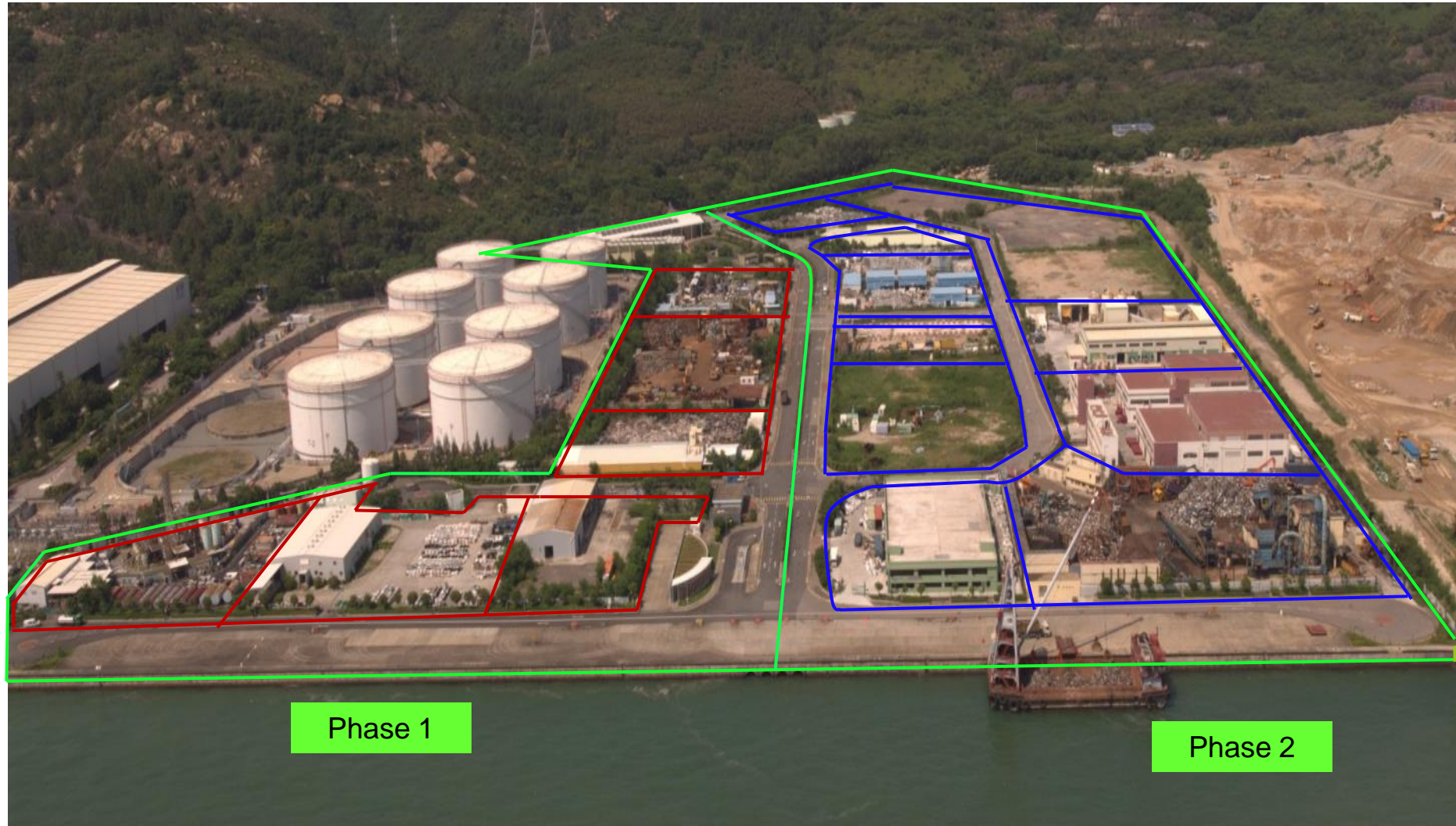




Resources Recovery in EcoPark Hong Kong

Wong Hon Meng
4 May 2016





Phase 1

Phase 2

- Park Area: 20 hectares
- Rentable Area: 14 hectares

EcoPark Development

- A facility developed for promoting and supporting local recycling industry in Hong Kong
- Provide long-term land at affordable cost to encourage investment in advanced technologies and value-added recycling processes
- Promote recycling of waste resources and returning them to the consumption loop, thereby jump-starting a circular economy

Facilities for EcoPark Tenants

- Long-term land (10 to 20 years) at affordable rental
- Properly formed land with basic infrastructures and utilities (power and water supply, drainage, etc) for ready start-up of recycling business
- Management service provided by EcoPark management company
- Visitor Centre



