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Biography



KuenHung Lin

Professional Background

- 13+ years of SAS and R experience in statistical programming
- Statistical analysis, algorithm development, and data visualization
- Contributor to R training and open-source adoption

Conference Contributions

- PharmaSUG China (SAS Visualization)
- EU PhUSE (Shiny-Based Study Timeline Dashboard)
- R/Pharma APAC 2025 (SAS2R)
- R/Pharma APAC 2026 (Hands-On Patient Profile Visualization)

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Designing R Programming Flow for Open-Source Package Composition in Statistical Programming: Illustrated with Patient Profile Visualization

KuenHung Lin, IQVIA

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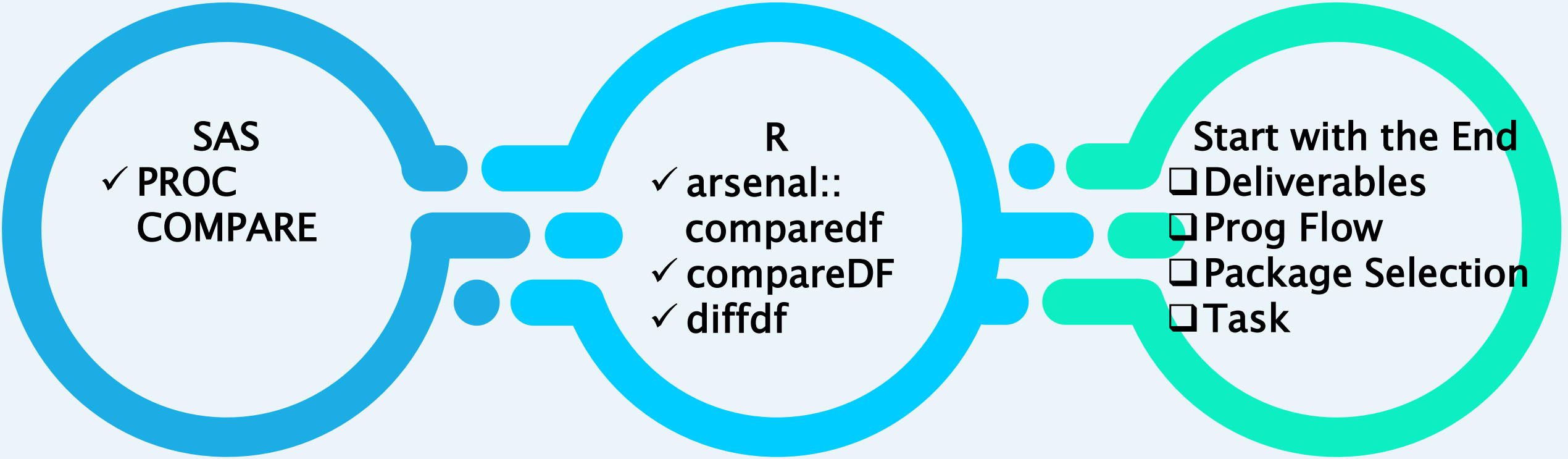
Task: Compare Data



