Short answer: **yes, we *can* make money at ~USD 2 per TOTE per end-to-end shipment**, but it depends on rotation rate and what is included in that USD 2 (AI + platform vs. including hardware amortization + cleaning/ops).

Below are a few structured options you can consider.

1️⃣ Basic math check – is USD 2 per shipment viable?

Assumptions (for discussion, we can tune later):

- TOTE asset value: **USD 200**
- Lifetime: **3–5 years**
- Rotations per year: **30–80 shipments / TOTE / year**

Then:

- At **30 shipments/year** → revenue = 30 × 2 = **USD 60/year**
- At **50 shipments/year** → revenue = 50 × 2 = **USD 100/year**
- At **80 shipments/year** → revenue = 80 × 2 = **USD 160/year**

So, over 3–4 years, **total revenue per TOTE = 0.9–2.0× TOTE asset value**, *before* connectivity and service costs.

👉 Interpretation:

- If **USD 2 is only the AI / monitoring fee**, and hardware (TOTE + sensors) is funded via a separate subscription or CAPEX from the customer, it's quite workable.
- If **USD 2 has to cover *everything* (hardware, telecom, cleaning, ops, margin)**, then we must push for **higher rotation (heavy users)** or **tiered pricing**.

2️⃣ Option A – Pure "per shipment" AI-MaaS fee (your USD 2 model)

Concept

- Customer pays **USD 2 per TOTE per end-to-end shipment** as an OPEX line labeled e.g. *"AI Monitoring & Risk Analytics Service Fee"*.
- Hardware (Smart TOTE + BLE sensors + padlock/NTN, etc.) is:
  - Either provided by customer (CAPEX), or
  - Rented via a **separate monthly "TOTE rental" fee**.

Pros

- Very easy for logistics / finance: "2 dollars per shipment per TOTE" is simple to explain and allocate.
- Scales directly with usage; heavy users pay more but also get more value.
- Good fit for **pilot and ramp-up** (low commitment).

Cons / Notes

- For low-rotation customers (<30 turns/year), total revenue per TOTE is low; we may need:
  - **Minimum monthly fee per active TOTE**, or
  - **Minimum monthly platform fee per customer**.

3️⃣ Option B – Per-TOTE monthly subscription (unlimited or capped usage)

Concept

- Charge **USD X per TOTE per month** (e.g. USD 8–15) for:
  - Unlimited (or up to N) end-to-end shipments
  - AI monitoring, alerts, dashboards, APIs
- This subscription incorporates:
  - Hardware amortization (TOTE + electronics)
  - Connectivity and platform
  - Basic support

Why it works with a USD 200 TOTE

- Example: **USD 10/month per TOTE**
  - Yearly: USD 120
  - 3 years: USD 360 (≈ 1.8× asset value, before costs)
- If a TOTE runs **50 shipments/year**, effective AI fee ≈ 120/50 = **USD 2.4/ shipment**.

Pros

- Predictable ARR; easy to model for investors.
- Easier to bundle **hardware + AI + service** into "one price per TOTE per month".
- Customers like "all-inclusive per asset per month" for budgeting.

Cons

- Customer must accept **fixed cost**, even if utilization fluctuates.
- Need a bit more selling effort than "2 USD per trip".

4️⃣ Option C – Hybrid: platform subscription + lower per-shipment fee

Concept

- **Base platform fee** (per month per customer or per site): covers:
  - Cloud, AI models, dashboards, integrations
- **Variable fee** (per shipment): covers:
  - Incremental costs for data, AI inference, long-term storage

Example structure:

- Platform fee: **USD 2,000/month per account** (or per region)
- Plus **USD 1–1.5 per TOTE per shipped leg** for AI monitoring.

Pros

- Spreads fixed costs (development, operations) into a predictable base.
- Per-shipment fee can be kept low but still meaningful at scale.
- Better for **large enterprises (Apple, AT&T, etc.)** where there are multiple flows and internal stakeholders.

Cons

- Slightly more complex pricing; needs clear packaging slides.

5️⃣ Option D – "AI premium" layered on top of a base LPMS subscription

Given Vector's LPMS "single subscription" positioning, we can also:

1. **Base LPMS subscription**
   - Hardware (TOTE + trackers)
   - Basic tracking (location, basic alerts)
2. **AI-MaaS add-on (premium)**

- Predictive risk scoring (route, theft, delay, temperature excursions)
- Automated incident reports, claim-ready documentation
- ESG/CO_2 reporting, SLA analytics, etc.

Pricing idea:

- Base LPMS fee = X (covers hardware + basic monitoring)
- AI add-on = about **USD 1–2 per shipment**, or **+25–35% uplift** on the base fee.

This positions AI as a **value-add** rather than a cost-recovery item.

6️⃣ My recommendation (for discussion with you)

If we keep your **USD 2 per TOTE per shipment** as an anchor:

1. **For pilot / early deployment**
   - Use **Option A** (simple per-shipment USD 2 AI fee),
   - With a **minimum monthly fee** per customer (e.g. USD 3–5k) to avoid under-utilization issues.
2. **For scale / long-term contracts**
   - Migrate to **Option B or C**:
     - Either **per-TOTE monthly subscription** (includes N shipments), or
     - **Platform + per-shipment hybrid**.
3. **Framing to customers**
   - Emphasize that **USD 2 is ~1% of the asset value per trip**, but:
     - Avoided loss / shrinkage on **one shipment** already pays back many TOTE-trips.
     - They also gain **audit-ready chain-of-custody + claim support**.

If you'd like, I can turn this into a one-pager slide with 2–3 pricing models and example ROI per TOTE so you can share it with Vector / Arviem.