

Suggestion



Thank you for taking a look.

Table of Contents:

1 . Vision	... 3
2 . Corporate Philosophy	... 4
3 . Overview of Electromagnetic Field System Technology	... 5
Advantages	... 6
Technical Configuration	... 7
4 . Examples of Technical Applications (Distribution)	... 8
5 . Comparison of Technology and Potential for Commercialization	... 11
Target Companies	... 12
Industry Distribution	... 13
6 . Management Structure	... 14
Company Overview	... 15

Using biotechnology (electromagnetic field technology),
Food industry: **improving quality, long-term preservation!**

Medical industry: **new drugs, improving constitution!**

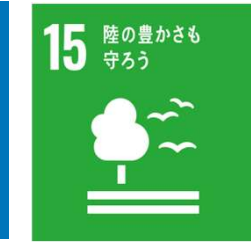
Energy industry: **battery regeneration, reducing CO2 emissions!**

By improving using electromagnetic field technology, new high-quality products can be created, and by facing various challenges and issues sincerely,

we will contribute to SDGs.

And as electromagnetic field technology becomes the standard of biotechnology, we will strive to make a small contribution to creating a world where humanity can live in peace, health, and equality.

Management Philosophy



- By contributing, we can bring happiness to people. -

We are confident that what we can do now can have a significant impact on the future.

With our biotechnology technology, we aim to significantly reduce food loss, reuse food loss, and distribute it to people in need without waste. We also want to reduce medical waste, supply high-quality drugs with proven effectiveness to people in need, and provide healthy bodybuilding through constitution improvement. Furthermore, we want to contribute to reducing CO2 emissions and addressing climate change by applying electromagnetic fields to fossil fuels.

That is our commitment.

- What can we contribute to through the electromagnetic field system.-

We are confident that we can contribute to solving many challenges and problems through biotechnology.

1. In the food industry, we aim to improve cost reduction through long-term sales and bulk procurement, reduce food loss, and improve the working hours of producers.

2. In the logistics industry, we aim to reduce transportation costs, reduce CO2 emissions, improve lead times, and alleviate labor shortages.

3. In the medical industry, we aim to improve drug quality, preserve drugs for the long term, improve emergency medical care (suitable for short transportation times), and improve constitution.

In addition, we can also contribute to solving many challenges and problems in frozen food processing technology, aquaculture technology, and medical device technology.

We want to deepen the understanding of many people and build a world standard.

The overview of electromagnetic field system technology.

Electrical technology

AC power supply

High voltage: 2500V~5000V
Low current: 3mA~5mA
Electromagnetic field formation
Ensuring safety

Sterilization and disinfection effects

- Effects of negative ions
- Effects of trace ozone (within specified limits)

Manipulation of cells and water molecules

- Resonance (vibration that shakes molecules within the substance)
- Component manipulation (dielectric and electrophoresis)



Freezing and refrigeration technology

Appropriate temperature range

Refrigeration: 0°C~15°C
Freezing: 0°C~-5°C
Humidity control (humidity affects electricity)

Inhibition effects

- 1.Inhibition of microbial activity
- 2.Inhibition of some enzyme activity
- 3.Inhibition of chemical changes
- 4.Inhibition of physical changes
- 5.Inhibition of respiration in agricultural products, etc.



Electromagnetic field stabilization technology

Electromagnetic field environment

- Insulation to prevent electric leakage
- Potential that serves as the basis for circuit operation (Formation of frame ground)

Application effects

- 1.Activation and functionalization of water
- 2.Control of growth in animals and plants, etc.
- 3.Preservation of freshness
- 4.Sterilization and disinfection
- 5.Control of enzyme activity
- 6.Improvement of taste and flavor
- 7.Efficient freezing and thawing and others... such as hydrogen bonding.

Tailoring development and commercialization to the usage environment!

- 1.Development and commercialization of refrigerated containers for transportation (JR Freight 12ft container).
- 2.Development and commercialization of electromagnetic field system platforms (for fixed and mobile use).
- 3.Development and commercialization of commercial refrigerators/freezers with a simplified installation system.
- 4.Development of recovery rooms for potential therapy facilities.
- 5.System development for maintaining effectiveness in large-scale refrigerated warehouses.
- 6.Improvement of fuel efficiency for electromagnetic field systems (used in engine oil, etc.).
- 7.Development of electromagnetic field system pallets (tailored to transportation style).
- 8.Other.

Advantages

Advantages from proprietary technology:

The utilization of the relay system (patented) enables a significant expansion of the system core's effectiveness compared to similar products on the market. The maximum cost difference is about one-tenth. Especially in the case of commercial refrigerators/freezers and prefabricated refrigerators, ODM manufacturing can connect up to 10 units of the same product, resulting in a significant difference in installation cost.

Advantages in applied voltage and configuration:

The electromagnetic field stabilization system (patent pending : for refrigerated containers) overcomes the weakness and instability of the electromagnetic field intensity caused by the escape of the applied voltage, which has been a problem with similar products. Success was achieved in ensuring the strength and stability of the electromagnetic field (by insulating the wall surface and fixing the applied voltage at 3500V with a frequency of 50Hz-200Hz or higher). Also, the manufacturing cost was significantly reduced by centralizing the manufacturing process. (Verified by testing the electric field strength at Kinki University and verifying the voltage and field effects at Tokyo Institute of Technology.)

