



(주)프레시오스

PRESEAOS
3D CONCENTRATION TECHNOLOGY

PRESEAOS CO., LTD.

Vertical 3D Rope Salt and Mineral Extraction Technology

Business Summary 2023

Salt is born of the purest parents: The sun and the sea.



“Raising up the flat salt pans.”

Preseaos Rope Bio has reinvented the existing salt farm production method into a vertical 3D Salt Farm system through which we also offer unparalleled lithium, magnesium and other rare earth elements extraction technology.



The World's First Vertical 3D Rope Salt Farm

Preseaos Vertical 3D Rope Salt Farm is an innovation in the salt farm market.

We hope that we can reinvigorate the salt farm industry together for the benefit of the world.

Overcoming the problems of salt farming today.



The salt farm industry does not make much money despite putting in a lot of hard work.

The existing salt farm method takes a lot of time and labor and is highly affected by the weather and the environment, and it is very difficult to produce high yields because people have to work tirelessly, and there are many difficulties in quality control.

『**Preseaos**』 However, in Korea we have developed an effective way to naturally increase salt production to up to one hundred-fold and dramatically reduce the labor force needed using our simple automated salt production system.



STEP 1: Production of salt and minerals.

☐ Production of salt and minerals from pristine seas.

- Target country: Countries with access to the sea but facing climate or environmental issues that prevent them from securing salt domestically, relying on imports to meet their needs.
- Implementation plan: A collaboration agreement has been signed with the Philippines, and priority is given to advancing partnerships with 20 countries, including Congo and Ethiopia.

☐ Business progress structure: Joint Venture Company (JVC).

- Establishment of JVC with a local company or government in the target country: The target country holds a 70% stake, while our company holds a 30% stake in the joint venture.
- The local partner company in the target country provides capital, while our company offers technological support.
- JVC holds exclusive rights to operate and develop the business in the target country.

STEP 2: Development of marine resources.

☐ Expanding mineral-related business:

- Enhancing agricultural productivity by utilizing minerals as pest and disease prevention agents, as well as plant growth promoters.
- Supplying minerals as ingredients for cosmetics and health functional food.

☐ Developing marine resources.

- Extracting future key resources such as lithium (Li), magnesium (Mg), strontium (Sr) contained in minerals.

STEP 3: Exploration of the biotechnology market by integrating minerals and microorganisms.

☐ Resolving environmental pollution issues through the utilization of microorganisms.

- Purification of water and Polluted (contaminated) soil to improve water quality and enhance soil fertility → leading to increased productivity in agriculture and fisheries.

☐ Venturing into the healthcare market through the combination of microorganisms and minerals.

- Utilizing essential minerals for human health and beneficial microorganisms to create healthy food sources → ensuring a secure supply of nutritious food resources.
- Developing health supplements and pharmaceutical products.

Technological Competitiveness: Dehydration Technology

100 times



10 to 100 times the production volume compared to the existing salt farms

As seawater flows down the rope concentration adjusted up to 20%, the production per unit area increases by ten to one hundredfold.



90% automated system

The flow and concentration of seawater are automatically measured sequentially until optimized concentrated seawater is generated.



Quality Management

Concentrated seawater flows along the rope and contains abundant minerals and microorganisms. Any impurities are filtered out using filters.



By-products

It is possible to produce not only salt, but also highly concentrated seawater and bittern (nigari) as a raw material for cosmetics, health products and high quality fertilizer.

