

Precious Plastic: A Marketplace for Recycled Creations

In 2013, Dave Hakkens, a young designer from the Netherlands, envisioned a grassroots solution to one of the world's most pressing environmental problems — plastic waste. He launched Precious Plastic, an open-source community-driven project with a mission to empower people globally to turn discarded plastic into valuable products like furniture, lighting, accessories, and art.

But as the movement grew, so did the need for a platform that could connect thousands of eco-conscious creators and DIY recyclers. Precious Plastic needed more than a website; it required a vendor-friendly, scalable marketplace that aligned with its values of accessibility, transparency, and environmental impact. That's where we stepped in.

Together, we transformed their vision into a fully customized P2P marketplace, specifically designed to support individual creators and small-scale recycling entrepreneurs worldwide.

Challenge

- Simplify vendor onboarding for users unfamiliar with eCommerce platforms
- Replace complex shipping calculations with a simplified pricing model
- Ensure straightforward and mandatory payment setup before product listings
- Enable collaborative communication through real-time messaging
- Offer seamless support for international buyers and sellers

Services

Custom Development System Integration UI/UX Design

Business Area

- Plastic Recycling Equipment
- Recycled Plastic Furniture & Homeware
- Lighting, Accessories & Art
- Custom Product Development
- Community-driven Maker Tools

Implementing the Project

✓ Simplified Vendor Experience

The typical vendor on Precious Plastic isn't a large company — it's an individual, often new to eCommerce, looking to share sustainable products. We transformed the vendor dashboard into a one-page, Etsy-style interface that allows new users to list products quickly and intuitively.

Everything they need to get started is available at a glance — no technical knowledge required.

The screenshot shows a web interface for creating a new product. At the top, there's a navigation bar with links for Orders, Products (active), Customers, and Vendors. Below this is a header for the 'New product' form, including a search icon, a 'Create' button, and a '+ -' toggle. The main content area is divided into two columns. The left column contains a grid of six icons representing different product types: 'Bottle shape', 'Bottle shape', 'Bottle shape', 'Map and code', 'Map', and 'Variation'. The right column contains the 'LISTING DETAILS' section, which includes a 'Category' dropdown, a 'Photo' section with four icons for adding photos (Add a photo, Map photo, Details, and Wipe), a 'Title' field, a 'Description' field, and a 'PRICING AND INVENTORY' section with fields for Price (€0), Quantity (1), and Listing status (Active, Hidden, Disabled). At the bottom right, there's a 'Variation' section with an 'ADD VARIATION' button.

The vendor is almost like a customer. The mission is to allow them to create and sell a product without friction.

✓ Intuitive Shipping Model

The default shipping calculator from the CS-Cart platform was too complex for the platform's global DIY users. We simplified it entirely — replacing carrier-specific pricing (e.g., DHL, USPS) with a flat-rate system based on **domestic vs. international** regions. Vendors now define two prices: one for local orders and one for international shipments.

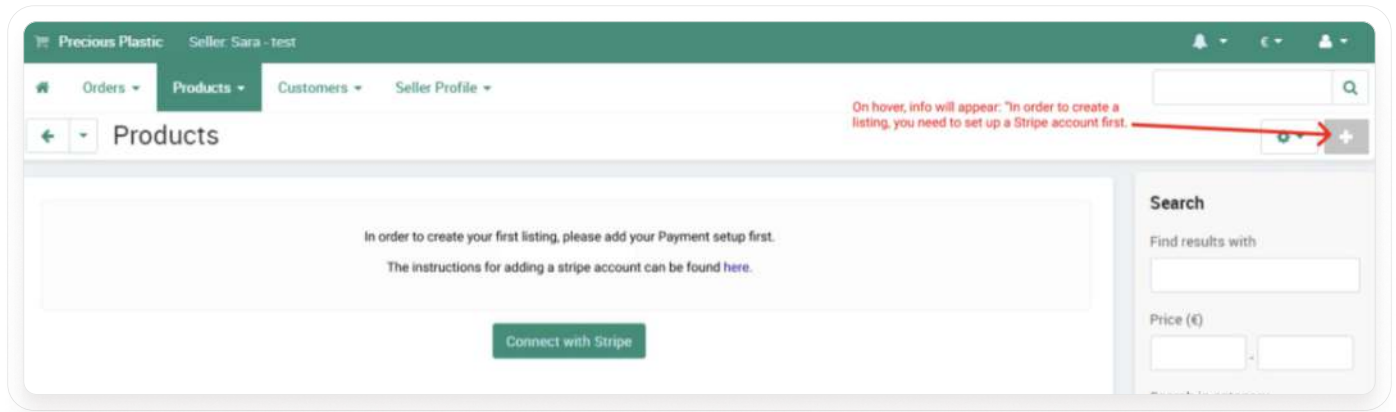
To support further customization, we also introduced **regional grouping with prioritization**, allowing vendors to override shipping costs for specific countries within their region (e.g., Germany within Europe).

