

# **API Driven Drupal Commerce**

**eCommerce for all of your channels**

**Matt Glaman**

# Matt Glaman

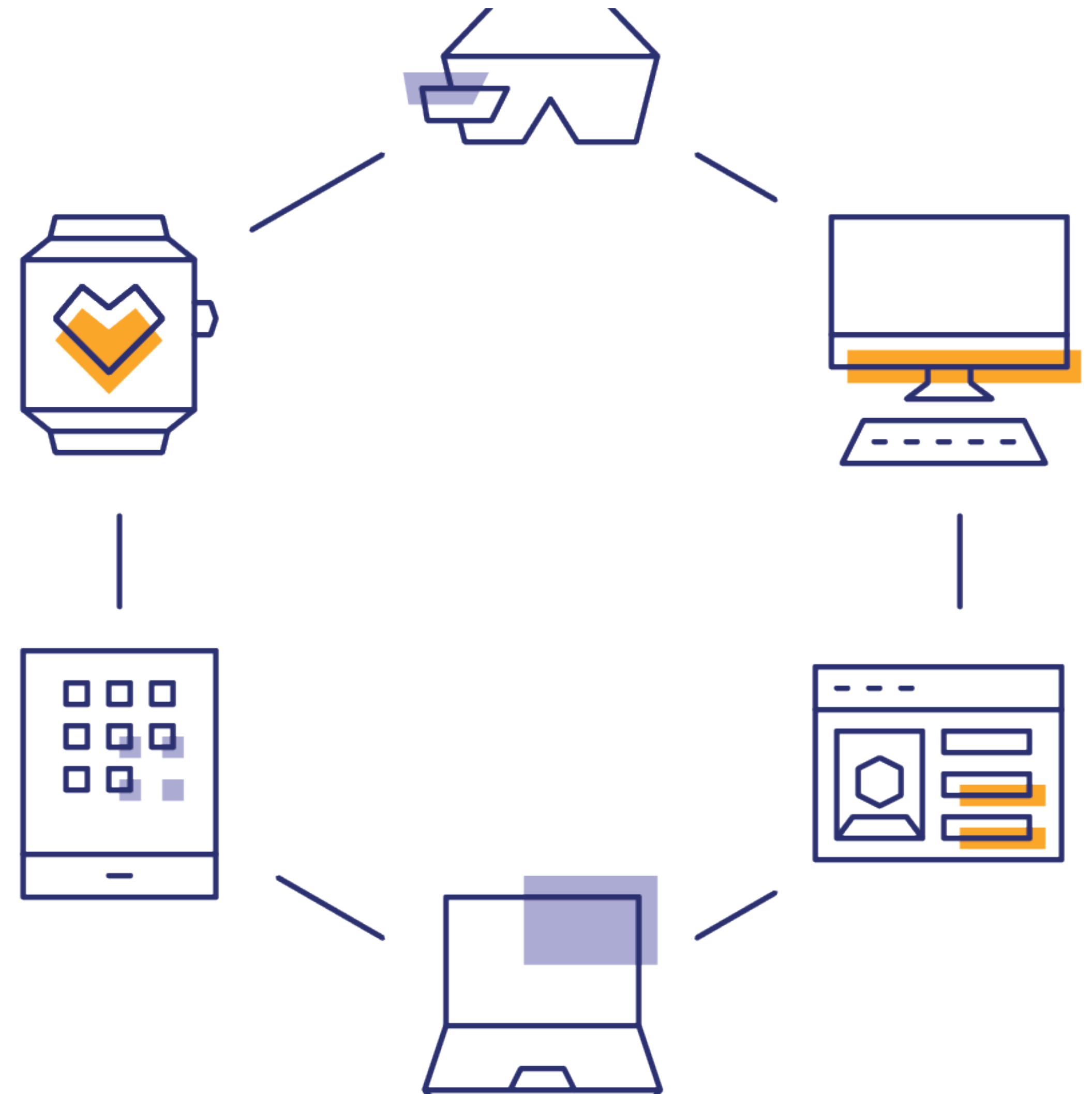
**Product Lead @ Centarro**

Centarro powers eCommerce innovation through every stage of growth.



# The digital world is changing

Centarro is adapting Drupal Commerce to those changes, just like Drupal.



**How is Centarro Commerce  
impacting the growth of  
Drupal Commerce development?**



# Centarro Commerce

Commerce with confidence on Drupal.

- Centarro Commerce is "Open SaaS," pairing the benefits of open source collaboration with the stability, security, and scalability of SaaS.
- A headless eCommerce platform powered by Drupal and the Commerce framework.
- API capabilities thanks to the JSON:API module 🙌🙌.
- Sustainable product and open source development.





