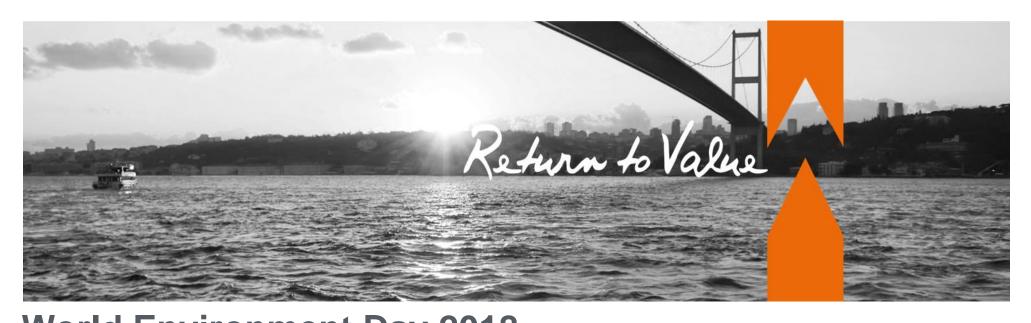
Return to Value





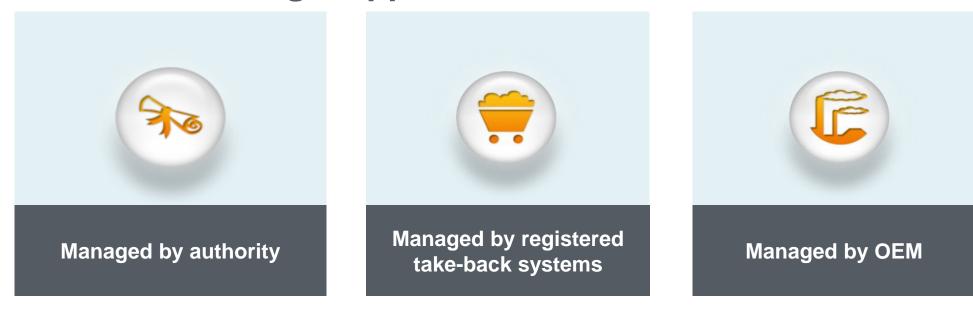
World Environment Day 2018
Session 1:
Role of PRO in handling E-Waste and Plastik Waste – Global Perspective

Patrick Wiedemann, CEO Reverse Logistics Group Delhi, June 3rd 2018





Different Models get applied on a Global Scale

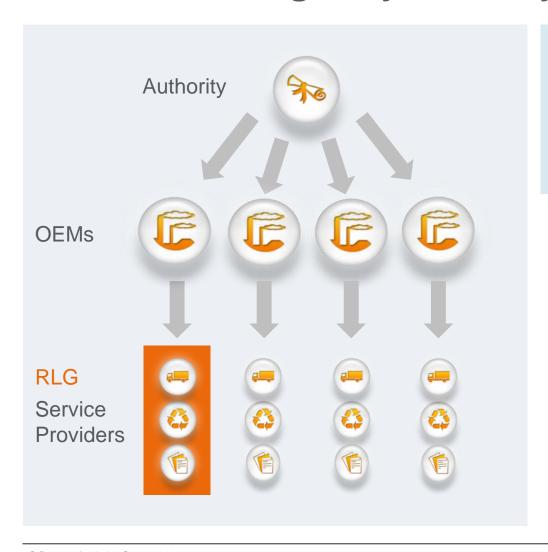


WEEE and Plastic/ Packaging waste take-back is differently organized





Take-back managed by authority



Service providers as RLG perfom

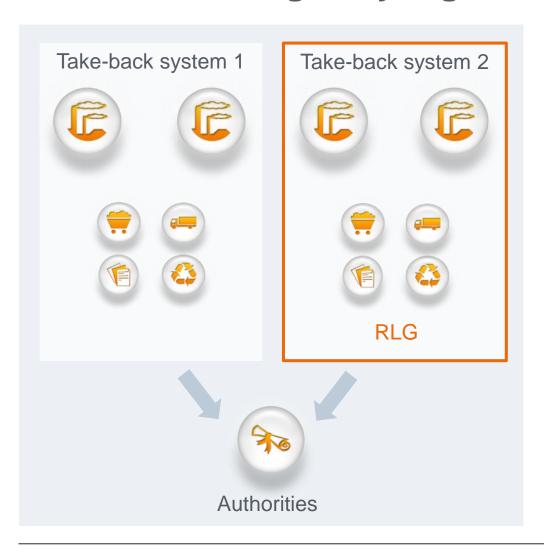
- Collection
- Recycling
- Reporting to authorities

©RRenne & dain initial range | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |





Take-back managed by registered take-back systems



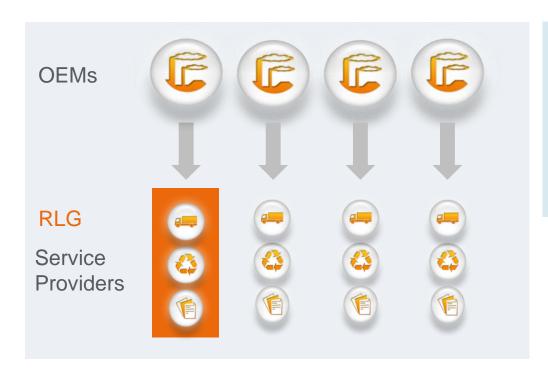
Take-back schemes cover

- Collection
- Recycling / disposal
- Documentation
- Reporting to authorities





Take-back managed by OEM



Various service providers as RLG perfom

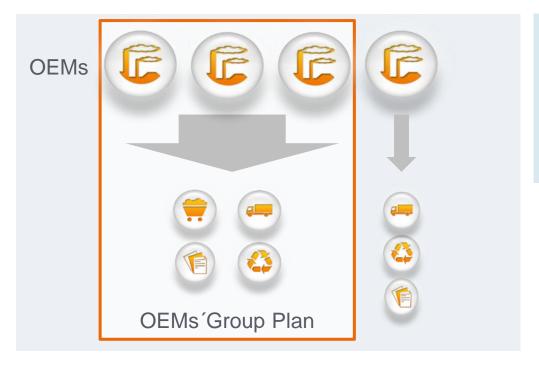
- Pick up / collection
- Recycling / disposal
- Documentation / reporting to authorities

©RReverse & dajisfis tider Outpui 2015





Improvement: OEMs'Group Plan



Managed by RLG

Group Plan covers

- Collection
- Recycling / disposal
- Documentation / reporting to authorities



- ✓ Lower cost
- ✓ Improved control
- ✓ Higher collection performance

©RRenne & daininistic Grapu 40 12015





Key Roles of PRO

Towards Producers/Obligated parties

- Operational fulfilment of compliance regulations
- Platform for joint awareness activities with impact and scale, while being more efficient than individual activities
- Specialist for non core activity, reducing complexity and administration
- Reporting and documentation requirements to proof fulfilment of regulation
- Ensuring compliant handling of EoL-products throughout whole process
- Financial Management and administration
- Cost transparency

Key elements to authorities

- Enforcement on all market players no freeriders
- Control on massflow avoid paper trading
- Control on standards of treatment along the whole reverse chain (multiple tiers)

Return to Value



Sample: Collection mechanism on lead acid batteries EU



guarantees



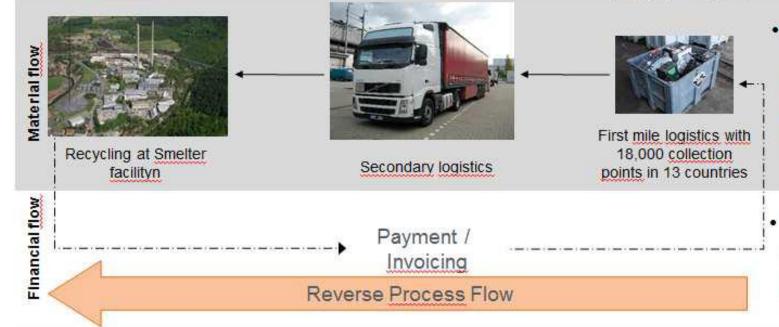
Massflow control by smelter capacity and giving full trancparancy + leakage control



Customer specific reporting for massflow and cost/revenue



Proof of fullfilment of all regulatory requirements for collection and treatment according Batteryregulation (EPR) Know-How for all national regulations for hazardous waste and EPR regulations as well as the IT plattform for customer specific cloosed loop and reporting