Advantages in supply price:

Cost reduction has been achieved through the utilization of the relay system (patented) and the integration of the electromagnetic field stabilization system (patent pending) during manufacturing. Especially in the case of commercial refrigerators/freezers and prefabricated refrigerators mentioned in 1), embedding the system during ODM manufacturing has resulted in a competitive advantage in price compared to similar products (up to one-tenth of the price).

Advantages through verification results and demonstration tests:

Our high-power electromagnetic field system has undergone verification tests conducted through industry-academic partnerships with Kinki University and Tokyo Institute of Technology. In demonstration tests, we have achieved numerous results in railway transportation with JR Freight and Sagawa Express. As a result, a usage manual for high-voltage containers during railway transportation has been created. (For fruits and vegetables, seafood, meat, grains, drinking water, flowers, etc.)

Advantages through trust and track record:

Refrigerated containers equipped with our high-power electromagnetic field system have been registered with the United Nations Industrial Development Organization (UNIDO) and are featured on the UNIDO website (refer to the STePP platform).

Advantages through intellectual property rights:

Four new patent applications have been filed for the effective utilization of high-power electromagnetic fields (for simplified systems in commercial refrigerators/freezers, medical transport iceboxes, high-power electromagnetic field racks, and high-power electromagnetic field therapy devices).

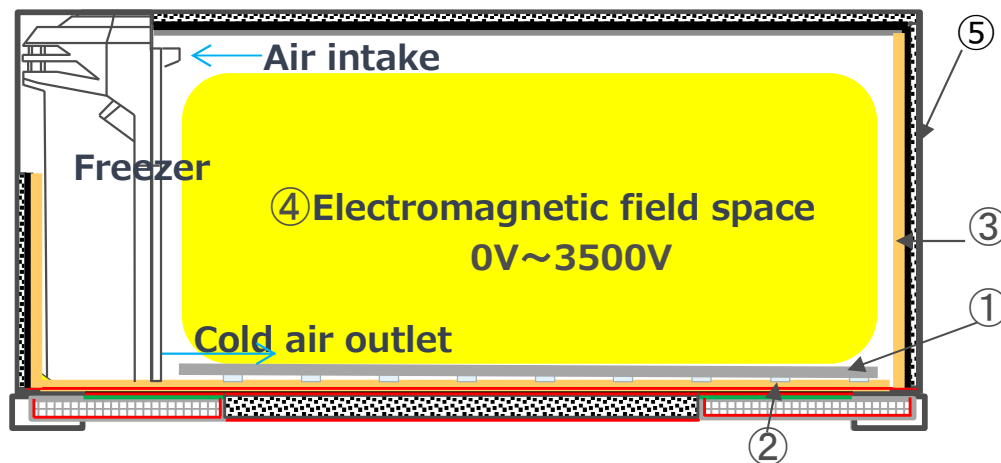
Technical configuration

The term "Wi-Free" is an abbreviation of the phrase "Without freezing", which means to transport, store for long periods of time, or inhibit the activity of bacteria without freezing.

The technology of not freezing continues to evolve, and by exposing frozen products to a stable and strong electromagnetic field before freezing, the quality of frozen products can be improved, resulting in the ability to secure more food.

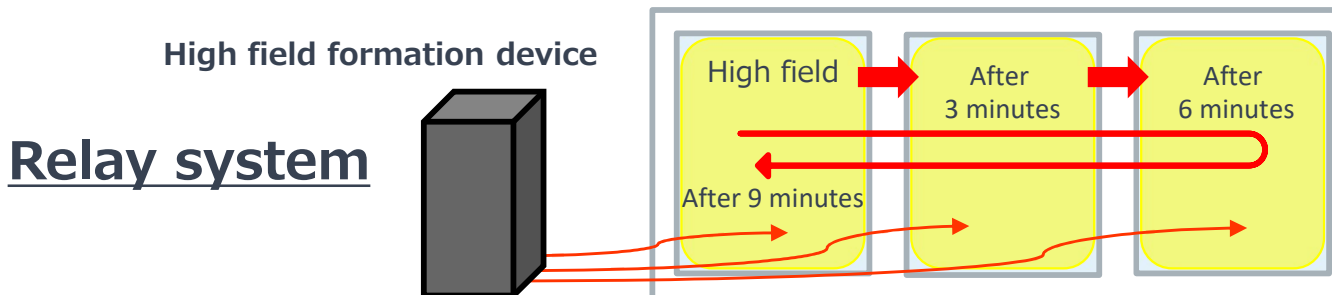
The "Wi-Free" system technology is a freshness maintenance (long-term preservation) technology that was first installed in a logistics reefer container (J R Freight Ver. Railway Transport 12ft) in the world in 2016 and successfully passed transportation tests.

In addition, by storing engine oil and additives in a stable and strong electromagnetic field (patent obtained), it is possible to improve combustion efficiency and reduce CO2 emissions.



- ① Aluminum plate: A plate that connects to the system core via cables. A voltage of 3500V flows through it, and goods are placed on top of this plate for storage (positive electrode).
- ② Insulating pedestals: Legs that insulate the voltage flowing through the plate to prevent leakage. The height is 25mm to 45mm.
- ③ Resin board for the side: Side panels that insulate the voltage like 2.
- ④ Electromagnetic field space to store goods.
- ⑤ Container (negative electrode).

