















How are you?
I'm Jaewoong Park,
CEO of Yangji P&R.

CEO Jaewoong Park

Recycle Business Department:

General waste intermediate recycling business, designated waste comprehensive recycling business

Special Metals Division: W, Co, Ni, Mo, Ta Superalloy

The business field of business Sales marketing of large corporations, smelters, etc Power Semiconductor Sales Marketing Foreign trade business



### ··: Overview

Corporate name	Yangji P&R Co., Ltd
CEO	Jaewoog Park
Date of establishment	07/07/2010
Business registration number	134-86-68613
location	Seonjin 1-gil 9, Sangnok-gu, Ansan-si, Gyeonggi-do, Rep ublic of Korea
Capital	400 million won
Business type	The intermediate waste treatment business

# :: History

2010	7 July	Yangji P&R Co., Ltd established
	August	Permission for wastewater recycling business and intermedi ate waste recycling business
2013	August	Extension or renovation
2014	Decem ber	Confirmation of venture companies
2015	January	Establishment of an affiliated research institute
2016	July	Add items, increase processing capacity
2017	Decem ber	Win \$3 Million Export Tower
2018	January	ARA-M Co., Ltd established
2019	15 Aug ust	Work-life balance campaign participate in work-life balance companies

#### **Permits**

# Intermediate Treatment of Waste Permit

Initial Permission: 2002.06.25. Electronic Waste, Industrial Electronic Waste, Synthetic resins, Processed Dust, Processed Sludge, Used Absorbent, Used Electronic wire



# Installation Permit of wastewater discharge facilities

Initial Permission: 2000.07.26.
Permission to Install Air Emission Facilities
Non-Ferrous Metal Smelting, Refining and Alloy
Manufacturing Facilities
Waste Gas/Dust/Cleaning/Condensation Facilities
in Industrial Facilities
Wastewater Discharge Facilities and
Treatment Specifications (5 Types of Water Quality)



# 

# Atmospheric emission facility installation permit

Initial Permission: 2001.11.02 Facilities and Prevention Facilities that Discharge Pollutants, Etc. Pollutant Types: Dust, Sulfur Oxides, Nitrogen Oxides



# Certificate of completion of education related to waste treatment

No. 220832-0412 Completion of waste-related law education once a year

#### **Permits**

#### TS 16949

First Issued in 2016
Product and Process Quality Improvement
Securing Trust in International Trade
Redistribution of Suppliers' Resources for Quality
Improvement
Equal Quality Between Supplier and Subcontractor
Maintaining Systematic Approach and Consistency



# | STATE OF THE PARTY OF THE PAR

#### Certificate of Environmental Liability Insurance

Environmental Pollution Liability (CSL) Subscription Certificate

#### ISO 9001

First issued in 2016
Able to Consistently Provide Products and Services
that Comply with Applicable Statutory and
Regulatory Requirements.
Addresses the Risks and Opportunities Associated
with the Organization's Context and Objectives.



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# Industry-Academia Cooperation Agreement

Industry-Academia Cooperation Agreement With Ansan-si Technical High School in South Korea. Purpose of Mutual Cooperation to Foster Vocational Professional Talent in Specialized High Schools

#### **Process**

#### Trade Member Certification -Korea International Trade Association

Membership Certification of Trading Companies for the Purpose of Promoting South Korea's Trade and Promoting the Rights and Interests of the Trading Industry



# 

#### **Work and Life Balance**

3 Important Rules for Work and Life Balance Not Working Long Work Smart To Rest Properly

### **Export Proof Tower**

Achieved 1 Million Dollar Export Tower in 2016 Achieved 3 Million Dollar Export Tower in 2017

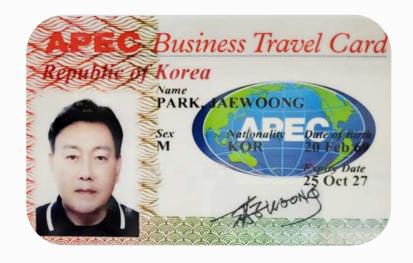




# **Venture Business Confirmation**

Confirmation that the Above Company is a Venture Business in Accordance with the Provisions of Article 25 of the Special Measures for the Promotion of Venture Businesses

### Asia-Pacific Economic Cooperation





Asia-Pacific Economic Cooperation (APEC[1]: Asia-Pacific Economic Cooperation) is an International Organization created to strengthen the economic union of Pacific Rim countries. It has a secretariat in Singapore, and a total of 21 countries are participating.

