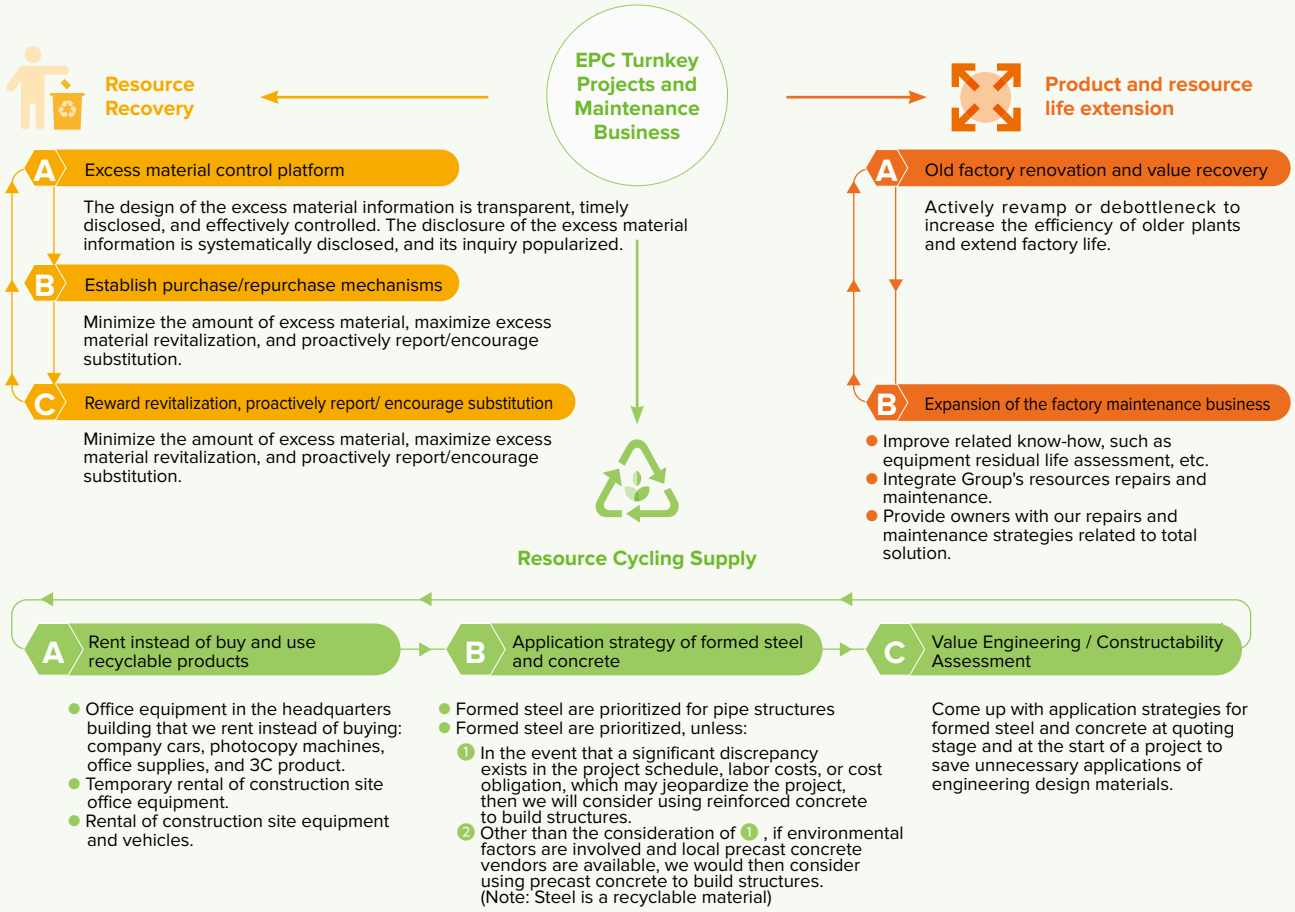
Circular Economy

CTCI leads its peers in designing a circular economy model in construction engineering with its core capabilities, including three main aspects, i.e., resource recycling supply, resource recovery, and product and asset life extension. These also match three other aspects, namely strategy formulation, management and execution, and business development. In terms of resource recycling supply, CTCI proactively provides renewable, recyclable, biodegradable resources, and changes product design thinking appropriately. In terms of resource recovery, when carrying out EPC maintenance work, CTCI would make every possible effort to convert waste materials into resources instead of downgrading them for recycling. In terms of extending the life of products and assets, CTCI tries to maintain their economic efficacies through professional repairing, upgrading and remanufacturing. In addition, thanks to the fact that circular economy and waste reuse concepts have been gradually adopted by the industry, the total power generation capacity of the waste incineration plants in Taiwan, operated by our subsidiary ECOVE, has reached approximately 1,241 GWh a year.



■ Circular Economy Model

Strategies	Action Plans
Resource Cycling Supply	
Value Engineering/ Constructability Assessment	Come up with application strategies for formed steel and concrete at quoting stage and at the start of a project to save unnecessary applications of engineering design materials.
Application strategy of formed steel and concrete (Note: Steel is a recyclable material)	● Formed steel are prioritized for pipe structures ● Formed steel are prioritized, unless: (1) In the event that a significant discrepancy exists in the project schedule, labor costs, or cost obligation, which may jeopardize the project, then we will consider using reinforced concrete to build structures. (2) Other than the consideration of (1), if environmental factors are involved and local precast concrete vendors are available, we would then consider using precast concrete to build structures.
Renting instead of buying Use recyclable products	● Office equipment in the headquarters building that we rent instead of buying: company cars, photocopy machines, office supplies, and 3C product. ● Temporary rental of construction site office equipment. ● Rental of construction site equipment and vehicles.
Resource Recovery	
Excess material control platform	The design of the excess material information is transparent, timely disclosed, and effectively controlled. The disclosure of the excess material information is systematically disclosed, and its inquiry popularized.
Establish purchase/ repurchase mechanisms	Establish purchase/repurchase mechanisms and appropriately minimize excess material.
Reward revitalization, proactively report/ encourage substitution	Minimize the amount of excess material, maximize excess material revitalization, and proactively report/ encourage substitution.
Product and resource life extension	
Old factory renovation and value recovery	Actively revamp or debottleneck to increase the efficiency of older plants and extend factory life.
Expansion of the factory maintenance business	● Improve related know-how, such as equipment residual life assessment, etc. ● Integrate Group's resources repairs and maintenance. ● Provide owners with our repairs and maintenance strategies related to total solution.