3D ROPE FARM

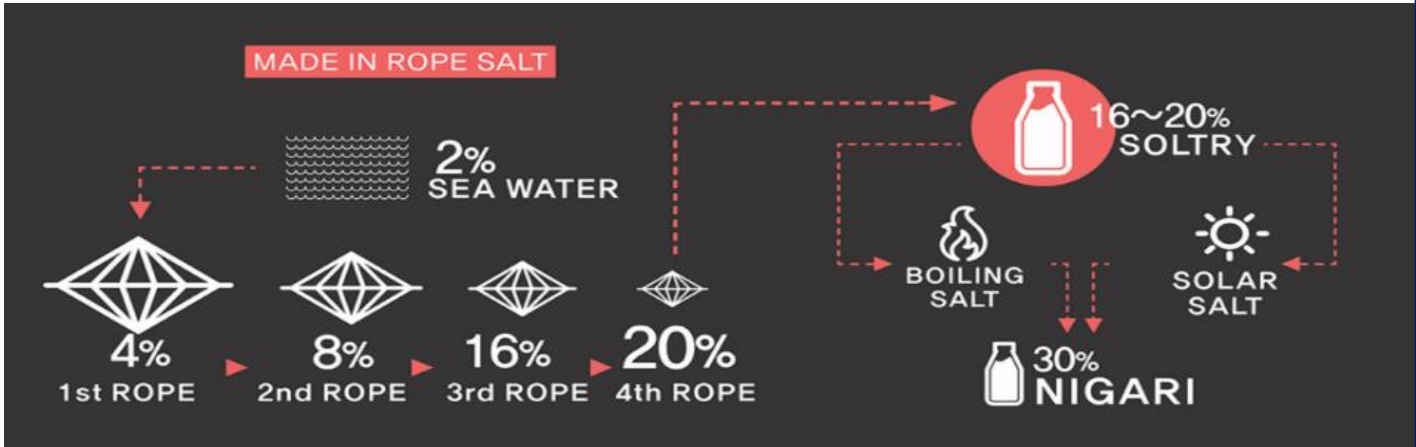


Technological Competitiveness: Dehydration Technology

- The salt produced from our vertical 3D Rope Salt System is characterized by its low sodium content, with a reduction of 80%.
- On the other hand, it is abundantly rich in various minerals, including calcium and magnesium.
- Test Results: Inclusion of Marine Resources

Provided by : Korea Testing & Research Institute

Classification	Korean Corporations			Dehydration Process						
	Daesang Co.,	CJ	Chungjungone	Phase 1	Phase 2	Phase 3				
NaCl (% , salinity)	97.9%	97.4%	95.9%	79.3%	83.0%	88.1%				
Ca (mg/kg)	1,000	400	1,100	6,700	4,300	9,000				
Mg (mg/kg)	2,500	2,600	7,800	14,000	4,400	9,100				
K (mg/kg)	-	-	-	-	-	2,400				
※ A lower concentration of NaCl results in a smoother taste, while a higher concentration of minerals (such as Ca, Mg, K) is considered beneficial..							Li	Sr	B	V
							25.9	2.4	536	0.19
							U	Mg		
							0.066	109,720		



It makes salt production easier by automatically making optimal concentrated seawater without laborious salt farm work

Test Report: Korea Basic Science Institute

한국기초과학지원연구원
Korea Basic Science Institute

시험결과서

제 목 : 시험결과서 (2021-TS-02278)

한국기초과학지원연구원 오창센터 충청북도 청주시 흥덕구 오창읍 연구단지길 162	발행번호 TS-02278 페이지 (1/1)	KBSI 한국기초과학지원연구원 KOREA BASIC SCIENCE INSTITUTE
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1. 의뢰자
○ 가 관 명 : 로프솔트
이 주 소 : (22754)인원광역시 서구 비즈나스루 166, 617동 2204호 (청라동, 청라국제 업무단지, 생원대평로제비암)
○ 의뢰일자 : 2021-07-14

2. 시험결과서의 용도 연구용
3. 시험대상품목/물질/시료명 : 농축해수40
4. 시험기간 : 2021-07-20 ~ 2021-07-21
5. 시험방법 :
6. 시험환경 (필요한 경우):

7. 시험결과 (내용이 초과되면 2페이지에 기재)

	Li	Sr	B	V	U	Mg
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
농축해수40	25.9	2.4	536	0.19	0.066	109720

상기 내용은 의뢰자가 제공한 시료에 대한 결과이며, 시료명은 의뢰자가 제시한 것으로 시험결과서의 책임이 없거나 사본은 무효임.
시험결과서는 "용도" 이외의 사용 (법적 분쟁 또는 상업적 광고용 등)을 금함.

