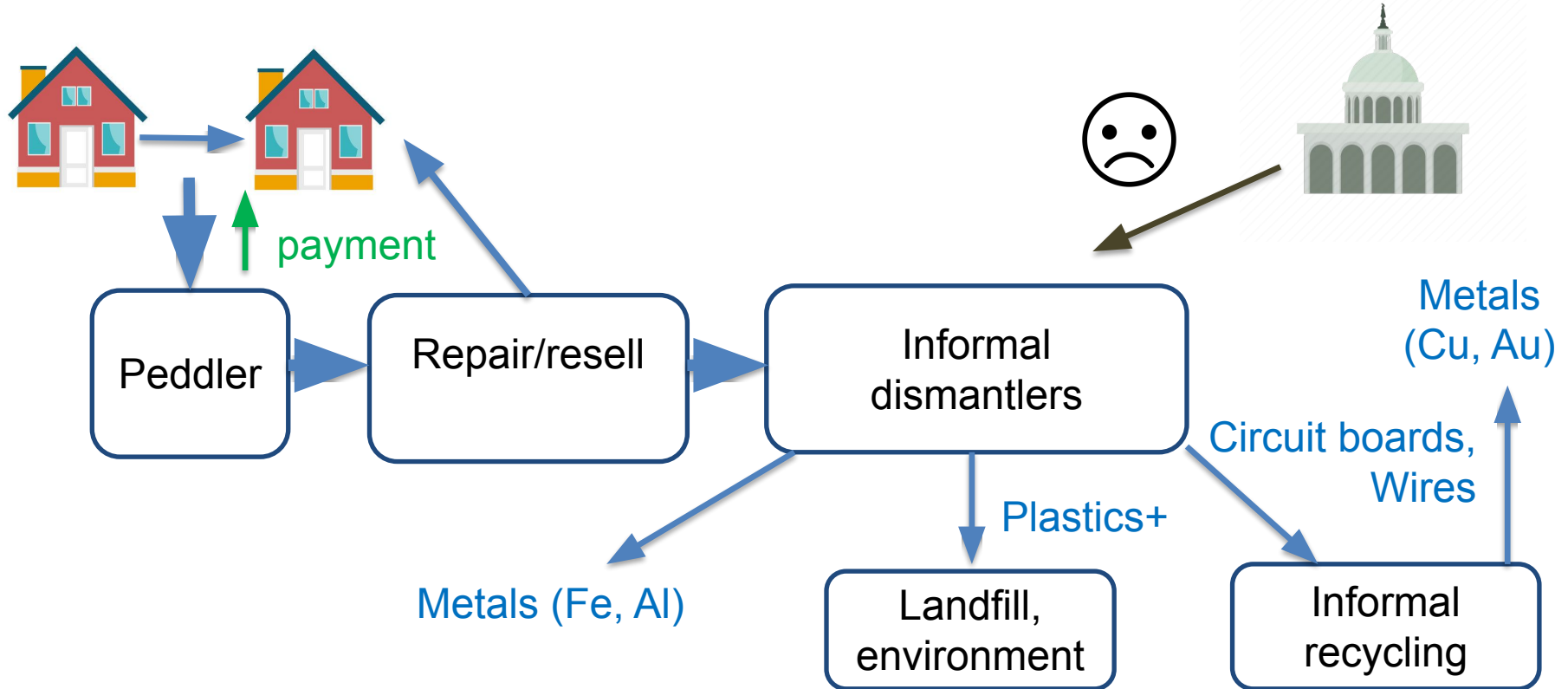


Multisector insights into end of life electronics circularity in ASEAN

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End-of-First-Life Electronics System in many developing nations