### **Cooperation Certification Mark**



### Côte d'Ivoire - South Korea

Incorporation Co-CEO

Cote d'Ivoire Plant Construction Completed



### 사업개요/시장현황





### **Process**



### **Production Plan for Non-Metal**

Production Plans for the next 5, 10 and 15 years

Alluvial Gold Extraction and Other Non-Metal Production from Neighboring Contries





Purification(Au)
Content 99.9%
Content 99.99%





Purification(Ag)
Content 99.99%





Purification(Pd)

Content 99.99%





Purification(Cu)

Content 99.99%

# Other processes of Au

### **Production Progress Items According to Usage**











Au Powder
Content 99.99%





Au wire
Content 99.99%

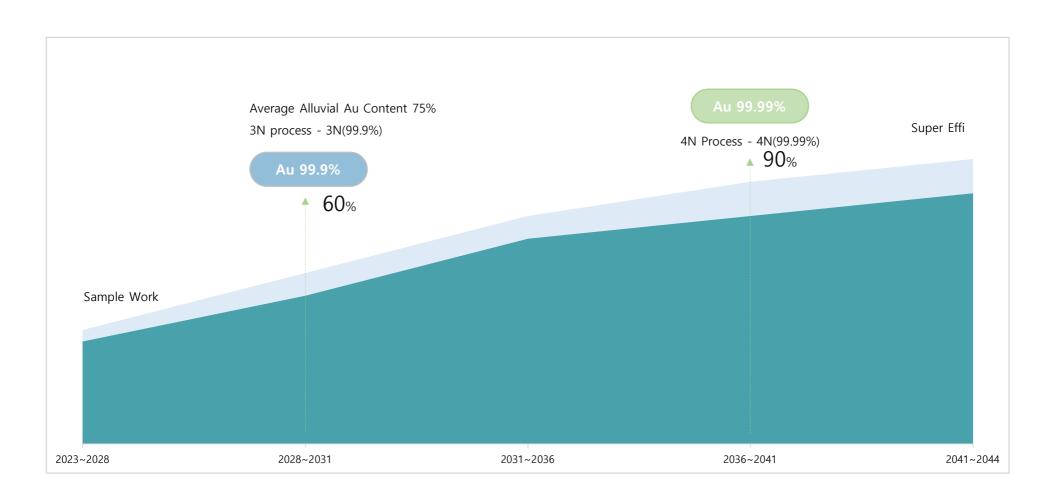




Au granule

Content 99.99%

# Au 생산 사업 진행도



### 10 Years Mega Plan For Man

Core Technology, Policy

MNS-3

Classification	Code	2023	2024	2025	2026	2027 20	28 202	9 2030	2031	2032	2033	
Training	MNT-1	Purification(Au)			ation(Ag)	Purifica	Purification(Pd)		tion(Cu)			
Field Training	MNT-2	Field			Field		Field		Field			
License	MNT-3		General Level		Expe	Expert Level Maste			Champ	ion Level		
Education	MEN-1		Special purpose	Univ. and Institu	to	Special purpose Univ. and Institute						
Connection with Univ. or Institute	MEN-2		special pulpose	oniv. and mstitu	ie	3	peciai pui pose c					
Field Credit	MEN-3	Cur	riculum	Credit, 3rd	Credit 4th	Curriculum Credit, 3rd Credit 4th						
R&D program	MNS-1		Government Funding									
International R&D	MNS-2		Côte d'Ivoire - South Korea									