**Mechanism (Wi-Free relay system + electromagnetic field stable structure)
electrical technology + refrigeration technology + strong electromagnetic field structure**



By applying one Wi-FREE for 3 minutes each, the area can be covered with minimal number of devices.

Examples of utilizing technology

Delivering specialty products deliciously

For instance...

Normally, specialty products can only be stored for about 5 days under refrigeration, and it takes 3-4 days for delivery to Tokyo and Osaka, which makes it impossible to sell in urban areas...

Air freight is too expensive...

Processing leads to loss of flavor and texture...



By using trucks or containers equipped with Wi-FREE, the same freshness as air freight can be delivered...

- Producers (shippers) can now sell their products to areas where sales were previously difficult, while reducing transportation costs!
- Transportation companies can acquire new shippers through differentiation!

New Cold Chain

The logistics field is changing with **electromagnetic systems!**

Existing Logistics Systems:

- The limited freshness preservation period limits the transportable area.
- Due to a focus on freshness, it places a heavy burden on the drivers.
- Freezing can cause the taste to deteriorate when thawed.
- It is difficult to differentiate from competitors.

Wi-FREE Logistics System:

- Expands the delivery area due to its long-term freshness preservation effect!
- Achieves consumer trust and repeat customers through thorough quality management!
- Reduces the burden on drivers by not being constrained by transportation time!
- Maintains freshness similar to air transportation!
- Achieves differentiation through a new product called "High Electromagnetic Field Processing"!

Area of Distribution Business

- Agriculture
- Fisheries
- Floriculture
- Processing industry
- Stores

Installation type

- Prefabricated cold storage warehouses
- Large-scale warehouses
- Commercial refrigeration and cold storage facilities
- Floriculture warehouses and refrigerators
- Processing plant refrigeration and cold storage equipment



Electromagnetic field system core technology



- Trucking industry
- Cargo shipping industry
- Railway transportation industry
- Trading industry

Transportation type

- Land transportation containers
- Maritime transportation containers
- Vehicles
- Insulated boxes
- Cart wagons

Possibilities for Technology Comparison and Commercialization

Large potential for commercialization through research and development!
 "We accept development tailored to your needs."

	Wi-FREE (electromagnetic field system product)	Conventional storage methods
Performance	In addition to conventional refrigeration and freezing functions, there are freshness preservation functions and suppression functions for quality deterioration factors.	Refrigeration and freezing functions
Price	Achieves low price through unique relay system	Products that utilize magnetic fields, electrostatic fields, and other fields generated by high voltage are very expensive.
Applicability	In addition to freshness preservation, it is a technology that can be applied to deterioration prevention, oxidation prevention, engine oil deterioration prevention (improvement of fuel efficiency), battery regeneration, health improvement, water quality improvement, soil improvement, etc. (applicable to anything that conducts electricity).	Deterioration prevention, oxidation prevention

	Possibilities of Wi-FREE (electromagnetic field system product)
Agriculture Fishery Livestock	<ul style="list-style-type: none"> · Increase in harvest volume and reduction in growth period · Improvement of soil and high-permeability water and high-quality freezing · Storage below freezing point, shipping adjustment, reduction of drip during thawing · Suppression of bacteria and increase in sweetness such as sugar content · Increase in growth rate due to feed and decrease in disease rate
Processing	<ul style="list-style-type: none"> · Reduction of loss, adjustment of procurement, and reduction of labor costs · Shortening of preparation time, high-quality freezing, storage below freezing point · Reduction of drip during thawing, development of new products · Suppression of bacteria, cost reduction of equipment
Distribution	<ul style="list-style-type: none"> · New transportation that carries frozen products of high quality without freezing · Acquisition of new customers and differentiation from other companies in the same industry · Freshness that does not differ from air transportation · Lower introduction cost compared to similar specialized technologies · Delicious while being transported

Target industries

Food and beverage industry

- Restaurant operation companies
- Wine bar operation companies
- Yakiniku (Japanese BBQ) restaurant operation companies
- Supermarket operation companies
- Producers (livestock, vegetables, fruits, seafood, etc.)
- Others

Logistics industry

- Storage warehouse operation companies
- Transportation operation companies (land, sea, railway)
- Maintenance companies
- Food trade operation companies
- Others

Manufacturing industry

- Home appliance manufacturing companies
- Commercial refrigeration equipment manufacturing companies (including wine cellars and store showcases)
- Alcoholic beverage manufacturing companies
- Kitchen equipment manufacturing companies
- Container manufacturing companies
- Warehouse construction companies
- Others

Production industry

- Crop farmers (vegetables, fruits)
- Livestock farmers (chicken, pork, beef, etc.)
- Fishermen (seafood, seaweed, aquaculture, etc.)
- Processors (frozen foods, instant foods, condiments, bottled water, dashi, etc.)
- Flower production and sales businesses

Healthcare industry

- Medical device manufacturing companies
- Pharmaceutical manufacturing companies
- Medical service manufacturing companies (hospitals, clinics, nursing homes, etc.)
- Wellness facilities (saunas, massages, relaxation, etc.)
- Sports-related companies (baseball, soccer, etc.)

