# OFR TECHNOLOGY

## The Solution for Difficult Wastewater

مصادر المستقبل | FUTURE RESOURCES

# Do you have any of these water problems?

- Difficult to treat wastewater?
- High pollutants load?
- High disposal regulation standard?
- No space for treatment plant?
- High efficiency requirements?

# OFR Technology is the solution.




# What is OFR?

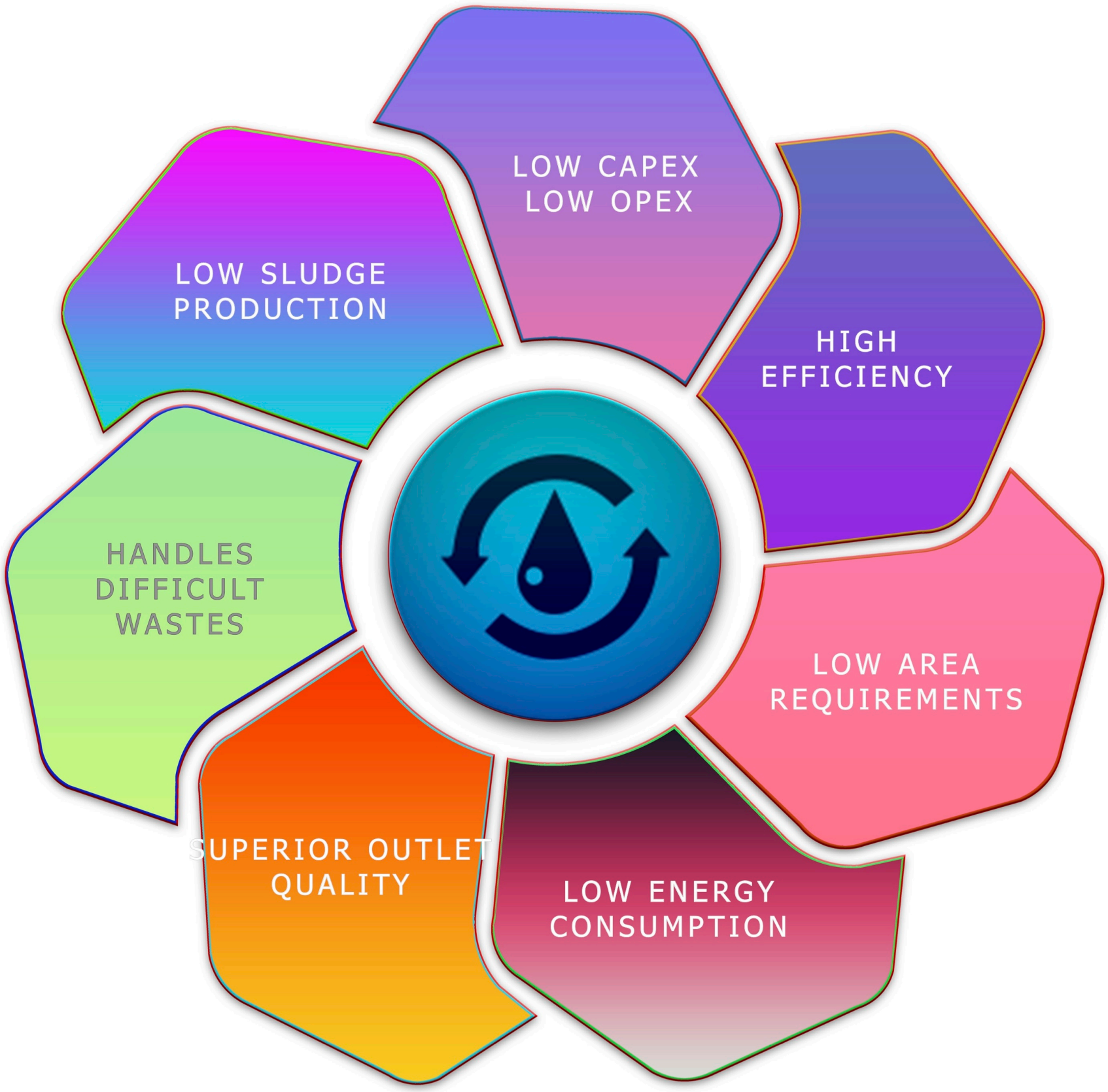
Patent technology based on the Hydroxyl Treatment. Extremely effective for converting refractory and toxic waste into easy-to-treat biodegradable wastewater.

