international leader in environmentally correct aquaculture and other food production technologies.

Site (location) dedicated to the project and owned by the Company

- 308.430 m² agricultural land
- 60.000 m² concrete tanks for fish and shrimp production
- 1.000 m² indoor facility for fish production
- 132.240 m² earth ponds for goose/ducks/fish polyculture
- 1.100 m² building space for storages and fish processing
- 12.000 m² greenhouses for vegetable production - in function

Proposed facilities phase 1

- Fish hatchery and nursery (sea bass/bream) with annual capacity of 10M fingerlings.
- Market size fish production (annual whole fish and fillets of Yellowtail King Fish/Baramundi – starting with 1000T, and other species (Sea Tilapia and Grey mullet whole fish 250T each).
- Fish processing facility, including filleting and fast deep freezing (IQF) and distribution centre.

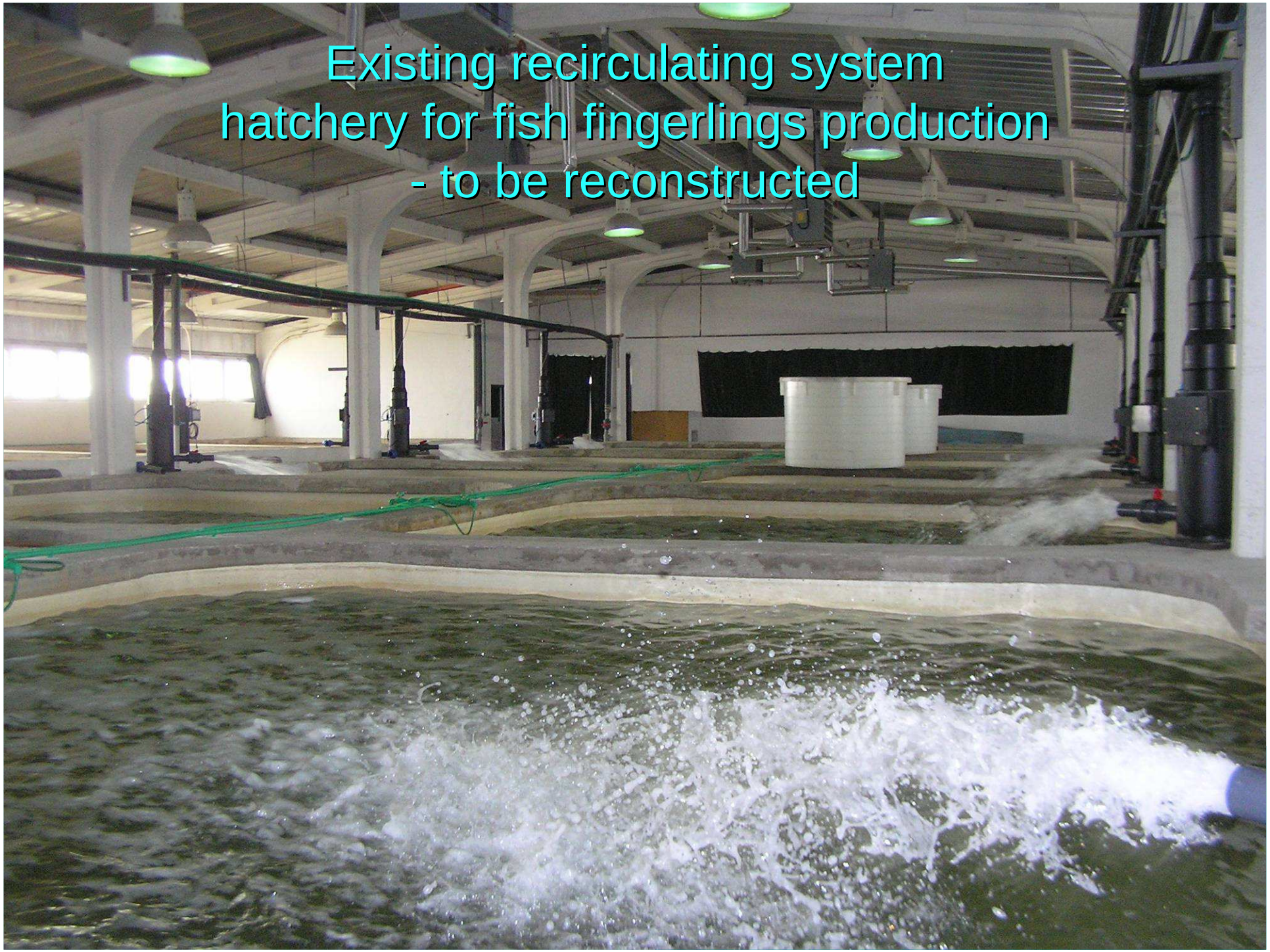
Proposed facilities phase 2

- Fish hatchery (Seriola Lalandi/Baramundi) for own fish grow-out production.
- Market size fish production growth up to 6.000T per year, species same as stated in Phase 1, ratio in production depending on market demand.
- Goose/ducks in polyculture with carp, on the channels in earth ponds. Possibility for production of 6.000T/year.

