How to Turn Your Data Into Data Products: A Quick Guide
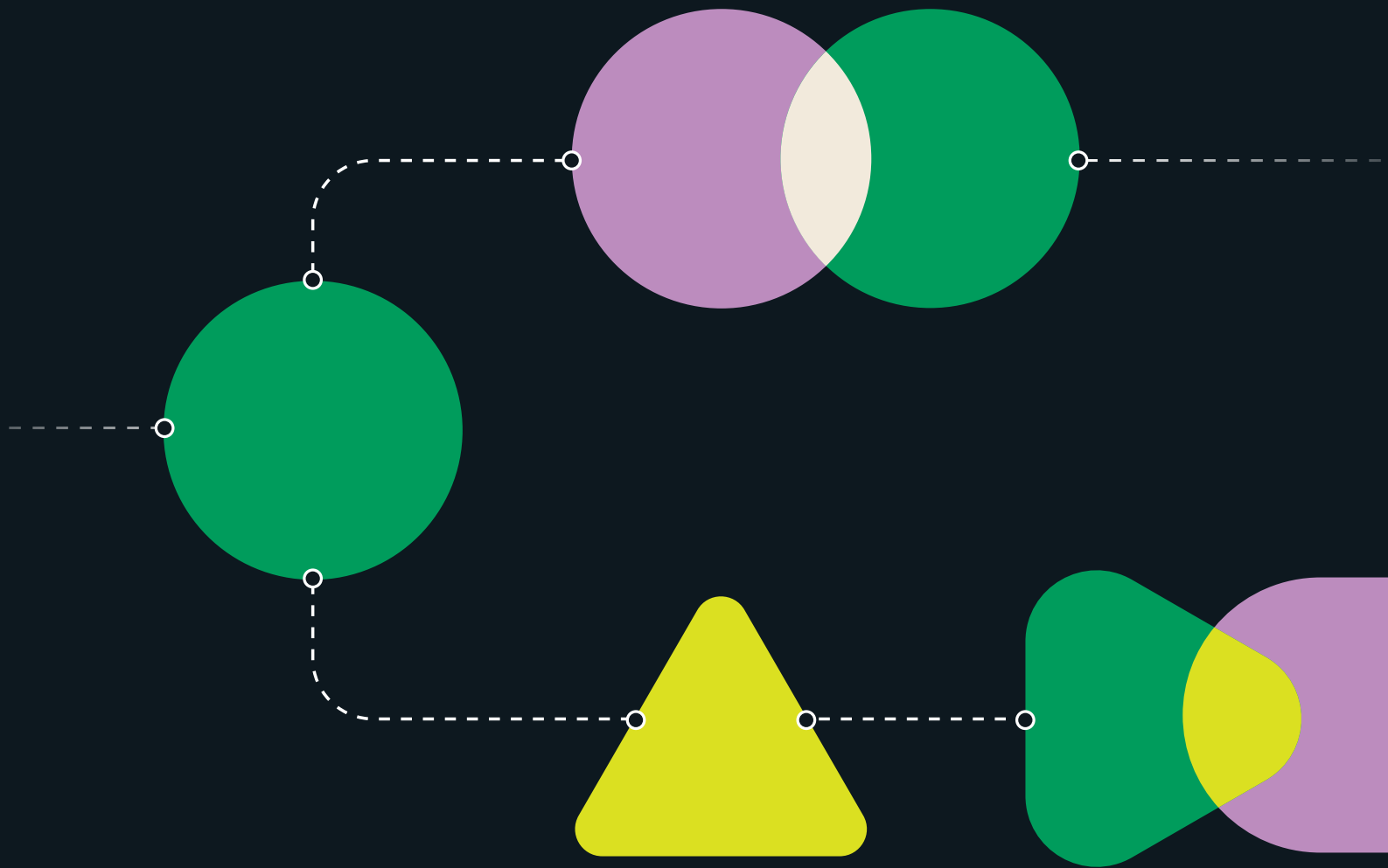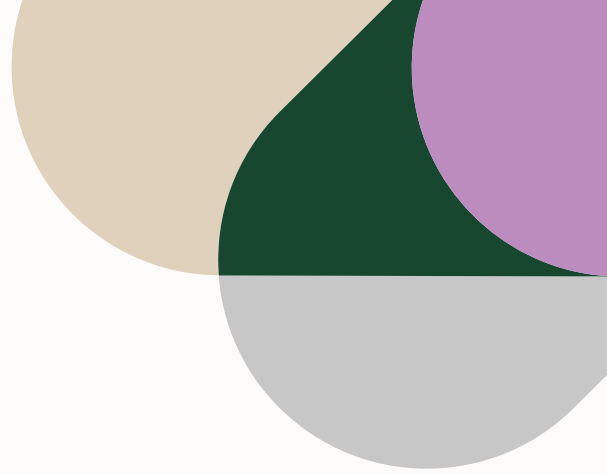
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Turning your raw data into a usable product has more to do with consumabilty than commercialization.