Management Service

- Daily management of the Park
- Professional advice on the matters relating to construction and implementation of the recycling plants
- Business promotion services
- Assistance in waste sourcing



Visitor Centre

- The 1,000-square metre Visitor Centre is the first education centre in Hong Kong with a theme of solid waste management
- Since opening in March 2010, it has received over 120,000 visitors



Information kiosks



Life-size landfill model



Waste corridor



Product gallery

Green Features in EcoPark

Green Roof and Solar Fin System



Improve thermal performance and reduce to the demand for air conditioning

Absorb rain water and reduce the demand on the roof drainage system

Act as a dampener to sound transmission,

Improve the micro climate and humidity around the building.

Minimize direct sunlight thus reduce the energy required for providing air conditioning

Green Features in EcoPark

Terracotta Louver



Minimize direct solar gain from penetrating into the building

thus reduces the power required for air-conditioning

Terracotta is made of clay which is 100% natural and has excellent fire performance qualities

After use handling is easy

Green Features in EcoPark

Solar Hot Water System

Generate warm water using solar energy



Green Features in EcoPark

Solar Photovoltaic Panels



Generate electricity using solar energy

Green Features in EcoPark

Sunpipes



Bring natural light into the building without the negative aspect of heat gain

thereby alleviating the demands for artificial lighting within the building



Green Features in EcoPark

Eco Drainage Cover (made of recycled plastics)



Made by from recycled fiberglass and resin

Fully recyclable
any aged covers
could be shredded
once again to
become the raw
material for reuse

Green Features in EcoPark

Reclaimed Asphalt Pavement



Asphalt reclaimed from existing road pavement

Can be reused for road paving works again after blending with new bitumen

Green Features in EcoPark

Green Car Park



Allow beneficial use of surface runoff, vegetation growth and groundwater recharge, reduce ambient heat and glare, and reduce carbon footprint

Green Features in EcoPark

Eco-paving Blocks



Composed of recycled crushed glass with air-cleaning agent which can remove nitrous oxides (NO_x).

Sarimbun Recycling Park, Singapore

- Manage by the National Environment Agency of Singapore, the **Sarimbun Recycling Park** with an area of 20 hectares was set up on a closed landfill site for recycling C&D waste, horticultural & wood waste, street cleansing waste, waste plastics and waste tyres.



Environmental Science and Technology Parks, Taiwan

- There are four **Environmental Science and Technology Parks** (ESTPs) located at Hualian, Kaohsiung, Tainan and Taoyuan with a total area of over 120 hectares

