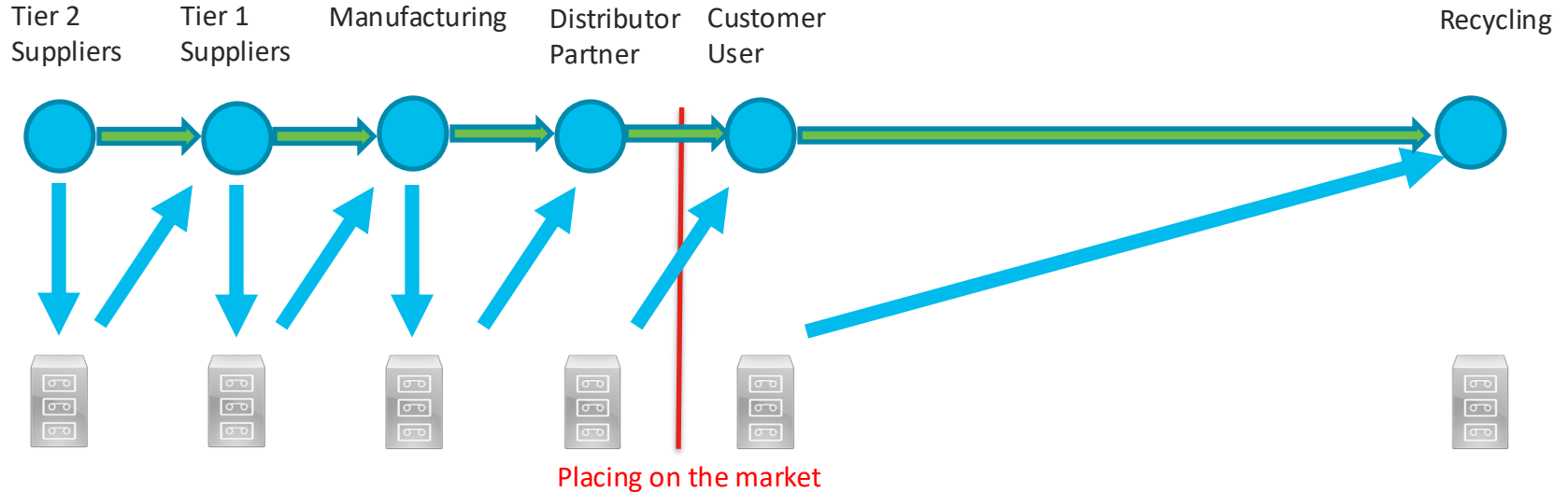# Digital Product Passport: challenges and opportunities for ICT infrastructure equipment

Klaus Verschuere

12 december 2024

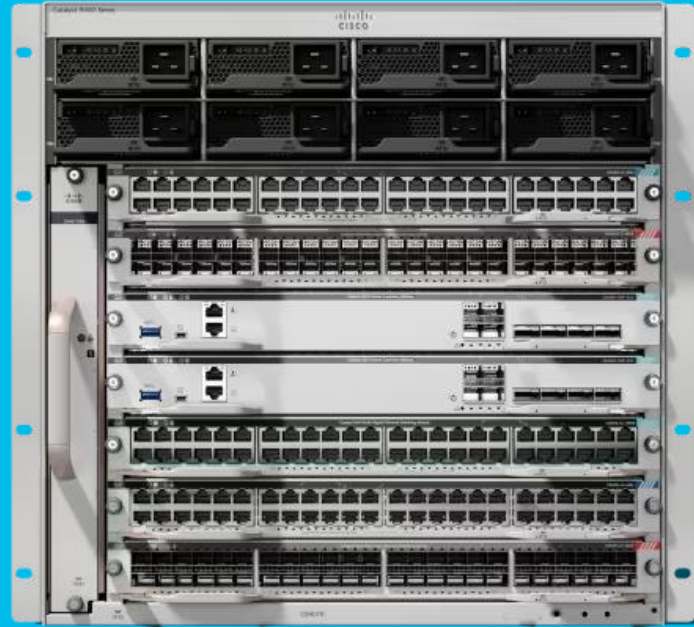# Standardised way to share data across the entire value chain