The primary motivation for a data marketplace is to exchange data, but you can't just take a data export, upload it to a marketplace, and call it a day. Data needs to be packaged into a product in order to be used.

Data products are what make data exchanges possible. Marketplaces are one of several ways to fulfill data requests, but they can't succeed without consumable products. Data consumers (whether people or machines)

need a dependable product-like experience to find what they need, procure it, and use it.

Turning raw data into a usable product has more to do with consumability than commercialization. Products also need to be ingestible by a data marketplace, well-described, and available when needed.

Consumers aren't the only ones who need consumable data. The marketplace itself has constraints and expectations, too. Data needs to be suitable for ingestion, packaging, and delivery by the marketplace for productization on the platform.

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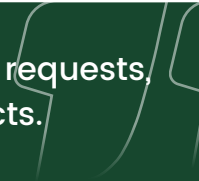
Steps and Attributes of Data Productization
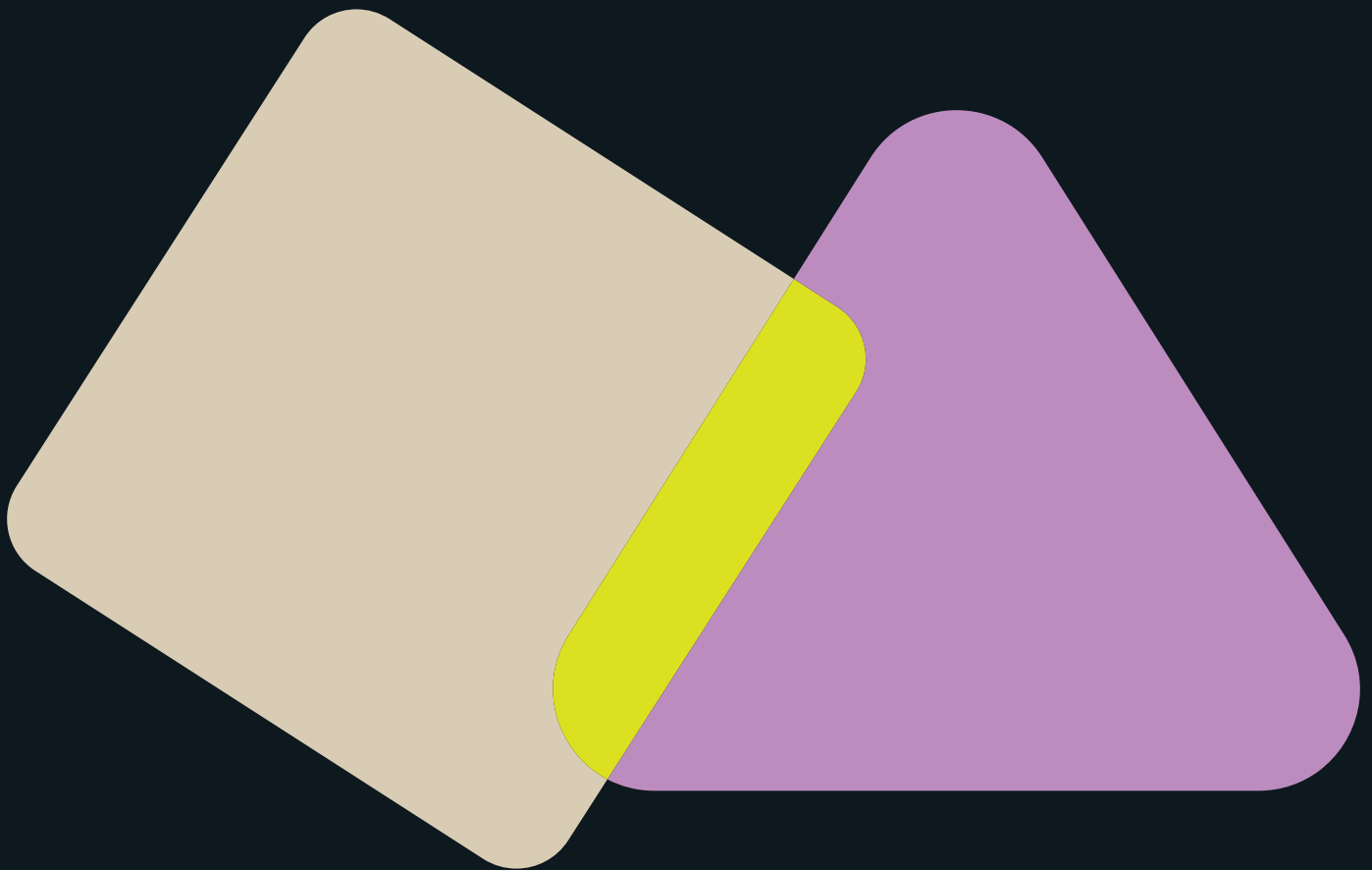
Steps and Attributes of
Data Productization

