Tableware / dinning set used by customers in restaurants

Takeaway packaging and containers

Cycle for Non-Takeaway

B&F End User Equipments (EUE)

Takeaway Related EUE

Non-Takeaway Related EUE

Stackable EUE

* Containers
  + Bowls
  + Plates
  + Takeaway lunch box
  + Thermal Box
  + Thermal mugs
  + Light weight box ( bag ) for EUE batch
* Non-Containers
  + Straw
  + Chopsticks
  + Forks

Non-Stackable EUE

Reusable EUE

Reusable Takeaway Related EUE

EUE Reusing Cycle

Takeaway EUE Reusing Cycle

Takeaway EUE releasing

Takeaway EUE Releasing Registration

Individual EUE Identification

End User Identification

Takeaway EUE Batch

Takeaway EUE Batch from customer order

Used Takeaway EUE Collection

Used Takeaway EUE Collection Point

Used Takeaway EUE Preliminary Cleaning

EUE size standard

Used Takeaway EUE Collection Registration

EUE Sorting

Manual EUE Sorting

Auto EUE Sorting

Manual EUE distribution

Auto EUE Distribution

EUE Transportation

EUE Cleaning Factory

EUE Distribution Point

EUE Transportation From Collection Point to Cleaning Factory

EUE Transportation From Cleaning Factory to Distribution / Releasing Point

Takeaway Related EUE Reusing Cycle

* RFID / QR code embedded in each individual piece of EUE
* An takeaway order is made by End User ( Customer )
* Order is prepared using multiple EUE
* Multiple EUE of the order forms a EUE Batch
* The releasing of the order ( the EUE batch ) to the End User MUST be registered to the Takeaway Reusing System
* The registration records that an Identified End User is using the EUE Batch
* The detail of EUE Batch (unique ID of EUE ) is recorded in the system
* The end user consumes the order ( e.g. ate the meal ).
* The end user MUST return the EUE Batch to any one of the EUE collection point.
* The collection of the EUE Batch is registered by the Takeaway Reusing System recording that the End User has returned the EUE Batch.
* The Takeaway Reusing System MUST be able to verify the collected EUE Batch detail matches the releasing record, either fully automatic or partial manual work involved.
* The Takeaway Reusing System MUST be able to detect any damage of each EUE
* At each time interval ( e.g. 30mins ), all the EUE collected ( from multiple EUE batches ) are transported to the Cleaning Factories.
* Each EUE is either cleaned / repaired / rebuilt in the factory
* At each time interval ( e.g 30mins ), the cleaned EUE are transported to the Releasing Points
* The EUE arrives at the Releasing Point ( the restaurant ) and are ready for the next Takeaway Order and one cycle of the Takeaway EUE Reusing is completed.
* Provide economically feasible solution to substitute all disposable equipment in Food & Beverage Industry with reusable equipment

1. Feasibility
   1. Tableware Cleaning Out sourcing is a running industry
      1. Factory for mass production
      2. Transportation proven
      3. Acceptable by Restaurant
      4. Certain level of EUE standardization
2. Urgency
   1. Disposable objects in F&B industry has always been toxic
   2. The booming takeaway delivery service in china will greatly worsen the problem
3. Vision
4. Sponsorship
   1. Have not none yet, but..
   2. The project is in favor of an existing industry ( dish wash out sourcing )
   3. The industry will strongly support the promotion
5. Governments
   1. All governments support environment protection, superficially ,
   2. More in depth , if and only if, economically beneficial
   3. The INDESPOSABLE project promote reusable infrastructure and equipment standardization
   4. The first country to successfully adopt the idea must also the first ( likely the biggest ) manufacturer of the industry
   5. As the problem is urgent globally, other countries has NO time to build their own industry.
   6. The first country to adopt the idea will own almost the whole world’s share
6. China
   1. Is most likely the first country to adopt
   2. Benefit from big volume / mass production
      1. The more the population, the more disposable, the more urgent
      2. Has more industrial power for manufacturing
      3. Has more power researching / optimizing the low-tech industry
   3. China can show the world practical solution to environmental problem
   4. China government is very efficient

* Promote the solution removing all disposable meal equipment ( mostly tableware and containers ) in Food & Beverage ( F&B ) industry
* Reusable Equipments are economically feasible
* For takeaway delivery and also consumption in restaurant
* Most disposable is generated from takeaway delivery
* A structural systematic implementation is needed. ( pls see diagram)
* Disposable is also used inside many small restaurants
  + Because the cleaning cost is high
  + Space problem
  + hygienic problem
* Dish washing out sourcing service is currently available which is part of the solution
* Cost / Space / Hygienic issues can be benefit from mass production and specialization
* However the industry is not yet flourishing and cost is still high and only target for high end restaurants to solve only the hygienic problem
* The dish washing industry can be improved to absorb even the low end restaurant and even more environment friendly
  + Removing any plastic packaging
  + Container type equipment should be stackable design to address the
    - Space problem
    - Lower the cost
    - More efficient transportation / storage
  + Government policy to encourage / enforce the reusable requirement

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