Information needs to be accurate and up to date:

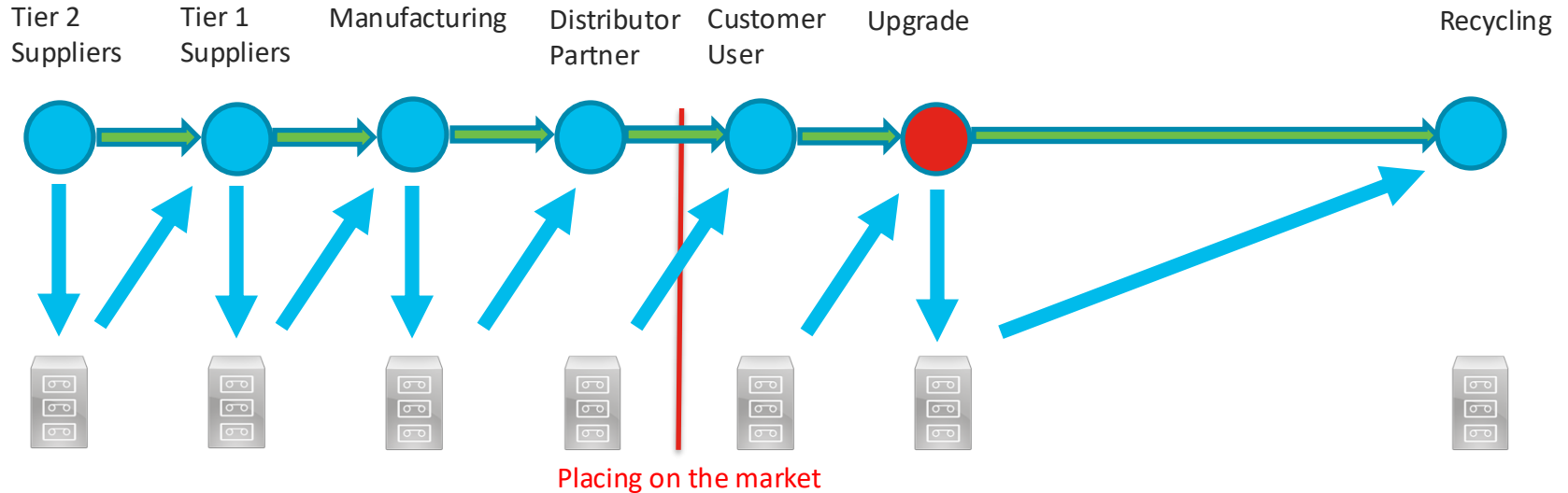Recycled content, carbon footprint, CRM's, SoC, FMD, energy use

➤ how to deal with second sourcing ?