Mega Stretegy on the Technology in Côte d'Ivoire Univ

### Au 공정도

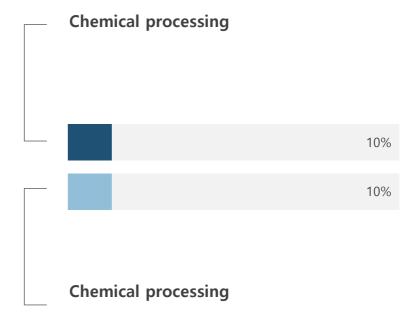
### Preprocessing

Selection and peeling work-Increasing production efficiency by completely removed from the generated foreign substances



### aqua regia

Chemical processing



# 10 Years Mega Plan For Au

Classification	Code	2023			2029	2030	2031	2032	2033

Chemical Purification	MeAu-1
Factory Resource	MeAu-2
Remelting	MeAu-3
Ingot	MeAu4
plate(granul)	MeAu5
Powder	MeAu6
Wire	MeAu7

Sample \	Work	3N process	- 3N(99.9%)		4N Process	- 4N(99.99%)		Super Effi 능률 향상			
Construction 1		_		Constru	ection 2		Consti	Construction 3			
Infrastructur	e Facility				HVM & Super Effi.						
Middle Cost-Mi	ddle Volume Ty	pe (MM-type)	Middle Cost	High Volume Type(MH-type)  Low Cost-High Volume Type(LH-type)					)		
	Homog	geneous Plate(m	m scale)		Thin Foil-Homogeneous Thickness(micro scale)						
	HVM			Super Effi			Customized Shape / Clean Surface				
		Clean 3N Powde	r	S			Super Clean 4N Powder				
	Micro-Milimet	ter Scaled Wire		Nano Wire	Nano Wire, Homogeneous Properties			Surface Treatment, Nano Wire			

# Construction of Machine and Facility





### **Gold Wire Hardware**

Among the Au Production Items, Build Mechanical Facilities to Freely Change the Size According to the Use of Gold Wire

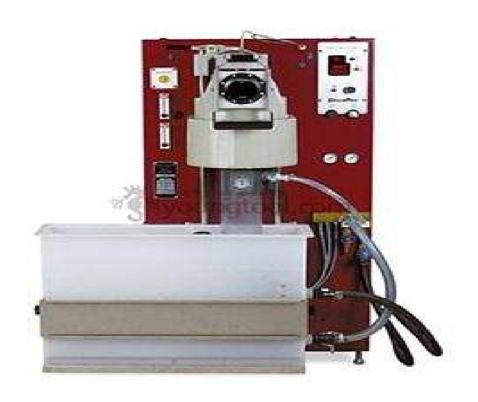
# Construction of Machine and Facility



### **Gold Powder Grinder**

Among the Au Production Items,
Installation of Mechanical Facilities that
can Produce Uniformly such as the Particle
Size of Gold Powder According to the
Purpose of Use

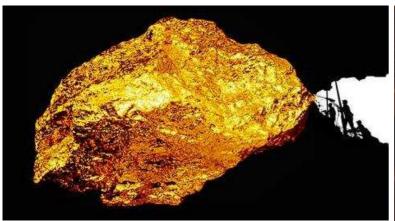
# Construction of Machine and Facility

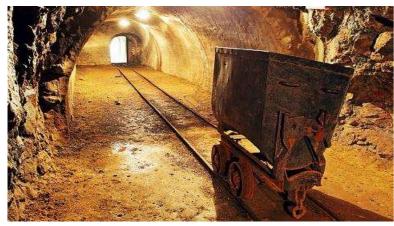


### **Gold Granule Grinder**

Can be Produced in Sizes
Suitable for Use by Size
Equipment for Production
of up to 1 Ton per Day

### **Gold Mine Exploration**







### **Gold Mine Exploration**

Mineral Exploration and Establishment of Working Environment in Côte d'Ivoire and Neighboring Countries will be Carried out According to the Work Manual

Periodic Implementation of Safety Rules and Safety Training for Workers Prevention of Environmental Pollution and Preparedness for Safety Accidents

### **Gold Mine Exploration**









# Mobile Diamond Small Scale Gold Mine Equipment

High-intensity cleaning for large-scale placer mining.