학 인	작성자(시험자)	승인자
신형선 07/26	김정민 07/26	

2021.07.26.
한국기초과학지원연구원장

Game-changing Mineral Extraction Technology

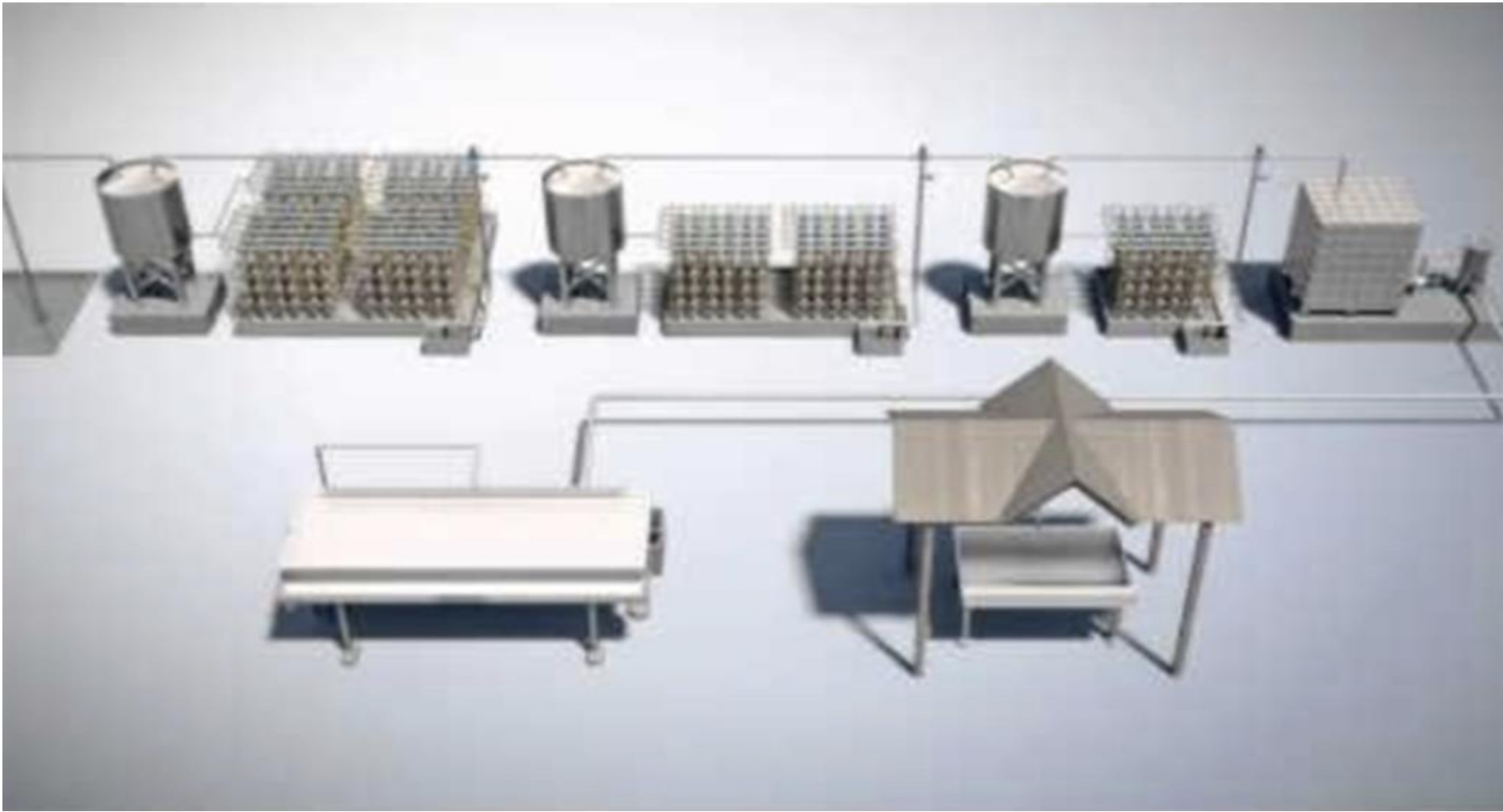


3D Salt Farm
Rope Bio Salt

ROPE BIO SALT

www.ropebiosalt.com

Press the arrow to
watch the video



Installation History of 3D Salt Systems



Yeongjong Island, new 3D Rope Salt Farms

- Salt Farm site: 600m²
- Salt Production: 10kg Per Day
- Nigari Production: 10L per day