➤ market surveillance at the moment of placing on the market

In theory,
there is no difference
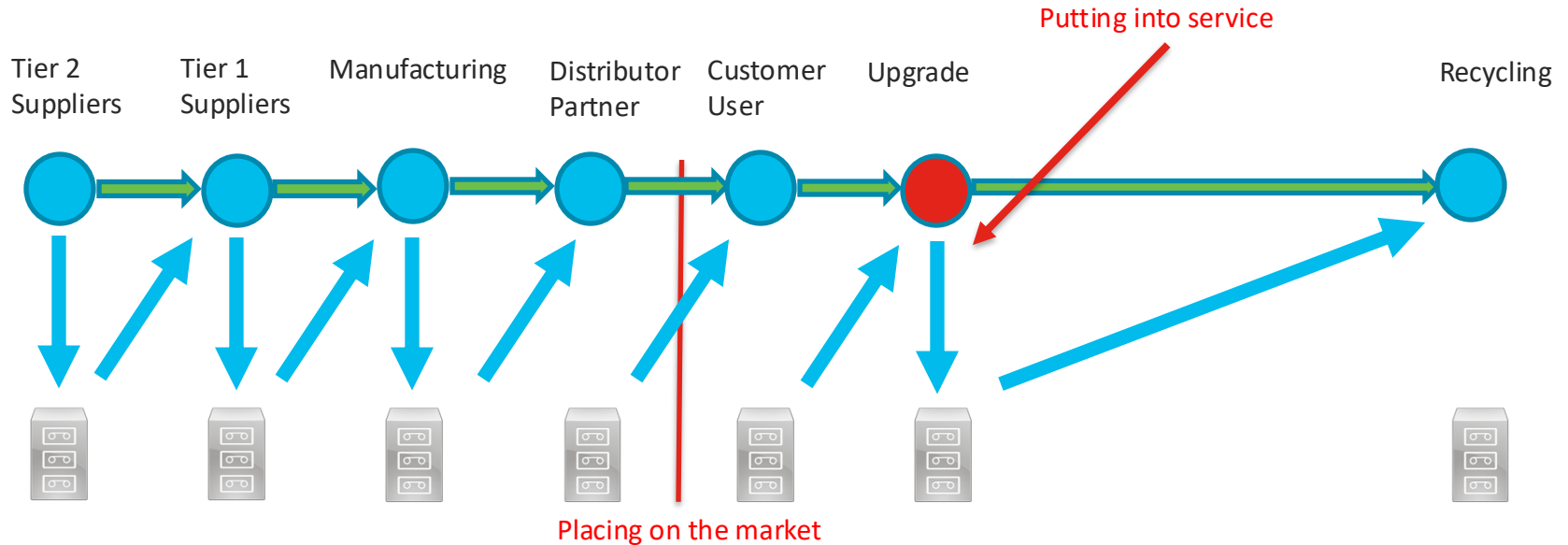*between theory and*
practice

In practice however...

Upgrade

Information needs to be accurate and up to date:
➢ Granularity – DPP per item (serial number)

Upgrade

Putting into service

Tier 2 Suppliers · Tier 1 Suppliers · Manufacturing · Distributor Partner · Customer User · Upgrade · Recycling
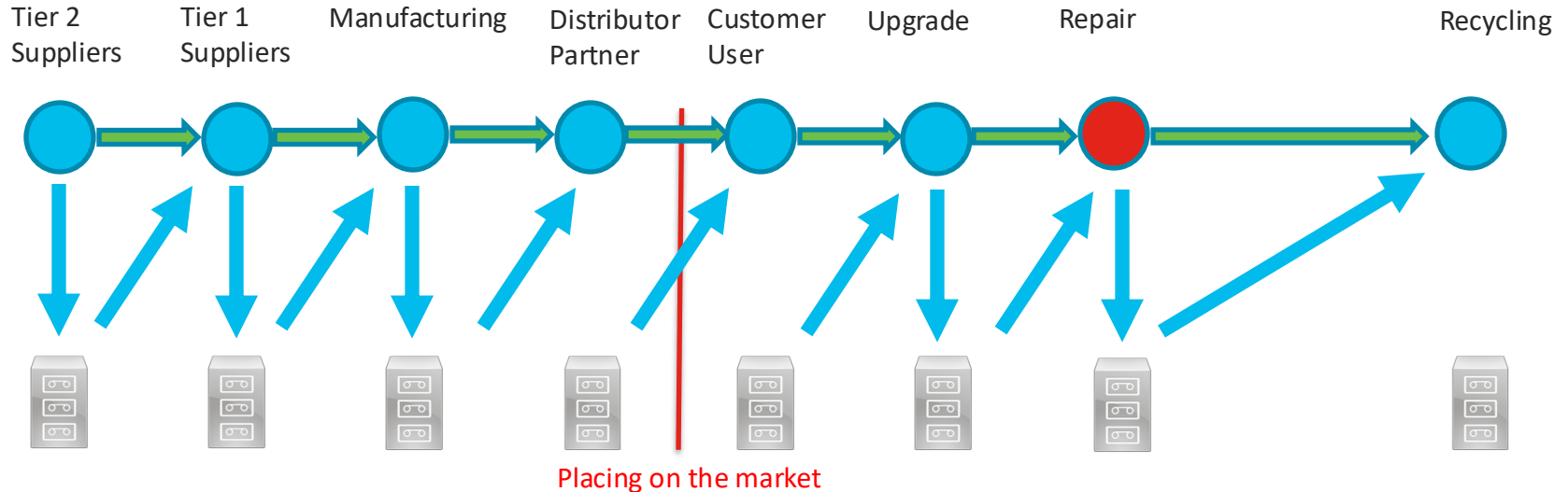
Placing on the market

