

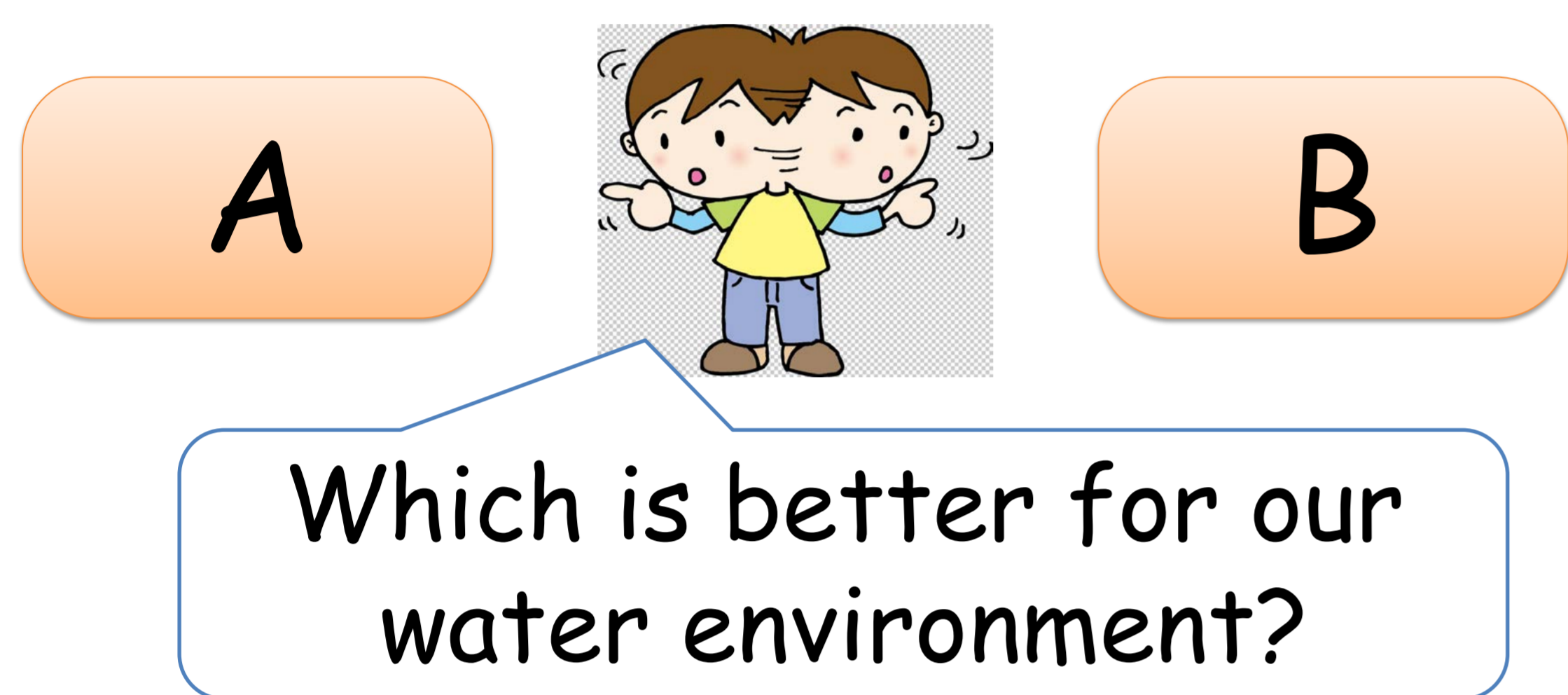
Establishment of standardized performance testing method for the decentralized wastewater treatment facility in Asian region and network building of its experts

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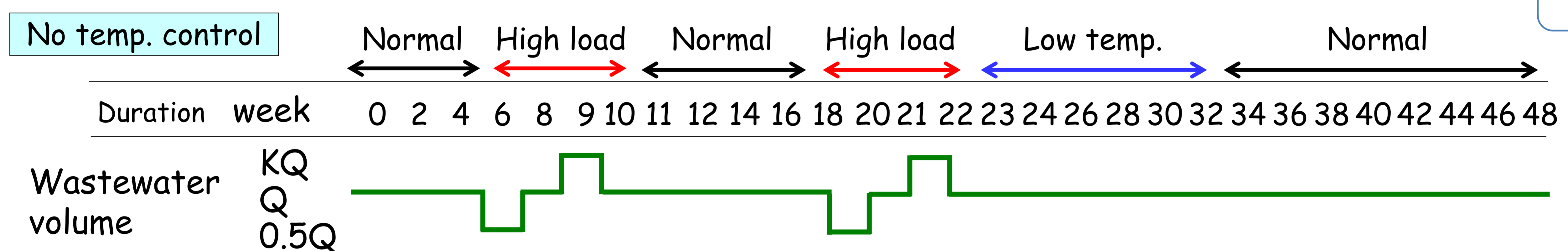
Introduction: Some developing countries in Asia attempt to develop their wastewater effluent standard. However, compliance to the regulation may not be ensured due to the inexistence of performance testing methods or any equivalent framework to test the wastewater treatment technology.