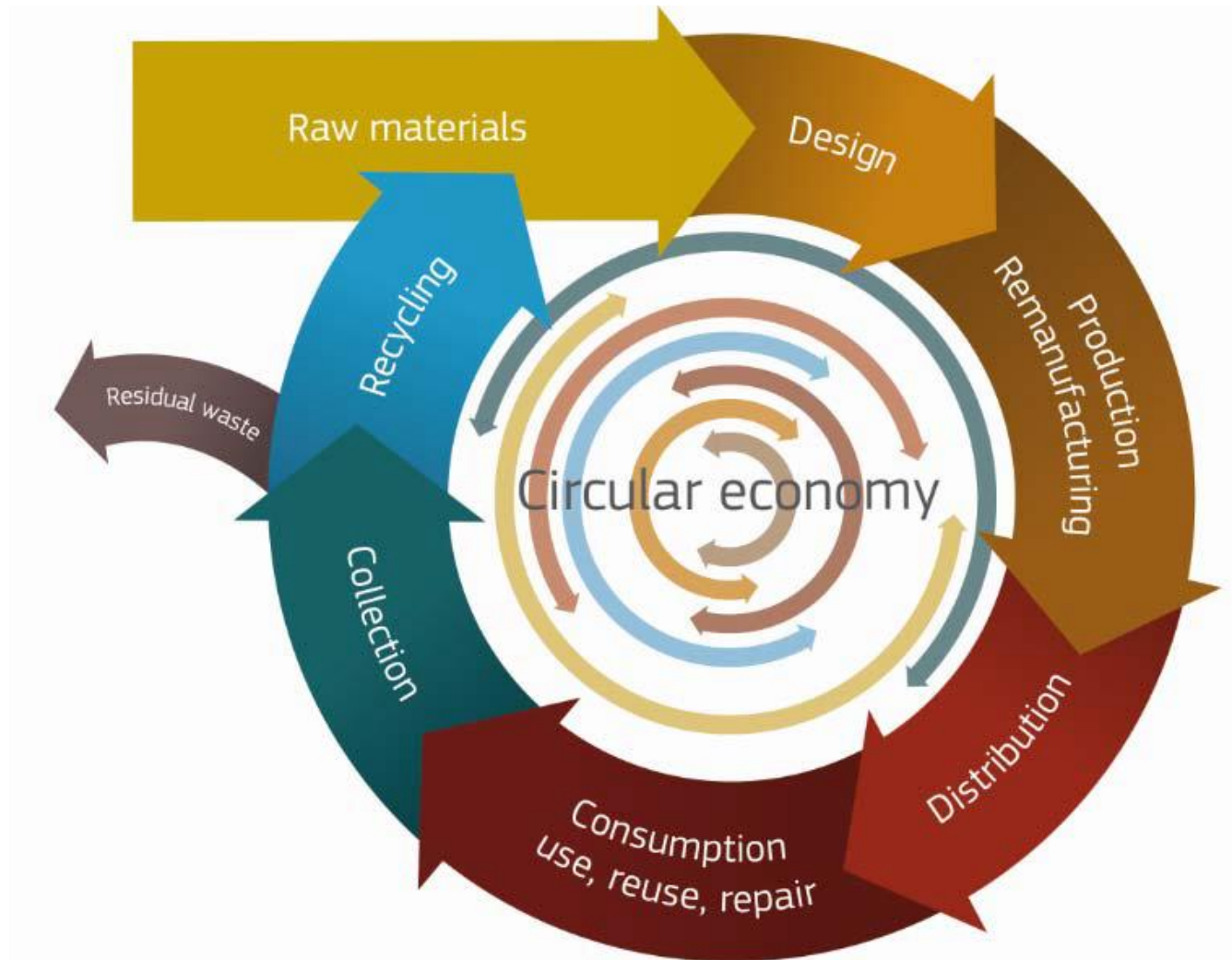


Hualian ESTP



Planning of Park Area

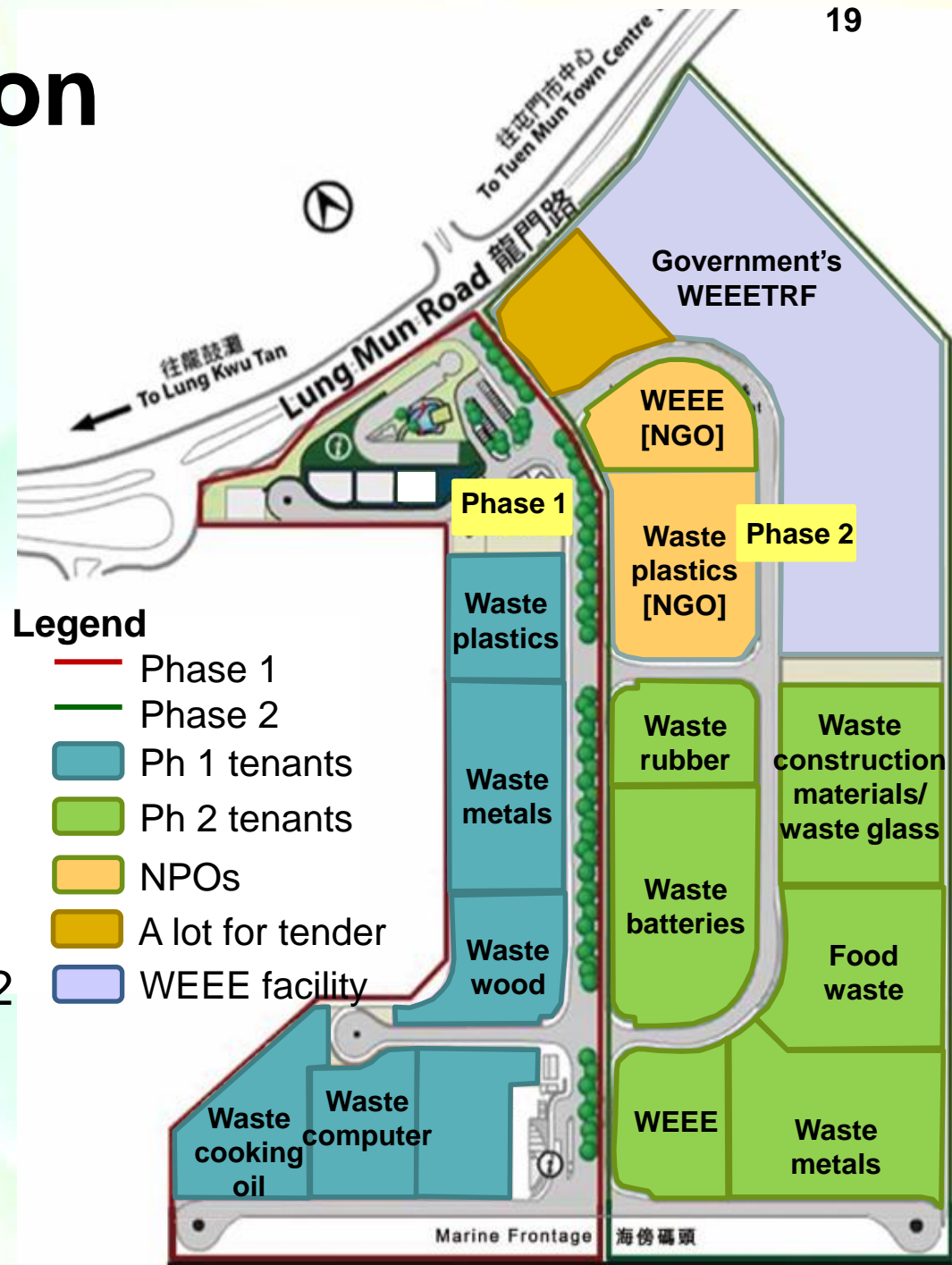
EcoPark in Circular Economy



Source: European Commission (2014) "Towards a circular economy: A zero waste programme for Europe"

Tenancy Situation

- At present, a total of 13 lots have been let out
- Phase 1
 - 5 lots let out to private companies between 2007 and 2009
- Phase 2
 - 2 lots let out to 2 non-profit making organizations (NPO) in 2010
 - 6 lots let out to private companies in 2011 and 2012
 - Government's WEEE Treatment and Recycling Facility (WEEETRF)





Champway Technology Limited – Waste Cooking Oil Recycler



Recycling of WCO into biodiesel via the processes of raw material extraction, neutralization, separation and distillation



Shiu Wing Steel Limited - Waste Metal Recycler



Sorting and shearing of waste metals for selling to Southeast Asia for manufacturing construction materials like steel bars



Hong Kong Hung Wai Wooden Board Company - Waste Wood Recycler



Converting waste wood to wood fuel pellets via crushing, drying, pelletising, cooling and packing



Li Tong Group - Waste Computer Equipment Recycler



Dismantling and separation of waste computer equipment into various electronic components



Hong Kong Telford Envirotech Group Limited - Waste Plastic Recycler



Sorting, baling and shredding of waste plastics into baled plastics, plastics flakes and chips



Yan Oi Tong EcoPark Plastic Resources Recycling Centre – Recycling of Waste Plastics