Baengnyeongdo 3D Salt Farm (Installation)

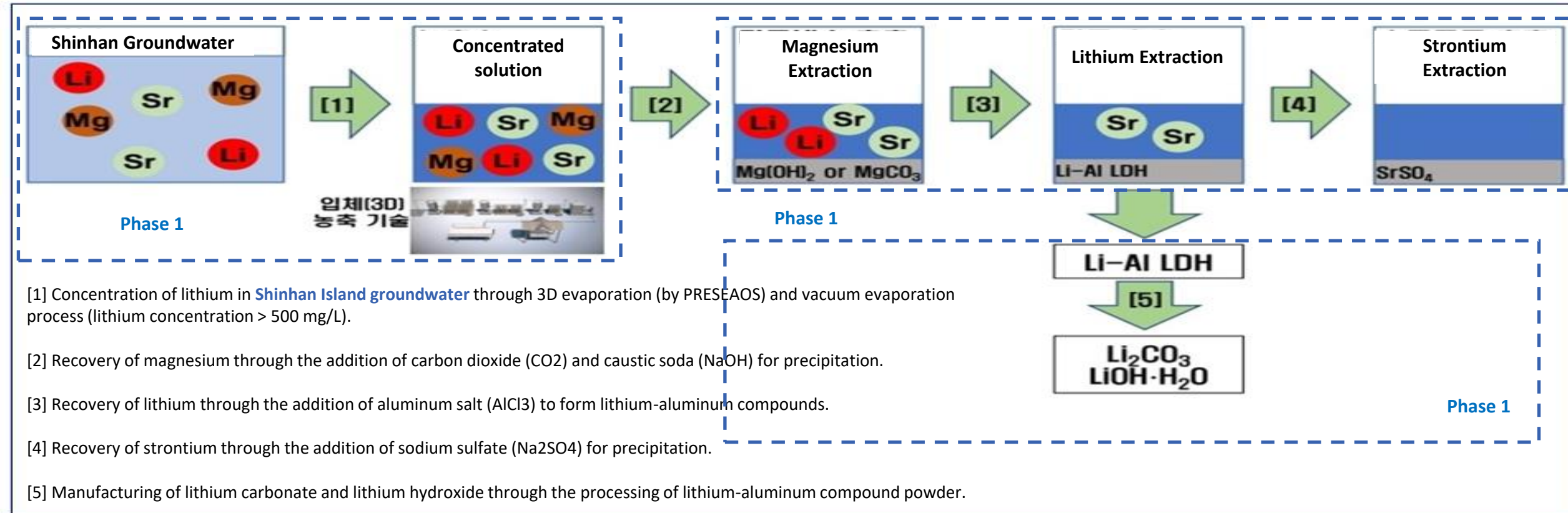
- Salt Farm site : 200m² (60평)
- Salt Production: 5kg per day
- Nigari Production: 5L per day



Jeju Island 3D Rope Salt Farm

- Rope Salt Farm site: 333m²
- Salt production: 20 kg per day
- Nigari production: 20L per day

Future Mineral Extraction Strategy from Groundwater and Seawater



- 1st Step: Production of highly concentrated brine by utilizing our Vertical 3D Rope Salt System, which concentrates seawater by 200 times.
- 2nd Step: Recovery of essential marine resources (such as Mg, Li, Sr) from the concentrated brine (discussions underway with partner companies for collaboration and implementation strategies).
- 3rd Step: Production of final products such as lithium carbonate or lithium hydroxide (exploring options to integrate with the 2nd step for efficient progress).

