# **Summary of the options for map visual in Power BI**

## **Power BI (Basic) Map – BING**

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-map-tips-and-tricks>

This type of map is best for basic display. There’s not much customization you can do as this is only good for common uses. However, there are certain things you can do to make it look better and fit your purposes like changing the map style and turning it into a heat map.

**Pros**:

* Easy to use
* Fully supported by the Microsoft Power BI team, Integrated natively into Power BI
* Perfect for basic and common uses (mapping by area or latitude and longitude)
* Includes map themes

**Cons**:

* Rare geocoding issues giving you inaccurate locations
* **No support for custom geographic formats like GeoJson, ESRI Shapefiles, and others**
* **No custom tooltips.**
* Bing maps not widely used as a stand along product. Users expect better background mapping.

## **Shapemap**

<https://docs.microsoft.com/en-us/power-bi/visuals/desktop-shape-map>

Useful to implement simple single layer maps (no background)

Pros:

* Supports full Power BI tool tips.
* Supports custom geographic formats: TopoJSON.

Cons:

* Preview implementation, not fully integrated. No background mapping.

**MapBox**

<https://docs.mapbox.com/help/tutorials/power-bi/>

Pros: Widely used across OCHA. Existing ‘Official’ political boundaries background map. Outstanding customizable background maps. OCHA Power BI tutorial goes through set up.

Cons: Complex implementation if not familiar with MapBox.

**ArcGIS Online**

Use ArcGIS Maps for Power BI as a **standard user at no cost**.

Or sign in using your ArcGIS Online or ArcGIS Enterprise account to access content from your organization, global demographics, hundreds of geographic layers from the Living Atlas of the World, more base maps, and the ability to view more locations on your maps. More information on this is available [here](https://doc.arcgis.com/en/maps-for-powerbi/get-started/sign-in-to-arcgis.htm).

<https://doc.arcgis.com/en/maps-for-powerbi/>

**Pros**:

* OCHA uses the ESRI ecosystem
* Standard user can still access all content that has been shared publicly on AGOL and can add that content to the map
* Premium users (ArcGis Maps for Power BI Premium App License): **can add custom reference layers to AGOL and then access this content in PBI** <https://doc.arcgis.com/en/maps-for-powerbi/get-started/add-custom-reference-layers-to-arcgis.htm>
* If **your organization has a shapefile that defines custom boundaries** (water districts, sales districts, or zoning boundaries, for example), **you can publish it as a hosted feature layer in ArcGIS Online and add it as a reference layer to your ArcGIS Maps for Power BI visualization**. To use custom reference layers, they must be publicly shared, hosted polygon feature layers in ArcGIS Online.

**Cons**:

* Complicated licensing for advanced versions; Licensing tied to individual accounts, not good when temporary staff are working.
* Additional licensing costs
* Free version does not allow the use of custom base maps (ie maps created with COD feature services)
* Power BI custom tooltips not supported (in free version,