# The impact of Centarro Commerce

# JSON:API Cross Bundles

**Allow fetching all content for any entity type**

- A blocker of the Admin UI initiative
- Allows accessing entities over JSON:API without specifying a bundle
- This allows fetching all types of products (clothing, books) from one endpoint

<https://www.centarro.io/blog/supporting-cross-bundle-entity-collections-jsonapi>

# JSON:API Resources

## Builds an initial “PHP API” for JSON:API

- The JSON:API module has no PHP API for extending the implementation
- JSON:API has no way to define custom resources.
- Allows creating custom resources!
- It's a beginning to a PHP API for extending the JSON:API implementation

# JSON:API Search API

## Exposes Search API indexes over JSON:API

- Search API is integral for a Commerce catalog
- JSON:API Search API allows querying search indexes

<https://www.centarro.io/blog/querying-drupal-search-api-indexes-using-jsonapi>

# Commerce API

## Extending JSON:API for Commerce

- JSON:API in Drupal is great 🥳
- Improves API-First capabilities of Drupal Commerce
- Our incubator for improving JSON:API in Drupal core
- Helps improve core functionality in Drupal Commerce
- Replaces Commerce Cart API

### Commerce API

[View](#) [Version control](#) [Automated testing](#)

By [mglaman](#) on 17 January 2020, updated 5 March 2020

This module extends the JSON:API implementation provided by Drupal for the Commerce module and its ecosystem. It adds capabilities beyond the default *create*, *read*, *update*, and *delete* operations for entities to support actions required to work with a decoupled ecommerce system.

#### Compatibility notes

Currently, this module does not work with some of the JSON:API ecosystem modules. Please read [#3116465: Document recommended patches](#) for any required or recommended patches.

#### Supporting organizations:

[Centarro](#) Development, Documentation, Support

#### Project information

Module categories: [Decoupled](#), [E-commerce](#)

Ecosystem: [Drupal Commerce](#), [JSON:API](#)

 [49 sites report using this module](#)



Stable releases for this project are covered by the [security advisory policy](#). There are currently no supported stable releases.

#### Downloads

**8.x-1.0-beta1** released 1 May 2020  
Requires Drupal: ^8.8 || ^9  
✓ Recommended by the project's maintainer.  
Fix compatibility when order is not shippable, other fixes  
↓ [tar.gz \(65.33 KB\)](#) | [zip \(139.93 KB\)](#)

Development version: [8.x-1.x-dev](#) updated 22 Jun 2020 at 16:26 UTC

Testing result: [PHP 7.3 & MySQL 5.5, D8.9 53 pass](#) [all results](#)



★ 16

#### Maintainers for Commerce API

[mglaman](#) – 25 commits  
last: 3 weeks ago, first: 4 months ago

[jsacksick](#) – 9 commits  
last: 3 weeks ago, first: 4 months ago

[View all committers](#)  
[View commits](#)

#### Issues for Commerce API

To avoid duplicates, please search before submitting a new issue.

[Search](#)

[Advanced search](#)

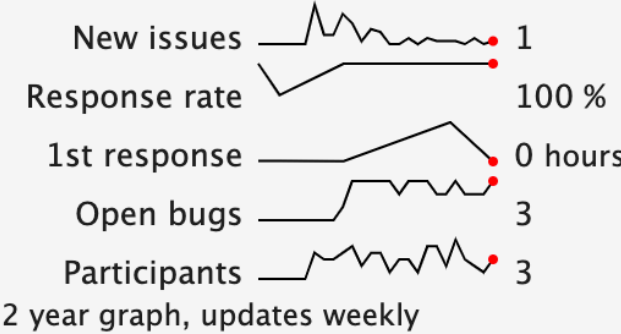
All issues

[18 open](#), [56 total](#)

Bug report

[3 open](#), [16 total](#)

Statistics



#### Documentation

[Commerce API 8.x](#)

# API Driven Drupal Commerce features

**Multitenancy**  
Leverage the multiple store capabilities of Drupal Commerce over the API for product availability, dynamic pricing, and more.