Data productization is a multi-step process that results in the production of data products. Though providers can create data products independently, marketplaces can use data pipelines and integrations to facilitate the process. This ensures that a safe, compliant product is available and purchasable on the marketplace.

These are the key steps of building a data product:

Manufacturing

Create standard and custom data products for general and specific user bases

Packaging

Allow the data products to be discoverable, marketable, and appealing to data consumers

Fulfillment

Manually or automatically handle data product purchases from data consumers regardless of their origination

Distribution

Make the data product available for consumption however data consumers need (e.g., direct download, API-based data streams, etc.)

Commercialization

Provide private and public marketplaces with complex licensing, payment processing, and service integrations

These are the key concerns of a data product for a data consumer:

Safe

The data contains no liabilities for the buyer and was properly sourced

Available

Data products can be purchased on the platform

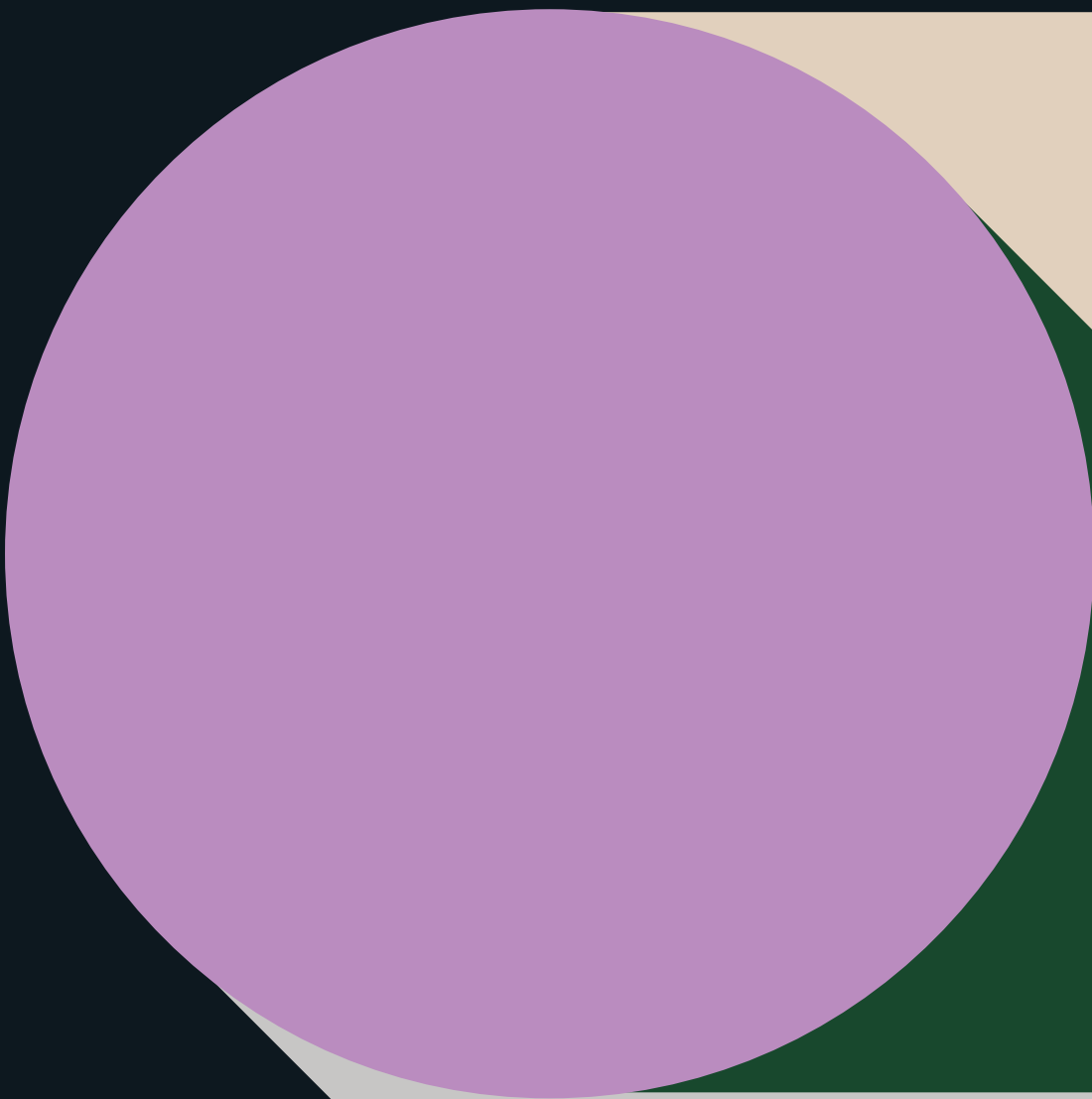### Searchable

It is easy to find data products on the platform

Consumability

The data can be downloaded, inspected, and used

Licensing

The terms of the data usage are clearly communicated and understood

Consumable Data Products

Consumable Data Products

If you walked into a retail store and all its products were sealed in cardboard boxes, it would be impossible to find what you need. There's not enough on the box to inform yourself or make a purchasing decision. Data products are no different.

A data product needs to be clear about

- What it is
- What's inside