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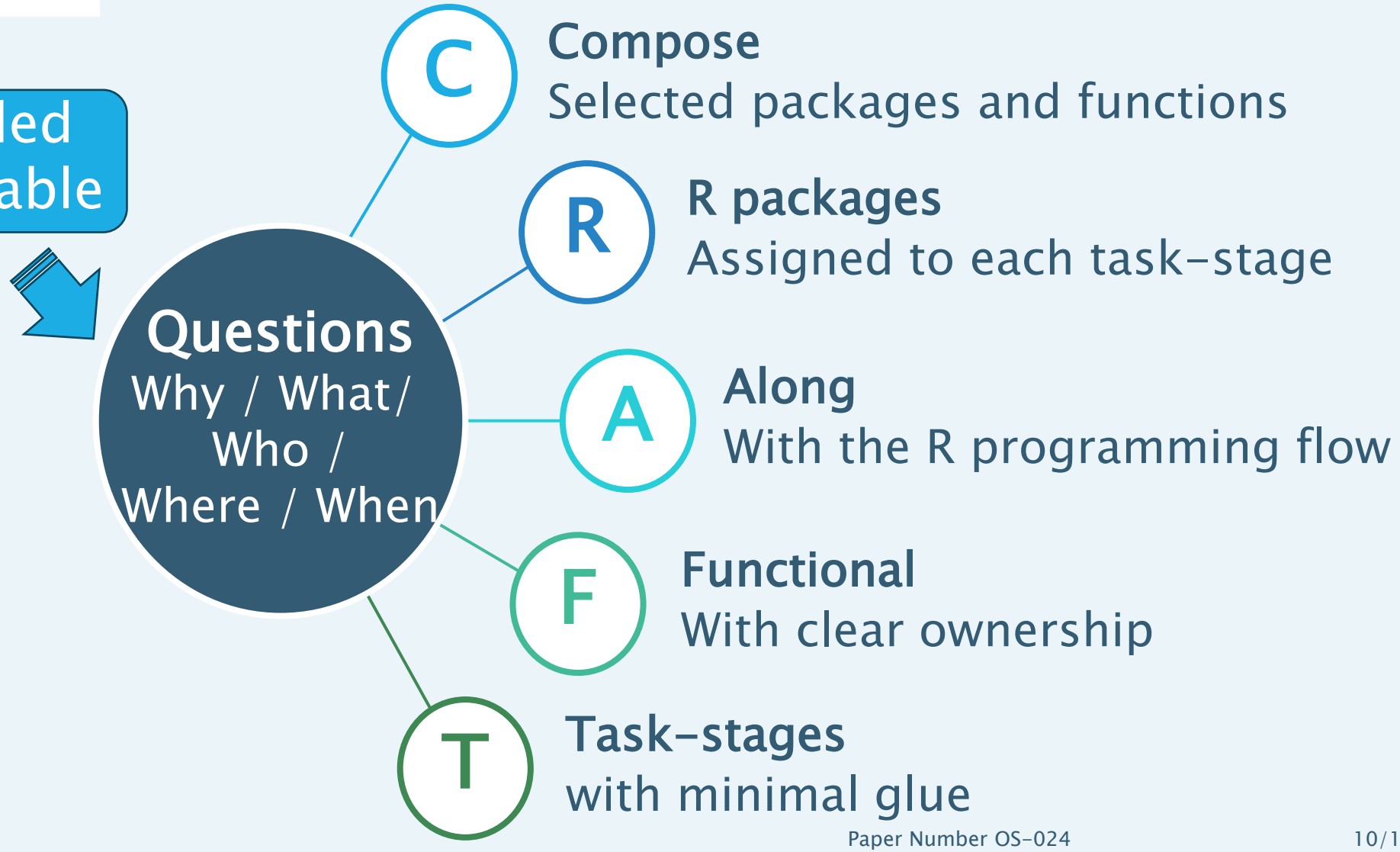
Start with the End: CRAFT

Intended Deliverable



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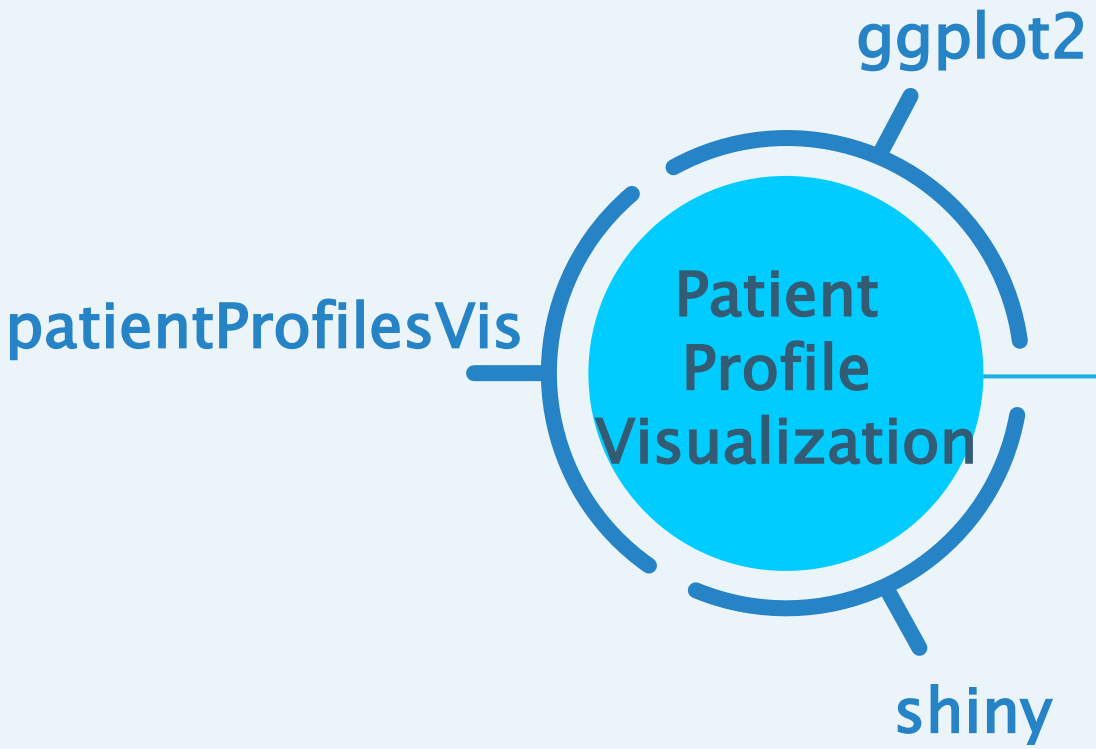
Applying CRAFT: A Case Study



