Mehr Licht!
More Photonics for Intelligence

#E10

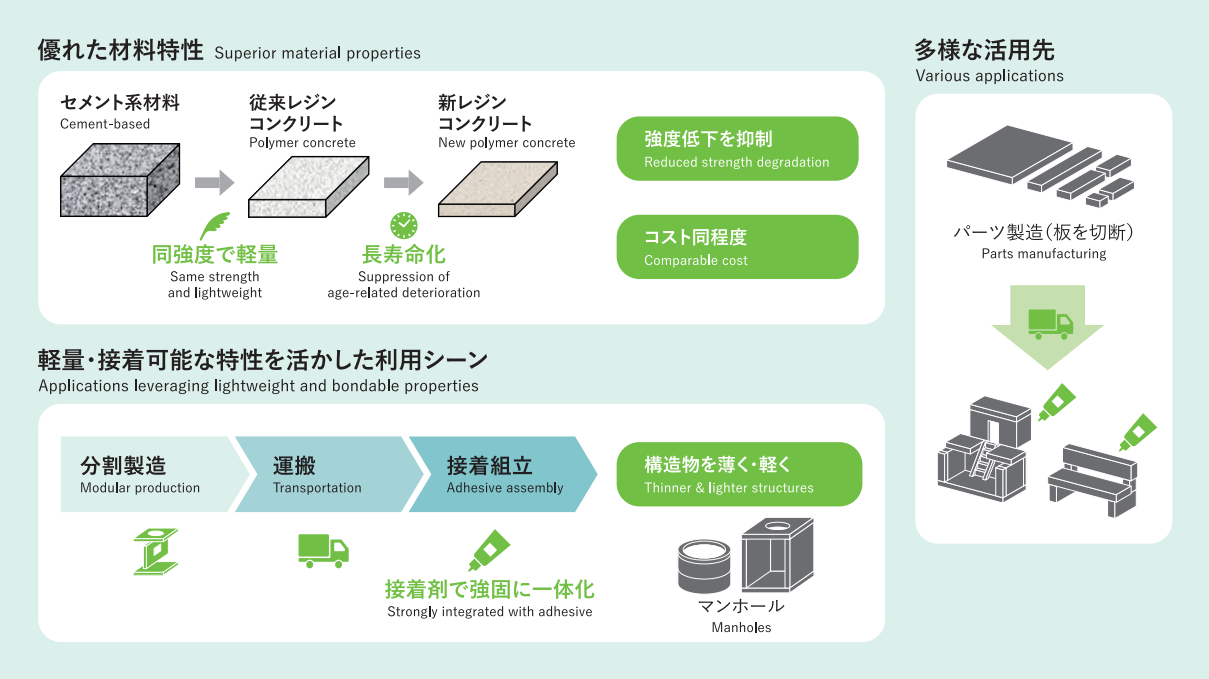
#Circular Economy#Climate Adaptation

Strength-Retaining Polymer Concrete

Lightweight, durable, strong, and bondable for efficient construction

Technical Challenges & Goals

By developing new polymer concrete with less strength degradation over time, we aim to meet the growing need for longer-lasting infrastructure materials. It can reduce future repair costs and enable thinner, lighter structures, making transport and installation easier and expanding potential applications.



Key Technologies

Core Technologies

- Leveraging NTT's findings on the causes of polymer-concrete degradation
- Optimized additive and hardener amounts, aggregate/resin/filler ratios, and production process

Key Differentiators

- Polymer concrete: lighter than cement-based concrete, strong without rebar, and high bond strength
- Strong bonding enables structures to be assembled from parts, greatly improving constructability

Use Cases

Construction & Real Estate

Cutting and bonding polymer concrete panels enables flexible design and fabrication of various structures. It is well suited for relatively small structures traditionally made of cement-based concrete, such as underground storage units.

Exhibitors

Access Network Service Systems Laboratories