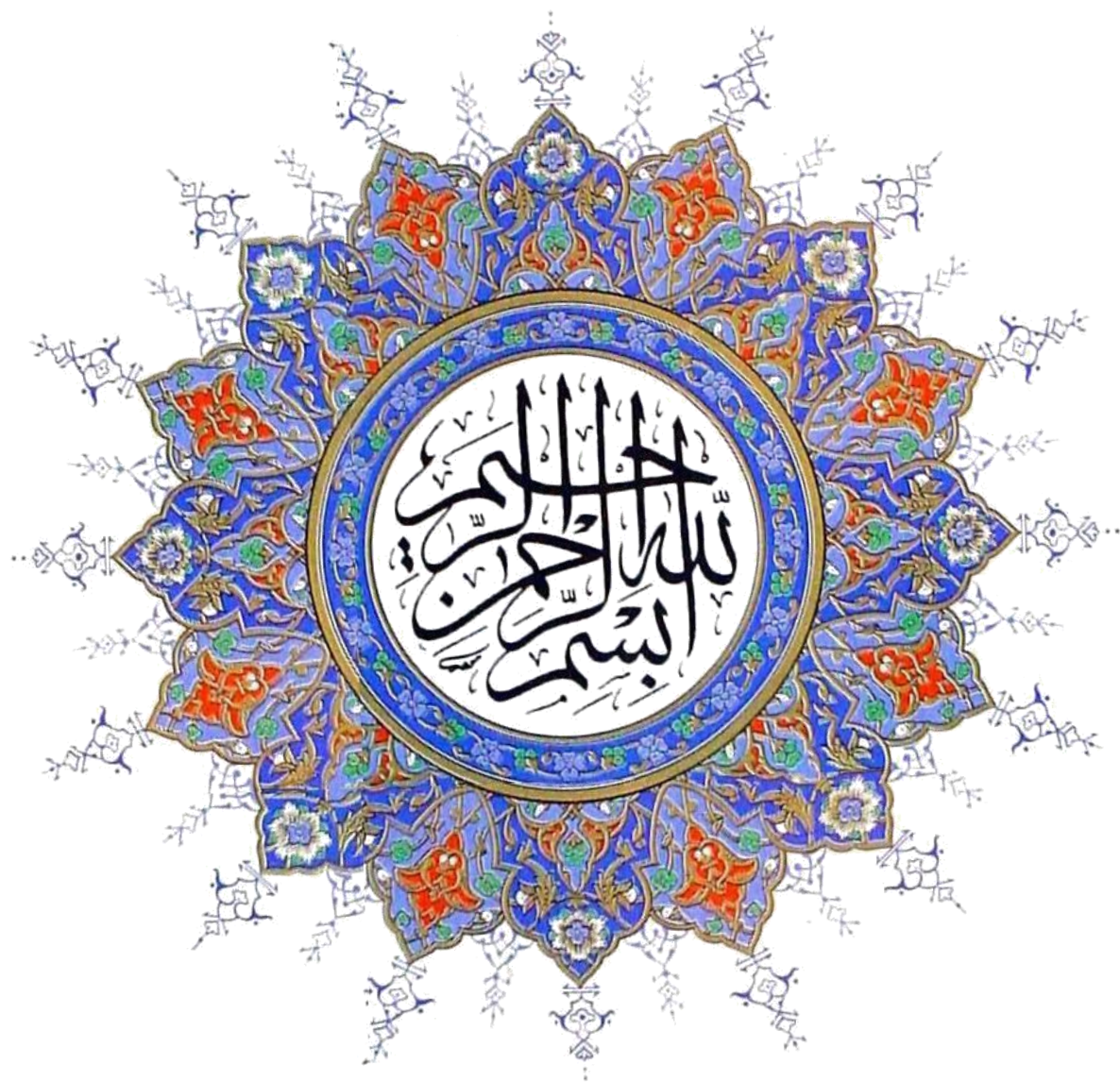




A Review of the Implementation of the Sewer Video Inspection and Internal Condition Coding Software System in Iran

Presented by: Vahid Hosseinzadeh

Part One:

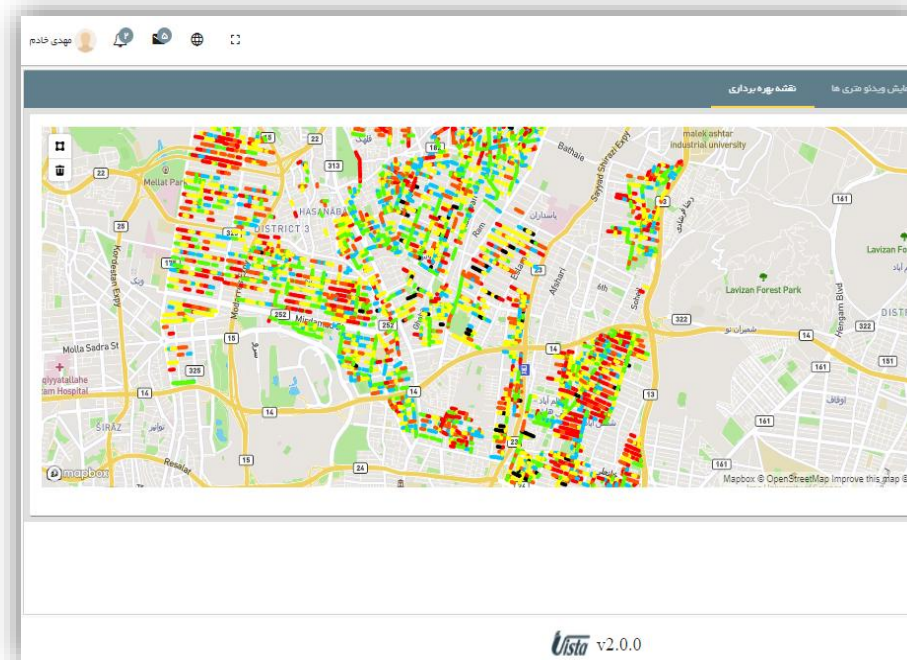
Sewer Video Inspection and Internal Condition Coding Software System in Iran

DIDEHBAN

Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

DIDEHBAN

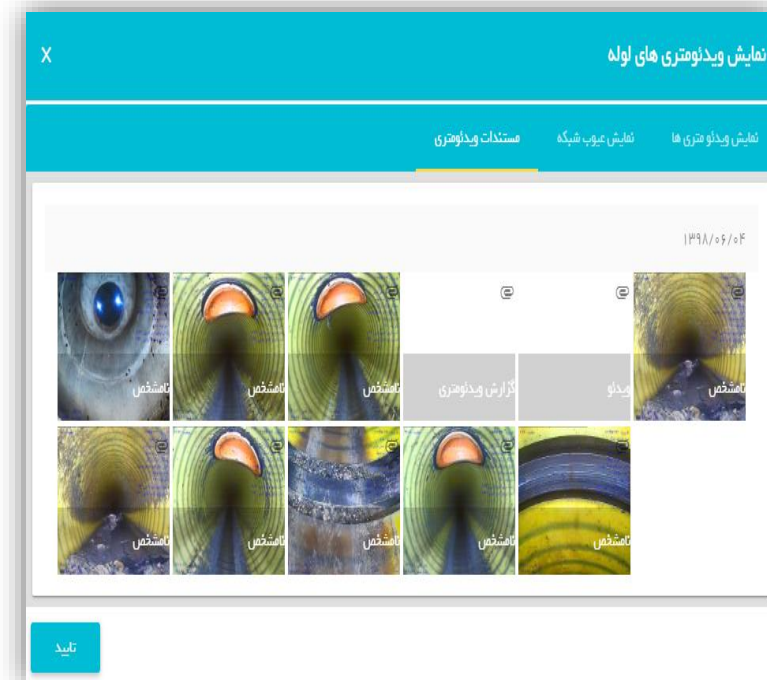
DIDEHBAN is a web-based system for recording, storing, and analyzing sewer video inspection data. It enables defect coding, structural and operational condition rating, and condition mapping of wastewater collection networks.



Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

Features of the Didehban System

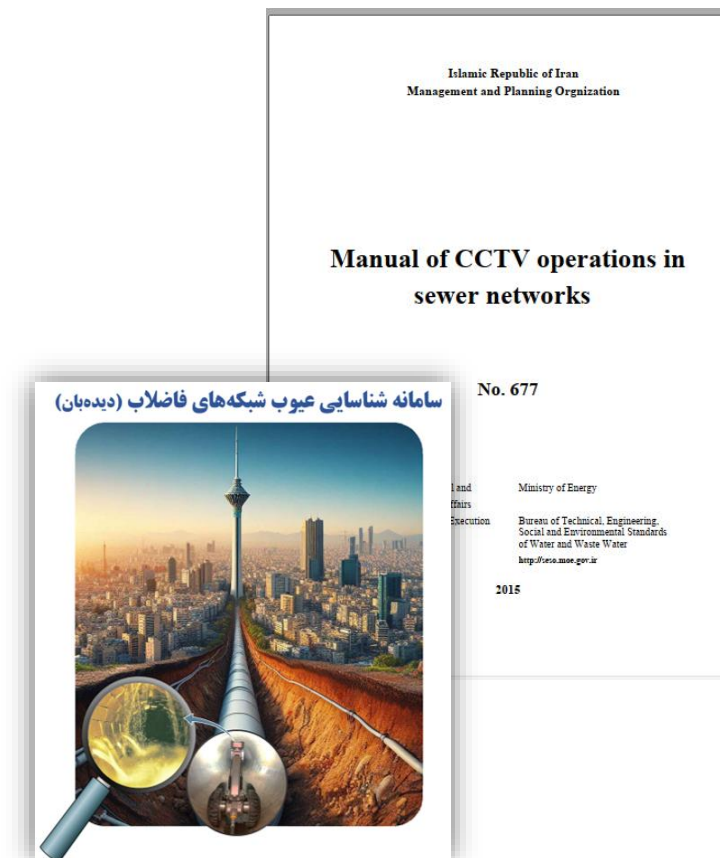
- Web-based data and report sharing
- Dynamic definition of sewer network and map information
- Easy access to data and inspection history
- Analysis of inspection data and generation of reports
- Preparation of sewer condition maps
- Support for prioritizing rehabilitation and renewal investments



Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

History of Video Inspection in Iran

- The first sewer inspection camera was introduced in Iran about 20 years ago.
- The national CCTV inspection guideline was developed in 2015.
- In 2018, existing inspection systems were reviewed and Didehban was selected for pilot implementation.
- Following successful pilot results, Didehban was launched nationwide in 2021.

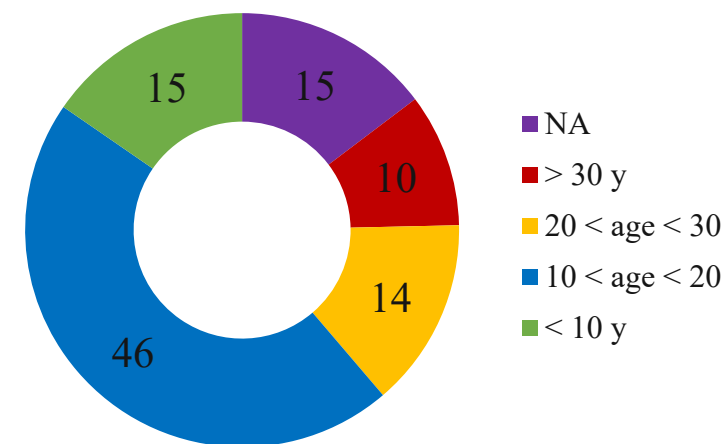


Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

Need for Implementing Didehban

- Iran operates approximately 78,000 km of wastewater collection networks.
- Information on pipeline condition, deterioration, and collapse risks was limited.
- Approximately 25% of the network is more than 20 years old.
- About 10,000 km requires rehabilitation or renewal.
- Previously, video inspections lacked systematic data recording.