ManageStoreadminBack to site

Home > Administration > Commerce > Configuration

Stores

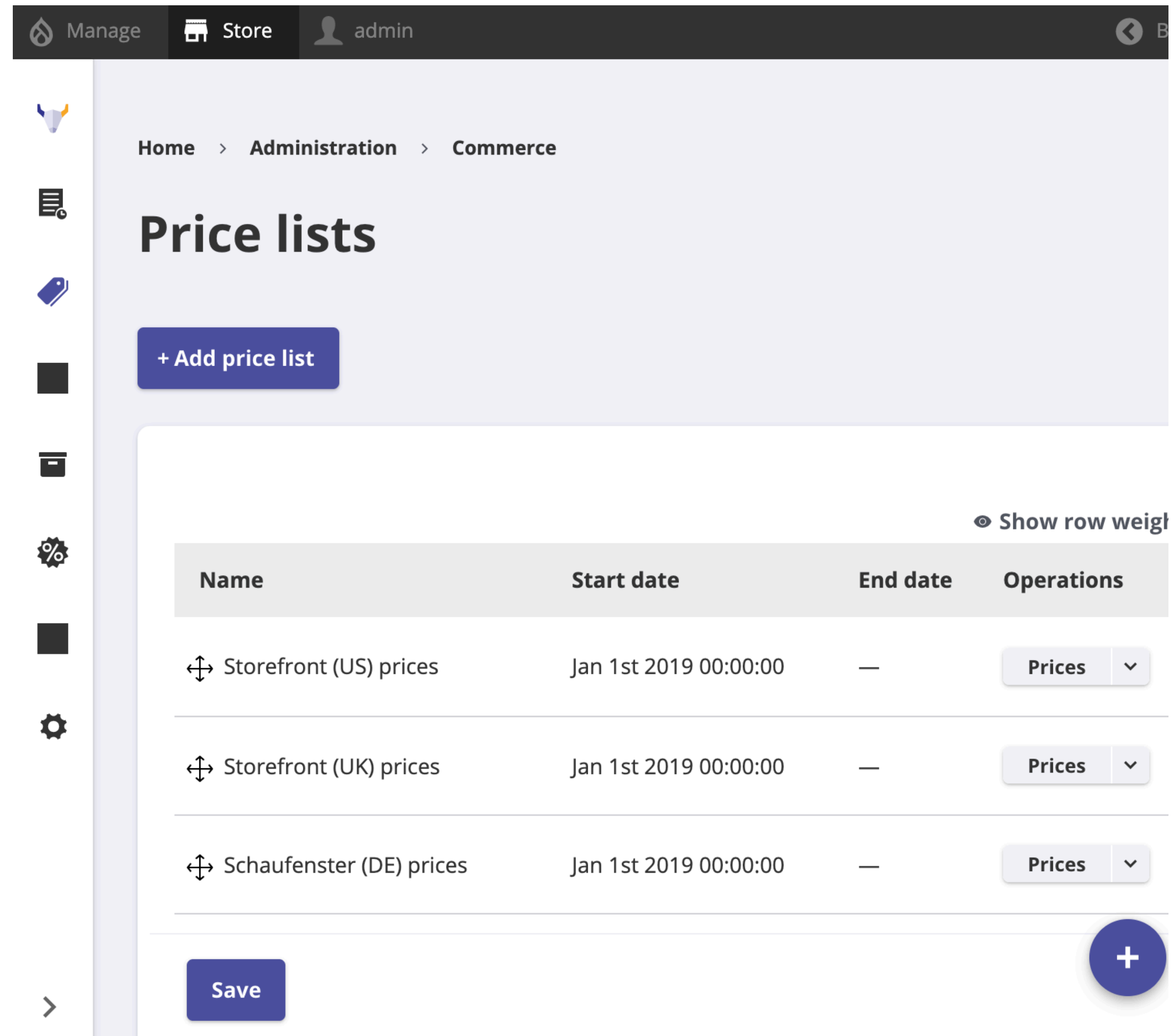
+ Add store

<input type="checkbox"/>	Name	Operations
<input type="checkbox"/>	Storefront (US)	Edit ▾
<input type="checkbox"/>	Schaufenster	Edit ▾
<input type="checkbox"/>	Storefront (UK)	Edit ▾



# Dynamic pricing

Display dynamic pricing  
based on the current store,  
authenticated user,  
promotions, or price lists





# Pronto600 Instant Camer

## \$99.99

Polaroid-Pronot600

Polaroid

Tofu distillery poke chicharrones, poutine austin shabby chic cr  
XOXO. Swag seitan VHS af cray, health goth retro activated chai  
flannel tote bag squid heirloom. Kitsch yuccie la croix microdos  
bespoke retro hexagon small batch distillery photo booth lomo  
Fingerstache vice banh mi mumblecore master cleanse cornhc

Add to cart

Audio & Film | Electronics | FilmBildstein Approved



# Pronto600 Instant Camera

99,99 €

Polaroid-Pronot600

Polaroid

Sorry this is not available in non-US markets

Add to cart

Audio & Film | Electronics | FilmBildstein Approved



# Pronto600 Instant Camera

£99.99

Polaroid-Pronot600

Polaroid

Tofu distillery poke chicharrones, poutine austin shabby chic cronut kogi  
XOXO. Swag seitan VHS af cray, health goth retro activated charcoal  
flannel tote bag squid heirloom. Kitsch yuccie la croix microdosing,  
bespoke retro hexagon small batch distillery photo booth lomo.  
Fingerstache vice banh mi mumblecore master cleanse cornhole.

Add to cart

Audio & Film | Electronics | FilmBildstein Approved

# Carts

Cart management behind an easy to use Cart API that respects the selected store.