Selection Criteria

- Existing solution for patient profiles
- ✓ patientProfilesVis: Domain-specific package

- Flexible visualization customization
- ✓ ggplot2: Visualization framework

- Support for interactive review
- ✓ shiny: Interactive applications

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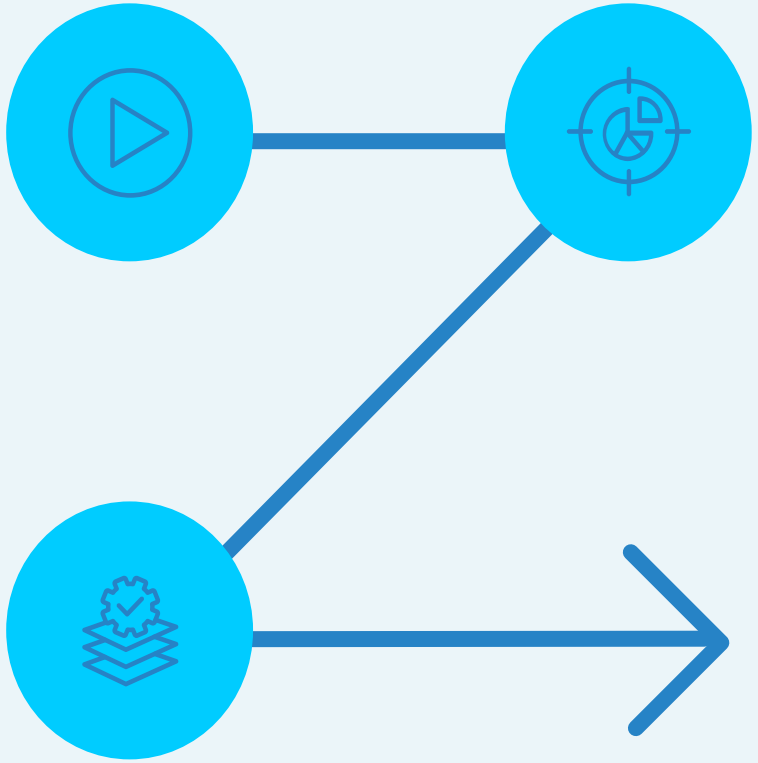
From Flow Design to Execution

Run
Run a relevant example

Focus
Reduce to a minimal case

Inspect
Understand behavior

Adapt
Adapt with minimal glue



Goal-Oriented Mindset

- Start with outcomes
- Learn through examples
- Explore with purpose
- Verify and adapt