Benefits

- Expected improvement in productivity: freshness retention, frozen processing, taste alteration, ingredient alteration (increase in nutrition, ripening effect)
- Expected improvement in food and beverage quality: nutrient enhancement, reduction of E. coli (inhibitory effect)
- Others

Benefits

- Modal shift: reduction of transportation costs
- Expected improvement in fuel efficiency: cost reduction, CO2 reduction
- Establishment of cold chain: quality assurance, provision of safe ingredients
- Improvement in freezing technology: high-quality freezing and thawing

Benefits

- New product development
- Differentiation from other companies
- Reduction of E. coli
- Alteration of taste
- Alteration of ingredients
- Long-term preservation effect
- Reduction of quality change during freezing
- Others

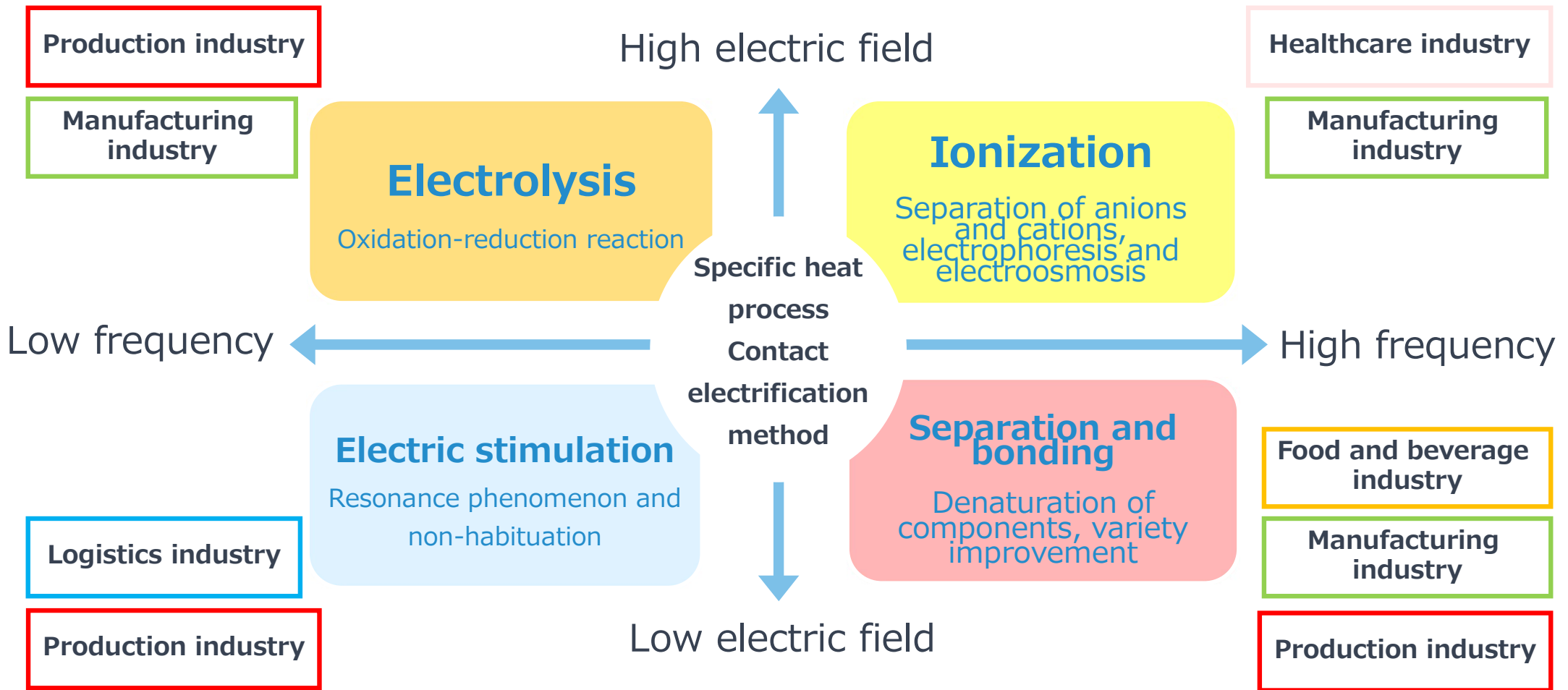
Benefits

- Food security and long-term preservation
- Reduction of food waste
- Conversion of food waste ingredients into food products
- Revision of lead time
- Improvement of productivity (due to labor shortage)
- Increase in profits
- Expansion of profits due to improvement in quality
- New product development
- Strengthening measures against deterioration prevention

Benefits

- Recovery from fatigue
- Early recovery from injuries
- Improvement in physical condition
- Improvement in hangover symptoms
- Improvement in joint pain
- Improvement in muscle pain
- Skin regeneration effect
- Effect of microorganisms
- Effect of molecular separation
- Others

Industry Distribution



*** Strong electric field biotechnology**

Form of Business Operation



Company Overview

Company Name: Ele Mag Lab Co., Ltd.

(referred to as "EleMarabo")

Abbreviation of Electromagnetic Field Research

Institute: Ele Mag Lab

Former Company Name: O's&Tec Co., Ltd.

Representative Director: Kouichi Omura

Establishment: August 2016

Capital: JPY 45 million

Headquarters:

304 quaranta1966 1-4-10 Jiyugaoka Meguro-ku Tokyo Japan 152-0035

Business Exhibition Hall:

562 Takada, Mobara City, Chiba Prefecture, Japan 299-4116

Telephone Number:03-6421-4885

Introduction of Officers



**Representative Director
Kouichi Omura**

Engages in project consulting business. Examples include introducing preventive dentistry at Harvard University's School of Dental Medicine to Japan, making NHK educational programs free, introducing PFI projects to local governments, and commercializing airline mileage points.