- How it can be used, and
- How it can be consumed

Let's say you are on a marketplace looking to download a historical record of the federal interest rates in the 1990s. You'd likely search for "federal interest rates" and hope to see a similarly-titled product. Then you'd click to get more information about the product. In its description, you'd want to see where the data came from, what fields are contained in the download, the size of the dataset (e.g. number of rows, overall file size), and the cost of the product.

Assuming the product fits your needs, you'd then want to know how you can use the data. Perhaps there are licensing or attribution requirements, or perhaps it's only available for non-commercial use. Whatever the case may be, you'd then want to know whether you can even ingest the data. It might be in a CSV file, but you need it in a SQL import script. Can the marketplace platform handle that for you or is that work you have to do yourself?

All of these considerations come into play when purchasing a data product. This scenario is fairly straightforward with low complexity, but not all data product decisions are so simple. In fact, if you're in an organization with low data maturity and the data product is an API endpoint with per-query costs, is that something you can manage or afford? Or, if the dataset is 10M rows, do you have a way of storing and navigating that data? (Hint: It certainly won't load in Excel.)

Data products make demands of the data maturity of the consumer and marketplace. As such, data products are much more than the data they contain. Just as professional,

high-end products may not be appropriate for beginners, data marketplaces are likely to offer products for consumers across the entire data maturity spectrum.