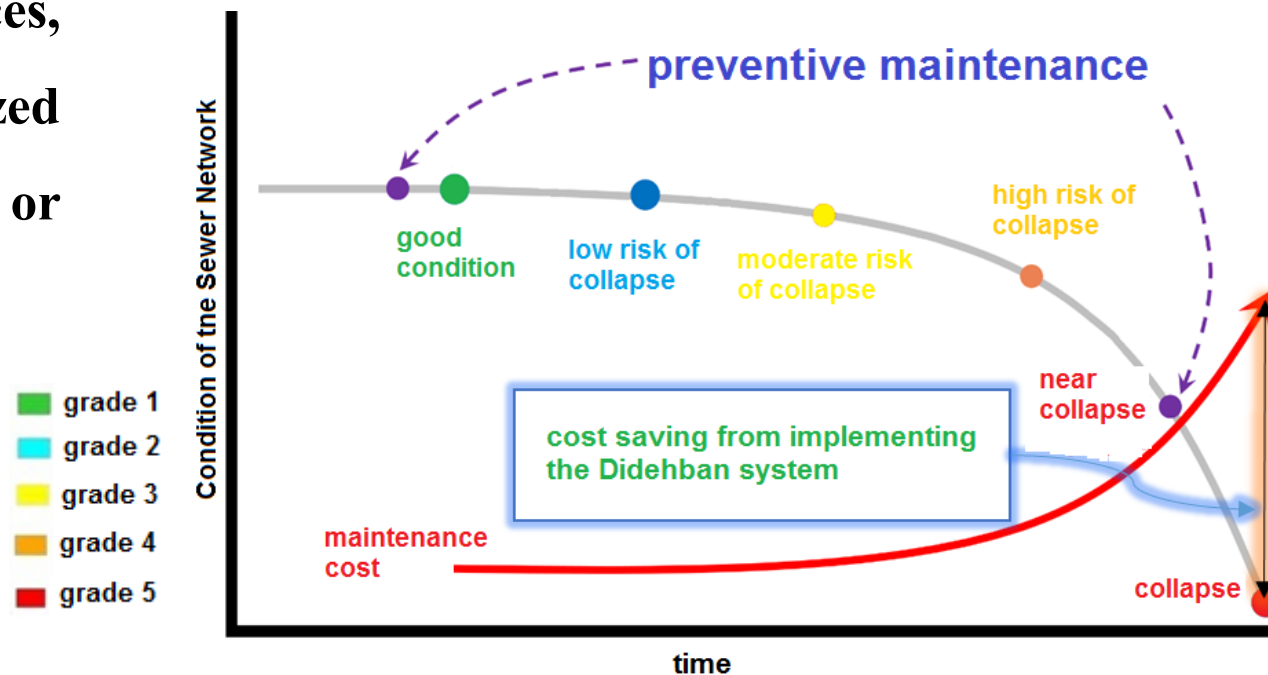
Percentage Frequency distribution of the age of Iran's sewer network



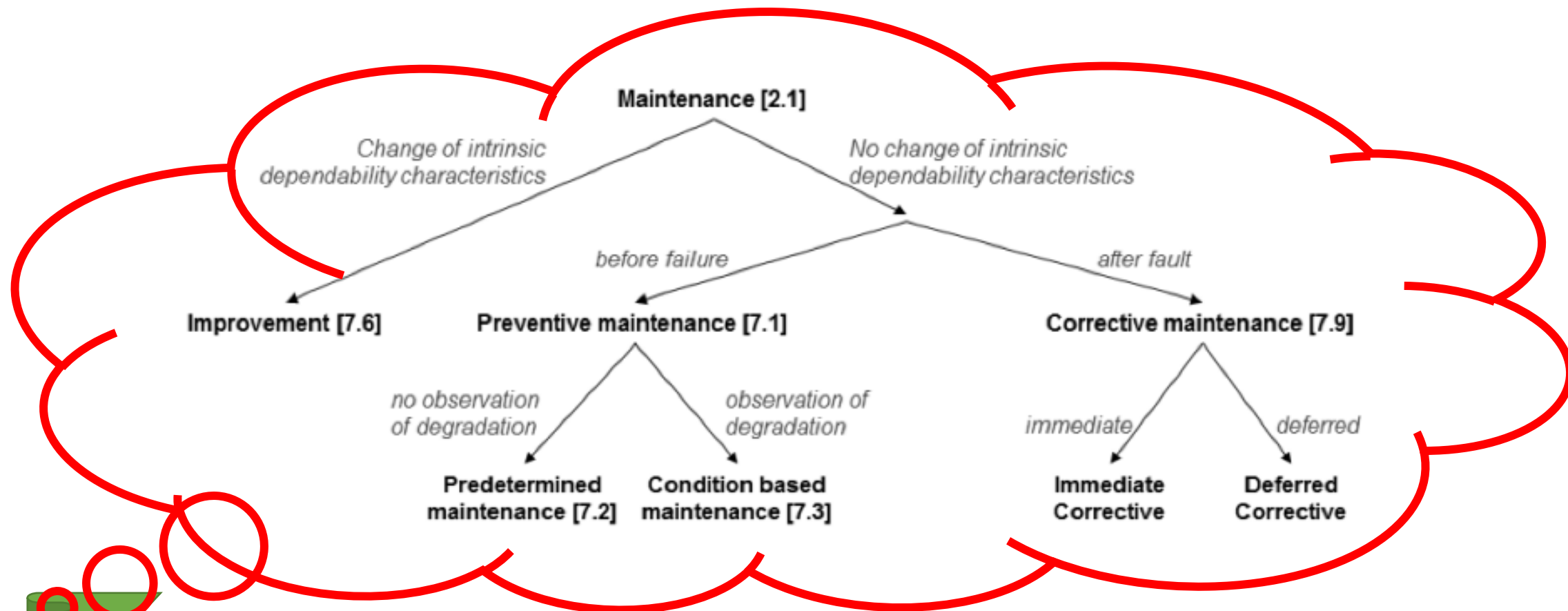
Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