ManageStoreadminBack to site

Home > Administration > Commerce > Orders

Carts

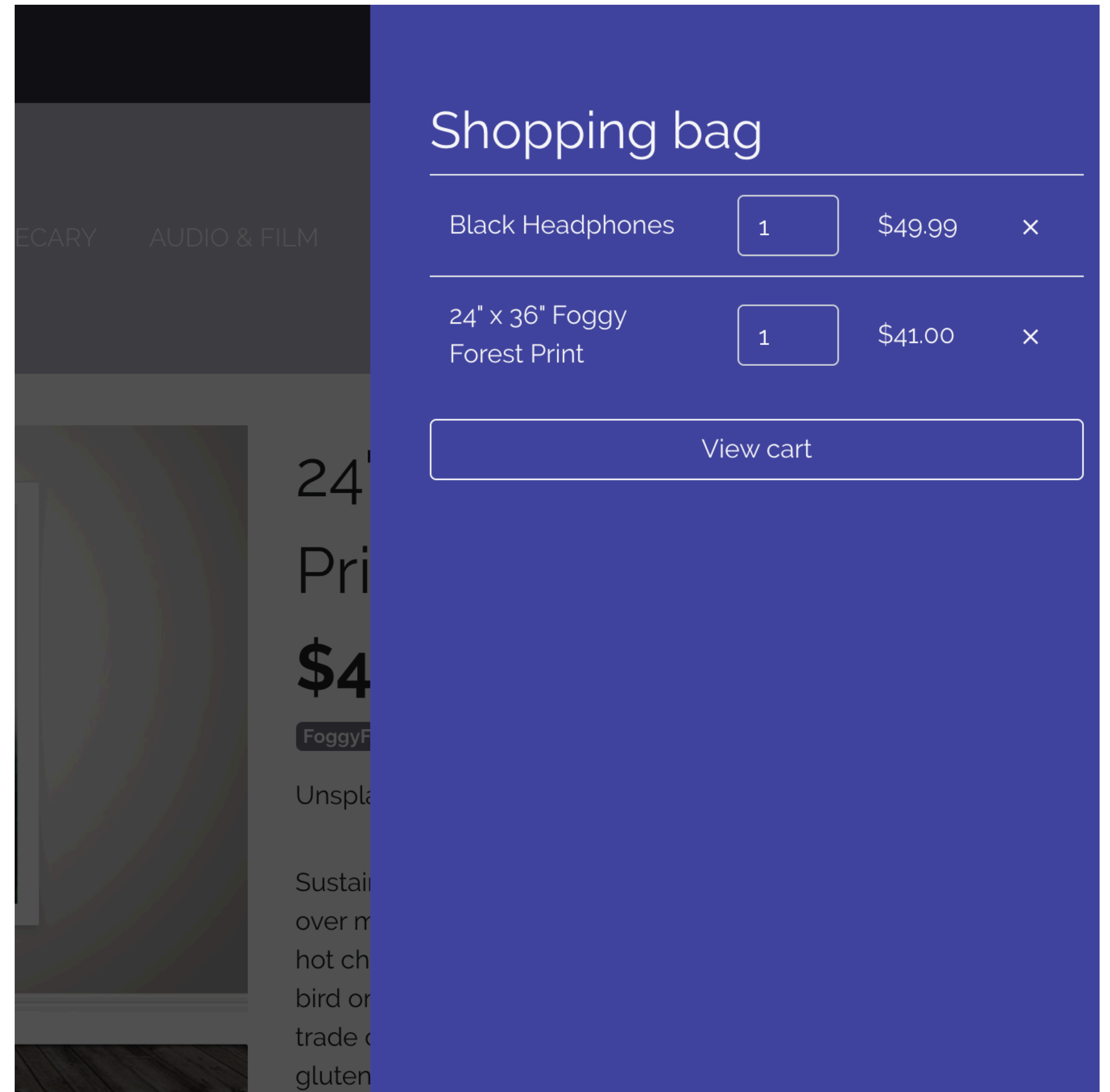
ORDERSCARTS

<input type="checkbox"/>	Type	Store	Customer	Total	Updated	Operations
<input type="checkbox"/>	Physical	<a href="#">Storefront (US)</a>	<a href="#">Anonymous</a>	\$42.49	2 minutes 1 second ago	Edit
<input type="checkbox"/>	Physical	<a href="#">Storefront (US)</a>	<a href="#">Anonymous</a>	\$10.00	18 hours 22 minutes ago	Edit
<input type="checkbox"/>	Physical	<a href="#">Schaufenster</a>	<a href="#">Anonymous</a>	€174.00	18 hours 23 minutes ago	Edit
<input type="checkbox"/>	Physical	<a href="#">Storefront (US)</a>	<a href="#">Anonymous</a>	\$25.00	19 hours 27 minutes ago	Edit
<input type="checkbox"/>	Physical	<a href="#">Storefront (UK)</a>	<a href="#">Anonymous</a>	£30.00	19 hours 29 minutes ago	Edit
<input type="checkbox"/>	Physical	<a href="#">Storefront (US)</a>	<a href="#">Anonymous</a>	\$14.99	1 day 2 hours ago	Edit



# Cart API

- Allows adding a product to the cart
- Integrates with availability checks for stock and other business rules
- Pulls pricing from dynamic pricing system
- Allows update, delete, and clearing of carts



# Promotions

## Support for coupon redemption

Manage

Store

admin

Home > Administration > Commerce

Promotions

+ Add promotion

Name	Usage	Per-customer limit	Start date	End date	Operations
\$3 off	0 / Unlimited	Unlimited	Jul 31st 2016 00:00:00	—	Edit
\$4 off clock	0 / Unlimited	Unlimited	Jun 16th 2020 13:19:42	—	Edit
15% off	0 / Unlimited	Unlimited	Jul 31st 2016 00:00:00	—	Edit
20% off typewriter	0 / Unlimited	Unlimited	Jul 31st 2016 00:00:00	—	Edit
Buy 1 Get 1	0 / Unlimited	Unlimited	Jun 16th 2020 13:19:42	—	Edit