**Managing Director
Takayasu Omura**

After graduating from university, joined SoftBank Corporation, where he gained experience in overseas corporate sales and new business development before becoming independent. Also serves as Representative Director of the Japan Internationalization Promotion Association, where he is active in supporting international students.



**Director
Kazunori Watanabe**

Also serves as Representative of Adopt Co., Ltd., which has strengths in PR for regional revitalization and inbound tourism. The company aims to spread its business to more organizations and provide support for matching and PR between companies, as well as creation of new initiatives.

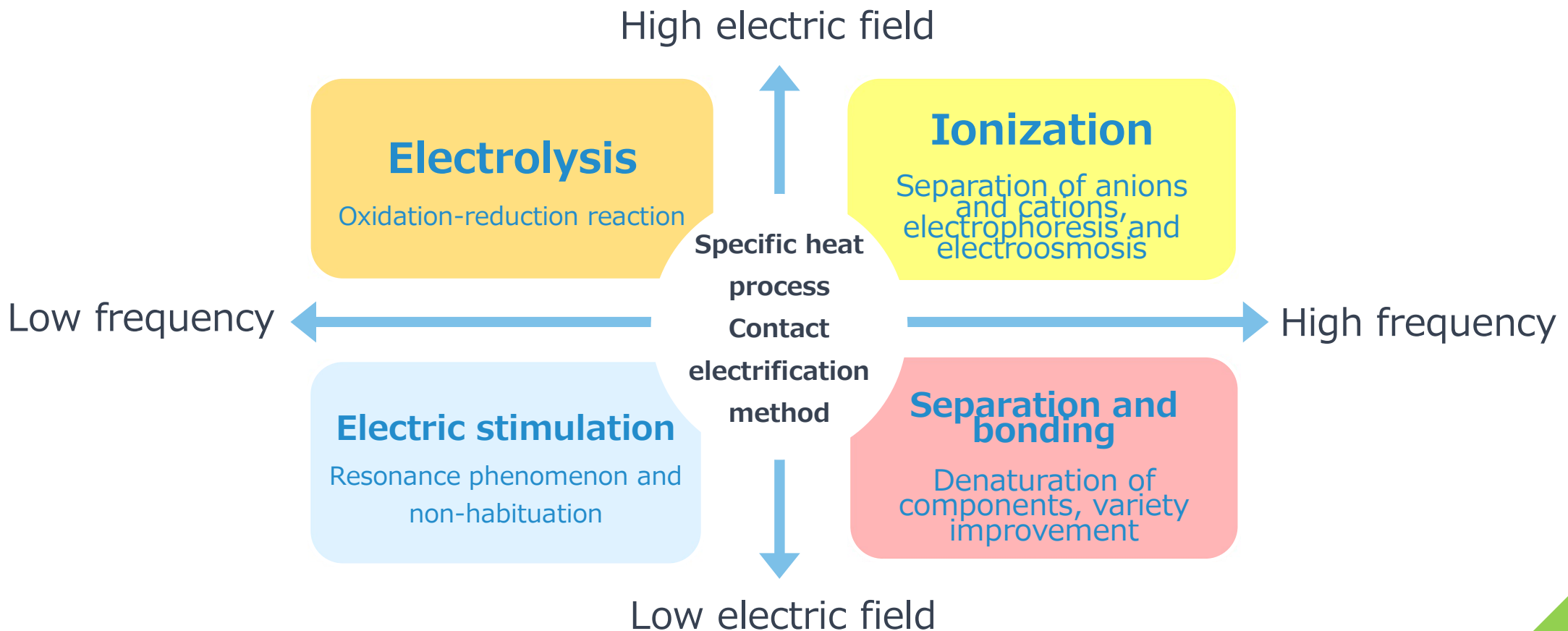
Technology
And
research on electromagnetic field systems.



Our Technology

We are advancing research and development in biotechnology through the systemization of technology that can stably create high electric fields.

* Biotechnology refers to a variety of technologies that utilize the various functions of plants and animals to benefit human life by combining "biology" and "technology." Therefore, it is used in various fields such as medicine, pharmaceuticals, breeding, cell culture, brewing, fermentation, food, cosmetics, and the environment.



Our Research

Food and Lifestyle

- Oxidation and reduction of ingredients
- Separation and combination of ingredients
- Breeding
- Other



Regenerative Medicine

- Culturing of cells
- Improvement of stem cells
- Cell regeneration and expression
- Other



Environmental Issues

- Improvement of combustion rate
- CO² reduction
- Hydrogen bonding and impurity treatment
- Other



SDG s

- Zero hunger
- Responsible consumption and production
- Specific measures for climate change
- Other



Food and Production

- Enhancement of nutrients
- Reduction of E. coli
- Improvement of production efficiency
- Other



Health Improvement

- Improvement of neurological disorders
- Manipulation of intestinal bacteria
- Improvement of blood circulation
- Other



Environmental Conservation

- Suppression of global warming
- Reuse of storage batteries
- Improvement of water quality and soil
- Other



Specific Responses

- Securing and preserving food
- Reducing food loss and converting it into food
- Effective use of energy
- Other



Features of Our Technology

※ Four other patent applications are pending.