Sorting and processing of waste plastics into baled plastics, plastics flakes and pellets



“WEEE GO GREEN” EcoPark WEEE Recycling Centre - Processing of WEEE



Sorting and dismantling of WEEE into various recyclable components



K. Wah Construction Products Ltd.

- Waste Construction Materials/ Waste Glass Recycler



Converting waste construction materials/ waste glass into recycled glass concrete blocks via the processes of crushing, mixing, casting, curing and packing.



South China Reborn Resources (Zhongshan) Company Limited – Food Waste Recycler



Recycling food waste into high protein content feed for livestock farming and aquaculture via the processes of sorting, dewatering, fermentation and drying



Chung Yue Steel Group Company Limited - Waste Metals Recycler



Sorting and shredding of waste metals for selling to Southeast Asia for manufacturing construction materials like steel bars



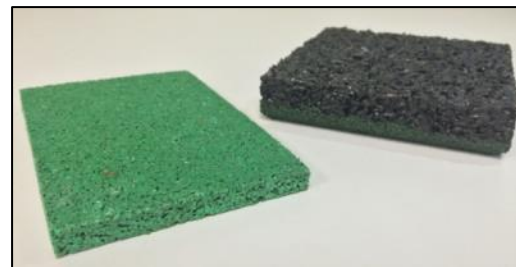
E. Tech Management (HK) Ltd. – WEEE Recycler



Dismantling, shredding and separation of WEEE into various recyclable materials



On Fat Lung Innovative Resources Limited – Waste Rubber Tyres Recycler



Recycling of waste rubber tyres into recycled playground mat via the processes of crushing, shredding, cracking, dusting and separation



SSK Metal Limited

-Waste Batteries Recycler



Recycling of waste lead-acid batteries into various battery components such as plastics and lead components via the processes of shredding, separation and smelting