Need for Implementing Didehban

- With limited financial resources, rehabilitation and renewal should be prioritized based on pipeline condition, before failure or collapse occurs.



Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)



Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

Key Actions Taken

- Deployment of Didehban servers in 34 water and wastewater companies.
- Regular progress-review meetings.
- Training programs for technicians, experts, and managers.
- Completion of geographic and descriptive sewer network data.
- Review of coding and classification guidelines.
- Development of Didehban Assistant for defect coding and condition rating based on Standard No. 677.



Video Inspection, Coding, and Rating System for Wastewater Collection Networks (Didehban)

Key Achievements

- Implementation in 34 water and wastewater companies.
- Condition assessment of 5,000 km of sewer pipelines.
- Support for domestic development of sewer inspection equipment.
- Localization and development of trenchless rehabilitation technologies.

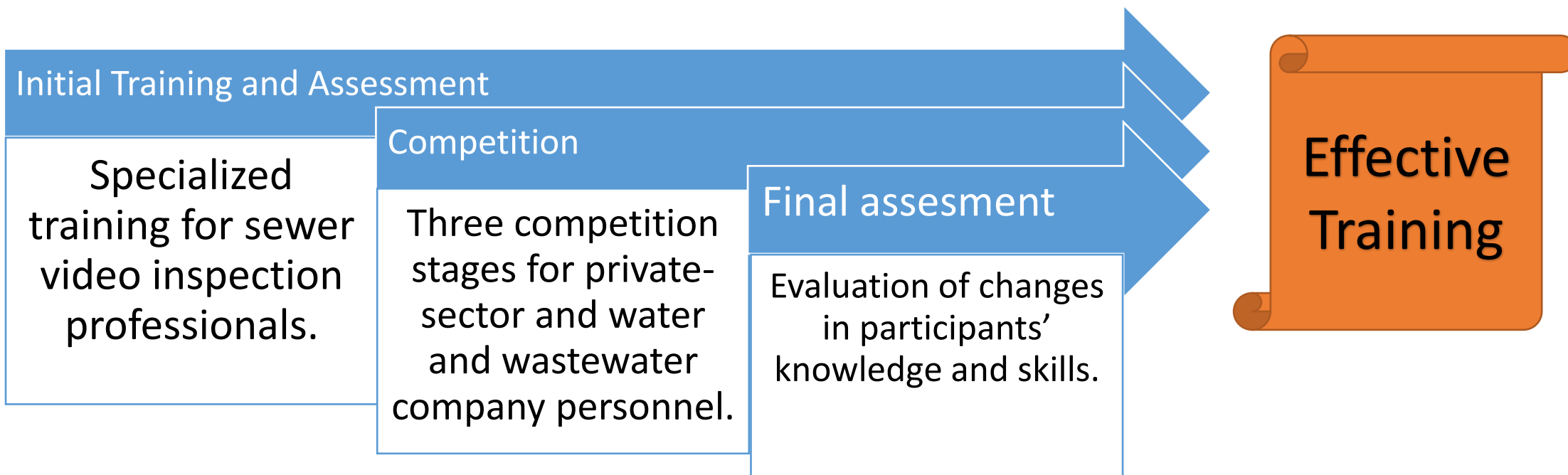


Part Two:

Wastewater Network Video Inspection Competitions

An Effective Model for Specialized Training

Competition Implementation Model



Key Competition Activities



**Conducting a Training Course for Selected Participants
from All Companies**

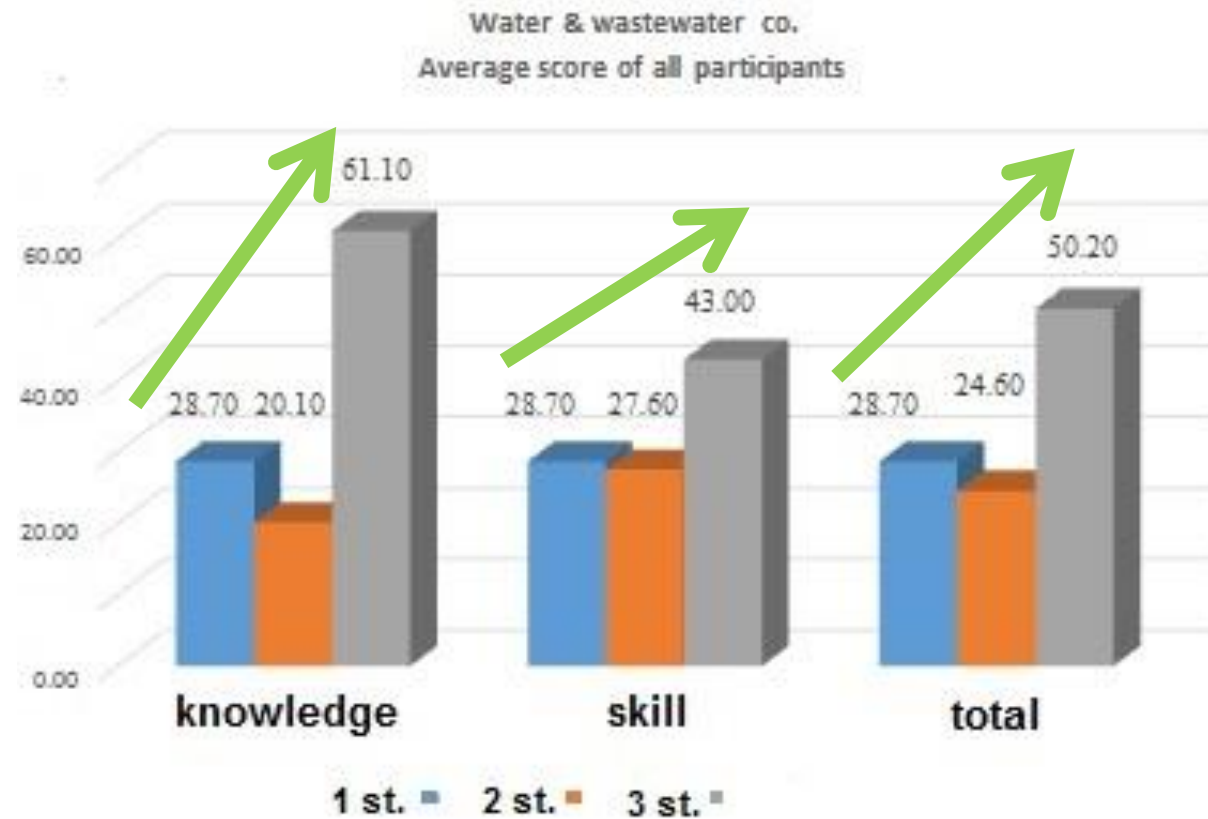
Key Activities Conducted for the Competitions



Design and Preparation of the
Competition Venue
and Holding the Competition



Review of Trends in Competition Results





**Thank You
for your Attention**