Relay System (Patented)

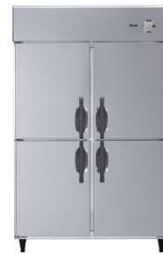
(Patent No. 6962571)



Changes in composition

Freezing

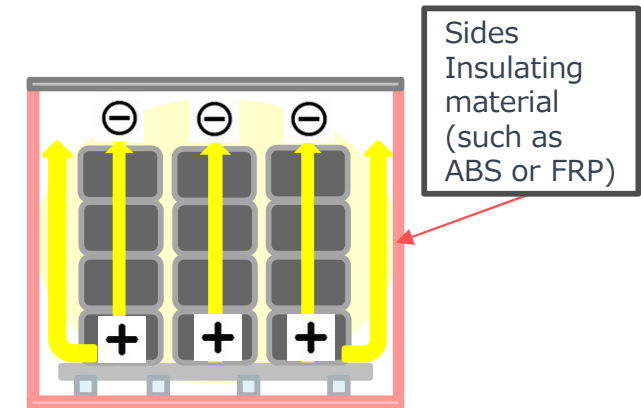
Preservation



By performing output switching using a timer, electric fields can be formed in multiple locations with a minimal number of devices. (Up to 10 switches with optional features)

Since one device can cover multiple areas, the introduction cost can be reduced. Additionally, it allows for usage tailored to specific purposes, such as preservation, changes in composition, freezing, and thawing.

Stable Electric Field Formation System (Patent Pending)



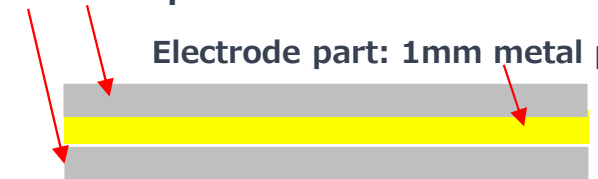
A stable electric field is formed by transmitting electricity from the aluminum plate electrode (+) carrying the load to the ceiling, where it escapes.

Panel-type High Electric Field Generation System (Patent Pending)



Insulation part: resin cover sheet

Electrode part: 1mm metal plate



By sandwiching the electrode, to which voltage is applied, with a resin sheet, the risk of electric shock to the human body is reduced, and it can be used safely even on wet or water-droplet surfaces.

Our Developed Products



For Railway Containers (for JR Freight)

- 3500V, 6mA, single output
- Electric field formation stability system



•Equipped with rechargeable battery and IoT
Purpose: Transportation of fresh food by rail



For Solar-Powered Cold Storage Warehouses (for Chinese meat processing company)

- 3500V, 10mA
- Voltage 4-output switching (microcontroller control)
- Electric field formation stability system



Purpose: Preservation and maturation of meat



For Container and Warehouse Use (under development)

- 3500V, 10mA
- Voltage 4-output switching (microcontroller control)
- Electric field formation stability system
- Equipped with spark detector



For Commercial Refrigerators (for RMDC)

- 3500V to 5000V, infinitely variable switching
- 6mA, single output
- Electric field formation stability system



Purpose: Cell culture and expression



For Commercial Refrigerators (for a major restaurant group)

- 3500V, 10mA
- Voltage 2-output switching (transformer switching)
- Electric field formation stability system
- Panel-type high-voltage generation system



Purpose: Freezing and thawing of fresh food



For Home-use Electric Therapy Devices (under development)

- 3500V, 3mA, single output
- Mattress-type integration



For Sea Containers (for Vietnamese shipping company)

- 3500V to 4500V, switching, 10mA
- Voltage 4-output switching (microcontroller control)
- Electric field formation stability system



•Equipped with IoT
Purpose: Exporting fresh food to China



For Tabletop Refrigerators (for a major restaurant group)

- 3500V, 10mA, single output
- Electric field formation stability system
- Panel-type high-voltage generation system

Purpose: Preservation and maturation of meat



For Cold Storage Warehouses (for Chinese wholesale flower company)

- 3500V, 10mA
- Voltage 4-output switching (microcontroller control)
- Electric field formation stability system



Purpose: Shipment adjustment by flower-blooming suppression



For Home-use Electric Therapy Devices (for a treatment clinic)

- 3500V, single output
- Electric field formation stability system
- Panel-type high-voltage generation system