Information needs to be accurate and up to date:
- ➢ Granularity – DPP per item (serial number)
- ➢ Energy efficiency needs to be updated when upgrading – significant change to DPP data
  Who's interested in this data – Use case?

Repair

Tier 2 Suppliers → Tier 1 Suppliers → Manufacturing → Distributor Partner → Customer User → Upgrade → Repair → Recycling
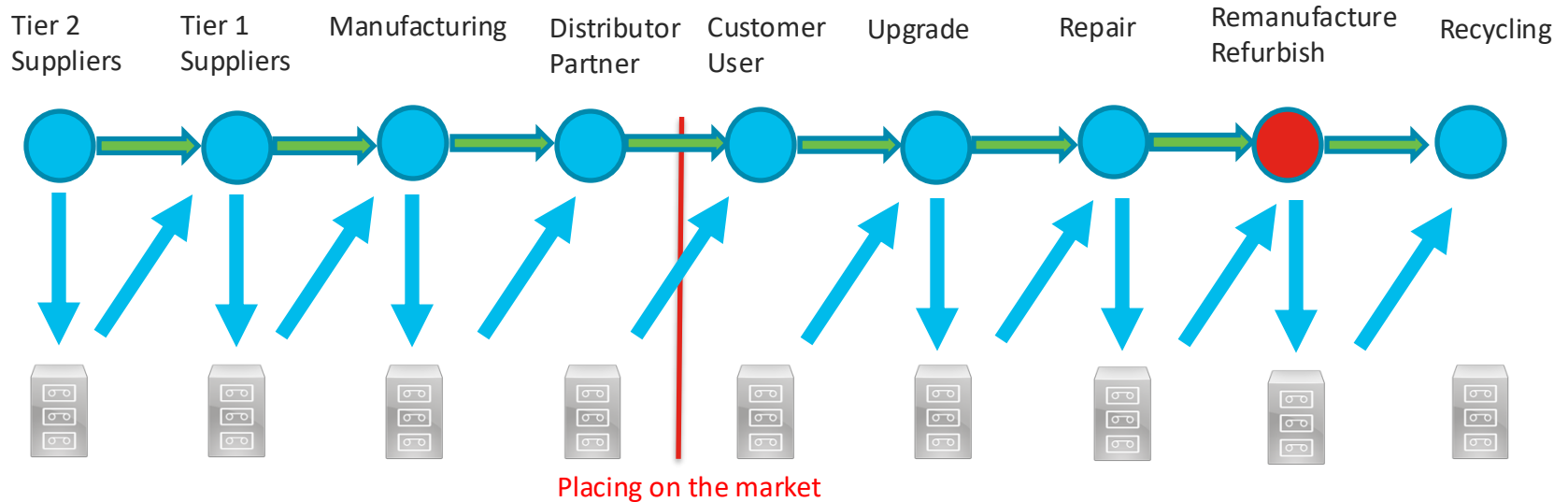
Placing on the market