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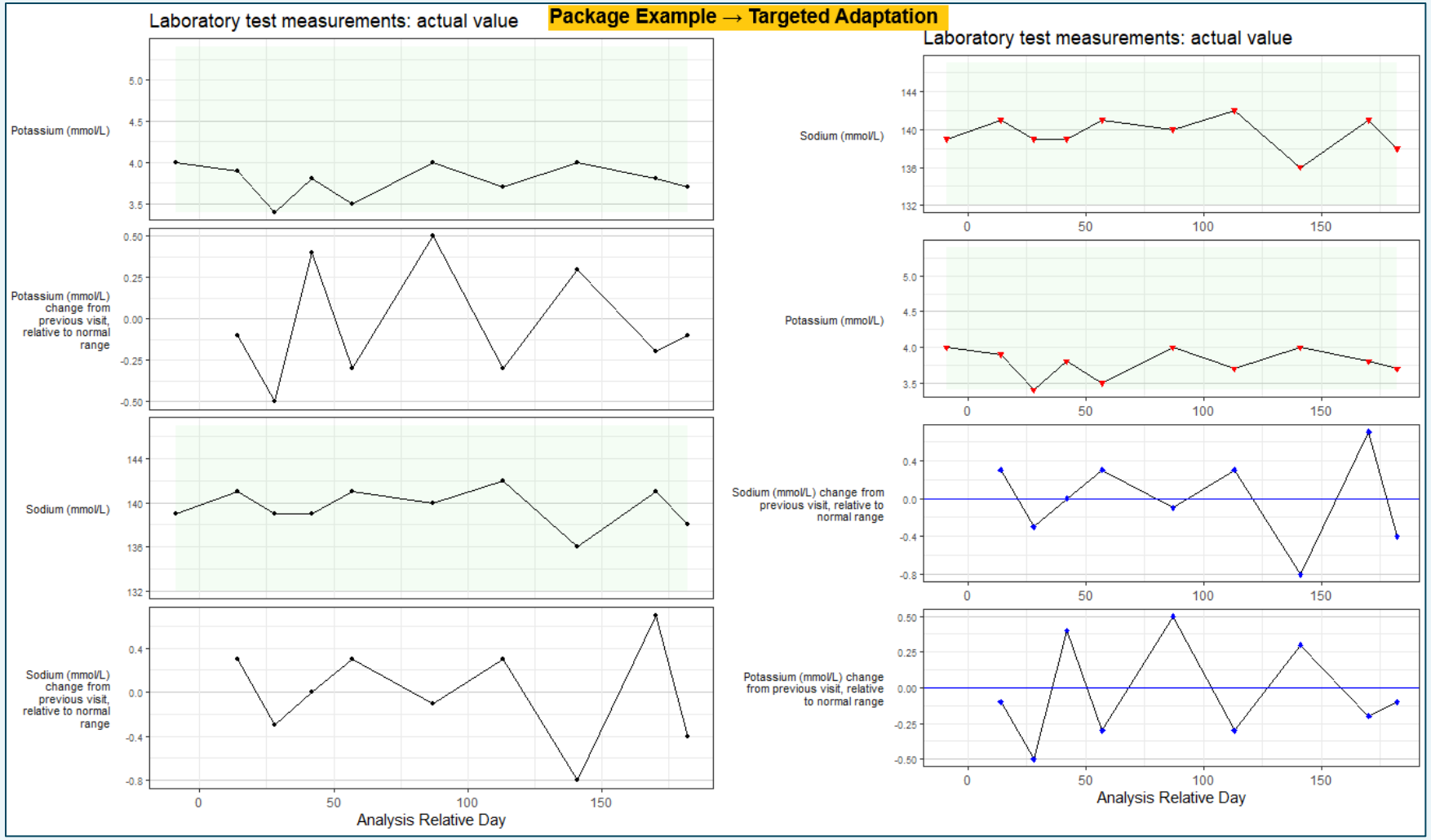
Adapt Through Composition



