

JICA NON-REVENUE WATER TRAINING PROGRAM

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Deputy Director:
Water Demand

JICA TRAINING

➤ JICA

- Japan International Cooperation Agency
- Japanese Ministry of International Affairs
- Supports Developing Countries

➤ SALGA LOI

- Agreement With SALGA 2017
- NRW Reduction
- Online Training - March 2022

➤ On-site Training

- DWS Mandate
- Yokohama - October 2022
- JWWA / YWWB / YWC
- 7 RSA Participants



Yokohama Water



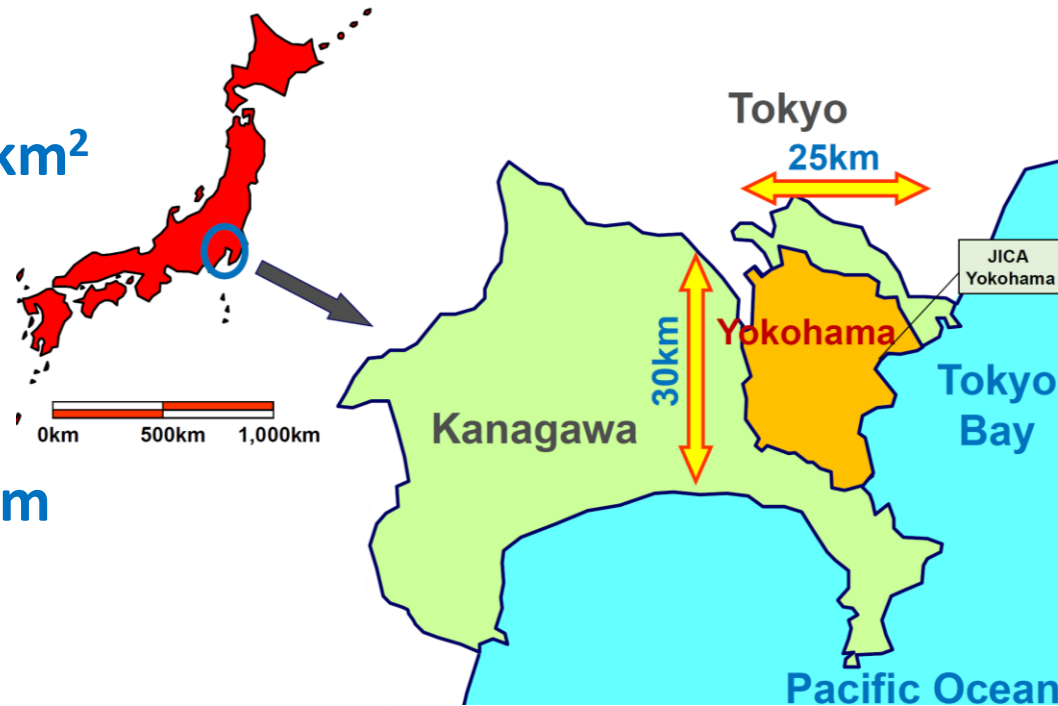
LOCALITY



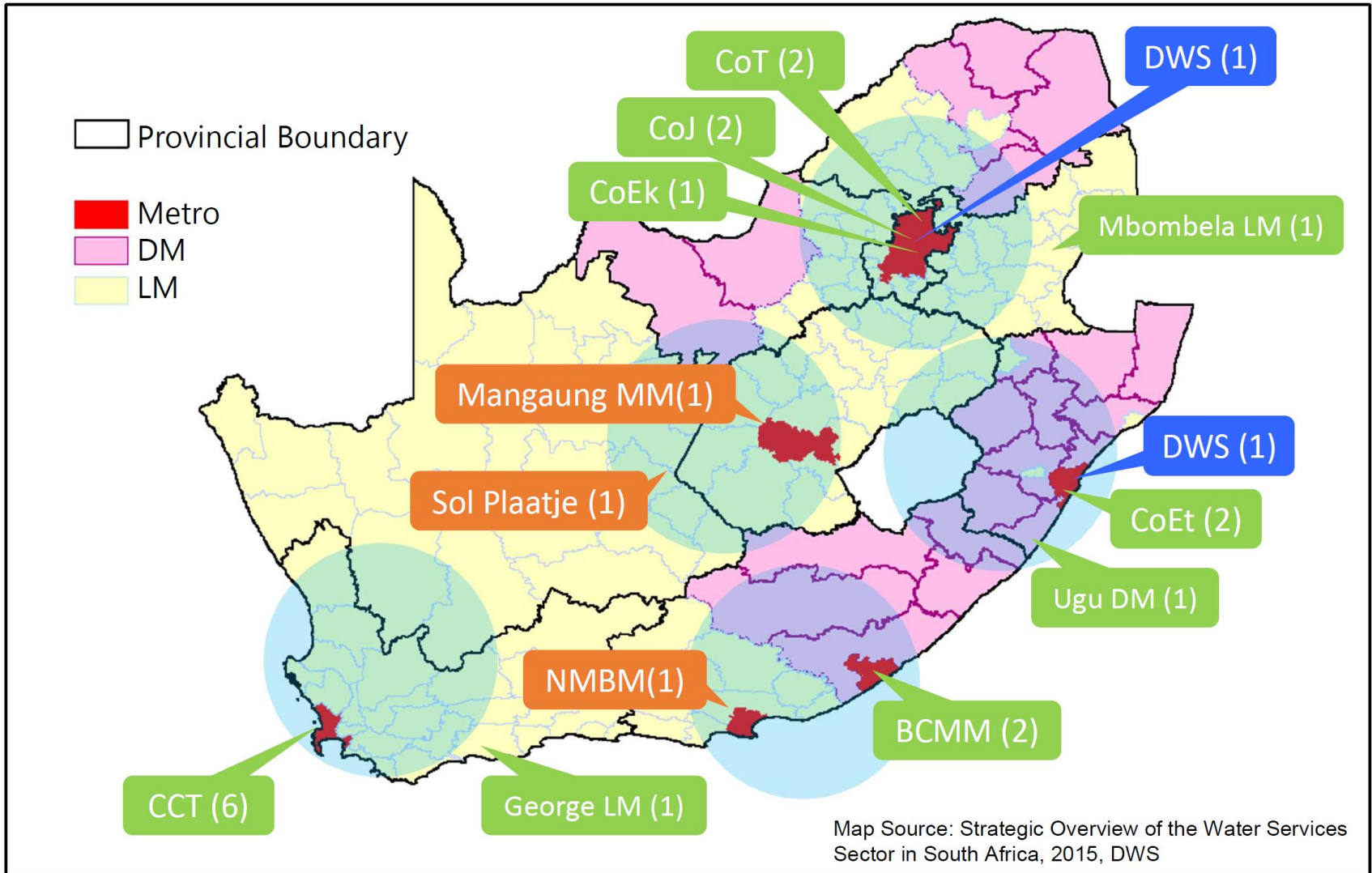
- Capital : Tokyo (Pretoria)
- Population: 125Million (60,6Million)
- Area: 337,974km² (1,219,090km²)

YOKOHAMA WATERWORKS

- Start of Service: **17 October 1887 (135 Years)**
- Area: **435,430km²**
- Population: **3,776,146**
- Density: **8,672 people/km²**
- Altitude: **5 - 159m**
- Connections: **1,907,706**
- Pipeline Length: **9,323km**
- Daily Supply: **1,136ML**
- Collection Rate: **99.5%**
- NRW: **7.2% (2020)**