The screenshot shows the 'Default rate area (all countries)' configuration page. At the top, there's a 'Save' button. Below it, a sidebar on the right contains 'Shipping methods', 'Rate areas' (highlighted), and 'Stores & pickup points'. The main content area has a 'LANGUAGE' dropdown set to 'English'. There are two tabs: 'General' (active) and 'Pickup Locations'. Under the 'General' tab, there's a 'Name' field with the value 'Default rate area (all countries)'. Below that is a 'Status' section with 'Active' selected and 'Disabled' as an option. A 'Priority' field with the value '2' is highlighted with a green border. At the bottom, there's a 'Countries' section with two scrollable lists of countries. The left list includes Afghanistan, Albania, Algeria, American Samoa, Andorra, Angola, Anguilla, Antarctica, Antigua and Barbuda, and Argentina. The right list includes Aland Islands, Asia-Pacific, East Timor, Europe, Guernsey, Jersey, Montenegro, Palestine Authority, Republic of Serbia, and Serbia.

✓ Stripe Connect: Payment Setup First

Previously, vendors could list products before connecting their payment accounts — leading to broken sales flows and confusion. We modified this journey by making **Stripe Connect setup a prerequisite** for adding products.

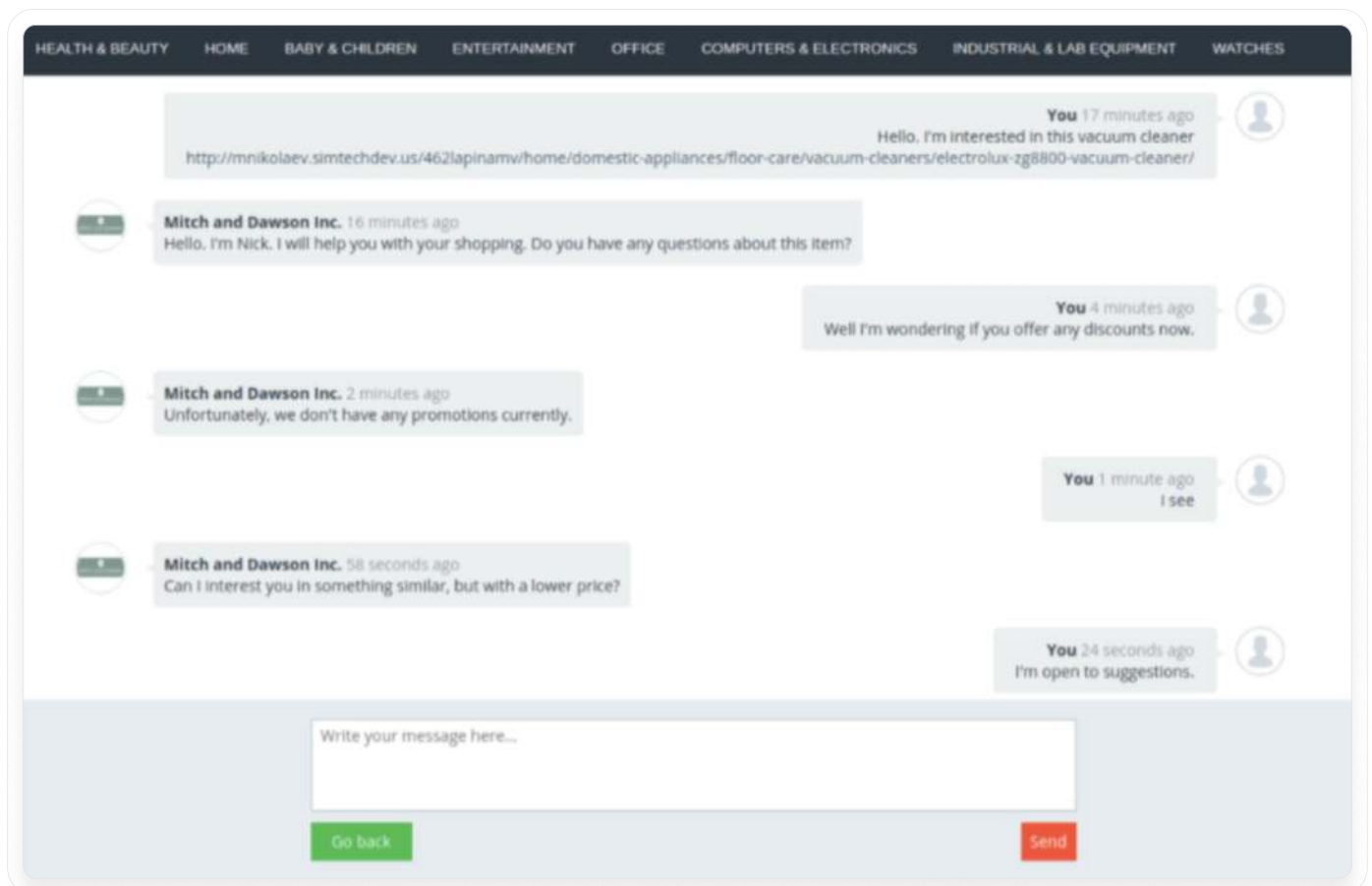
- The "Add Product" button remains inactive until Stripe is connected
- Hover text explains the requirement clearly
- Empty product states now guide users to set up payments first