Save

Show row weight



APOTHECARY

AUDIO & FILM

MEN

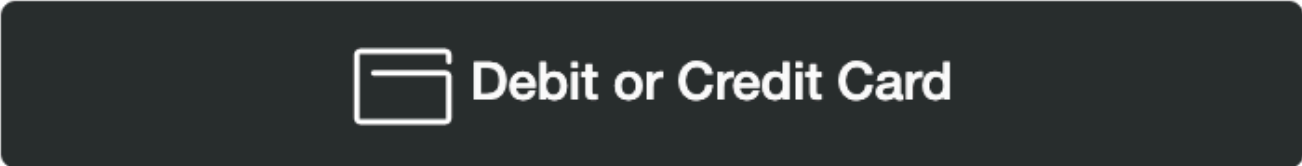
PRINT SHOP

URBAN LIVING

WOMEN

Black Headphones	<input type="text" value="1"/>	\$49.99	<button>Remove</button>
------------------	--------------------------------	---------	-------------------------

**Subtotal** \$49.99  
**Total** \$49.99



Powered by **PayPal**

Apply

Try using the **FIFTEENPERCENT** promotion code.

- Checkout (iframe)
- Checkout (onsite)
- Checkout (offsite)



Black Headphones	<div>1</div>	\$49.99	<div>Remove</div>
------------------	--------------	---------	-------------------

Subtotal	\$49.99
Discount	-\$7.50
Total	\$42.49



Powered by **PayPal**


Promotion applied!

Remove

# Checkout

## Complete orders and receive customer payment with the Checkout API

*(Currently supports “off-site” payment gateways)*

 BEOGRAD

APOTHECARY

AUDIO & FILM

MEN

PRINT SHOP

URBAN LIVING

Cart / Customer information / Shipping method / Payment method

Customer information

Email

Shipping information

Address

1234 Main St

Address 2

Apartment, studio, or floor

City

State

Zip

Choose...

< Return to cart

Continue to shipping method

Order summary

Black Headphones

24" x 36" Foggy Forest Print

Subtotal

Discount

Total



# Shipping

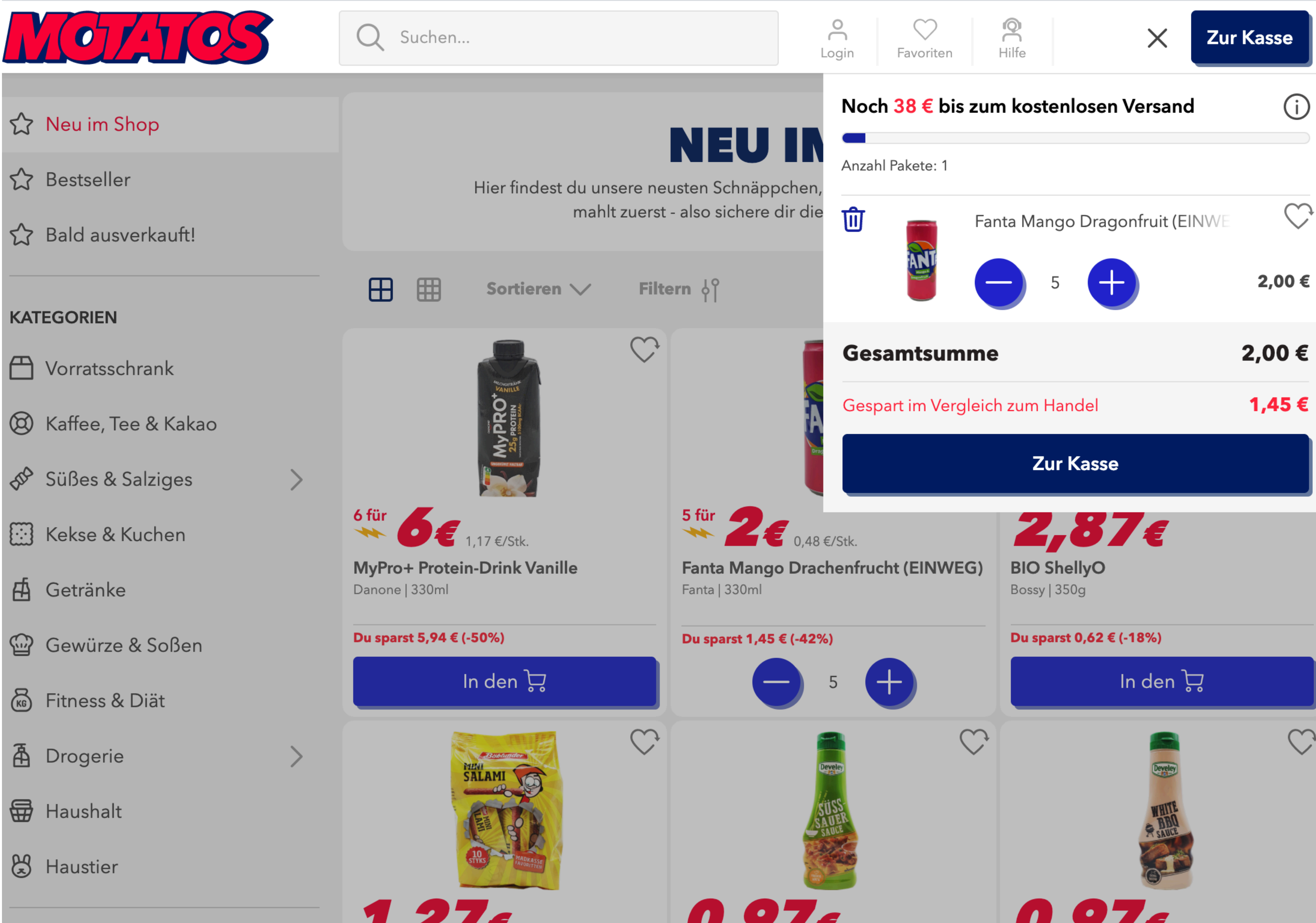
Allow collecting shipping information and shipping rates for a cart

```
▼ meta: {,...}
  ► constraints: [{required: {detail: "This value should
▼ shipping_rates: [{id: "2--default", shipping_method_id: "2",
  ▼ 0: {id: "2--default", shipping_method_id: "2", service_id: "1",
    ▼ amount: {number: "8.00", currency_code: "USD", formatted: "$8.00",
      currency_code: "USD"
      formatted: "$8.00"
      number: "8.00"
      delivery_date: null
      description: ""
      id: "2--default"
    ► original_amount: {number: "8.00", currency_code: "USD", formatted: "$8.00",
    ► service: {id: "default", label: "Standard shipping", shipping_method_id: "2"
  ▼ 1: {id: "1--default", shipping_method_id: "1", service_id: "1",
    ▼ amount: {number: "13.00", currency_code: "USD", formatted: "$13.00",
      currency_code: "USD"
      formatted: "$13.00"
      number: "13.00"
      delivery_date: null
      description: ""
```