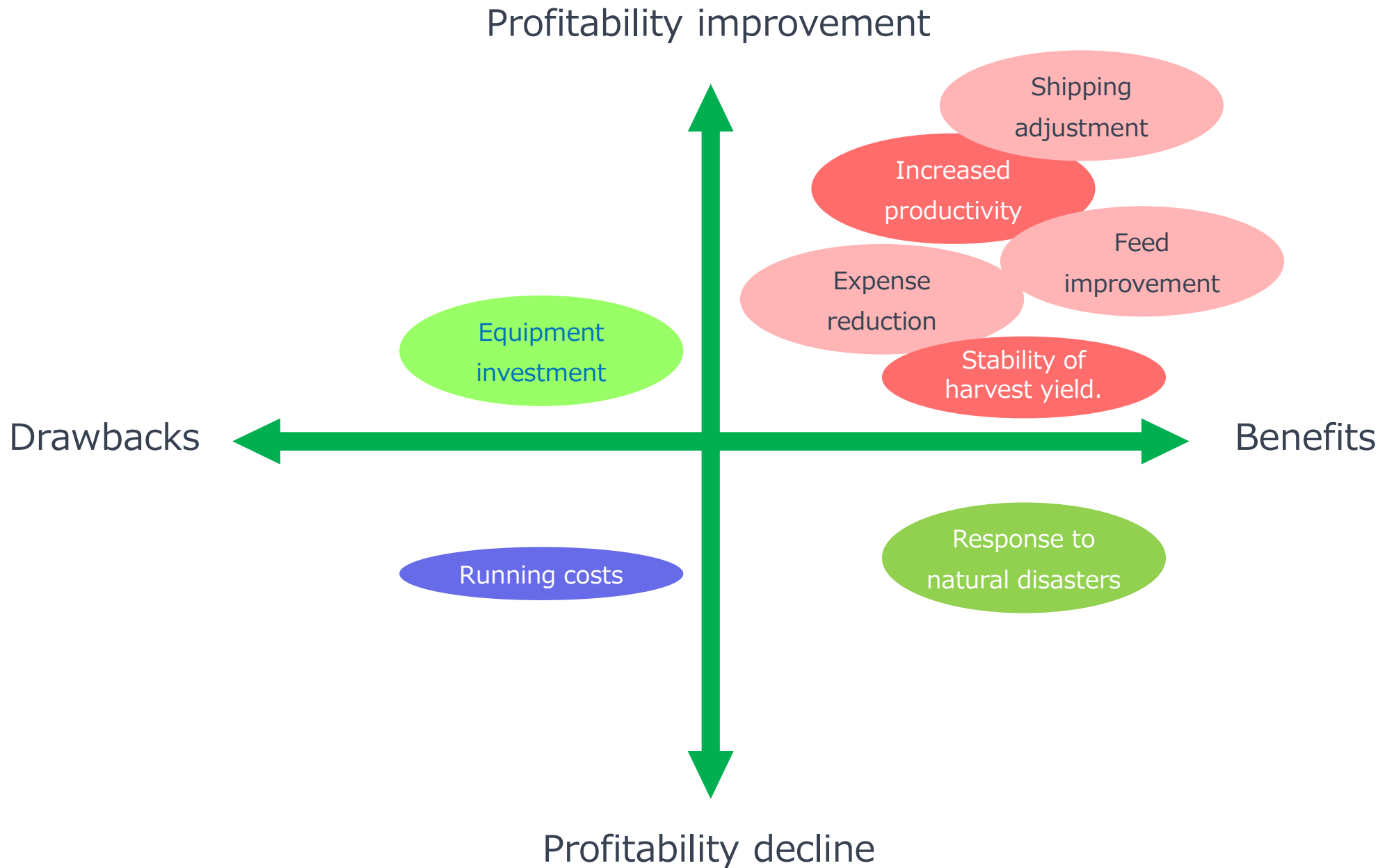


Purpose: Improving constitution and promoting health

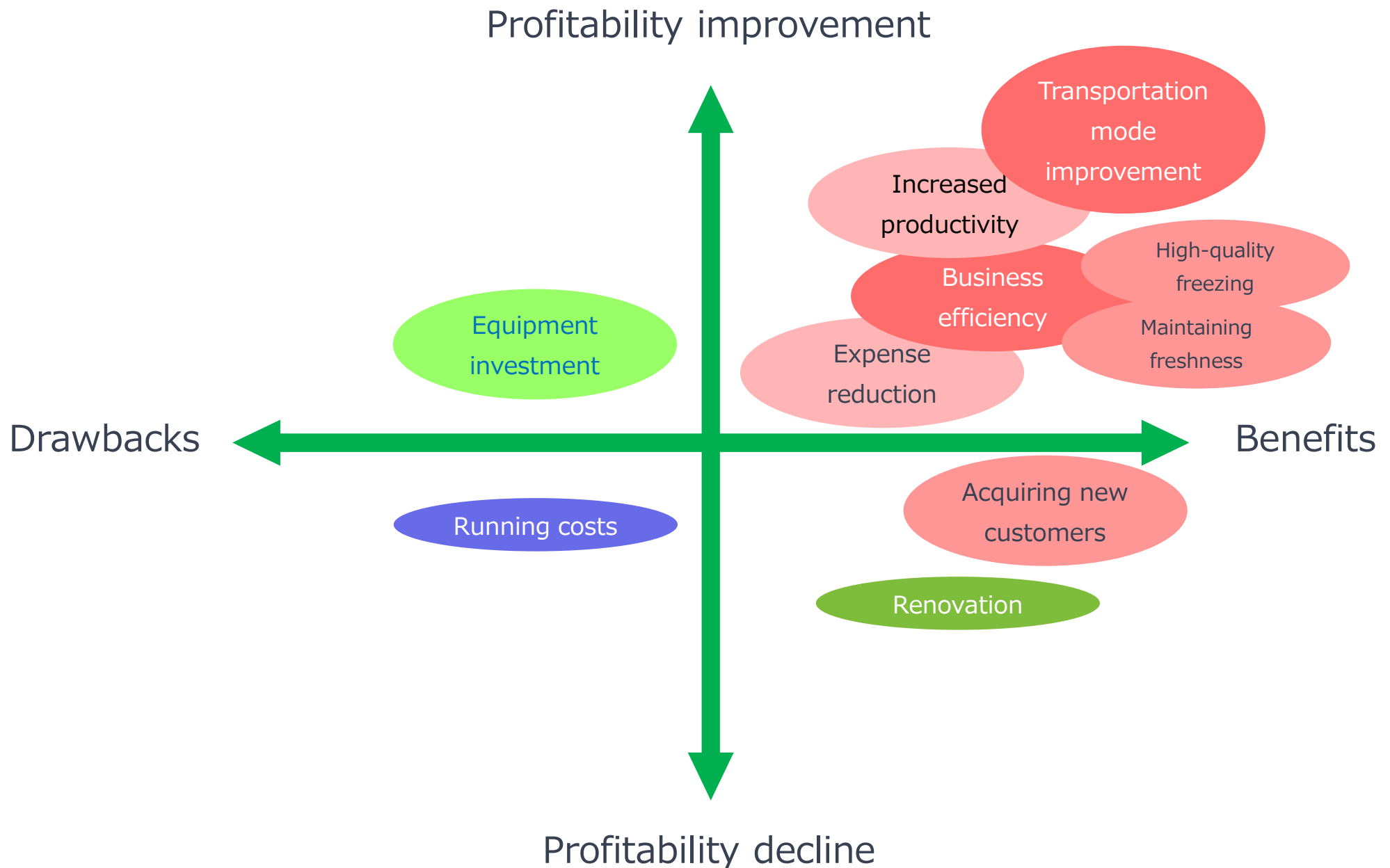
**Electromagnetic Field Systems
And
Productivity Improvement**