Open burning of plastic encased wires to recover copper



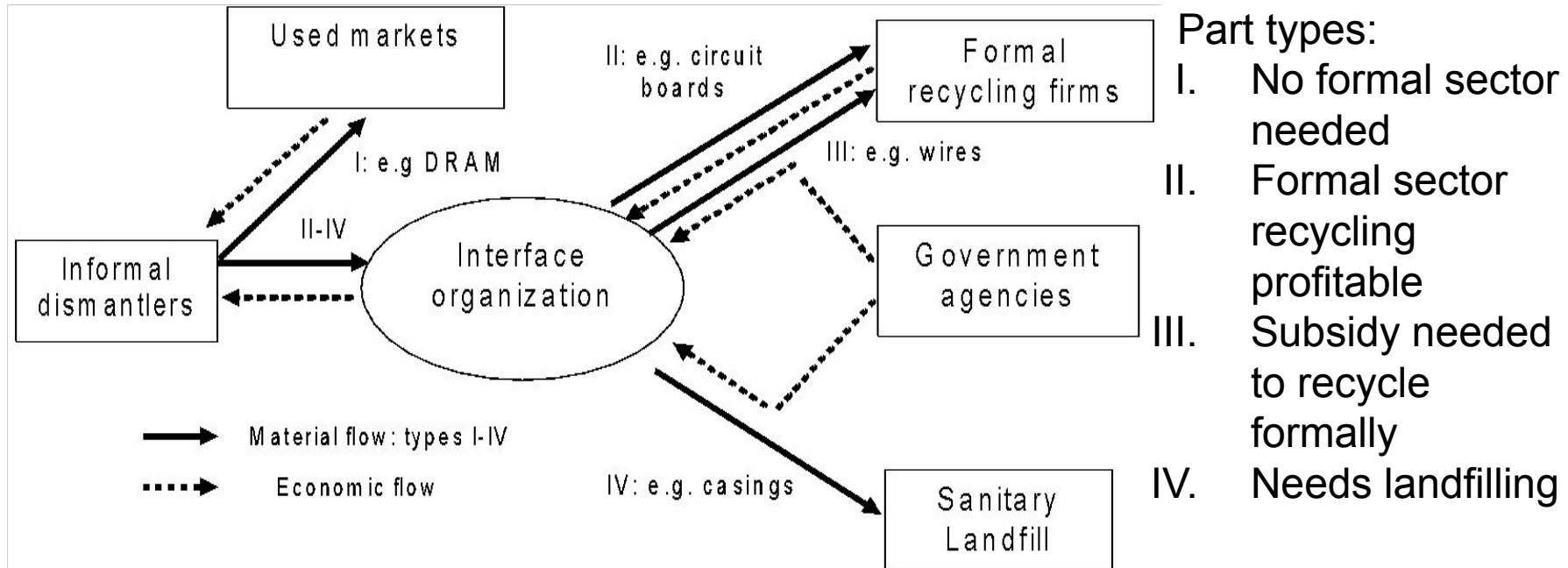
from informal recycling

Circuit boards treated with acid, cyanide to recover copper and gold



How to cooperate with informal sector?

One approach - Interface organization: pay informal sector to channel to formal sector:



Interviews with informal sector workers

- Goals:
 - Understand their working situation better
 - Understand what is needed for them to sell to formal sector (interface organization)
- Conducting 45 total interviews w/ informal sector (collection, repair, dismantling) in 5 ASEAN nations (Indonesia, Malaysia, Philippines, Thailand, Vietnam)

RIT Interviews : vignettes from initial interviews

“Gabriel” from Philippines

- Collects, repairs and dismantles TV, A/C, washing machine, fans
- Has a truck/cart, parks and team goes out to households
- Bothered by police for illegal parking and dismantling in public space
- Member of collective organization
- Cash day-of transactions only

Economic/material analysis of circuit board aggregator

- Large and complex recycling facilities in Japan and a few other countries efficiently recover metals from circuit boards: gold, copper, silver, palladium, ...
- Informal sector cannot establish long-term contracts with major facility.
- Circuit board aggregator: collects and ships boards to major facility
- Preliminary result: *potential* profitability of aggregator in ASEAN.

- ASEAN governments have to account for informal sector in formulating policy for end of life electronics.
- Options are formalize, cooperate, and/or ban
- There is value in informal sector: huge expertise, leading effective repair and reuse. Also employment.
- Data needed to establish baseline for planning

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Thank you for your attention!

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