Site provides possibility for huge production in earth ponds of goose/ducks and fishes (carp) in polyculture

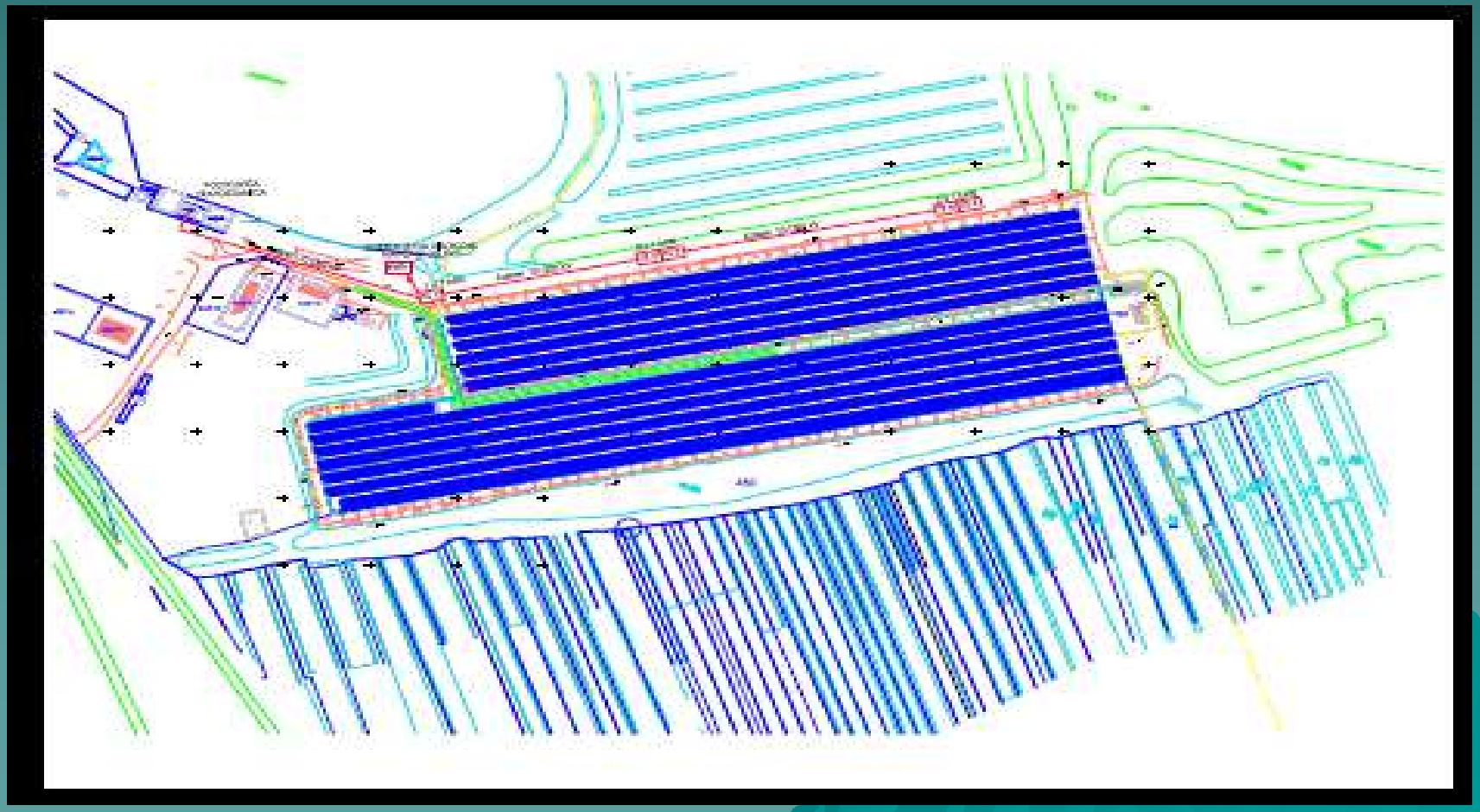
Exsisting facilities

- Closed recirculation system hatchery for fish fingerlings production – soon operational
- Flow-through system for fish production/concrete tanks – to be modified
- Offices and storages
- Building for processing - distribution centre