TRAINING PROGRAM



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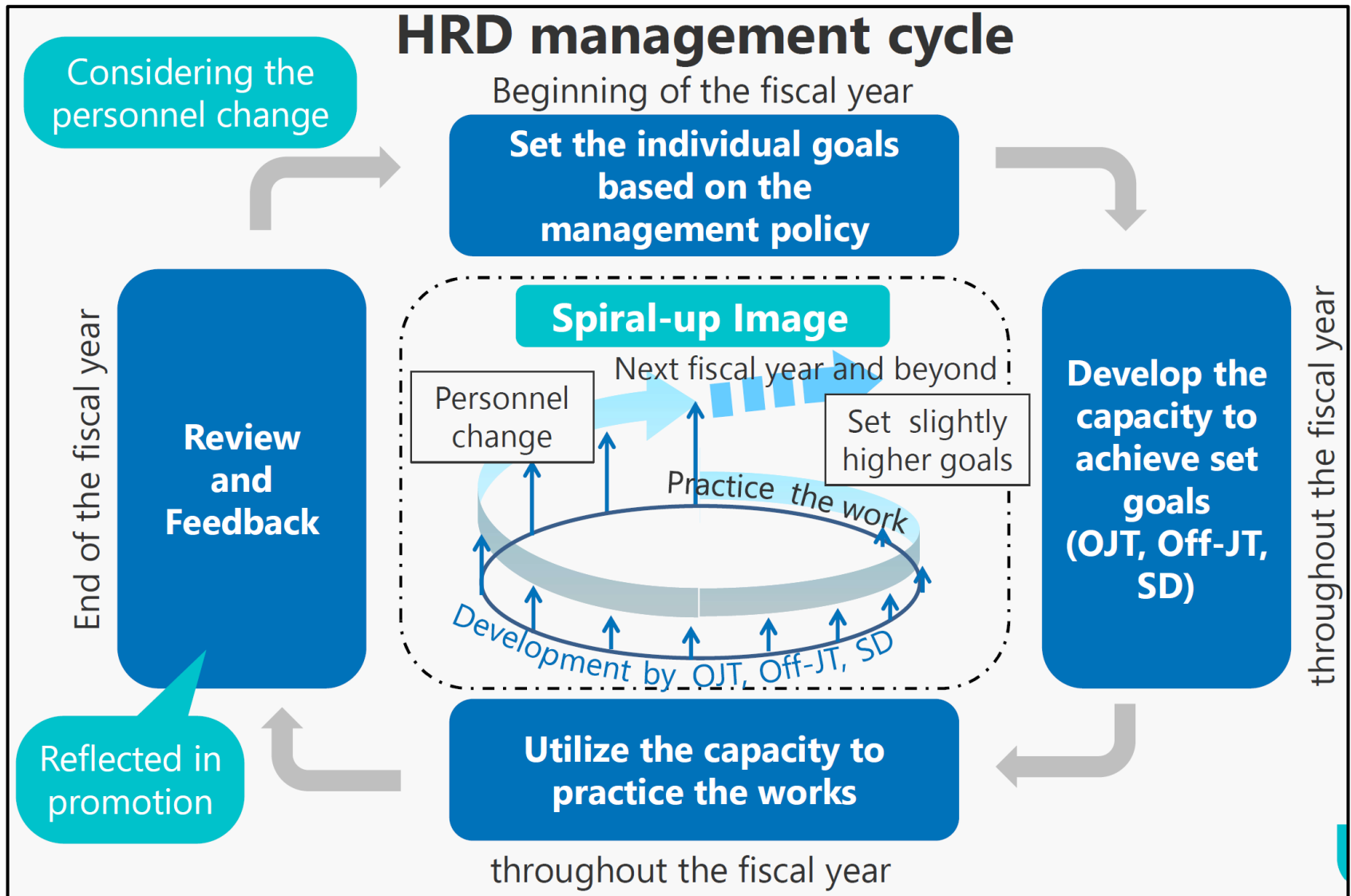
<u>Date</u>	<u>Content</u>
12-Oct-22 (Wed)	JICA briefing
	Programme orientation
	Japanese study
13-Oct-22 (Thu)	Water supply in Yokohama city
	Human resources development
14-Oct-22 (Fri)	Non-revenue water: NRW (lecture)
	SA's national/municipal overview about water services
17-Oct-22 (Mon)	Leakage detection
	Meter Inspection and meter accuracy test
	Tapping for service connection
18-Oct-22 (Tue)	Water supply in Japan Water Works Association
	Human resources development in JWWA
19-Oct-22 (Thu)	Drawing management
	Water distribution management
	Nishiya pump station visit
20-Oct-22 (Wed)	Meter reading and billing
	Site visit to construction works
	Quality control and safety assurance for waterworks
21-Oct-22 (Fri)	Preparation of action plan
	Presentation and discussion
24-Oct-22 (Mon)	Yokohama Water Business Association (Technical Expertise & discussion)
	Action plan presentation (1)
	Action plan presentation (2)
	Evaluation and certification