Comparing Korean Institute of Geology Refining Technology and Preseaos Refining Technology

Refining water of 200X concentrate with
Korean Institute of Geology Refining Technology



Using Geology Research Institute Refining Technology:
Needs a lot more time and money

Refining water of 200X concentrate with
Preseaos Refining Technology



Using Preseaos Refining Technology:
Significantly faster and cheaper

Enhancing Technological Competitiveness Upgrading Dehydration Technology

200 times



Improvement in Performance of the 3D Rope Salt System

Enhancement in structural functionality leading to improved dehydration performance per unit area

→ Up to 200 times improvement in performance compared to the previous system, doubling the previous 100-fold improvement.

➤ Test Results on the Mineral Resources (Shinan Island Underground Water (mg/L))

Classification	Li (Lithium)	Na (Sodium)	Mg (Magnesium)	Ca (Calcium)
Underground Water	15.05	3,002.12	183.85	3,188.27
Concentrated Water	917.97	2,451.48	11,742.04	168,802.65

Classification	Sr (Strontium)	Cl (Chlorine)	SO4 (Sulfate)	Remarks
Underground Water	72.66	10,828.92	921.77	
Concentrated Water	2,964.63	366,077.17	91.94	

➔ Possible Entry into the Mineral Resources Market with Economic Competitive Advantage

Test Report by SAP Analysis and Evaluation Research Institute



(주)SAP분석평가연구소
Safety Accuracy Process Lab

우 34016 / 대전광역시 유성구 테크노 3로 65, 620,621,622호 / T 042-933-2100 / F 042-933-3100

문서번호 : SAP-NC23-100 시행일자 : 2023년 04월 26일
 발 용 : 한국지질자원연구원
 보 념 : (주)SAP 분석평가연구소
 제 목 : 시험성적서

접수년월일	2023년 04월 18일	접수번호	SAP-NC23-100
검사완료일	2023년 04월 26일	검사목적	참고용
의뢰 담당자	박 인 수	시 료 명	원수 (신안) 외 1개
주소	대전광역시 유성구 과학로 124		

시험 결과

sample name	함량(mg/L)						
	Li	Na	Mg	Ca	Sr	Cl	SO4
원수 (신안)	15.05	3002.12	183.85	3188.17	72.66	10828.92	921.77
농축수 (신안)	917.97	2451.48	11742.04	168802.65	2964.63	366077.17	91.94

시험기기	ICP-AES, IC	시험기간	2023년 04월 18일 ~ 2023년 04월 26일
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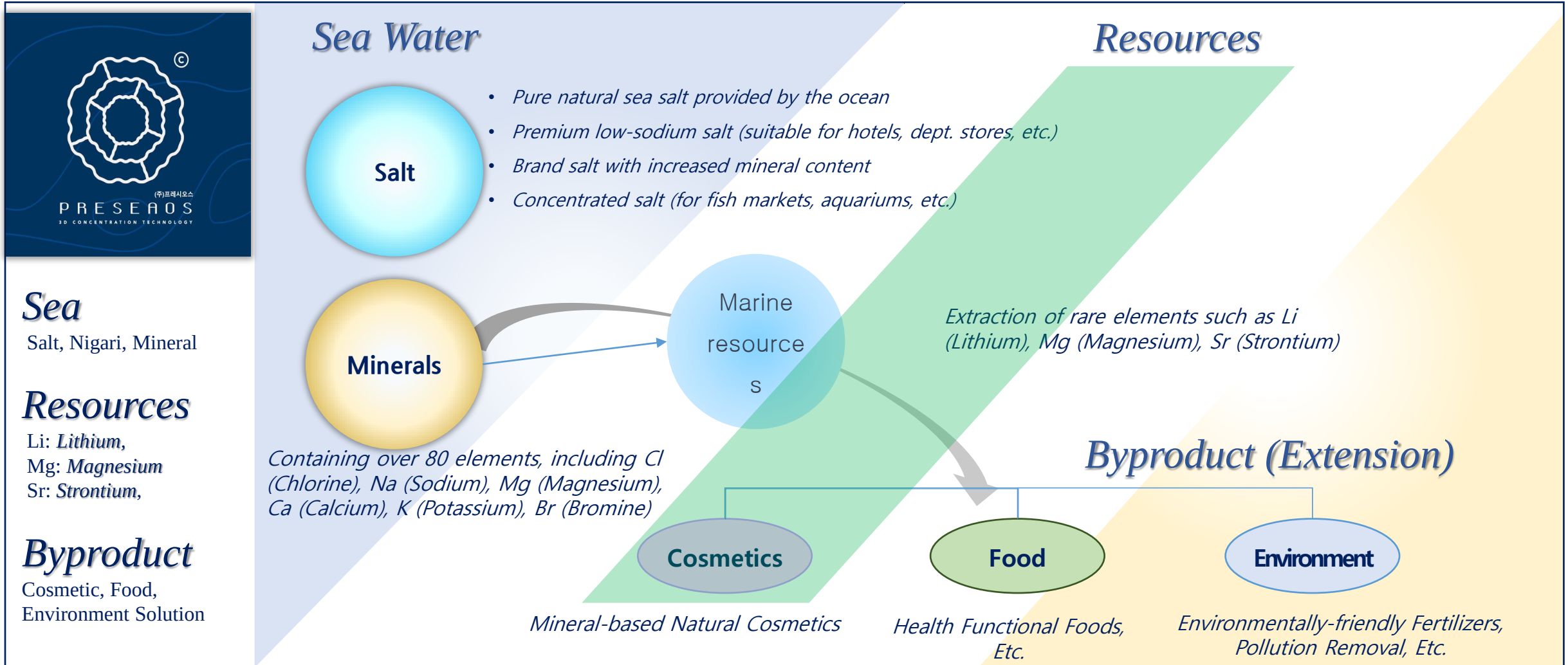
시 험 자	김 현 영	검 토 자	김 효 경
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* 이 성적서는 용도 이외의 사용을 금함
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 * 상기 내용은 의뢰자가 제출한 시료에 대한 결과임을 증명함