Clay Scrubber will be used to increase mechanical equipment gold recovery.

Plan to use patented hydraulic vibrating Sluice with high recovery rate and not easily damaged.

High durability, double layer, non-slip, antiwear, anti-corrosion

### **Gold Mine Exploration**









### Sorting machine to be introduced

Automatic collection and screening line expansion using a sorting machine at the same time as collecting gold.

Increasing work time reduction effect.

Increased amount of Alluvial Gold

### 10 Years Mega Plan For Non-Metals

- 1										
	Classification	Code	2023			2029	2030	2031	2032	2033

Chemical Purification	MeAg-1	Construction								
Factory Resource	MeAg-2	Infrastructure Facility		MeAg-3(Temperature, Chemical, Water)						
Remelting	MeAg-3		HVM & Super Effi.							
Ingot	MeAg-4		MeAg-4(Temperature, Crucible, Machine)							
plate(granul)	MeAg-5			TBD						
Powder	MeAg-6	Prepa	aration	TBD						
Wire	MeAg-7			TBD						

# Machine for Au

Classification	Code	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Classification	Code											

Chemical Purification	McAu-1
Factory Resource	McAu-2
Remelting	McAu-3
Ingot	McAu-4
plate(granul)	McAu-5
Powder	McAu-6
Wire	McAu-7

Development of High purification M/C for 3N and 4N									
	induction melting M/C								
	Diversion to reusable Material Process								
Induction M/C and Stopper	Extrusion M/C	Post Process M/C							
forming process									

### Remelting

### Standard

1ton over the day is scheduled for work

Stabilization of machinery and construction

# Application

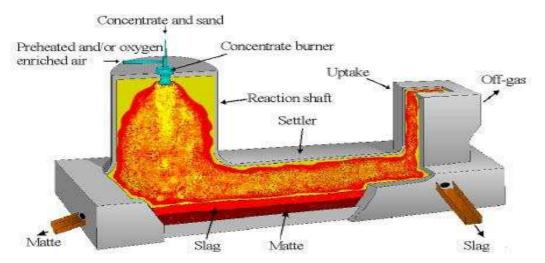
Scheduled (at least 2 years after the project)

### **Result of Processing**

Loss rate ↓
Scheduled to proceed with high
content(Within 10 years)

Production of Reusable Gold Bar

# Machine equipment and construction





### **Melting machine**

Melting from gold is planned to be made into gold bars after heat treatment by induction Gold ingot shape production by induction highfrequency work

(High-purity melting to enable precision work)

### **Machine for Non-Metals**

Classification	Code	2023			2029	2030	2031	2032	2033

Chemical Purification M/C	McCu-1
Remelting M/C	McCu-2
Infra: Factory Resource	McCu-3
Powder	McCu-4
wire	McCu-5
plate(granul)	McCu-6
Ingot	McCu-7

Chemical Purification M/C	McSn-1
Remelting M/C	McSn-2
Infra: Factory Resource	McSn-3
Powder	McSn-4
wire	McSn-5
plate(granul)	McSn-6
Ingot	McSn-7

	purification M/C fo	or 3N		High purification M/C for 4N			
			induction m	nelting M/C			
	Precipitation Infrastr	ucture		High Precipitation Module			
Preparation				Medical, Plating			
	Preparation						
Preparation	Processing			High Quality & Low Costs			
			High purificat	ion and HVM			

	purification M/C fo	or 3N		High purification M/C for 4N			
			induction n	nelting M/C			
Precipitation Infrastructure				High Precipitation Module			
	Preparation			Medical, Plating			
	Терагасіон			Part of Semiconductor			
Preparation Processing				Jewelry			
	High purification and M/C for Capable of Processing						

### **Chemical Purification**

Classification	Code	2023			2029	2030	2031	2032	2033	

Chemical Purification M/C	McDia-1
Remelting M/C	McDia-2
Infra: Factory Resource	McDia-3
Powder	McDia-4
wire	McDia-5
plate(granul)	McDia-6
Ingot	McDia-7

purification M/C for 3N				High purification M/C for 4N		
			induction m	elting M/C)		
Precipitation Infrastructure				High Precipitation Module		
	Dranavation			Medical, Plating		
	Preparation			Part of Semiconductor		
Preparation	Processing			Jewelry		
High purification and M/C for Capable of Processing						