This ensures every seller is fully prepared to accept orders and eliminates failed transactions due to missing payment accounts.

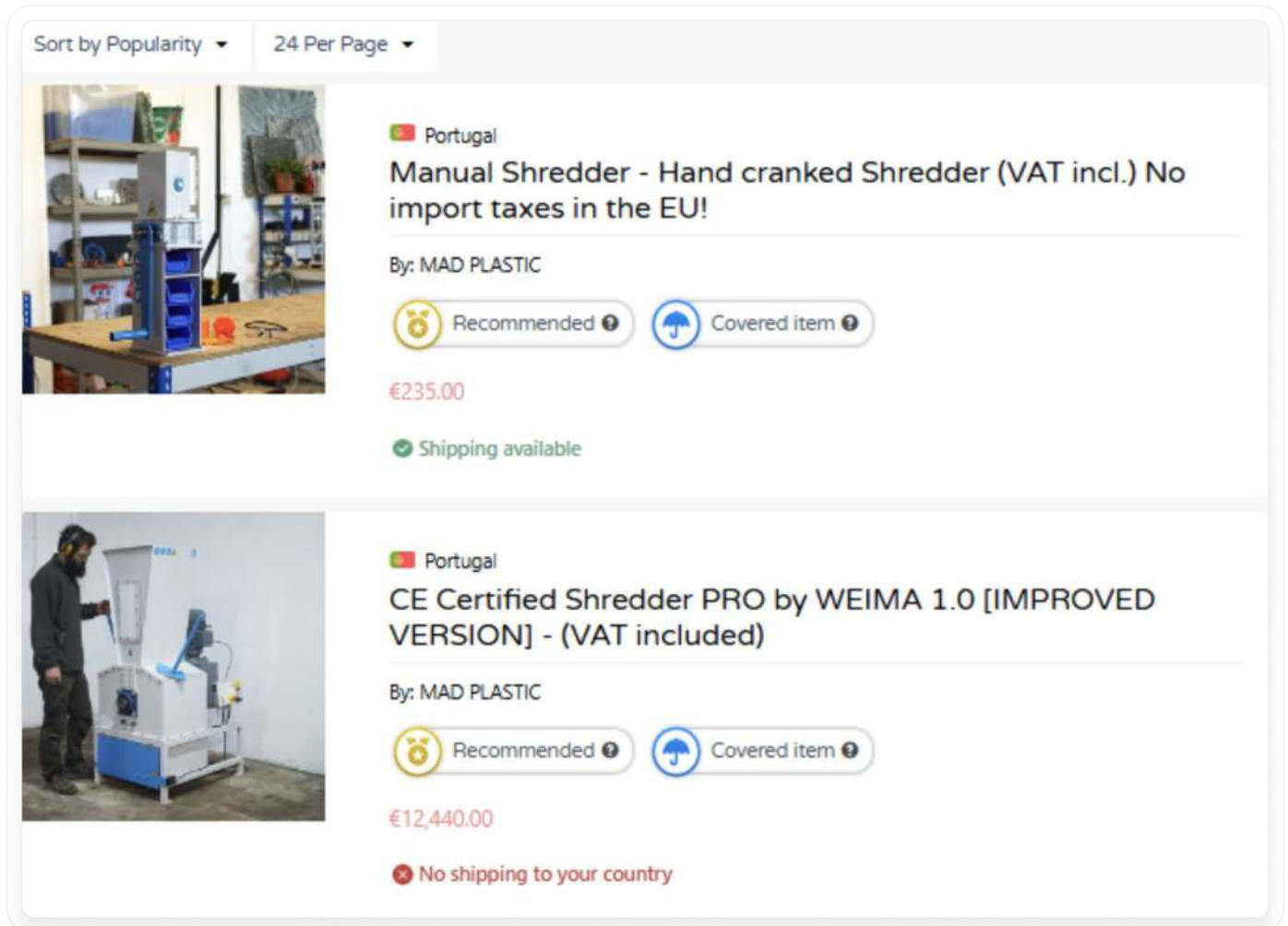
✓ Real-Time Messaging + File Sharing

We expanded the Real-Time Messenger by enabling users to **attach images and PDFs** — perfect for sharing product mockups, sketches, and material references. This is especially helpful in a DIY, creative community where collaboration is key.



✓ Vendor Transparency

We made it easier for buyers to connect with the story behind the products by showing the **vendor's name and country** on both category and search results pages. This builds trust and emphasizes the community-driven nature of the platform.



Customers won't lose sight of the vendor — it's always visible alongside the product.

Cloud Hosting for Global Stability

To ensure performance and scalability as the platform continued to grow, we recommended our partner **Scalesta** for cloud hosting tailored for high-traffic marketplaces. This eliminated concerns regarding server management, downtime, and system maintenance, allowing the Precious Plastic team to focus on community building and content creation.

Ongoing Support and Development

Since the initial launch, our partnership with Precious Plastic has continued to evolve. We provide ongoing support to refine platform features, improve performance, and address emerging needs from their growing network of over **40,000 plastic recyclers** worldwide.

Results



Frictionless Vendor Onboarding

First-time sellers can now register, connect payments, and list products within minutes



