



WHITE PAPER

# Data Monetization Is Done Wrong – Here’s How It Can Be Fixed

**Customize and monetize content through APIs for maximized revenue, decreased costs and a faster time to market.**

## Introduction

The data economy is growing at a staggering pace and everyone wants to get a piece of the action. The amount of data created in the world is surging, from 5 zettabytes in 2013 to an expected 180 zettabytes in 2025.

Along with the dramatic rise in the volume of data, there is also an elevated demand for data. Decision makers are increasingly data driven and they need to supplement their own data with additional external data.

New technologies like AI and machine learning require massive amounts of data in order to work properly. When products, software and services are interconnected, data becomes the cornerstone of our digital world. Now, the application of GDPR (General Data Protection Regulation) provides a legal framework for how data can be used and protected. Defining the rules will protect the rights of citizens, as well as help unlock data’s enormous value.

The legal risks and measures for data management being clarified gives a framework for companies to share and monetize data with their data buyers in a transparent manner.

According to market research by Forrester, 48% of organizations surveyed in 2017 reported that they commercialize their data to external parties, up from just 10% in 2014.<sup>1</sup> In today’s world, any company could potentially be sitting on a data gold mine.

For example, a company selling tractors might be reselling analysis about expected agriculture production to weather forecast providers, as well as stock exchange traders. This opens up many use cases and revenue opportunities for data sellers, who might be packaging and selling the same data to very different industrial sectors, far outside their traditional fields of business. The same data delivers different value to different sectors, and could be monetized differently based on the value of the content.

The opportunities reside in the tools data sellers have to package and monetize their data, and how quickly they can address a data buyer’s needs.

There is often a gap between a data buyer’s expectations and a data seller’s capabilities. Data buyers want real-time value, meaning that they expect to be on boarded quickly, get a tailored offer of real-time data and pay for the value it provides them. Meanwhile, data sellers rely on web APIs to provide their data to third parties.

<sup>1</sup> Forrester. Alt data commercialization. [https://go.forrester.com/blogs/17-06-22-he\\_age\\_of\\_alt\\_data\\_commercialization\\_brings\\_alternative\\_data\\_to\\_market/an](https://go.forrester.com/blogs/17-06-22-he_age_of_alt_data_commercialization_brings_alternative_data_to_market/an)

## Data monetization is done wrong today because it fails to address these needs

On the one hand, the packaging and creation of data offers rely on the API infrastructure. On the other hand, business models today are limited to counting the number of API calls, which does not capture the actual value that the content provides to buyers.

### 1. Data offers rely on the API infrastructure

The design of an API has a significant impact on its usability and needs to provide the data points that a data buyer expects. When it comes to building an API, there are three different approaches:

- > The Give It All - Packages all possible data points in to one API, to cover all value propositions, for all data buyers, including ones foreseen as becoming relevant in the future.
- > The Bare Minimum - Offers each individually sellable data point as a separate API, building value propositions on demand for data buyers.
- > The Compromise - Builds a customized API for each data offer.

### A. The Give It All approach gives away too much:

Having many data points from one API leads to overloading data buyers with too much information that they may not need or want. This means that some data points are unnecessarily given away for free, eliminating the opportunity of future upsells, as any new data points that could be offered at a later stage will have already been included by default as part of the API.

This can also present complications when there is a large misuse of data by data buyers. The scandal of Cambridge Analytica abusing the personal information of Facebook users, is a good example of



what can happen in such cases. When the abuse of user’s personal data was revealed publicly, Facebook had no choice but to cancel accesses to the API for all data buyers, in order to prevent any other possible cases of misuse. Other trustworthy developers using the API as per the term of the contract could not access it anymore.

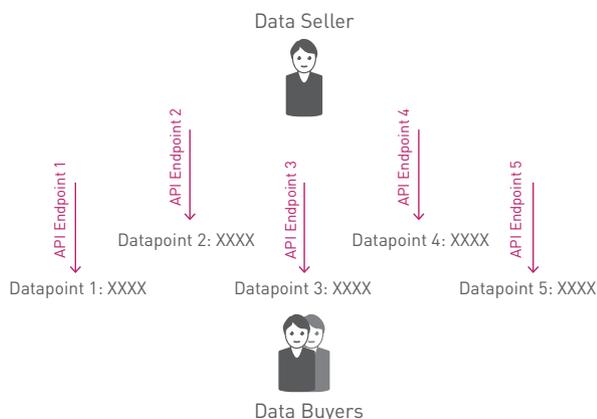
While only some data points from this API contained personal information, the full API was unavailable and all apps or services built on top of it were simply stopped. Facebook could not anonymize or change the personal information on the fly. For any other API provider it would have been a tremendous backlash from the developer's community.