Existing recirculating system
hatchery for fish fingerlings production
- to be reconstructed


Recirculation systems for fish production
concrete ponds – to be modified
Seriola Lalandi grow out
Baramundi grow out
Seriola lalandi or Grey
mullet/Sea tilapia grow out
Baramundi grow-out
Small concrete tanks
Planned to be equiped for
intensive fish production
as grow out facility for
sea Tilapia and Grey
mullet

Exsisting big concrete ponds will be covered within a hangar where on top of it will be placed solar modules for total production of 5 up to 7,5 MW of electricity annualy.



Basic strategy – fish production

- Existing concrete ponds will be covered in hangars and equipped with recirculation technology for the intensive fish production.
- State-of-the art technology will be used for the intensive production, processing and distribution .
- Due to the fact that energy consumption will generate important figure in running costs for all species, and taking into consideration that Project area is surrounded with private agricultural farms, which, together with our leftovers will generate hundreds of tons of organic waste per year, we intend to install organic waste processing plant with the purpose to produce electricity and heating for fish production need, where surplus of energy will be sold to the Government. That will play significant role in cutting down running costs of fish production.

Recirculation Aquaculture Systems

- RAS are biosecure, intensive, indoor tank-based systems which allow high value species to be grown in any climatic region.
- They utilise a combination of mechanical, biological and chemical filtration to allow a high percentage of water re-use.
- They allow complete control over the rearing environment by:
  - Controlling water quality and temperature.
  - Controlling the fate of wastes.
  - Eliminating escapes and predation.
- Establishing automated computer monitoring and back-up systems to reduce the potential for losses during power failures. This sophisticated PLC programme is capable of monitoring all aspects of an aquaculture installation.
- They are recommended by the FAO as best practice for sustainable fish production, because they take pressure off coastal environments . Therefore, “FRIEND OF THE SEA” and “ BAP” (best aquaculture practise) certification will be applied.

HOW IT LOOKS
IN
PRACTICE

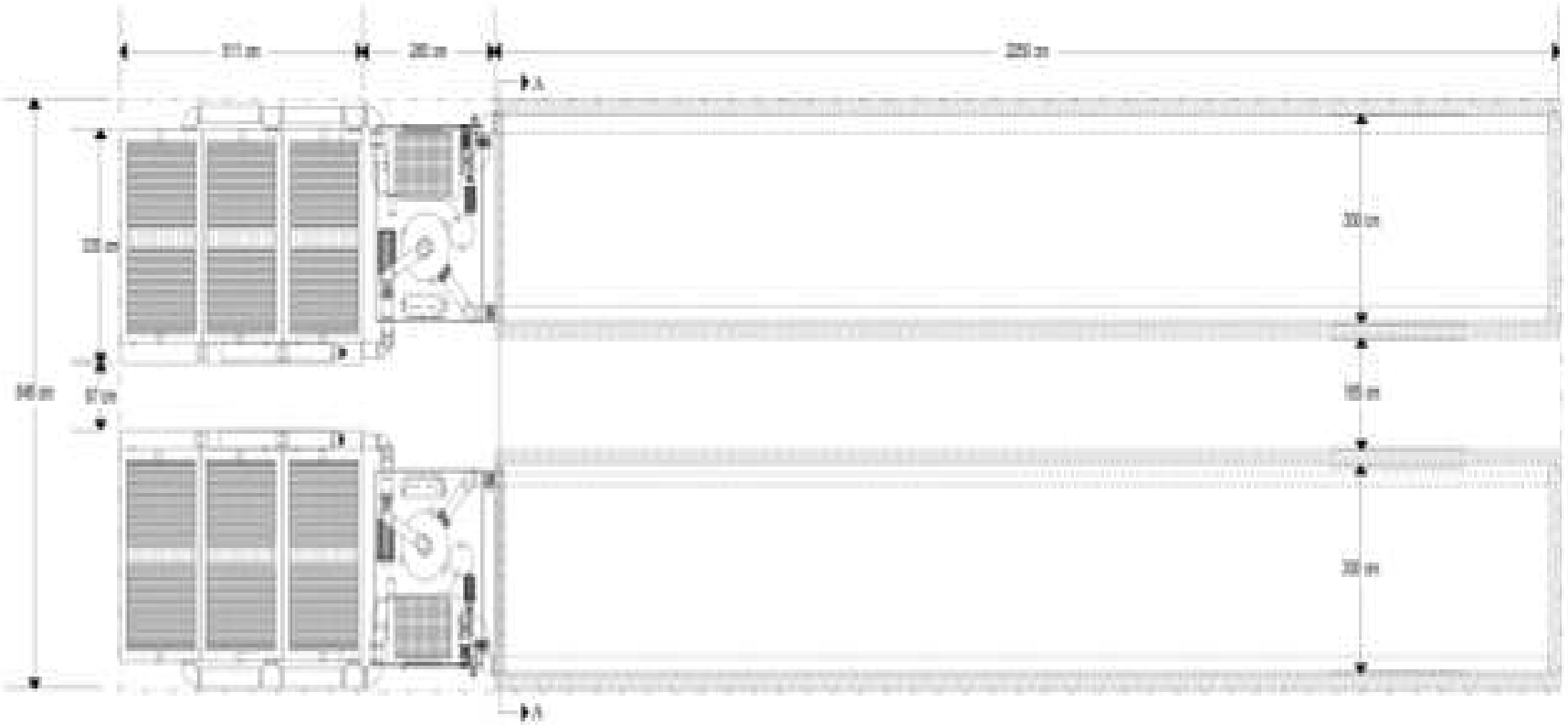
- What makes the RAS so effective is its fish transfer and water filtration technologies, enabling the production of a premium product on a cost effective basis.