Simplified Shipping Management

Vendors no longer struggle with confusing logistics calculations



Stronger Community Trust

Clear vendor identification and international visibility support ethical shopping



Enhanced Communication Tools

Real-time file sharing allows better collaboration and design sharing



Payment Reliability

Every seller is ready to accept payments before listing products, improving the buyer experience

Their ability to respond quickly and to develop very specific requirements impressed us

Joseph Klatt, Marketplace Manager

Key Takeaways

If you're building a **niche, community-driven marketplace**, prioritize simplicity, clarity, and tools that reflect your users' real-world behaviors. Whether it's DIY recyclers or artisanal brands, **empowering sellers with intuitive tools and robust infrastructure** creates a better experience for everyone. With the right technical partner, even grassroots projects can scale to global impact.

About the Company

Simtech Development is a full-service eCommerce development company. Since 2005, we've helped businesses create powerful online stores and marketplaces using scalable architecture, UI/UX best practices, and seamless integrations. From MVPs to complex multi-vendor ecosystems, we help mission-driven businesses bring their ideas to life.

Services Offered

- Marketplace architecture & design
- Online store/Multi-Vendor customization
- UI/UX design & simplification
- Payment gateway integration
- Real-time communication tools
- Ongoing platform support

Your community deserves a platform that grows with them. Contact us today to get started.

[Get started](#)