It is effective in the removal of ammonia COD, BOD, organic & industrial waste using selective catalytic oxidation of pollutants to carbon dioxide, water, and smaller organic and inorganic ions.

This process provides an efficient, stable, simple way that can be applied both in low and high concentrations of pollutants removal.

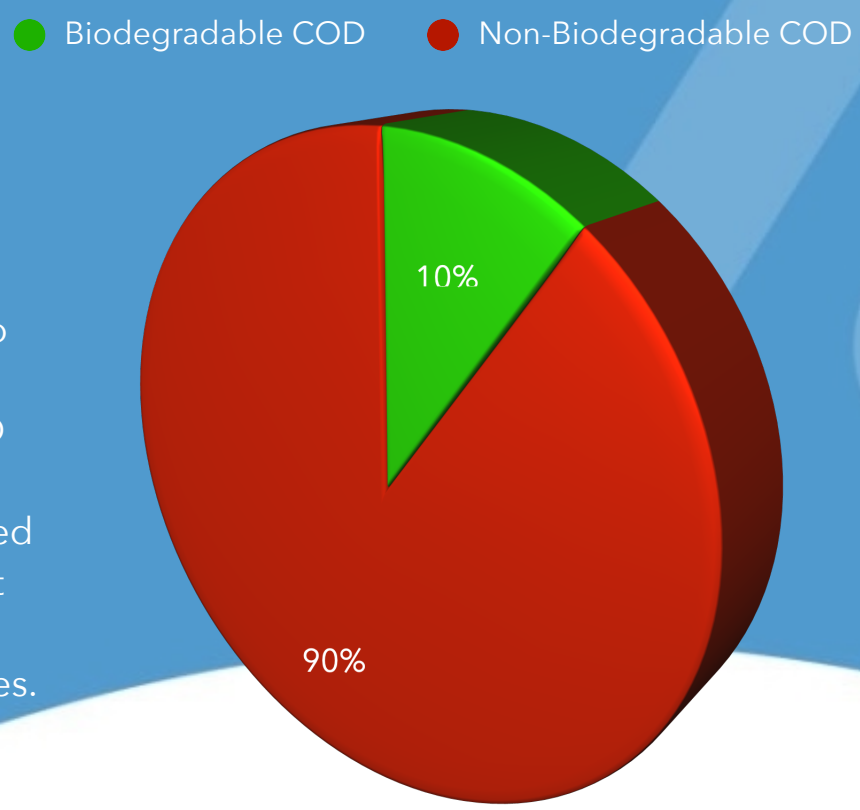
The system consists of a low-voltage electrode array and specially designed proprietary packing which together create a three-dimensional electrolytic effect.