HUMAN RESOURCE DEVELOPEMENT

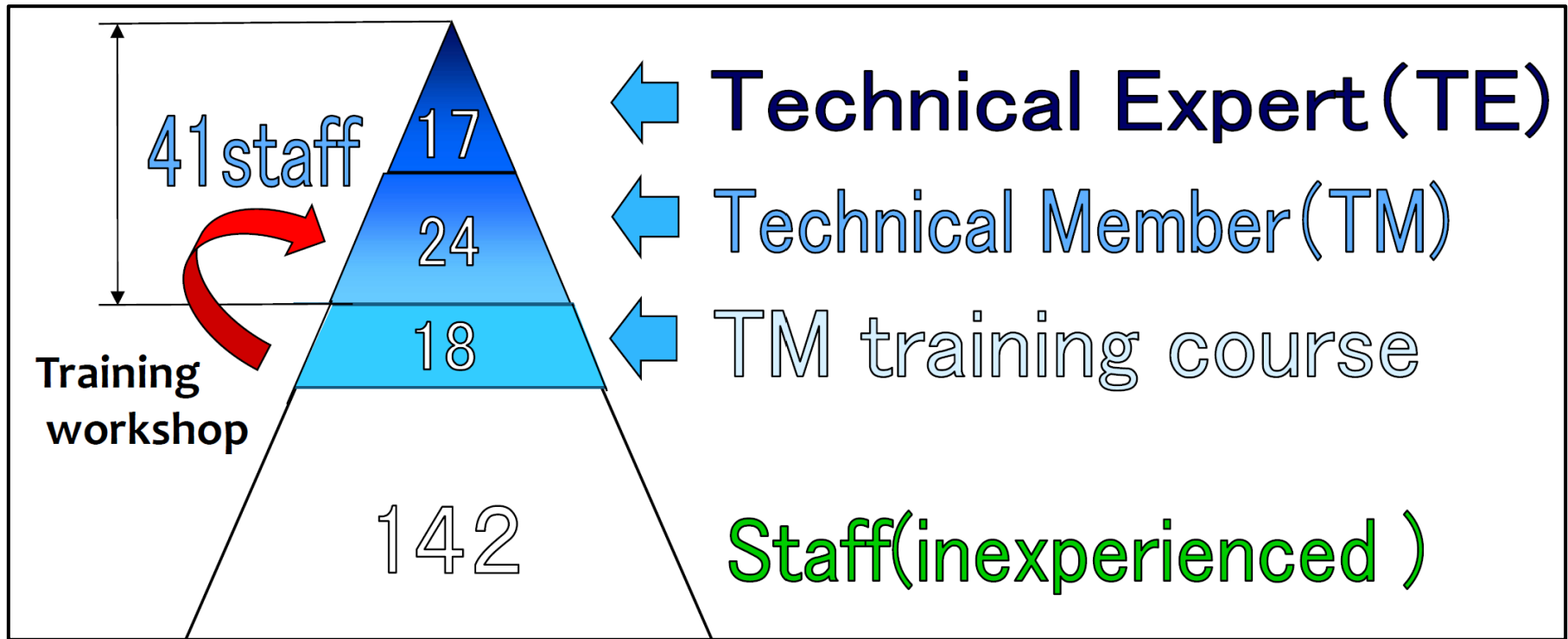
TRAINING COURSE ORGANIZATION CHART

<u>EMPLOYEE</u>	MANAGEMENT COURSES	TECHNICAL COURSES	QUALIFICATION COURSES
<u>DIRECTOR GENERAL</u>	TRAINING FOR NEWLY APPOINTED DIRECTOR GENERALS		
<u>TECHNICAL DIRECTOR</u>		TRAINING FOR TECHNICAL DIRECTORS	TRAINING FOR ACQUIRING QUALIFICATIONS FOR TECHNICAL DIRECTORS OF WATER SUPPLY UTILITIES / WATER SUPPLY FACILITY MANAGEMENT TECHNICIANS
<u>EXECUTIVE LEVEL</u>	TRAINING FOR EXECUTIVE STAFF ON MANAGEMENT OF WATER UTILITIES		
<u>ASSISTANT MANAGER</u>	WATER UTILITY MANAGEMENT ADMINISTRATION / COLLECTION OF UNPAID WATER BILLS / CONSUMPTION TAX	SPECIALIZED TRAINING FOR WATER SUPPLY ENGINEERS / PIPE LAYING / REGIONAL BLOCKS / LEAK PREVENTION / QUAKE-RESISTANT WATER SUPPLY FACILITIES	
<u>SENIOR STAFF</u>			
<u>> 3 YEARS</u>			
<u>< 3 YEARS</u>	WATER UTILITY MANAGEMENT ADMINISTRATION	TRAINING FOR WATER SUPPLY ENGINEERS / WATER PURIFICATION PLANT / PIPELINE DESIGN	
<u>NEW EMPLOYEES</u>	BASIC COURSE OF WATER SUPPLY		