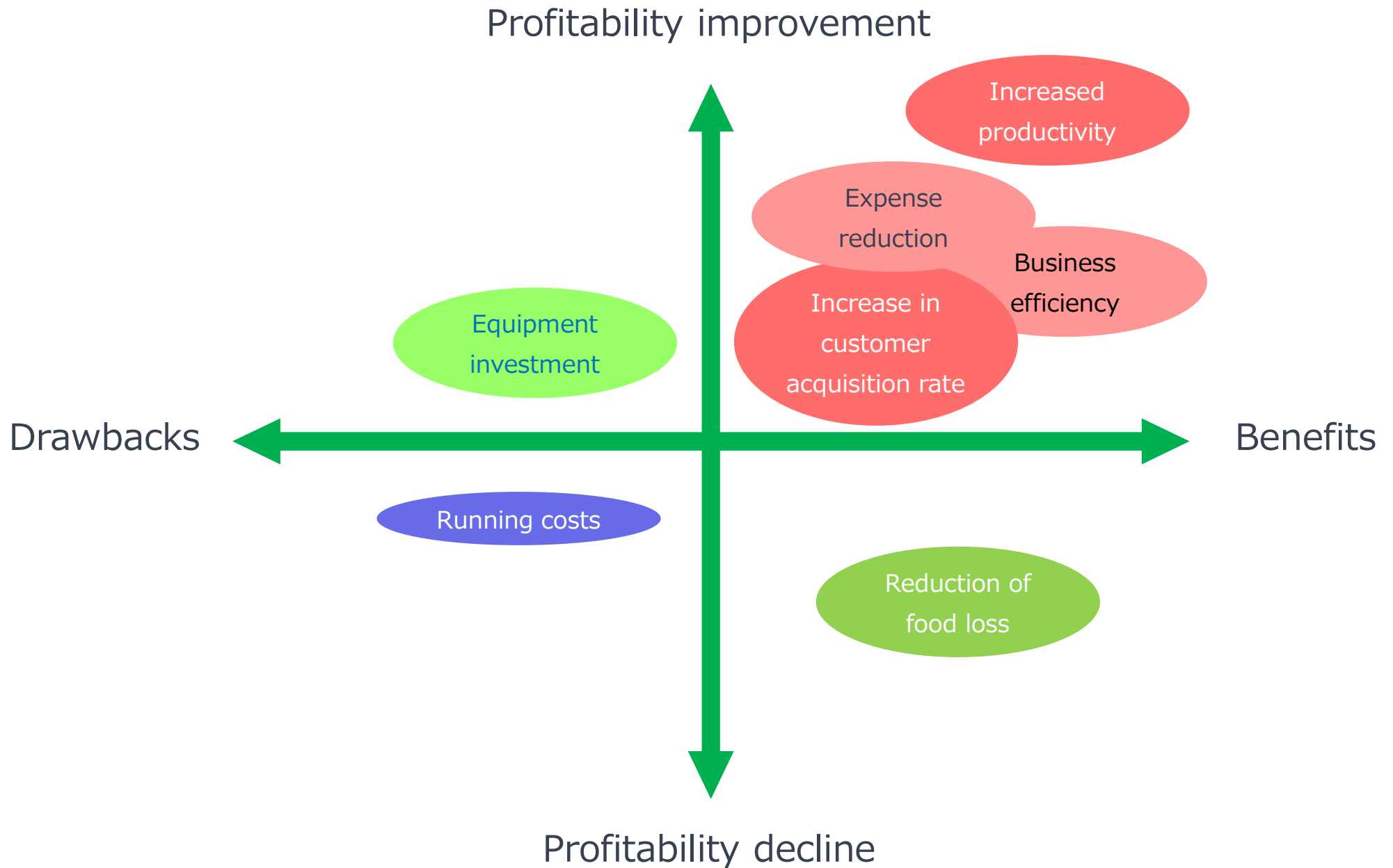
Production Industry (Agricultural, Fishing, Livestock, Floriculture, etc.)



Logistics Industry (Transportation: Railways, Ships, Trucks, Airplanes, Storage Warehouses, etc.)



Retail Industry (Supermarkets, Convenience Stores, Restaurants, etc.)



Energy Industry (Engine Oil, Boiler Oil, Batteries, etc.)