Not all data maturity considerations are technical, however. Data products may have operational demands of the customer in terms of licensing, restrictions, and governance. Products that contain personally identifiable information (PII), for example, are likely to have restrictions and governance requirements that may also depend upon whether that PII is used for internal or external purposes. There may be other operational concerns that depend on the data lineage and how it was sourced.

The Data Acquisition Journey
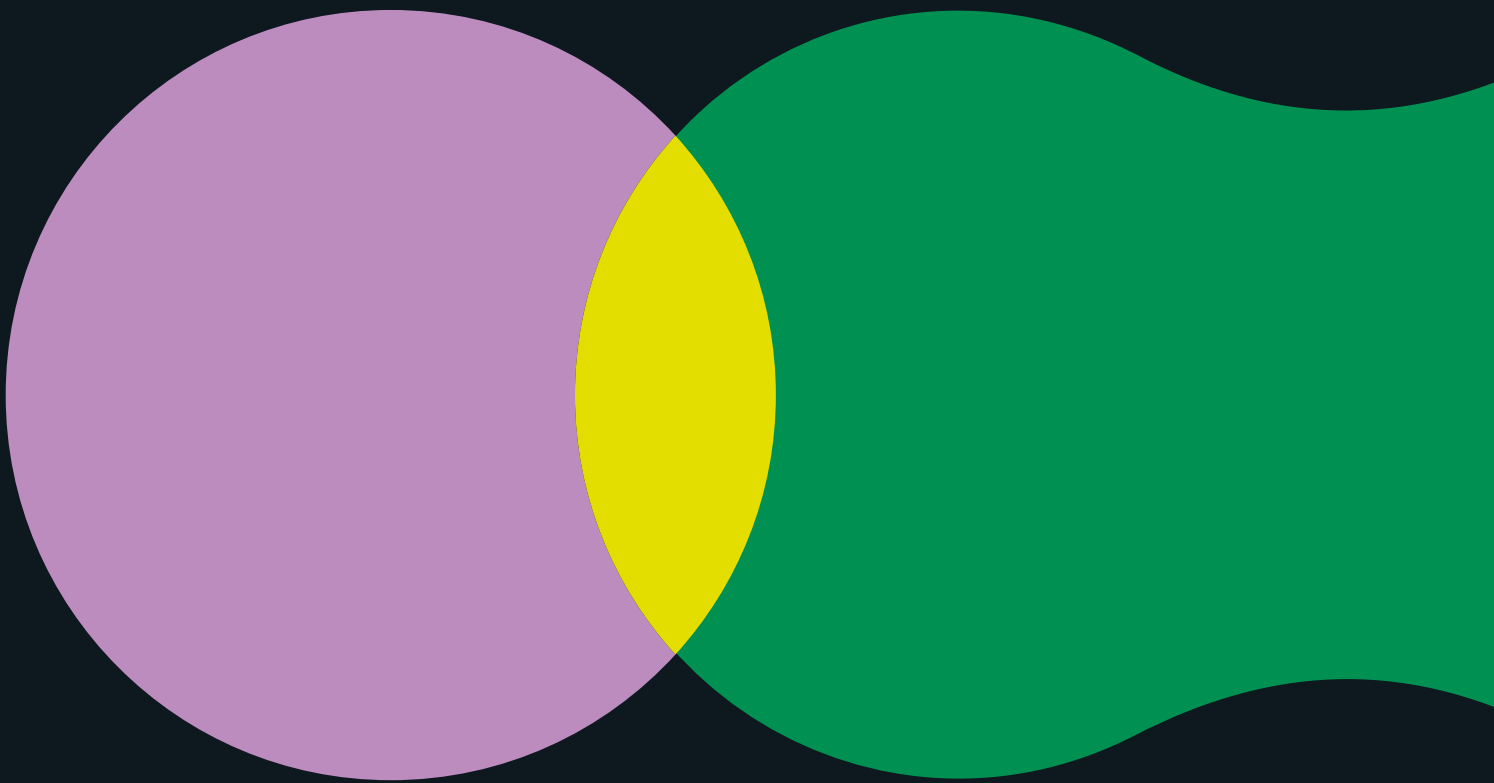
The Data Acquisition Journey

Marketplaces can service multiple acquisition models and journeys. A self-service model offers products that are easily found, desirable, and usable. They can be purchased with real money in an external marketplace, or acquired via chargebacks in an internal marketplace.