2023년 04월 26일

(주) SAP 분석평가연구소

Expanding the Business Scope Based on the Vertical 3D Rope Salt System





Domestic Market

Mineral

Development of marine resources

Companies C, S, T, etc.: Extraction of Li (Lithium), Mg (Magnesium), Sr (Strontium) from marine resources.
S, T Salt Evaporation Ponds: Joint development of salt evaporation ponds

Cosmetic, Food

Joint development of cosmetics for expansion into the US market.
Joint development of health functional food products.

International Market

Salt & Mineral



 PRESEAOs-BOLIVIA

 PRESEAOs-D.R. CONGO

 PRESEAOs-ETHIOPIA

 PRESEAOs-PHILIPPINES

Farm & Materials

Microorganisms

- Environmental pollution
- Nutritional supplements
- Food resources

Green Energy

Secondary batteries
Power generation projects

*For a Splendid
World*

La Ferme de Sel en Corde Verticale 3D désigne un système innovant et avancé de production de sel qui utilise un agencement vertical de cordes pour concentrer l'eau de mer et extraire du sel ainsi que des minéraux précieux tels que le lithium, le magnésium et le strontium.



Ce système implique un processus hautement automatisé et efficace qui permet d'obtenir des rendements en sel et en minéraux nettement plus élevés par rapport aux méthodes traditionnelles.



La technologie a également le potentiel de résoudre des problèmes environnementaux, de produire des sous-produits tels que des composés de magnésium et de lithium, et d'étendre ses applications à des domaines tels que les cosmétiques, les aliments fonctionnels pour la santé, les engrais, etc.



Elle englobe une approche globale de la production durable de sel et de minéraux tout en tenant compte de diverses opportunités sur le marché et considérations environnementales.

BOARD Structure

CEO : Park Sang-Su

- Récompensé comme Excellent nouveau employé au sein du Groupe Hyundai
- Chef du Corps de Volontaires de la Jeunesse
- Lauréat du Prix Asia Rookie dans le domaine de la littérature et des arts
- Représentant des Entreprises de la Délégation Économique du Président Kim Dae-jung
- PDG de OK Town Co., Ltd.
- Président de Rope Salt Co., Ltd.
- PDG de PRESEOS Co., Ltd.