WEEE Treatment & Recycling Facility



Turning the eight types of regulated e-waste into different kinds of reusable materials such as plastic and metals via an advanced shredding system, followed by sorting using eddy currents, air separators and optical systems, with a capacity of 30,000 tonnes per year

Resources Recovery in EcoPark

Waste cooking oil



Waste metals



Waste wood



Waste plastics



Waste rubber tyres



Food waste



Waste construction materials



Waste glass



WEEE



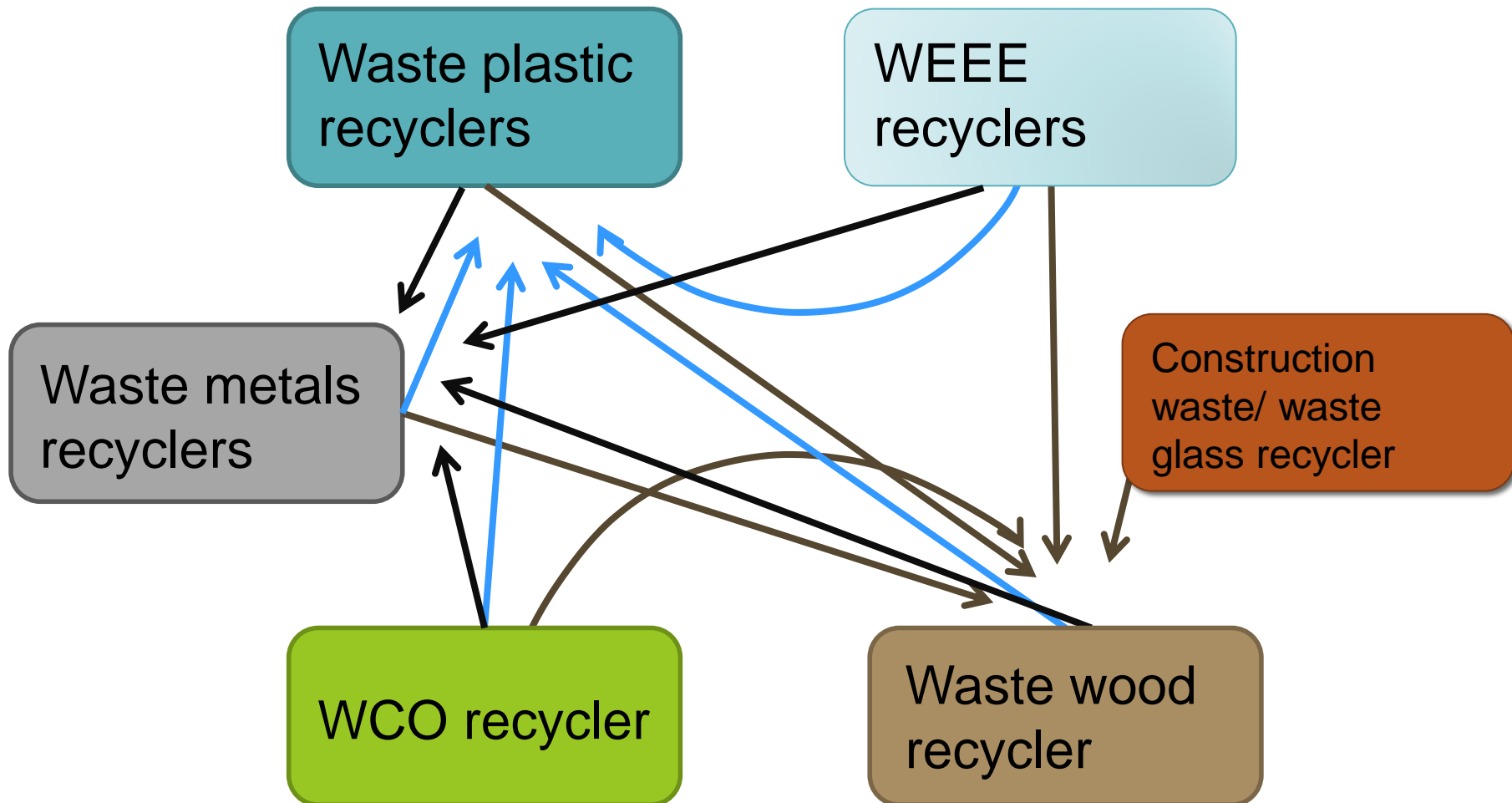
Waste batteries



Resources Recovery in EcoPark

- At present, a total area of 130,000 m² has been let out or allocated for recycling industry
- Over 160,000 tonnes of recyclables were recovered in 2015

Synergies among Tenants



LET'S GO GREEN

THANK YOU!