The acquisition model affects the function of the marketplace and its use by data acquirers (i.e. data consumers). This will also have an effect on what acquirers care about.

Early-stage discovery

When initially searching for a data product, an acquirer will care more about high-level short descriptions.

Late-stage discovery

After reviewing several data products, an acquirer will go deeper by evaluating sample data or going through a free/paid trial. They will also be evaluating data quality, accessibility, applicability, and usability factors like joinability, flexibility, breadth, and size.
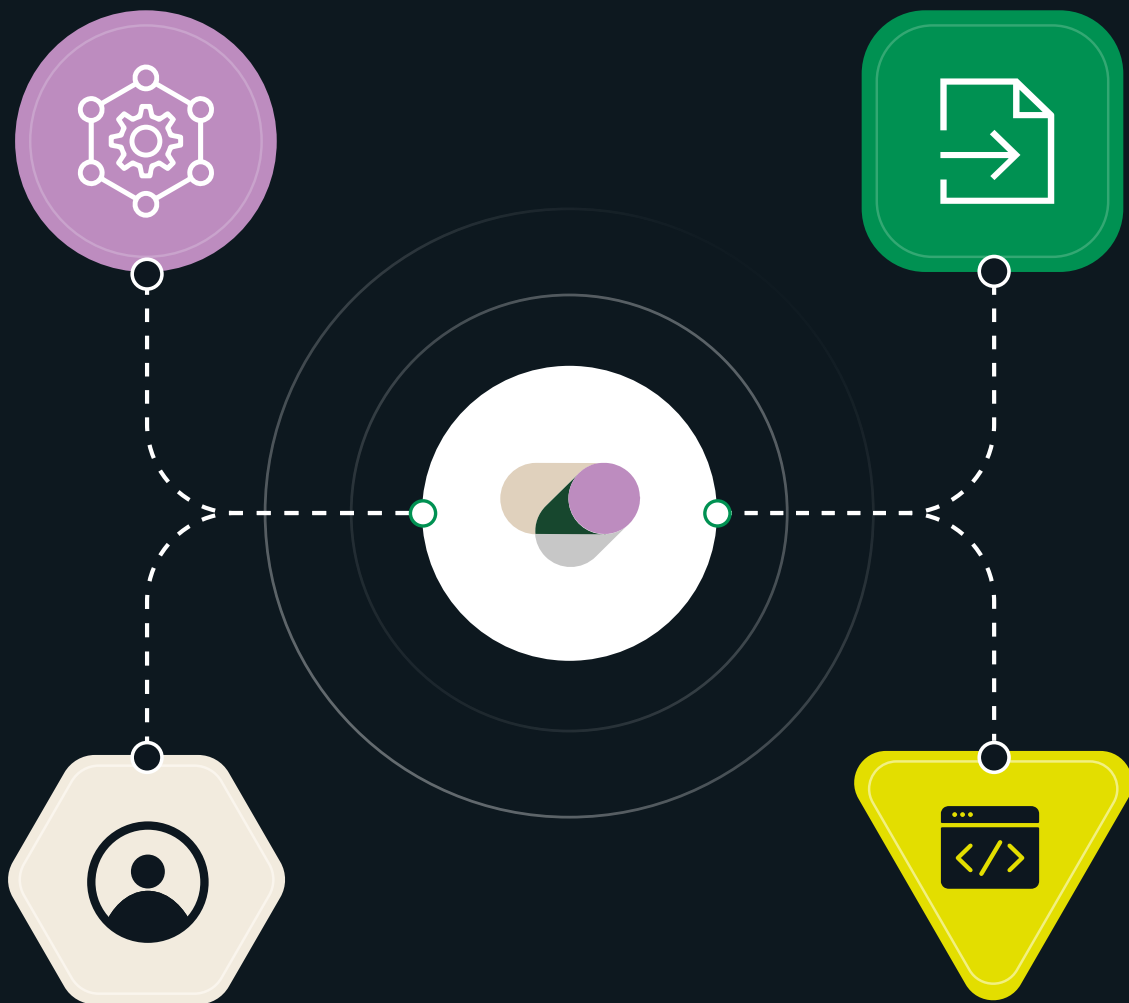
Procurement

When a decision has been made to purchase a data product, acquirers need to know whether they can purchase it, by what means, and at what price.