CTO : Park Young-Hee

- Lauréat du Prix Bronze à l'Exposition des Inventeurs Coréens
- Sélectionné comme récipiendaire du Prix d'Excellence à l'Exposition de l'Économie Créative
- Lauréat du Prix d'Or à la Foire Internationale des Inventions et Brevets de Séoul
- Participation à l'une des trois principales expositions agricoles mondiales
- Participation à l'Exposition IGW Berlin
- Enregistrement d'un brevet pour la technologie d'évaporation de sel en 3D dans 17 pays, dont les États-Unis et l'Union Européenne
- PDG de Rope Salt Co., Ltd.
- CTO de PRESEOS Co., Ltd.

Management & Advisory Team

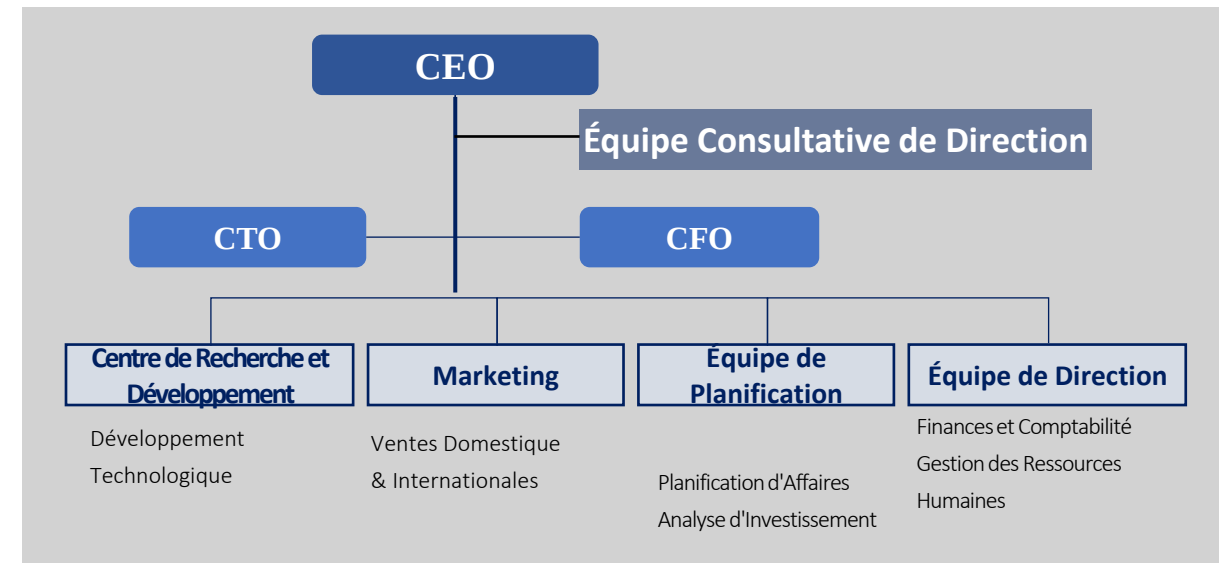
Réseau International et Marketing :

- Dr. Mallory Leece (Opérations à l'Étranger) : Président Exécutif des Affaires Mondiales
- Vice-Président Mondial de l'Université Sun Moon (Réseau dans 120 pays)
- Dr. Emmanuel Adu : Vice-Président Exécutif des Affaires Mondiales
- Professeur à l'Université Sun Moon
- Dr. Lee Chanwoo : Professeur à l'Université Kyung Hee (Gestion et Marketing International)

Conseillers Techniques :

- Dr. Jo Byung-wan : Professeur à l'Université Hanyang, Président Régional de l'Association de Collaboration Industrie-Université du ministère des PME et des Startups à Séoul
- Lee Wonjae : Conseiller, Consultant Technique pour la Deuxième Division Batterie chez Zygell et Partenaire CM pour l'Unité d'Acquisition de l'Unité Batterie

"Organigramme



PRESEAOS CO., LTD.

Vertical 3D Rope Salt and Mineral Extraction Technology

Thank you

Salt is born of the purest parents: The sun and the sea.