Information needs to be accurate and up to date:
- CRM, recycled content information needs to update when repair happens significant change – substantial modification ?
- How deep does the repair go? fan, PSU, interface, motor – resistor, capacitor, wire

Refurbish

| Tier 2 Suppliers | Tier 1 Suppliers | Manufacturing | Distributor Partner | Customer User | Upgrade | Repair | Remanufacture Refurbish | Recycling |

Placing on the market

Information needs to be accurate and up to date:
- ➢ Carbon footprint improves dramatically when refurbishment/ reman happens

Refurbish

Tier 2 Suppliers → Tier 1 Suppliers → Manufacturing → Distributor Partner → | Customer User → Upgrade → Repair → Remanufacture Refurbish → Recycling
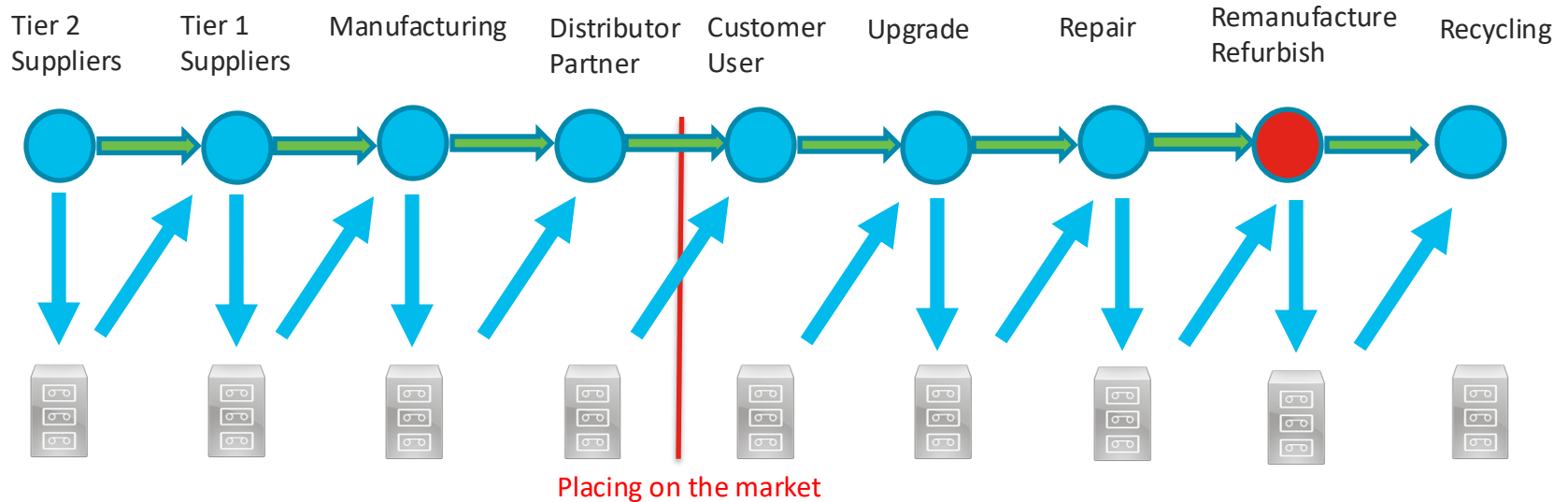
Placing on the market

Information needs to be accurate and up to date:
- Carbon footprint improves dramatically when refurbishment/ reman happens
- Who will verify that update of DPP happens? Market surveillance.