- The system also allows for the production of multi species in the one system, giving the facility the flexibility to adapt to market fluctuations on demand and price.


Existing small concrete ponds

Phase 1 of Modification the existing small ponds

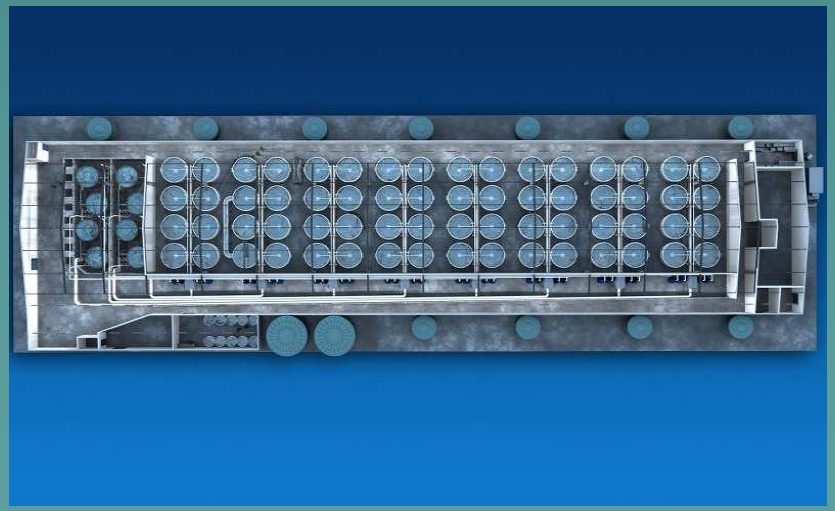
Construction of cross-flow tanks with the recirculation system for the semi-intensive fish production