**API Driven, in the wild.**

# Matsmart

Fully decoupled  
frontend for their  
German market on  
Centarro Commerce

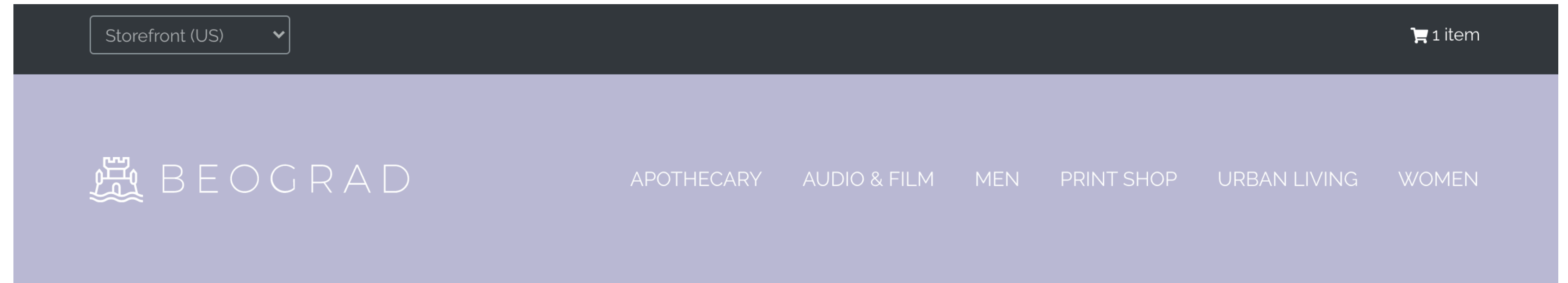


# Matsmart / Motatos

- React frontend that communicates with a Centarro Commerce backend
- Price lists based on quantity of items ordered
- Catalogs powered by JSON:API Search API
- Decoupled checkout combined with Klarna

# Centarro Embedded Checkout

Decoupled cart  
management with  
embedded checkout  
form.