Additionally, data sellers have no way of knowing which data points are most valuable to their data buyers. The only information they can monitor is the number of calls made to an API. Therefore, they do not know where they should focus their resources and subsequent developments. If data sellers knew which data points and results were the most important to their data buyers, they could invest wisely to get more precise and real-time information.

### B. The Bare Minimum approach is too extreme:

Providing each individual data point as a separate sellable API endpoint, can provide tremendous flexibility. This allows data sellers to provide a greater amount of data offerings by bundling together only those endpoints that the data buyer would need. Data sellers gain granular control and a 360 degree view of the API endpoints, as well as a quicker time to market.

However, it can be very inefficient to try and account for every potential combination of data points that a data buyer may require. Numerous calls need to be implemented and documented. It compromises the efficiency and simplicity offered by the pure logical design of an API. This would mean that the architecture and design of the endpoints for an API are not logical.



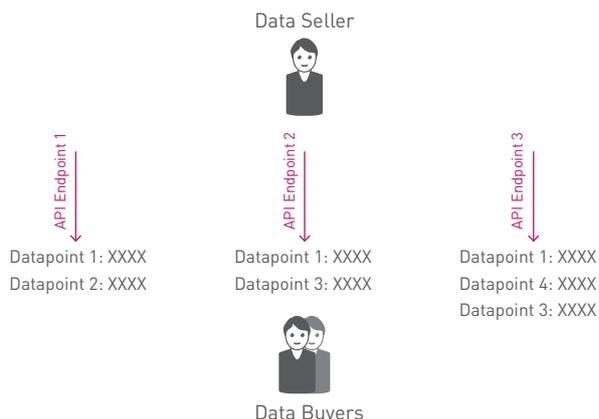
Having too many API endpoints can be difficult for data buyers to comprehend and can overwhelm them with options, leading to a poor customer experience. There is no way to automatically generate customized documentation for each data buyer based on the specific data offer built for them. Therefore, data buyers need to navigate through the API's documentation to understand what they can access and pick the right API endpoint in order for their integration to work. This requires them to make multiple calls to different API endpoints, to collect all of the necessary data. The probability is high that data buyers would prefer a competitor whose onboarding and documentation are much easier to comprehend.

### C. The Compromise approach significantly impacts time to market:

As explained by Amancio Bouza,<sup>2</sup> "successful APIs in terms of commercial success and reuse have to meet the criteria of a VPI (Value Proposition Interface). A VPI is an interface to exploit a value proposition."

Finding a compromise which does not overwhelm the data buyer with too much information, but at the same time does not provide too granular of an offering, is challenging. It relies on a collaborative effort between engineering teams and product managers in order to define the value proposition interfaces for APIs, so that data sellers are able to offer the right data with a logical design.

Being forced to depend on the engineering department to modify or create a new data offer impacts time to market. A new offer can consist of providing new data points to existing data buyers, or packaging data points from existing API endpoints and selling them



in new ways. Creating additional API endpoints for new data points requires data buyers to do the extra work for integration, while data sellers increase their maintenance costs in the long term. This is true regardless of what the new data points are, even if they are only variants of existing data points (e.g. anonymized personal information or changed precision).

Indeed, the probability is high that data sellers will have to create new APIs to create new data offers for adjacent markets they did not think of at first. Having a clear value proposition interface is the right path to satisfy data buyers, but it leads to a continuum of API endpoints in the long term that drives a higher cost of maintenance. Having the same data points being delivered via multiple API endpoints is typically the logical structure. All API endpoints created need to be maintained for each data buyer, otherwise data sellers risk backwards incompatibilities and dissatisfaction from data buyers.

Gemalto Software Monetization conducted an internal study and found that having different API endpoints representing different data points, dramatically increased maintenance costs. The cost of maintenance for 10 API endpoints over two years was €50k more than having just one compatible API. If the number of API endpoints goes beyond 10, the cost surges.<sup>3</sup> In addition, when it is time to think about API versioning of API endpoints to improve services, it becomes unmanageable to maintain too many API endpoints for different API versions. This would require testing all of API endpoints for each group of data buyers using them, in all scenarios created.

Today, product managers do not have the necessary autonomy to make those changes by themselves and need to work back and forth with the engineering team. This either disrupts engineering work with constant new business requirements or creates additional workload for ad hoc development of new APIs. As the packaging and creation of a new data offer is an ongoing effort between product managers and developers, it slows down time to market every time data sellers want to offer new and compelling value propositions to data buyers.