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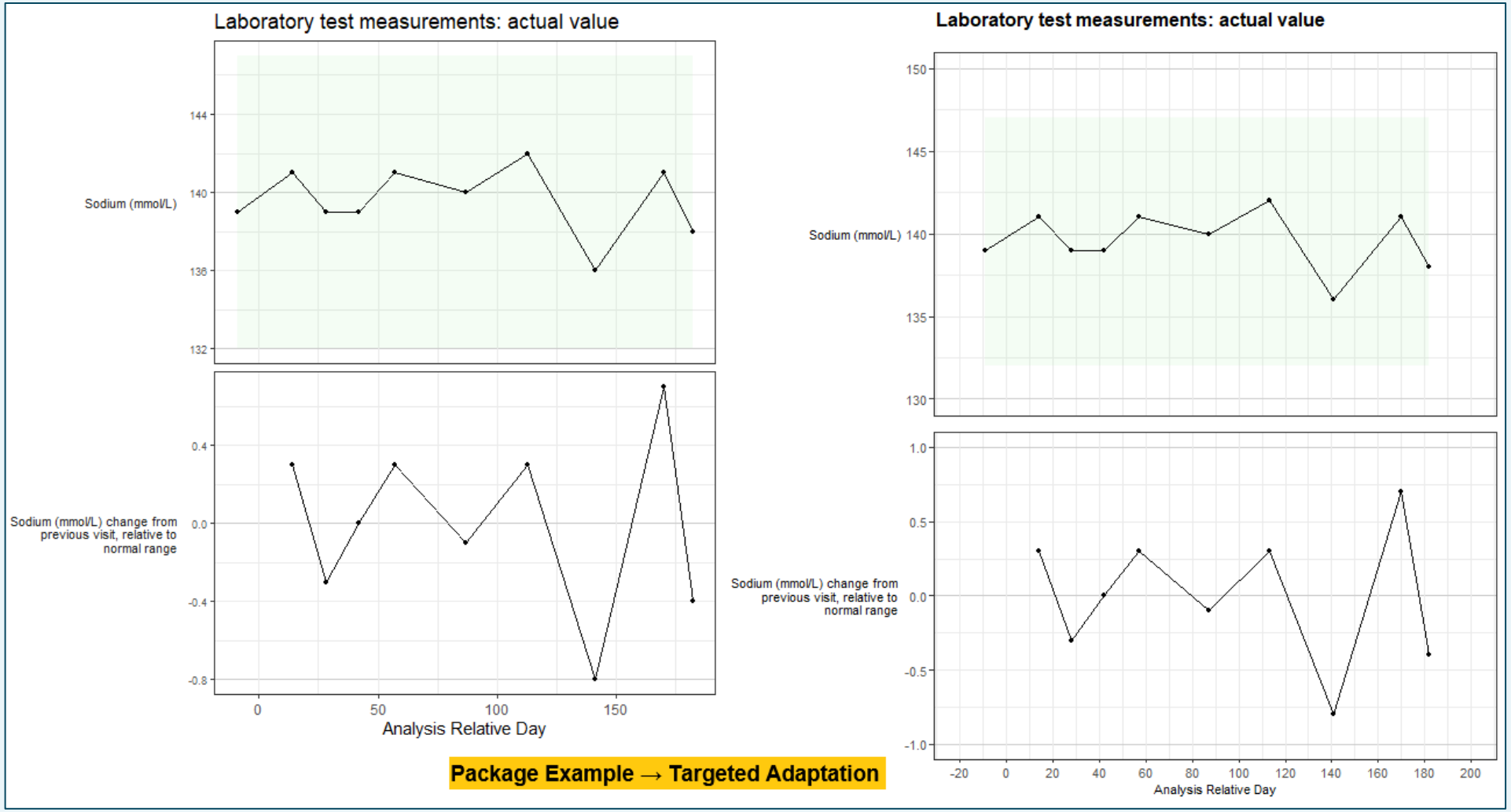
Targeted Reconstruction



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It Takes CRAFT

- **Start with the intended deliverable**
  Design the flow around its purpose, context, and requirements
- **Compose with clear ownership**
  Assign packages and functions to ordered task-stages with minimal glue
- **Exercise professional judgment**
  Use what already works, and adapt only where it adds value

Open source provides the pieces
It takes **CRAFT** to shape them into a fit-for-purpose flow

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References

- Lin, K. 2025. “Strategically Assisting Statistical Programmers To Succeed in R (SAS2R).” R/Pharma APAC 2025. Available at https://www.youtube.com/watch?v=evKPgccUpM4

- Lin, K. 2026. “Hands-On Patient Profile Visualization.” Workshop materials presented at R/Pharma 2026 APAC. Available at https://github.com/liinhater/rpharma-2026-ppvis-workshop

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Thank You

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