Reducing water risks in cities
- Natural Capital Assessment of SEKISUI Chemical -

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SEKISUI Chemical Co., Ltd.
Name: SEKISUI Chemical Co., Ltd.
Headquarters: Tokyo / Osaka, Japan
Employees: Approximately 26,000

Businesses:

- **Residential and Social Infrastructure**
  - Housing
  - Residential Services
  - Piping
  - Construction and Infrastructure
- **Chemical Solution**
  - Automotive and Transportation
  - Life Science
  - Electronics

Net Sales (March, 2019): 1,154 billion yen = USD 10.3 billion = Euro 9.1 billion
Water Risks In Cities

- Disruption of water supply and wastewater disposal due to aging pipelines
- Frequent occurrence of hydrological disasters due to climate change
- Shortage of drinking water

Source: WHO, 2017
July 2017

Source: The Guardian
March 2019
Reducing Water Risks In Cities

- Disruption of water supply and wastewater disposal due to aging pipelines
  - SEKISUI SPR technology extends life of pipelines with pipeline rehabilitation system

- Frequent occurrence of hydrological disasters due to climate change
  - SEKISUI CROSSWAVE reduces rainwater runoff & enables effective use of rainwater / storm water

- Shortage of drinking water
  - SEKISUI CROSSWAVE stores water that can be reused

Trenchless technology prevents traffic disruption → reduces GHG emissions
Recycled materials reduce depletion of resources
Pipeline Rehabilitation System

Pipeline rehabilitation system “SPR (Sewer Pipe Renewal)“

Example of “open cut” system

Example of “trenchless” system (SPR)

✓ Trenchless technology
✓ No traffic redirections needed
✓ Less space demand
✓ Sand or soil doesn't need to be excavated
Pipeline Rehabilitation System

Trenchless technology

- No traffic redirections needed
- Less space demand
- Sand or soil doesn't need to be excavated
Rainwater Storage System

"CROSS-WAVE" = rain water storage underground

- Short construction time
- Possible to use land above Cross-Wave (e.g. parking lot, playground, pavement etc.)
- Possible to reuse stored water

Source: https://www.youtube.com/watch?v=BcTe3z3cfKg
Our products pursue to create added value

Through prominence in technology and quality, SEKISUI CHEMICAL Group will contribute to improving the lives of the people of the world and the Earth’s environment, by continuing to open up new frontiers in residential and social infrastructure creation and chemical solutions.

Existing Definition:
Natural Environment-Contributing Products
Natural Capital: renewable and non-renewable natural resources that yield benefits to people & society (e.g., plants, animals, air, water, soils, minerals, etc.)
SEKISUI Index 2017

Value chain

Total Impact on Natural Capital

- Other (28.6%)
- Production (20.5%)
- Raw materials (50.9%)
- Total (100%)

Total Contribution

- Conservation efforts (0.6%)
- Reduction (0.4%)
- Environment Contributing Products (83.2%)
- Total (84.1%)

Data from 2017
Our products pursue to create added value

Through prominence in technology and quality, SEKISUI CHEMICAL Group will contribute to **improving the lives of the people** of the world and **the Earth’s environment**, by continuing to open up new frontiers in residential and social infrastructure creation and chemical solutions.

Expanded Definition: **Social Environment-Contributing Products**

In addition to natural environment, contribution to social environment is also considered.
CrossWave and SPR have an overall contribution to Social and Natural Capital of EUR 14.2 mio.
What is needed to reduce water risk and create a sustainable society?

- Identify the social challenges and finding solutions
- Understanding the value of additional contribution of products that help solve those issues

- Confirm direction of market expansion and development of new products

- Further strengthen the resilience of urban infrastructure
- Maintain sanitation and hygiene of social environment
- Prevent degradation of surrounding ecological system
A new frontier, a new lifestyle.
SEKISUI CHEMICAL Group
— produce a better world with creative technologies.