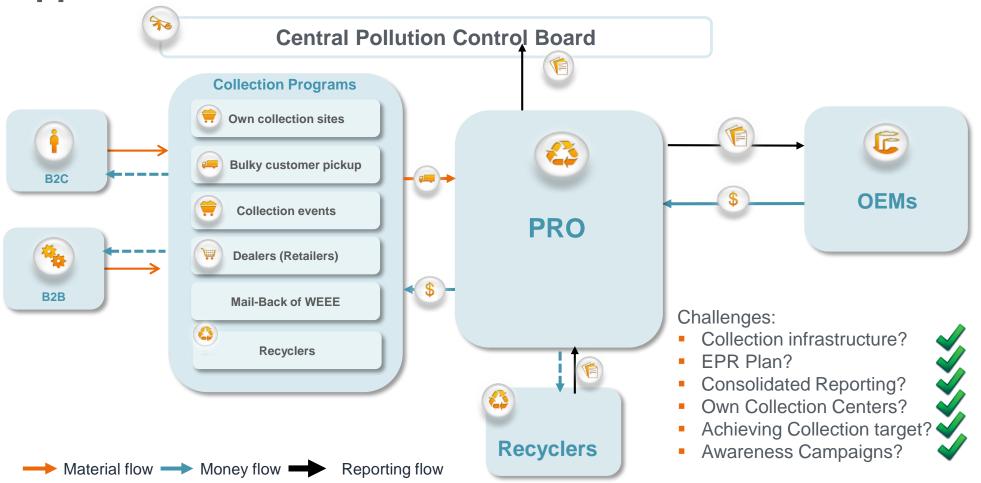
Cloosed loop: End to end control and process management for physical handling of the scrap batteries from collection point to smelter

 RLG controls and executes full financial flow from reimbursement of collection point to charging of smelter





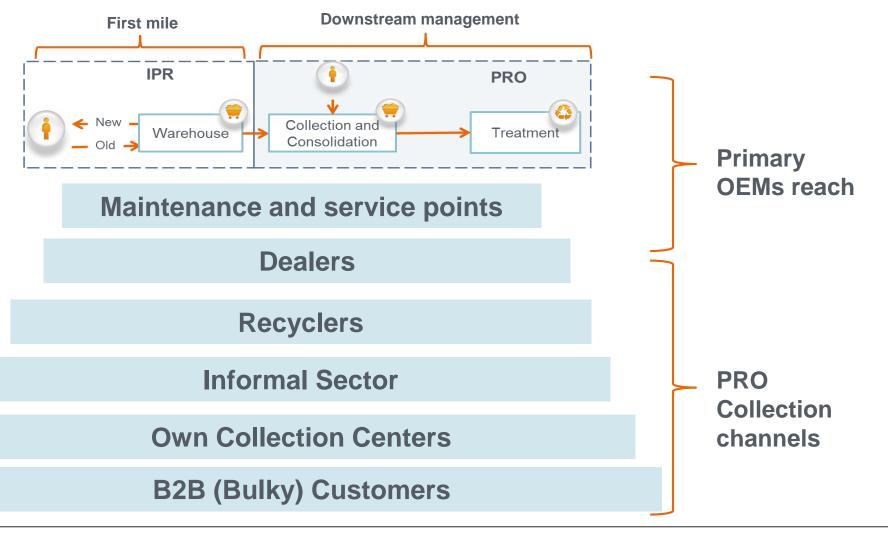
PRO setup – innovative and omnichannel collection approach







The PRO approach







Key learnings of ERP execution and effectiveness

- There are multiple ways to design and implement an e-waste management system that delivers satisfactory results
- The basis for any well functioning e-waste management system is early and constant consumer education and awareness creation
- Government control and involvement for the key tasks e.g. certifying, centralizing information and enforcing participation ensures a fair and compliant level playing field for all stakeholders
- Clear definition of roles and responsibilities assures an active stakeholder participation and smooth operation of the system
- Transparency (e.g. through a centralized IT platform and tracking system) builds credibility and is important for controlling and evaluating the efficiency of the system.
- Challenging but achievable collection and recycling targets encourages innovation in collection systems and recycling technologies
- Producers engagement shall not be limited only to the financing of the system but also require their active participation e.g. advisory, PRO selection, own collection and recycling infrastructure
- For some product categories, recycling cooperation on a regional level (e.g. EU), brings profits by achieving economies of scale.
- Convenience and low cost to households correlate with higher collection rates
- System setup provides incentives for the informal sector to shift to the formal system.





Interest and motivation of key Stakeholders in India

Government

Producers

Consumer

Operational executing

PRO

Deliver overall service, ensuring and balancing where needed the interest of the different stakeholders as a neutral, free of conflict of interest acting organization for all stakeholders

Acting as Regulated and Licenced Organiation towards
Obligated Parties and to the Government

- Participation of all market players
- Achievement of work standards
- Proof of reality matching reporting

standards

Minimal administration

Return to Value



RLG Global scope – local reach

- Reverse Logistics Group (RLG) services are offered across the globe.
- 30+ subsidiaries and 20+ regional offices on 4 continents.
- Customers live in more than 80 countries.
- PRO Operator (E-waste, Batteries, Packaging) in 18 countries
- 500+ employees collaborate with hundreds of partners.
- This enables us to act locally, while developing globally.







Thank you for your attention.

RLG Reverse Logistics India Pvt. Ltd.

94, Pocket-4, Sector 11, Dwarka, New Delhi-110075

info@rev-log.com www.rev-log.com www.rlgindia.in www.return-to-value.com