DPP value for ICT infrastructure equipment

- Reusability
- Upgradability
- Durability / reliability
- Reparability score
- Sequence of dismantling steps
- Tools needed for repair
- Technologies needed for repair
- Information sheet on compliance performance
- Install, use, maintain and repair information for consumers
- Disassembly, recycling, or disposal at end-of-life information for treatment facilities

STATIC attributes

DPP challenges for ICT infrastructure equipment

- Energy efficiency / use
- Environmental Impact
  - Carbon Footprint
  - LCA
- Materials content
  - Recycled content
  - Critical Raw Materials
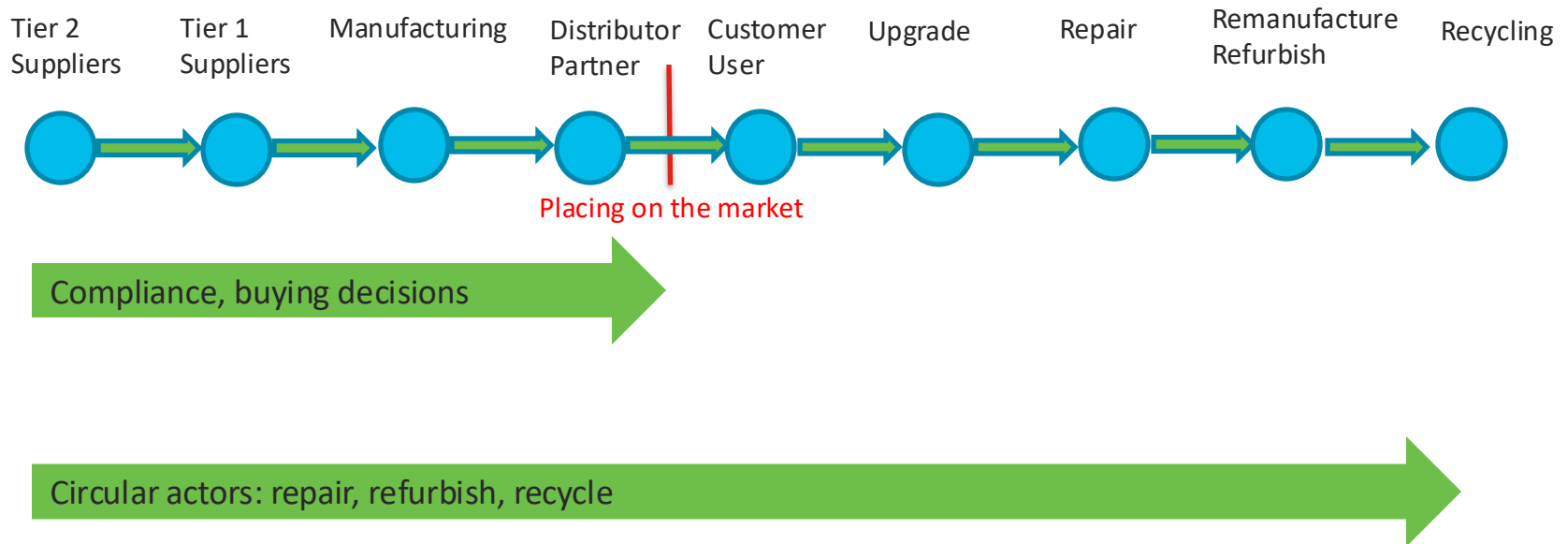 - Hazardous Materials
- …

DYNAMIC attributes

DPP challenges for ICT infrastructure equipment

- Energy efficiency / use
- Environmental Impact
    - Carbon Footprint
    - LCA
- Materials content
    - Recycled content
    - Critical Raw Materials
    - Hazardous Materials
- ...

DYNAMIC attributes

Is it relevant to keep updating all information?
a. Is there a need to keep info up-to-date which is not relevant anymore ?
b. How to deal with relevant info which is not updated ?

Proposals for Dynamic Attributes

Who's the interested party, when is data useful ?

