

# **SPH R Appreciation Society: Powerpoint graphics in R**

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## **officer/rvg for output to PowerPoint slides**

- What is it?
- What's great?
- What sucks?
- How does it work?

## But first a digression about vector graphics...

- Raster graphics (PNG, GIF, JPG) have a fixed resolution
- *Changing the size or medium loses quality*
- Vector graphics are based on geometrical shapes, not pixels
- *Great for sharp graphs and diagrams, not for images*
- *You can edit vector graphics with Inkscape (free)*

## Which vector graphics file format?

SVG	A standard, and quite a good one!
PDF	Widely supported and functional
EMF	Microsoft's own standard, but terrible

## Why not PDF?

- No support for in-line PDF graphics in MS Word
- Some journals don't accept it for figures etc
- Some coauthors don't know how to edit it
- *But I suggest you use PDF if you can*

## Enter “DrawingML”...

- Microsoft's new vector graphics format
- Good quality graphics
- *Not widely known or supported by third parties*
- *No stand-alone file format*
- *Implementation in MS Word is half-baked*

## **Solution: Powerpoint + DrawingML**

- R graphical output → PPTX
- Easy to edit and annotate
- Can cut and paste into Word

## **officer/rvg: What is it?**

- `officer`, a package for writing MS Office files
- `rvg`, additional support for output to DrawingML



## **officer/rvg: What's great?**

- Simple and logical (more or less)
- Just a few lines of extra code
- Works with `officedown` package

## **officer/rvg: What sucks**

- Font handling can be tricky
- No graphical groups e.g. all points in a scatterplot
- Still one or two bugs e.g. text alignment

# officer/rvg: Intros and tutorials

- <https://www.pipinghotdata.com/posts/2020-09-22-exporting-editable-ggplot-graphics-to-powerpoint-with-officer-and-purrr/>
- <https://www.apreshill.com/blog/2021-07-officedown/>