



# R PACKAGE VALIDATION WORKSHOP

Internal R Package  
Validation

# Welcome

- Internal Packages
- Validation Approaches for Internal Packages



# INTERNAL PACKAGES

# {valtools} Packages

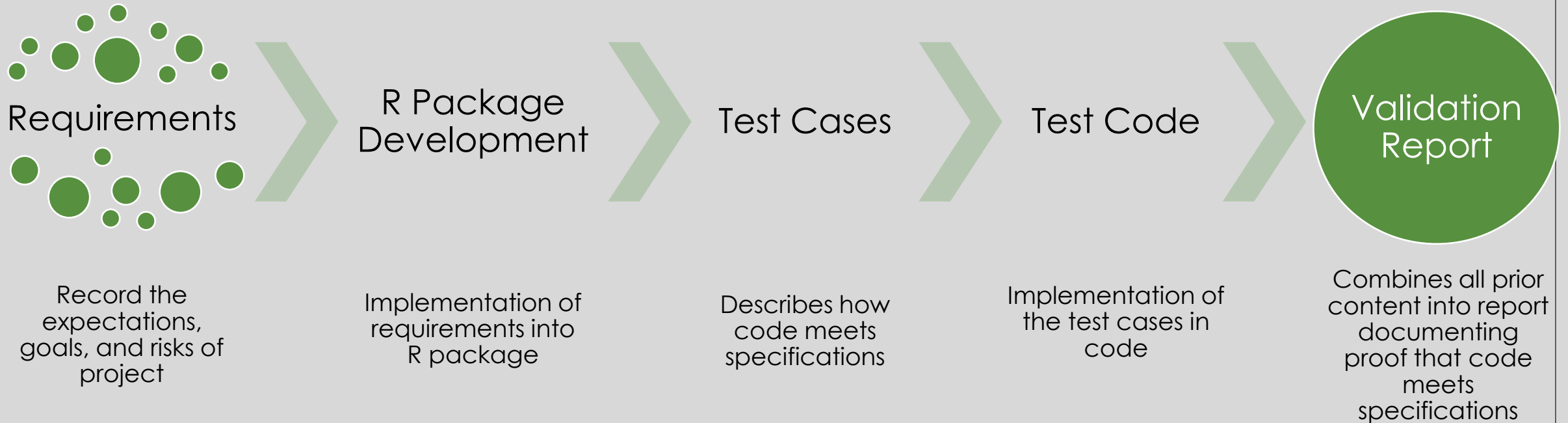
- vt\_create\_package()
  - Package folder
    - Valid package name
    - Creates package infrastructure
    - Creates valtools validation infrastructure

# {valtools} Packages

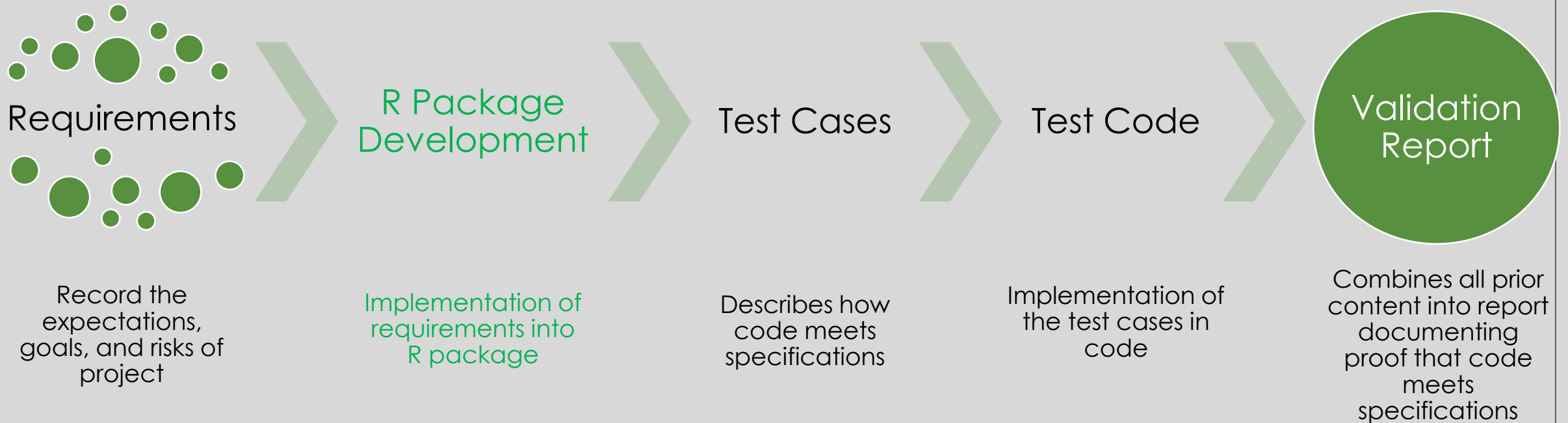
- Vignettes folder (default)
  - Validation Elements
  - validation.yml
- Vignette serves as validation report

```
· | - validation
· |   | - requirements/
· |   | - test_cases/
· |   | - test_code/
· |   | - validation.yml
· |   | - change_log.md
· |   | - .gitignore
· |   · ·
· | - validation.Rmd
```

# Package Development

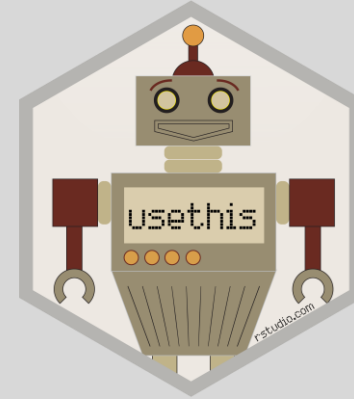


# Package Development



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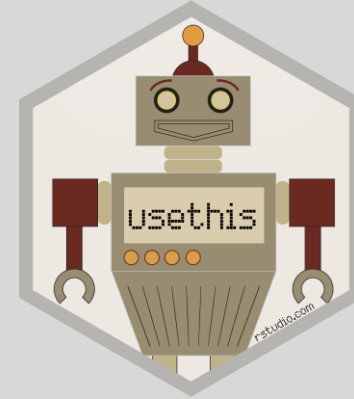
- Standard Package Development Process
  - usethis
  - devtools
  - roxygen2
  - rmarkdown
  - testthat





# Package Development

- Standard Package Development Process
  - usethis
  - devtools
  - roxygen2
  - rmarkdown
  - testthat
- valtools set at an imported package
  - Support specialized roxygen tags
    - editor
    - editdate
  - Validation Vignette Compilation





# SHARING YOUR PACKAGE VALIDATION



SOURCE

# vt\_validate\_source()

- For testing/release of source code
- Temporary installation to test on system



BUILD

# vt\_validate\_build()

- Builds source code, includes all components of validation into tarball
- For release of source code with controlled versions
- Users have access to install as necessary



# INSTALL

# vt\_validate\_install()

- Builds tarball and Installs
- Runs validation report on installed system





# RE-V VALIDATION

# vt\_validate\_installed\_package()

- ONLY works for the following
  - vt\_validate\_install()
  - tarball created by `vt\_validate\_build()`
- Run when environment has changed, but installation has not