Access

The data needs to be in a usable format, downloadable in some mutually-compatible way, and in a native language or format needed by the acquirer.
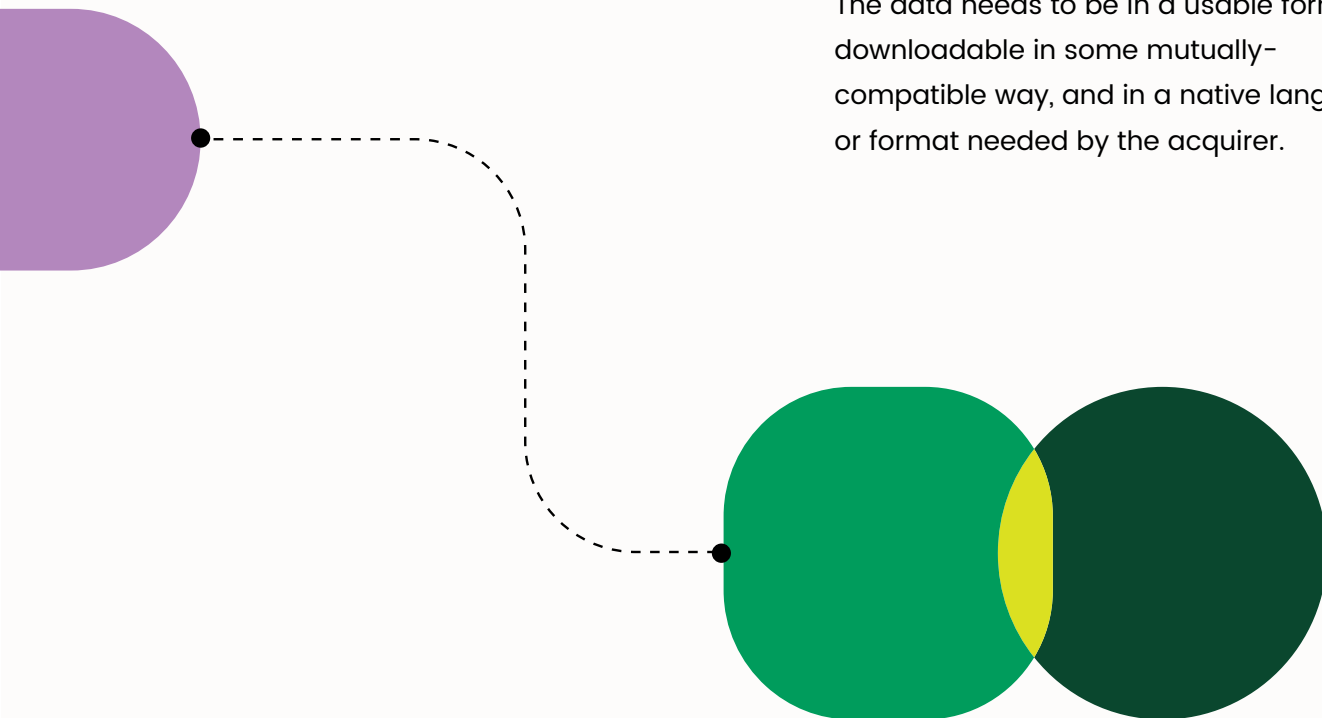
About Revelate

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Revelate's data marketplace platform provides a suite of capabilities for data sharing and data commercialization for our customers to fully realize the value of their data. We reduce the burden for data teams to distribute data, the way the consumer needs it, in and outside of their organization. Revelate integrates into the fabric of any data ecosystem to prepare, package, and distribute data from anywhere to anyone.