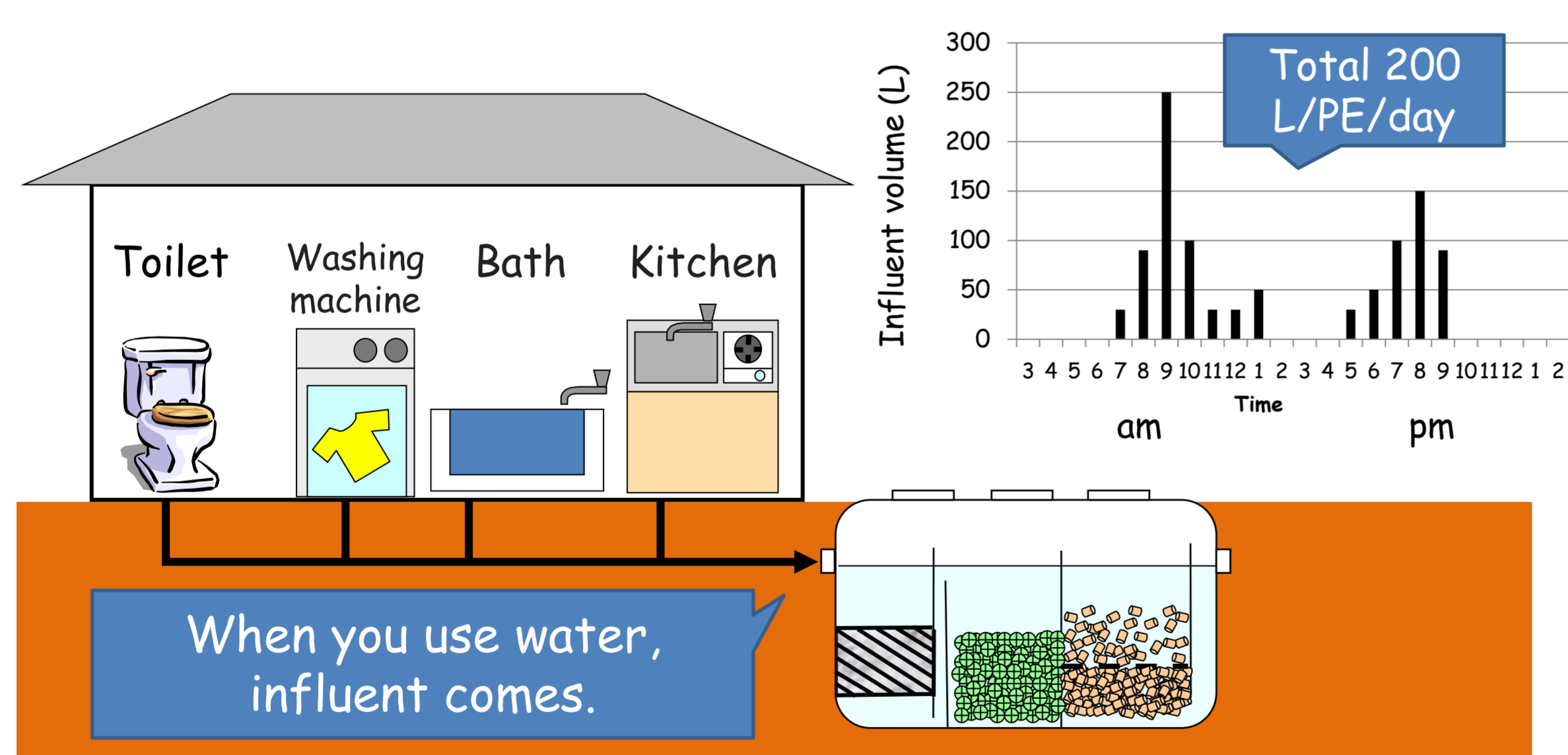
Ideas to promote appropriate technologies:

- **Appropriate product evaluation** leads new and good technology development.
- **Product authorization** leads appropriate technology selection.
- **Installation and maintenance by government** might be a good way.
- **Co-benefit** opens new financial scheme opportunities.
- **Certification of technicians** leads appropriate maintenance.
- **Register** helps good management by government.

Example of performance test in Japan:



Example of inflow pattern:



Major standards:

European Standard (EN)
EN12566-3: Small wastewater treatment systems for up to 50 PE



The United States
NSF/ANSI Standard 40: Residential Wastewater Treatment Systems

Australia
AS/NZS 1546 Part 3: Aerated wastewater treatment systems

Concept and discussion for the performance test:

- **Concept**
 - NOT pass or failure
 - Just show the results (treatment efficiencies)
- **Considering conditions and constrains in Asian region (we start with Indonesia)**
 - Temperature
 - Characteristics of domestic wastewater
 - Inflow pattern
 - Water quality items
 - Sampling and analytical methods
- Test laboratory organization (third party)
- Certification for technical staff

Pilot case:

The pilot case is implemented in Indonesia to establish a framework of treatment performance testing method.

Private companies have an important role in this kind of standard!! So we would like you to join us and input your ideas in the standard/legislation.



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