HUMAN RESOURCE DEVELOPEMENT



HUMAN RESOURCE DEVELOPEMENT

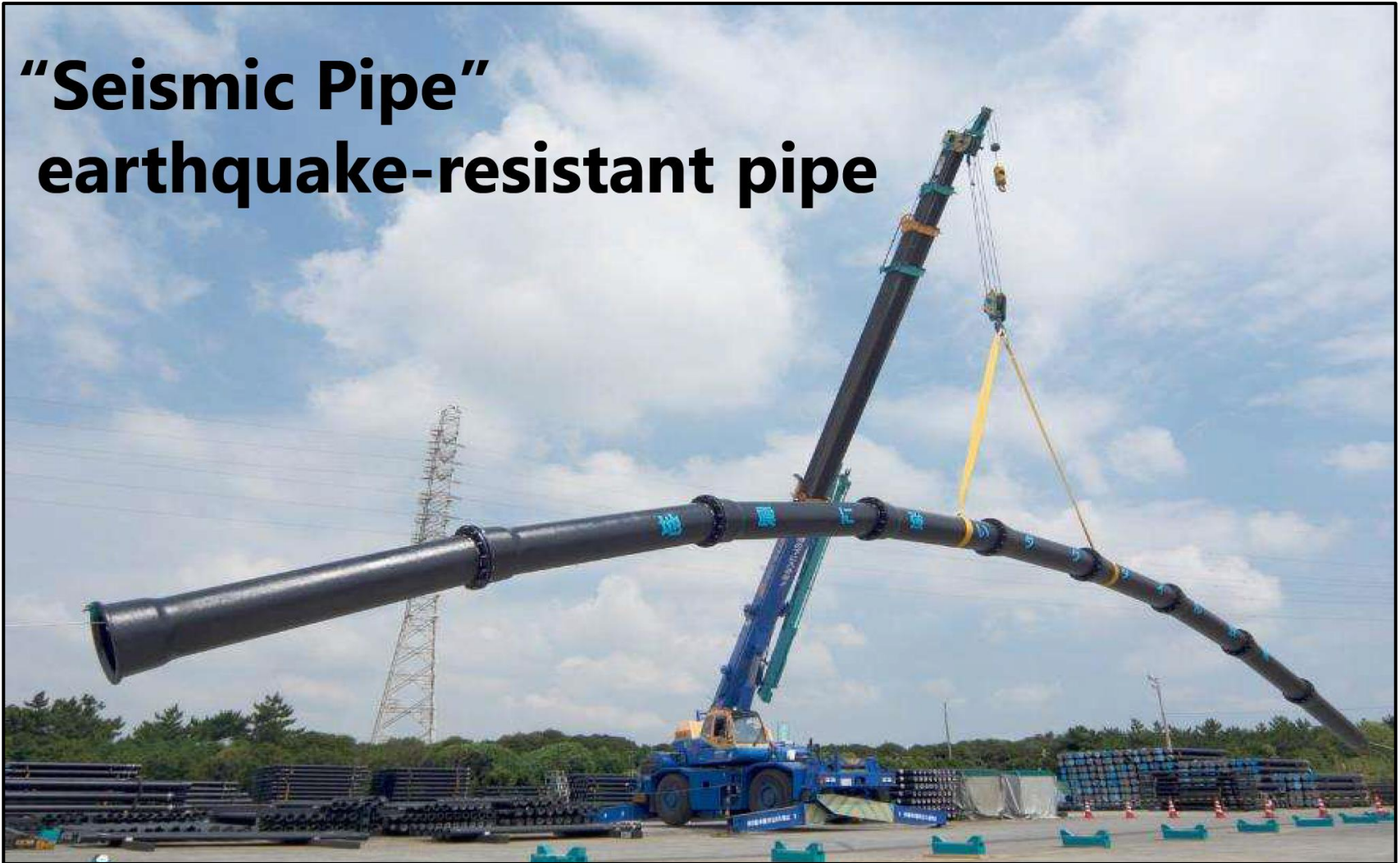


HUMAN RESOURCE DEVELOPEMENT



ENGINEERING

"Seismic Pipe" earthquake-resistant pipe



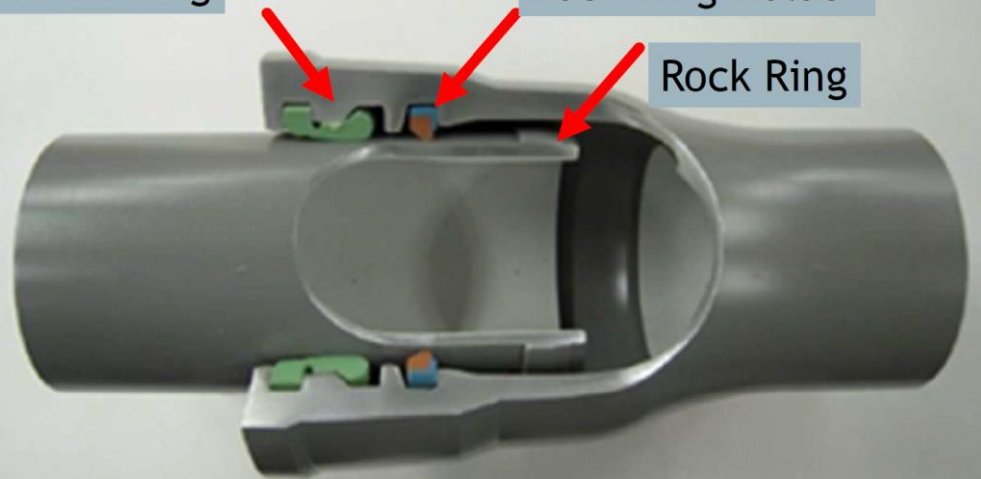
ENGINEERING



Rubber Ring

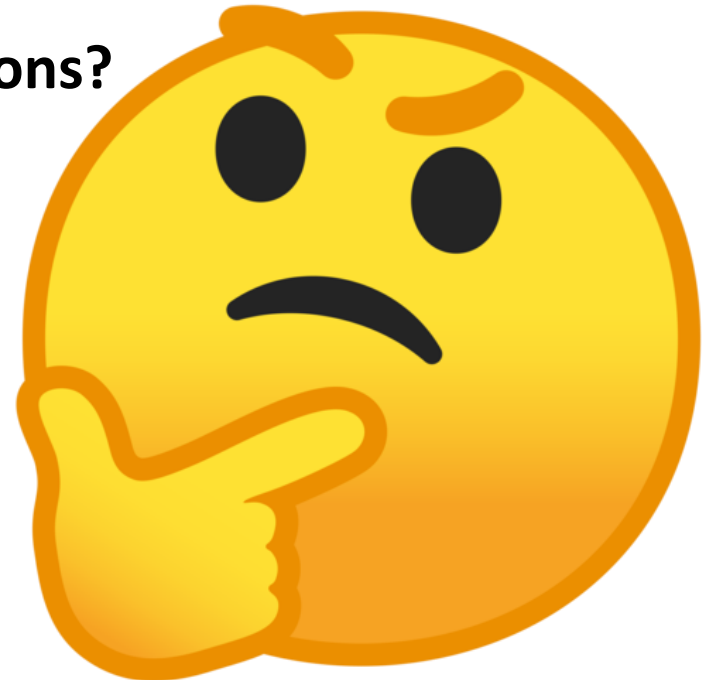
Rock Ring Holder

Rock Ring



ENGINEERING

- **The Great Pressure Reducing Valve Debate**
 - **Why use PRV's?**
 - **Why not?**
 - **What's the alternative?**
 - **What are the design considerations?**
 - **What are the costs?**
 - **Can this be applied to RSA?**



LESSONS LEARNED

- **Never Let A Disaster Go To Waste**
 - **In-depth Situation & Problem Analysis**
 - **Detailed Planning**
 - **Technologically Advanced**
- **Culture & Work Ethic**
 - **Efficient & Effective Systems**
 - **Social Maturity**
 - **Civil Servants Oath**
 - **Clear Discipline**

LESSONS LEARNED



A black and white photograph of the Nelson Mandela Bay Municipality building, a grand structure with a central dome and classical architectural features like columns and arched windows. The building is partially obscured by a large yellow text box on the left.

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