# OFR Benefits



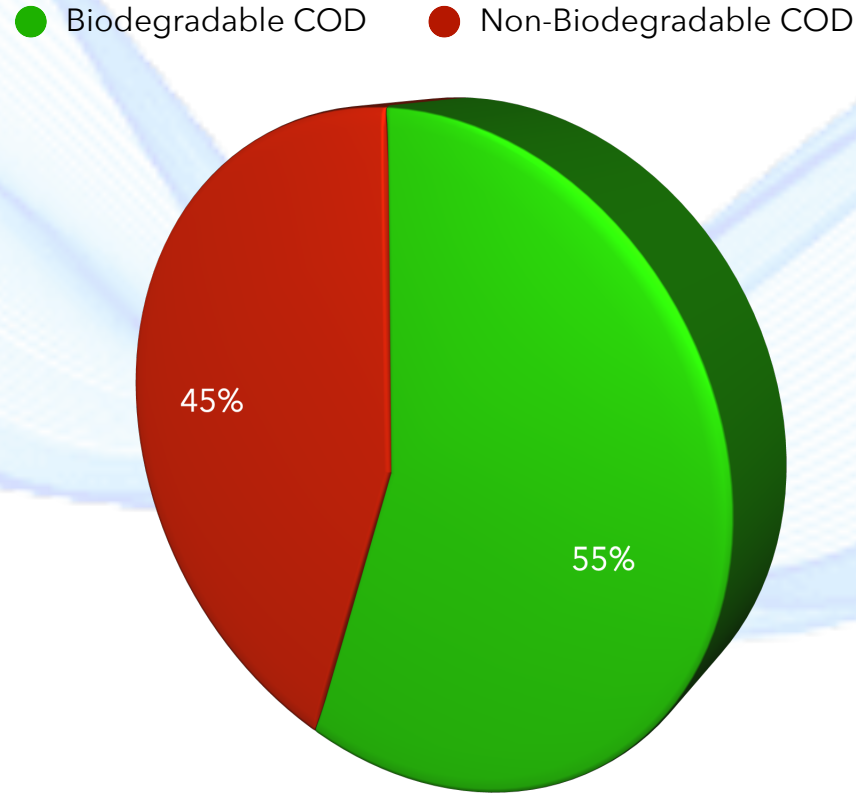
## OFR Treating Hard COD

One of the main advantages of the OFR Technology is its ability to convert refractory and toxic COD to biodegradable COD. This means improving the ratio of COD to BOD from 10 to approximately 2.
This means that the OFR can be used to pretreat difficult wastewater, so it can be treated easily with conventional treatment technologies.




**COD Composition**
**Before OFR Treatment**

**OFR PROCESS**




**COD Composition**
**After OFR Treatment**

# Applications

Domestic

Industrial

Oil & Gas

# Case Study-1

## Modon Wastewater Treatment

**FACT FILE**

**Location**
Dammam, Saudi Arabia

**Year**
2011

**Consultant**
Future Resources

**Contractor**
Future Resources

**End User**
Modon

**Plant Capacity**
6,000 M3/Day

**Technology**
OFR

### The Challenge

Modon receives various streams from local industries and factories. The waste is extremely toxic to regular biological treatment and cannot be handled by conventional process.

### The Solution

Future resources implemented the patented solution of OFR utilizing the three steps:

- Static Hydro Reactor
- Dynamic Hydro Reactor
- Labyrinth Clarifier

### Results

The COD was reduced from 12,000 ppm to less than 500 ppm, and the ration of BOD/COD was improved from 0.2 to 0.6 enabling the waste to be handled by conventional treatment.

Case Study-2

# Jubail Industrial City Wastewater Treatment

**FACT FILE**

**Location**
Al-Jubail Industrial City, Saudi Arabia

**Year**
2009

**Consultant**
ILF

**Contractor**
Future Resources

**End User**
MARAFIQ

**Plant Capacity**
55,000 M3/Day

**Technology**
Modified OFR

## The Challenge

Marafiq desired to improve the biodegradability and efficiency of the existing wastewater treatment plant by removing refractory wastewater ingredients from incoming waste.

## The Solution

Future resources implemented the patented solution of OFR utilizing the three steps:

- Static Hydro Reactor
- Dynamic Hydro Reactor
- Labyrinth Clarifier

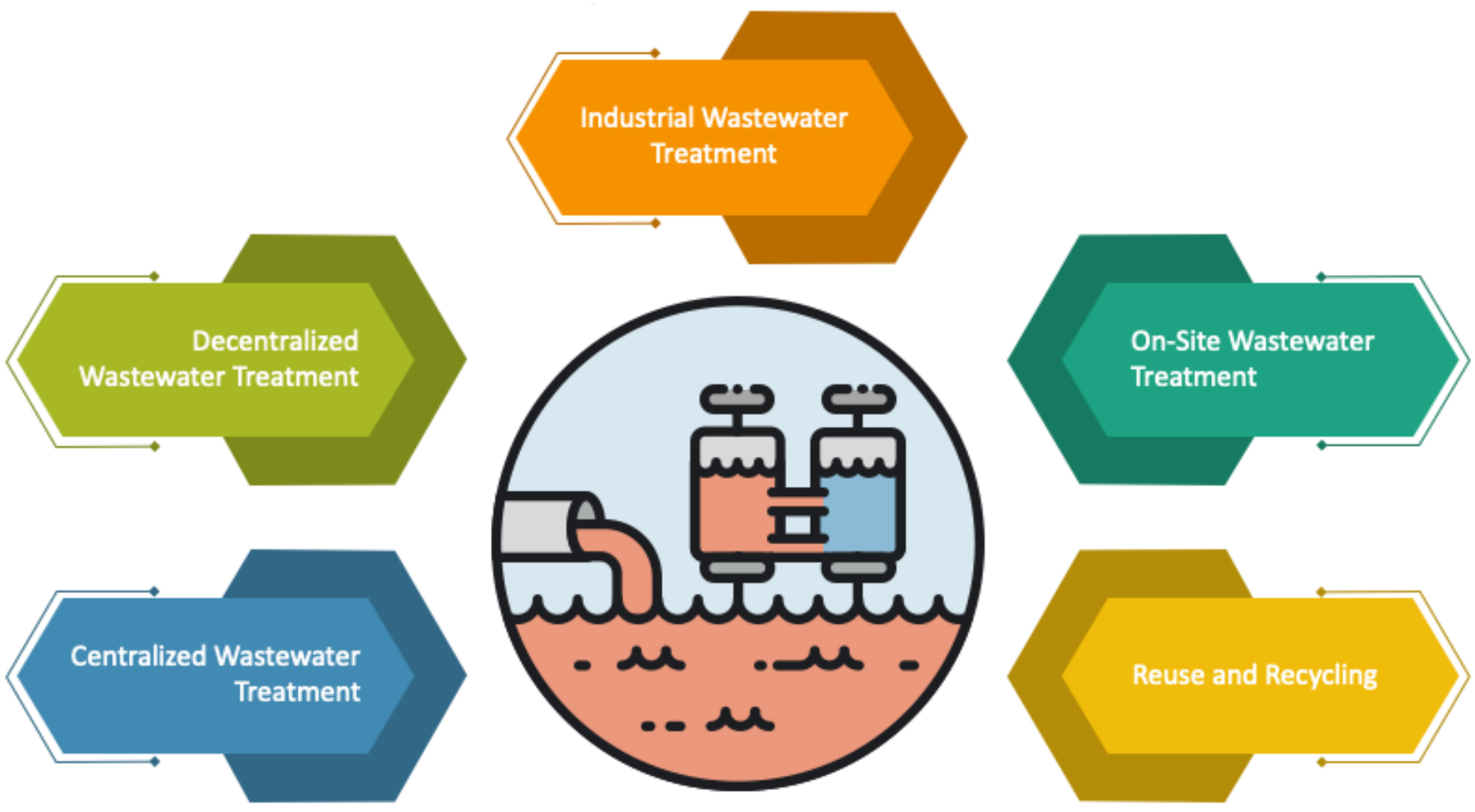
## Results

The plant power efficiency was, and power consumption was decreased by at least 23%. One unit of existing plant was removed and substituted by efficient OFR technology and space was reallocated. Effluent water quality was improved by dropping average BOD from 15 ppm to less the 8 ppm.