Tier 2 Suppliers → Tier 1 Suppliers → Manufacturing → Distributor Partner → Customer User → Upgrade → Repair → Remanufacture Refurbish → Recycling

Placing on the market

Compliance, buying decisions

Circular actors: repair, refurbish, recycle

Proposals for Dynamic Attributes

Who's the interested party, when is data useful ?

| Tier 2 Suppliers | Tier 1 Suppliers | Manufacturing | Distributor Partner | Customer User | Upgrade | Repair | Remanufacture Refurbish | Recycling |

Placing on the market

Compliance, buying decisions

data to remain static, not up-to-date until EoL

Circular actors: repair, refurbish, recycle

thresholds for data accuracy
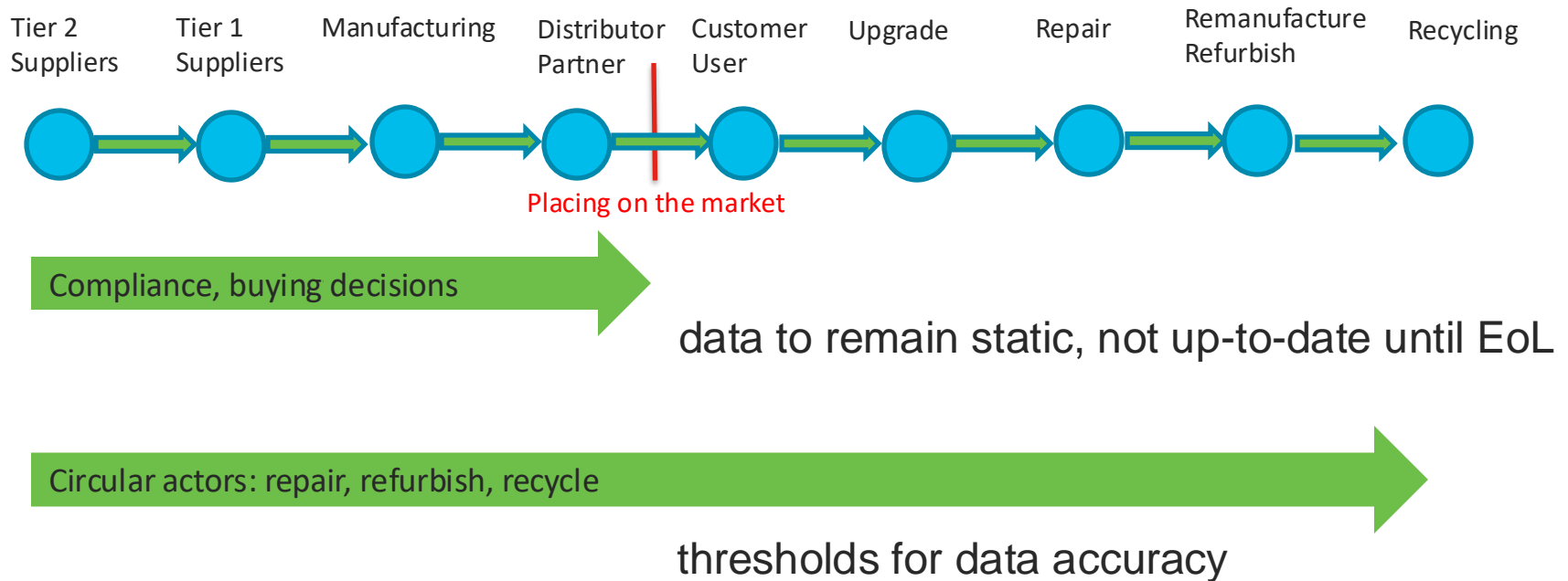
Proposals for Dynamic Attributes

- Energy use
- Environmental Impact
   Carbon Footprint
   LCA

- Materials content
   Recycled content
   Critical Raw Materials
   Hazardous Materials

- …

a.   Is there a need to keep info up-to-date which is not relevant anymore ?
Data to remain static, not up-to-date until EoL

b. How to deal with relevant info which is not updated ?
Thresholds for data accuracy

Q & A time