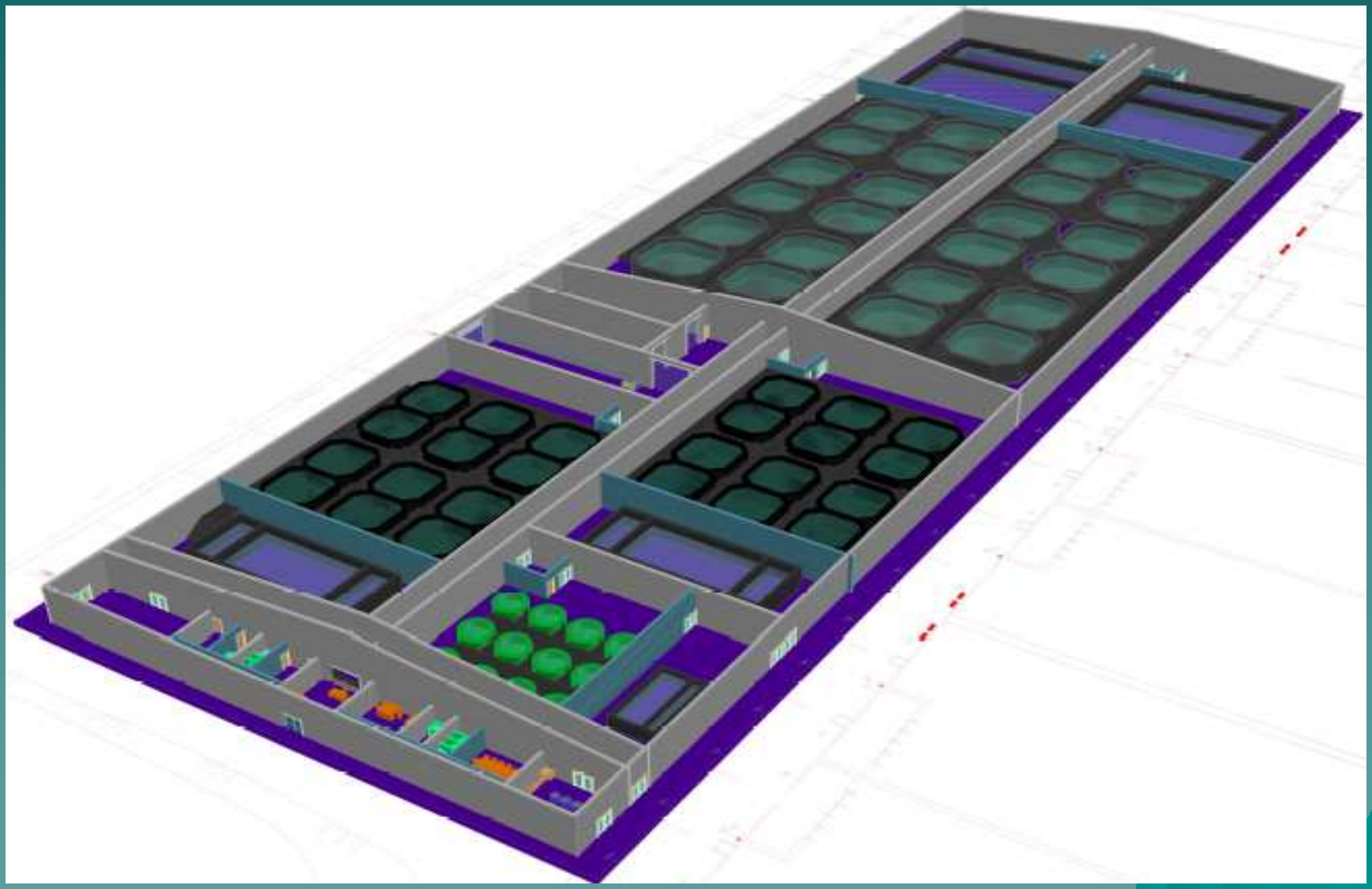


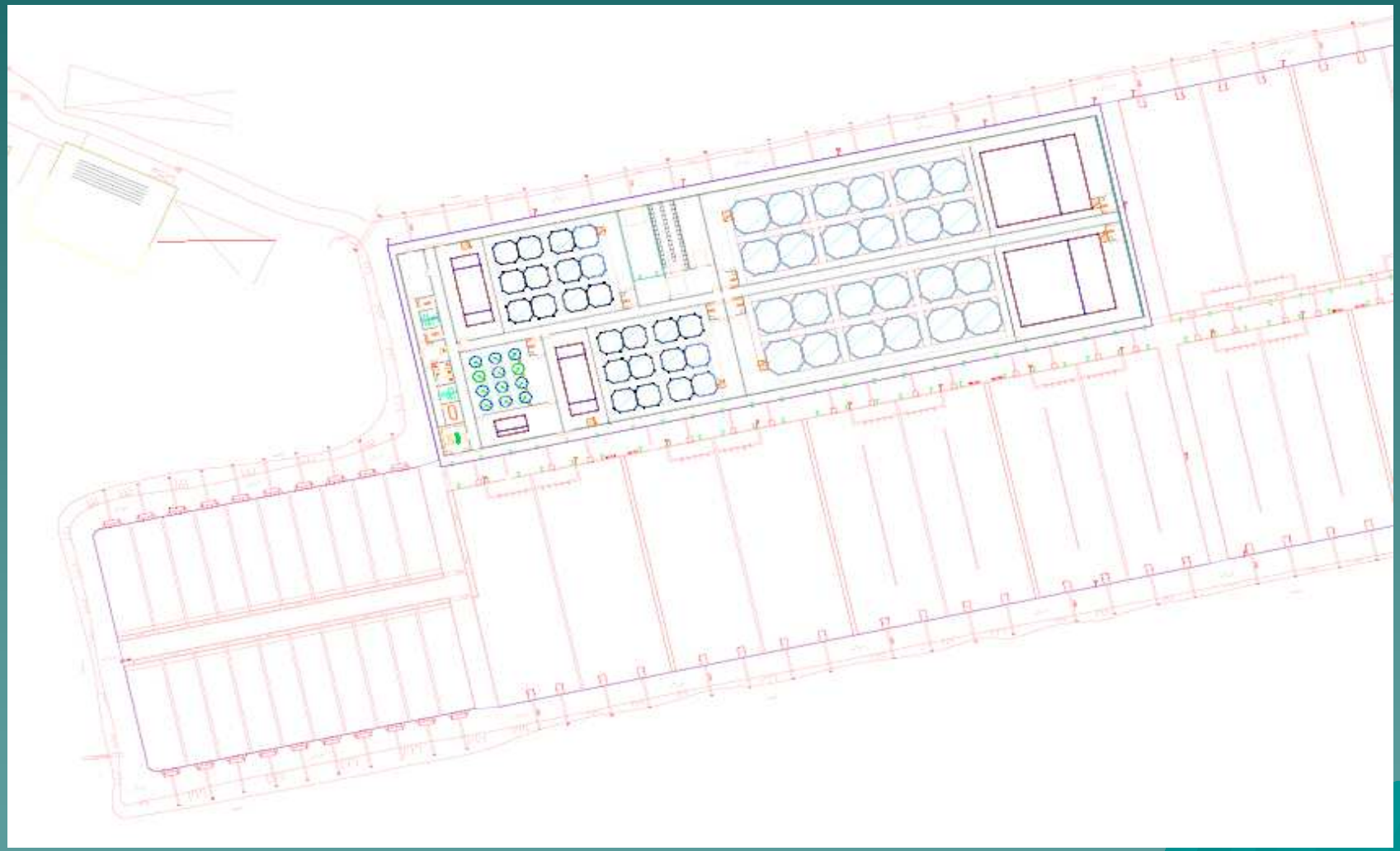
Existing big ponds

Modification 2 of existing ponds

Seriola Lalandi (Yellowtail King fish) production







First section investement
Yellowtail King fish/Baramundi production
PROJECT DESCRIPTION:

- Co-operation with foreign partners provide to us ultimate RAS equipment for fish breeding and growing, as well as their knowledge, experience, and 24/7 monitoring of production via Internet, so all aspects of production are covered.

- Additional possibility is to go step further, and „add value“ to the product by making fish filet and packing, which enable us to approach different EU markets and/or local restaurants and hotels, cruising boats, in order to achieve higher selling price.

- Full production capacity of 1000 tons will be achieved in the second year upon completion of the RAS construction.

MARKET ANALYSIS – WORLD FISHERIES

- Aquaculture more and more subsidies fishing shortages, particularly by developed nations in Europe and North America.
- The destructive impact of trawling techniques on benthic habitats and communities (e.g. sea grasses), and the appalling waste engendered by these trawling techniques (in 2003 the FAO estimated that discarded by-catch exceeded 20 million tones).
- The drastic shortage of wild-caught fish for the world market in the future.