<sup>2</sup> Bouza, A. (n.d.). The API is dead, long live the VPI. <https://medium.com/api-product-management/the-api-is-dead-long-live-the-vpi-afa83c80aac>.

## 2. Business models are limited to counting APIs

Today, APIs can be monetizing by counting API requests from a data buyer to a data seller and ignoring the value this data provides.

Since API requests are the only elements in the process that can be controlled and licensed, the business models that can be implemented are limited. Currently, the only options to monetize data are either a transactional business model based on a cap number of API calls or a pay-as-you-go option, with a unit price per API call. Therefore, data sellers cannot price their offerings based on the attributes and value that the data actually provides to a data buyer.

Data sellers are facing a dilemma of price versus volume. They need to reach enough data buyers at an acceptable price for them to cover at least their cost of exposing data. On the one hand, the price can be too high for low-end data buyers looking for less precise data. On the other hand, data sellers may end up leaving money on the table for high-end data buyers, who are ready to pay much more based on the value it brings them.

As we see with the "Give It All" approach, having one API for all potential data points is not optimal. It severely hinders a data seller's bargaining power. It also makes it impossible to propose flexible pricing structures based on the actual data points being offered.

With the "Compromise" approach, adding on new data points to a data buyer's existing API endpoint is a solution that pleases the data buyers, but can be difficult to monetize, as the level of control of data is still the API endpoint.

The "Bare Minimum" approach provides more packaging flexibility, with business models that are connected to the generated value of the data points. It provides the data sellers with an increase in negotiating power and the ability to customize offerings to the data buyer, down to an API request for a data point.

However, for data buyers, what matters most is not the actual data they acquire, but the value that specific data provides them for their particular use cases. Indeed, it can be that only very specific APIs have a substantial impact on their business, while the remaining data points offer no additional value. Today, data sellers cannot streamline their data offers and business models towards the value created from their data at a granular level.

For example, a credit scoring company selling information to a bank could monetize their data based on the result of its use. A bank uses a credit score to determine whether they should grant a loan to an individual, or deny their request. A credit score can range from 200 to 900. The higher the credit score is, the more solvent the individual is. A business model could be introduced to price data differently from the same API based on the following structure:

- > If  $200 < \text{Credit score} \leq 400$  price is 5€
- > If  $400 < \text{Credit score} \leq 600$  price is 0,1€
- > If  $600 < \text{Credit score} \leq 900$  price is 10€

If the credit score is low, it gives an indication to the bank to avoid granting the loan and risk losing money. An average credit score is not enough to make a proper decision from the bank's point of view and thus isn't worth much to the bank. Finally, a higher credit score

<sup>3</sup> Dubray, J. J. Cost of APIs versioning. <https://www.ebpmL.org/blog15/2013/11/understanding-the-costs-of-versioning-an-api-or-a-service/>.

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is the most valuable piece of information to the bank, as it allows the bank to approve a low-risk loan.

If data sellers had the ability to offer these models, it would not only help them maximize profits, it would also help data buyers minimize risk, as they could directly relate the cost of the data to the value it generates. Value based pricing is traditionally a pay-as-you-go business model but could also be packaged as a subscription based model.

### So, what is the best approach?

None of the existing approaches are perfect. The flexibility for monetizing data depends on the number of data points represented through APIs. Being able to present a diversity of data offers and business models either comes with higher maintenance costs, a slower time to market, disruption of the engineering team's work or a very poor data buyer experience. With existing approaches, data sellers need to weigh these factors, all while being unable to capture the full value of their data.

The ideal solution provides data centric monetization and enables you to build a customized API for each data offer in minutes, without bearing engineering costs.

### Customize and monetize data from APIs in minutes without coding:

At Gemalto Software Monetization we took a different approach to solving the dilemmas and issues highlighted above. We believe the mindset has to switch from APIs to data. The true value data sellers provide their data buyers is the data itself. The API is only the pipeline which delivers that value. We believe in simplicity for data buyers and agility for data sellers. Seizing all opportunities is only possible with a quick time to market.

### New Capabilities For Data Sellers

- > Package, change and manage an infinite amount of data offers and related business models in an independent manner
- > Create offerings with varying content and changed precision
- > Reduce the number of APIs to be created, managed and maintained by engineering teams
- > Monetize based on the actual value delivered

### Added Value For Data Buyers

- > Quick tailored data offers and documentation aligned with exact needs
- > Fast and easy upgrade of data packages without additional API integration
- > Flexible business models based on actual value created

Register now to qualify for early access to our new data packaging and monetization solution!

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