### Chemical Purification After 10 Years

Classification	Code	2034			2037	2038	2039	2040	2041	2042	2043	2044	
Training	MNT-1	Education for H	igh Inteligence										
Field Training	MNT-2		Foundation of Task Force Team and Quailty Control Team										
License	MNT-3												
Education Connection with	MEN-1				Dovolonmon	ot of Uigh Ousi	lty Education(Led	stura Field Evr	porioneo etc.)				
Liniv or Institute	MEN-2				Developmen	it of Flight Qual	nty Education(Let	ture, Field Exp	deficience, etc.)				
Field Credit	MEN-3												
R&D program	MNS-1				Gov	ernment Fundi	ng and Advance	d Research Su	bject				
International R&D	MNS-2					Côte	d'Ivoire - South	Korea					
Core Technology,	MNS-3				Mega	a Stretegy on t	ne Technology ir	n Côte d'Ivoire	Univ.				
Policy Chemical Purification	MeAu-1					Maintai	ning Human Res	SOURECE					
Factory Resource	MeAu-2					Wallita	ining trainian ite.	ourcec					
Remelting	MeAu-3												
Ingot	MeAu4	G	ranule Forming			Extr	usion			Wire for I	T devices		
Plate(Granule)	MeAu5				F	orming Proces	S		_				
Powder	MeAu6							Fo	orming Process				
Wire	MeAu7												

# 기타 귀금속

#### 사용용도에 따른 생산 진행 품목





Ag Granule





Palladium
High Content 99.99%





Copper Wire
High Content 99.99%





**Platinum**High Content 99.99%

### **Intermediate Materials**

Chemical Purification	MeSn-1	Foundation of Task Force Team and Quality Control Team	
Factory Resource	MeSn-2		
Remelting	MeSn-3		
Ingot	MeSn-4		
plate(granul)	MeSn-5		
Powder	MeSn-6		
Wire	MeSn-7		
Chemical Purification	MeDia-1	Foundation of Task Force Team and Quality Control Team	
Factory Resource	MeDia-2		
Remelting	MeDia-3		
Ingot	MeDia-4		
plate(granul)	MeDia-5		
Powder	MeDia-6		
Wire	MeDia-7		

### Ag 공정도

### **Preprocessing**

Selection and peeling work-Increasing production efficiency by completely removed from the generated foreign substances

80%

10%

**Chemical Treatment** 

### **Chemical Treatment**

10%

### Pd 공정도

### **Preprocessing**

Selection and peeling work-Increasing production efficiency by completely removed from the generated foreign substances

80%

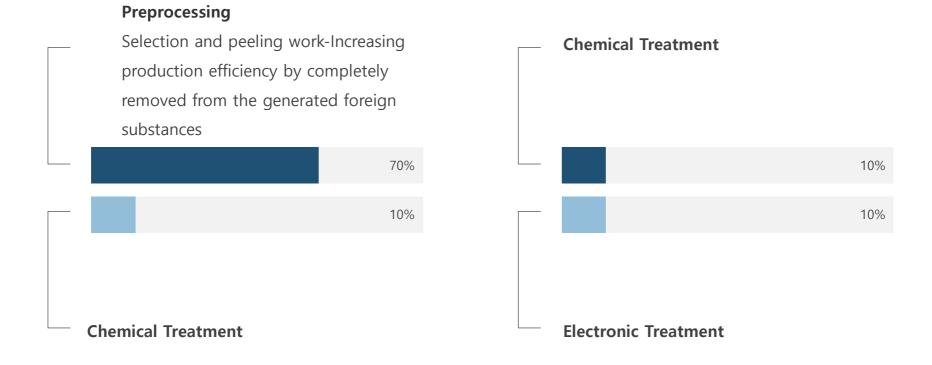
10%

**Chemical Treatment** 

## **Chemical Treatment**

10%

### Cu 공정도



#### Pt 공정도

#### Preprocessing

Selection and peeling work-Increasing production efficiency by completely removed from the generated foreign substances