- World fish production in 2003, from captured fish and aquaculture, was in the order of 133 million tones, which is predicted by the FAO to rise to 179 million tones by 2015(not only by population increases but also by the increasing per capita consumption of fish and seafood).
- The FAO sees little possibility to increase the supply from wild captured fish to meet this growth in demand, because around 75% of the world's fishing grounds are fully exploited, over exploited or severely depleted.
- Internationally we are seeing a trend of fishing fleets being reduced by government license buy backs and by reductions in allowable operating days.
- There is little doubt that the supply gap between international demand and the wild catch fish supply will continue to grow, and aquaculture with recirculation systems like ours, will have to fill the gap.

CONCLUSION

Last few years, aquaculture is the fastest growing industry in the World.
Mariculture, performed on the way we plan, by using latest technology available, combined with the latest science knowledge about fish production and best choice of specie candidate for fish farming, guarantee long term successful project.
Demand for fish on the market is rapidly growing.
Wild catch fish has a tendency to decrease its catches continuously year after year.
Recirculation is the future of fish farming.
Our Fish farm project will ensure profitable sustainable production of Yellowtail King fish (Seriolla lalandi), Baramudni, and other species, which all has growing tendency, according to the market demand.

Thank you for your attention.

VeBeCot

VeBeCot, November 2013.