## Contact information

Email \*

## Shipping information

Country \*


First name \*

Last name \*

Company

Street address \*

## Order Summary

1 x		\$49.99	\$49.99
-----	--	---------	---------

Subtotal	\$49.99
Discount	-\$7.50
<b>Total</b>	<b>\$42.49</b>

## Applied coupons

FIFTEENPERCENT

Remove coupon

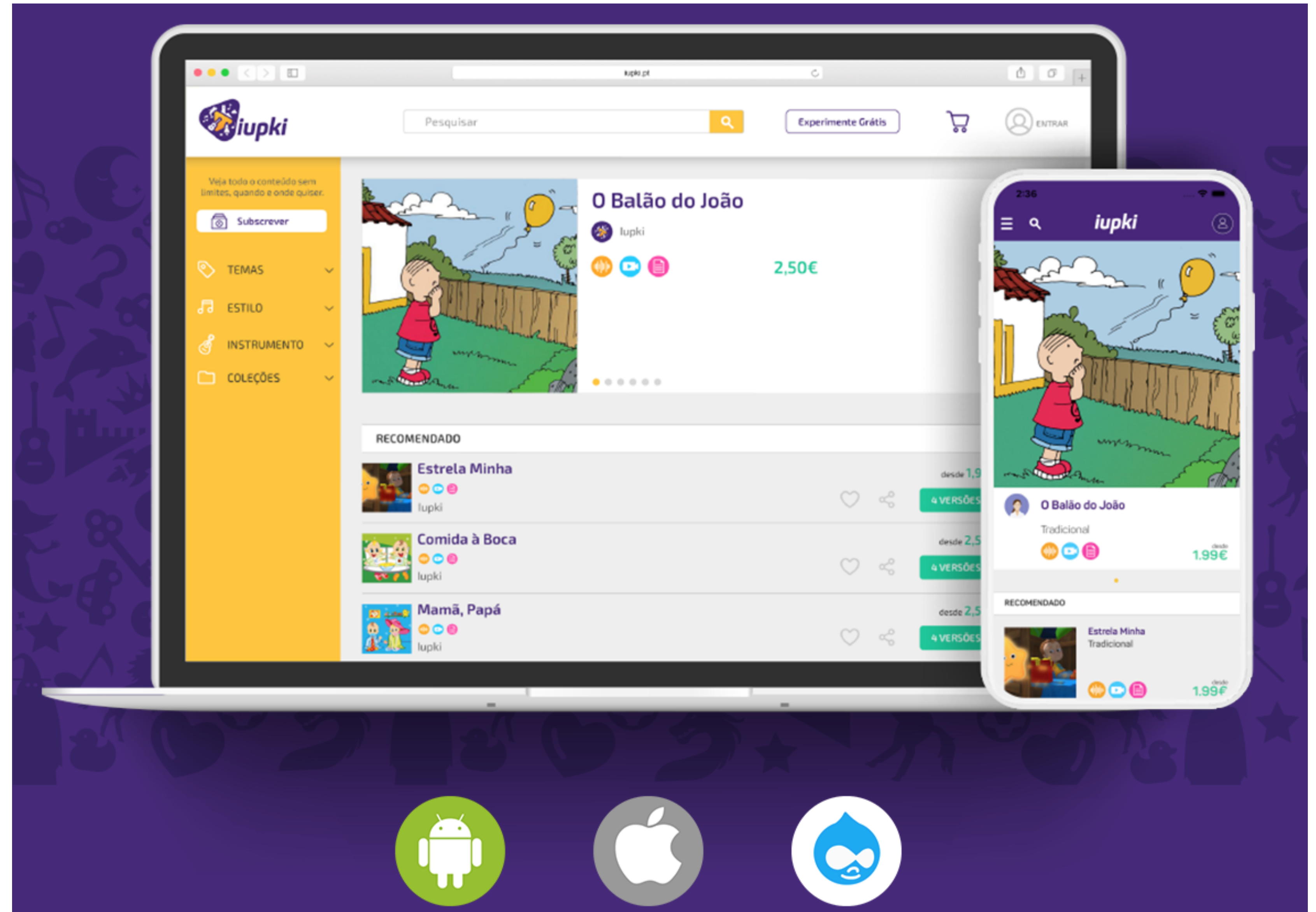
# Centarro Embedded Checkout

- Leverage the features of Commerce API for cart management.
- Use the regular Commerce checkout form in an iframe.
- Frontend teams do not need to build design and build checkouts
- Currently supported out of the box, some special features are being incubated in our platform to be released as open source
  - Handling cart tokens
  - User authentication within the iframe



# lupki

Portuguese education platform that sells individual learning materials and subscription content



# lupki

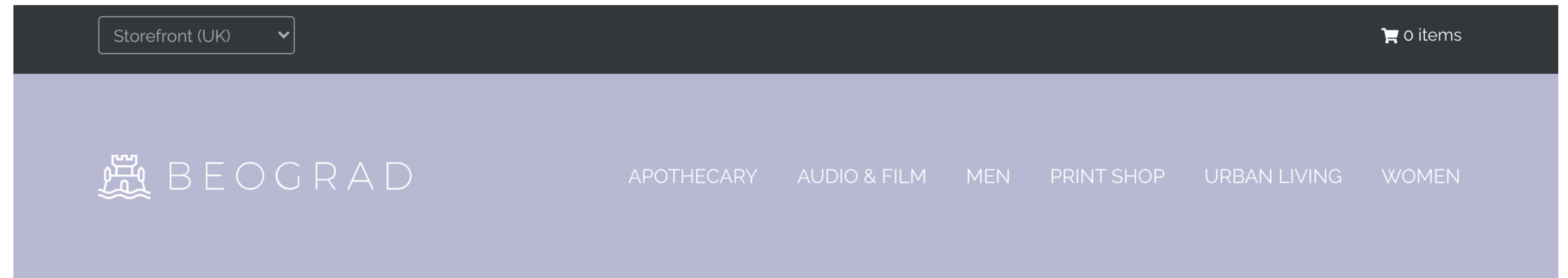
- Bloomidea developed the lupki platform and companion native iOS and Android applications
- JSON:API allows autonomy for mobile application developers
- Leverages JSON:API Search API, JSON:API Resources, and Commerce API
- Utilizes embedded checkout via a WebView in mobile applications