# OFR Applications

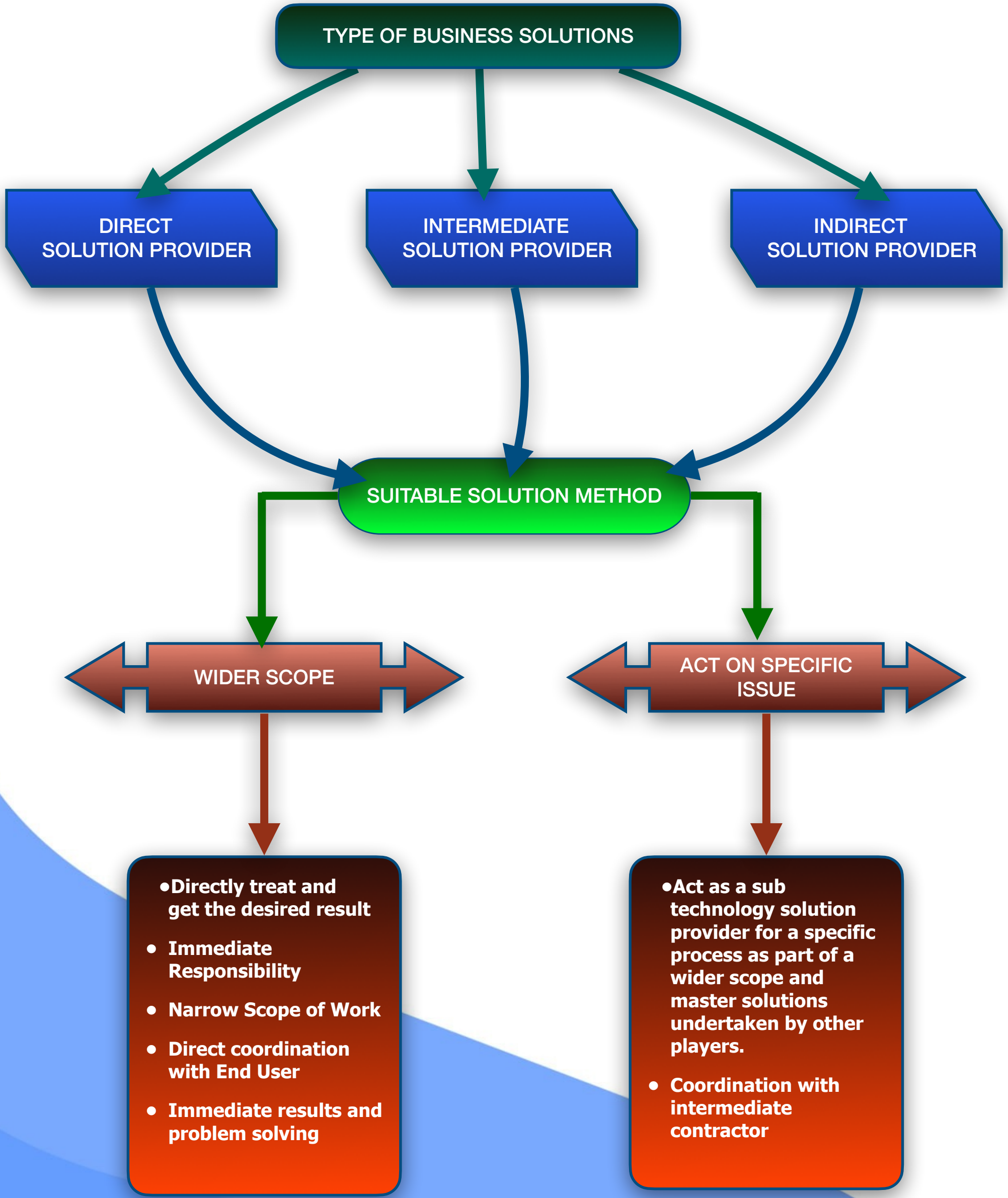
- Breakdown of Long Chain Hydrocarbon
- Dyeing and Printing Industries
- Pharmaceutical Industries
- Tannery Applications
- Pulp & Paper Mills
- Landfill Leachates
- Electrical Components Production
- Food and Beverage

# OFR Solution Methods:




| Centralized Wastewater Treatment | Decentralized Wastewater Treatment | Industrial Wastewater Treatment | On-Site Wastewater Treatment | Reuse and Recycling |
|---|---|---|---|---|
| OFR can be combined and scaled up to be used in centralized wastewater treatment plants. | OFR is highly modular and compact and can be deployed at source in decentralized treatment plants. | OFR is highly versatile and can suit difficult applications where waste is coming from industrial sources. | The OFR is highly mobile and can be fitted on trolleys and mobile skids. | The OFR is highly adaptable in application requiring the Reuse and Recycle of wastewater and byproducts. |

# OFR Business Solution Methods



# About us

Future resources were established in Al-Khobar, Kingdom of Saudi Arabia and since then it has grown steadily by adopting a unique philosophy in business development in the field of water treatment.

Future Resources was established by investors and technical people from Saudi Arabia and GCC countries.

Future Resources provides proven technology and taking an unconventional approach searching for new and unconventional job opportunities that others overlook, as well as taking a unique direction by utilizing our own patent-protected OFR Technology.

Future Resources Company is ready to receive client samples, test them, and provide suitable solutions.

We have also in house Pilot Testing facilities that can provide real-time results for current wastewater.

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