10%

**Chemical Treatment** 

#### **Chemical Treatment**

10%

### 생산 형태

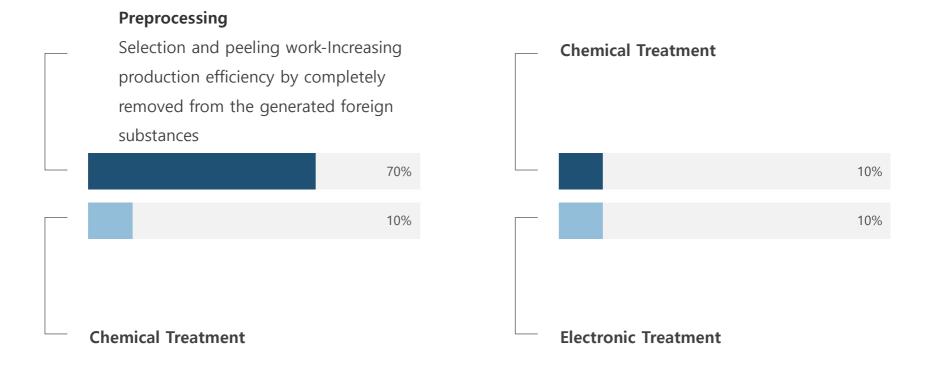


### 기타 비철

#### 귀금속 외 기타 비철 생산 가능



#### Ni 공정도



#### 시험 분석





#### Metal content analysis

Au,Cu,Ag,Pd



Analysis Manual
Acquisition of
analysis manual



daily, periodic, and monthly basis



Quick analysis distribution receiving a quick reply to the analysis report for each metal



#### 환경 규정 준수



Use ecologically friendly

Awareness of Global Warming that The Whole World is Focusing on



climate change response



National Action Plan on Energy Efficiency (NAPE)



Reducing carbon dioxide emissions





#### **Compliance with Environmental Regulations.**

Environmental Pollution Prevention Technology and Mechanical Facilities/Construction Planned.

(5-year facility plan)



#### **Atmospheric Scrubber**

Treatment of Wastewater and Residues

Discharged after Production.

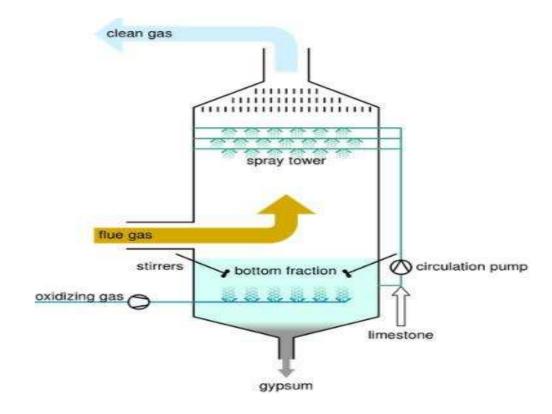
Plans to Support Facility Lines as much as

Possible in South Korea.

#### Scrubber

It is used in chemical factories, plating factories, PCB factories, etc. and is installed where water-soluble organic compounds are removed.

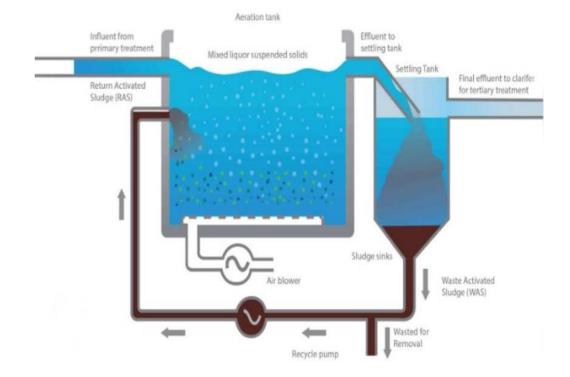
A method of separating particles by adhering to particles by washing dust exhaust with droplets, liquid films, bubbles, etc., and promoting aggregation between particles



#### 폐수처리기

A treatment facility that purifies wastewater that fulfills its role in commercial and industrial facilities.