Our Demo

Check out our demo!

react.demo.centarro.io



## Featured products



Rose Colored Glasses

£14.99



Knit Hat in Midnight Plum

£25.00



36" x 24" Fawkestrooper Print

£50.00

**API Driven, what is coming.**

# Improve JSON:API in Drupal 9.1.0

- Make JSON:API more customizable
- Allow renaming resource types and their paths
- Allow creating custom resource types using the TypedData API
- Support “meta” property of JSON:API objects

# Commerce API

- Support “on-site” payment gateways in Checkout API
- Webhooks for triggering order workflow automation
- Improve shipping integration for shipment management

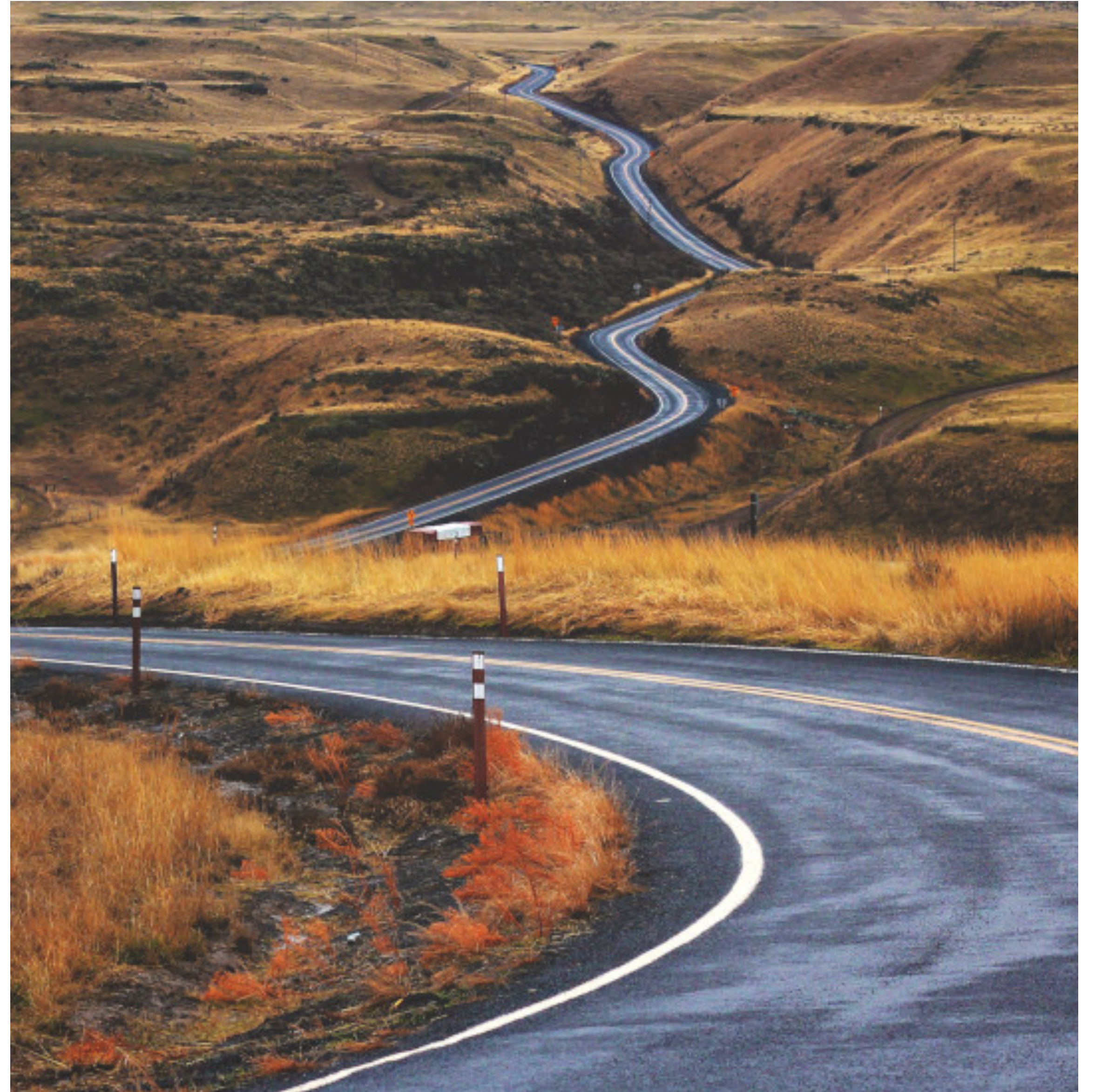
# API-First Ecosystem

- Translatable validation exceptions for custom JSON:API resources
- Facets support for Search API (thanks Jordan Dukart [JordanDukart])
- OpenAPI and JSON:API Schema for automated API documentation
- JSON:API Hypermedia into Drupal core?



# **And even more**

**Through community development  
and Centarro Commerce customers**





# Thanks!

## API Driven Drupal Commerce

Email [matt@centarro.io](mailto:matt@centarro.io)

Twitter @nmdmatt

Feel free to contact me if you have questions or want to learn more!

Check out #commerce in the Drupal Slack workspace.