Compliance with environmental regulations and optimization of industrial wastewater treatment costs. It is not accepted by local wastewater treatment facilities and requires pre-treatment or complete on-site treatment.



#### 인사



#### 인사 계획표

< 2023~2025 >

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Start



Purification(Au,Ag,Pd,Cu)



Finance & Accounting



Special purpose Univ. and Institute



Sales Dep.



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Law Dep.

## Foundation of Task Force Team and Quailty Control Team

## Education for High Inteligence

Theory Education
Field Training
Completion of national
qualification



Purification(Au,Ag,Pd,Cu)

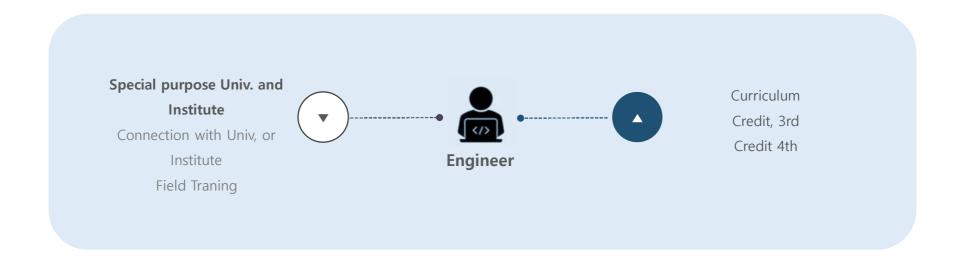
General Level

Expert Level

Master Level

Champion Level

# Development of High Quailty Education(Lecture, Field Experience, etc.)



# **Government Funding and Advanced**

# **Research Subject**

#### **Government Funding**

R&D program International R&D Core Technology, Policy



Côte d'Ivoire - South Korea Mega Stretegy on the Technology in Côte d'Ivoire Univ

Corporate internal accounting and financial management tasks



Monthly settlement, quarterly settlement, annual settlement auditor response

Tax reporting and investigation response

#### Overseas/Domestic Purchase Sales Team



Buyer discovery and meeting

Composition of overseas and domestic

export platforms

Composition of import and export

business items

#### Professional Law Team



#### National technical license

National qualifications refer to qualifications newly established, managed, and operated by the state in accordance with laws and regulations.

#### **Standard**

Recognized competency evaluated according to certain standards and procedures

"National Technical Qualifications" in the field of technology and skills, and national professional qualifications that qualify for work requiring expertise

#### **Application Date**

Planned (Promoted for 10 to 15 years after project progress)

#### Result

In the future, it will lead to certification recognized in each country

Scheduled to utilize qualification holders and follow-up management in accordance with relevant business laws and regulations

## Special purpose Univ. and Institute

Mega Stretegy on the Technology in Côte d'Ivoire Univ.

#### business information

Promotion of national task projects

Composed of engineers & researchers, planning to carry out national project projects

# 함께 대통하고 함 1차 미래 학신기술 연구과제 공모-에너지, 로봇, 모발라티 서비스, 시 분야 - 로모스트 하는 이 보내는 이 보내는



#### **Application Date**

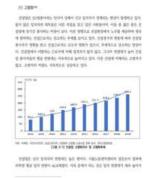
Planned (Promoted for 10 to 15 years after project progress)

#### Result

Plans to receive various support from the country in the future through research projects

This kind of training will make it possible to dispatch support to each country





#### **Summary**

Cote d'Ivoire corporation established

2 co-representatives

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2023 Years Start

Au HVM
Production of 80 tons of Au and
other metals per month
99.9%, 99.99%

Aulluvial gold prospecting

Establishment and establishment of
machinery and equipment suitable for use
Establishment of productivity guaranteed
automation line

Staffing
Arrangement of professional manpower
Corporate growth
maximization effect



Introducing licenses in different professional fields from other companies

From gold mining to import/export permits, emission, measurement permits, and more



## Thank you!

