Enterprise R Platform

eRum 2016

Motivation

The “Joel Test” for Data Science

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2. Can data scientists utilize the latest tools/packages without help from IT?
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Source: https://blog.dominodatalab.com/joel-test-data-science/

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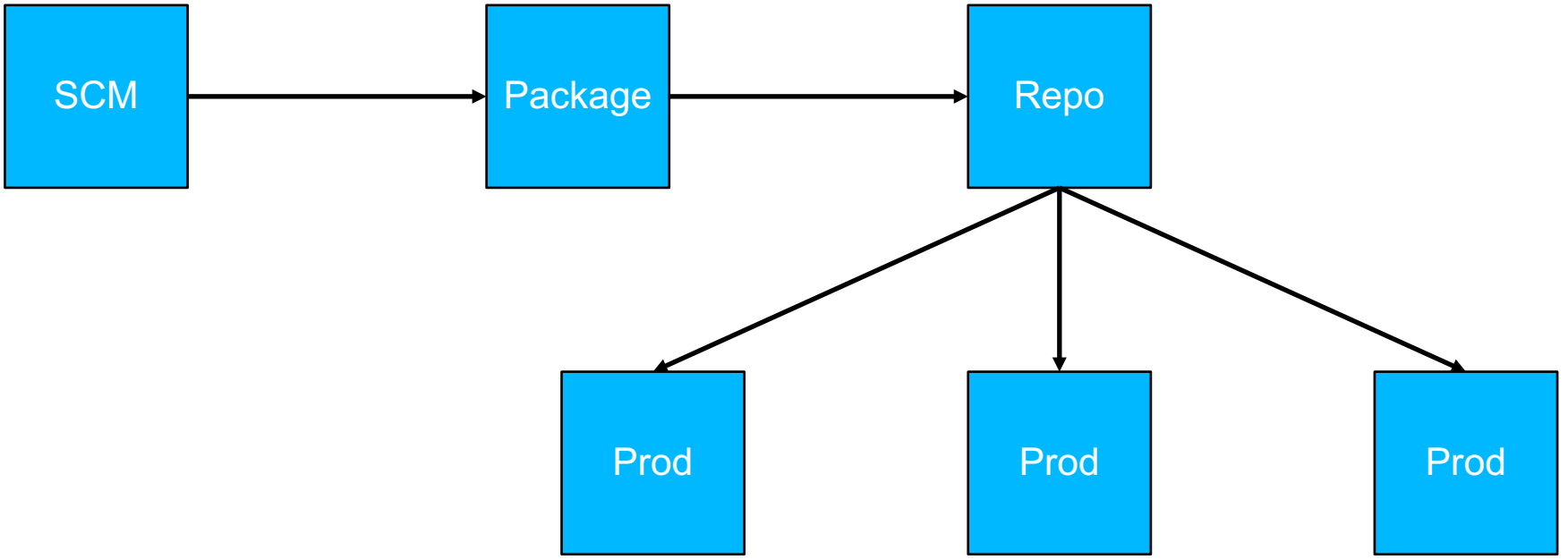
Ideal Process

From code to production



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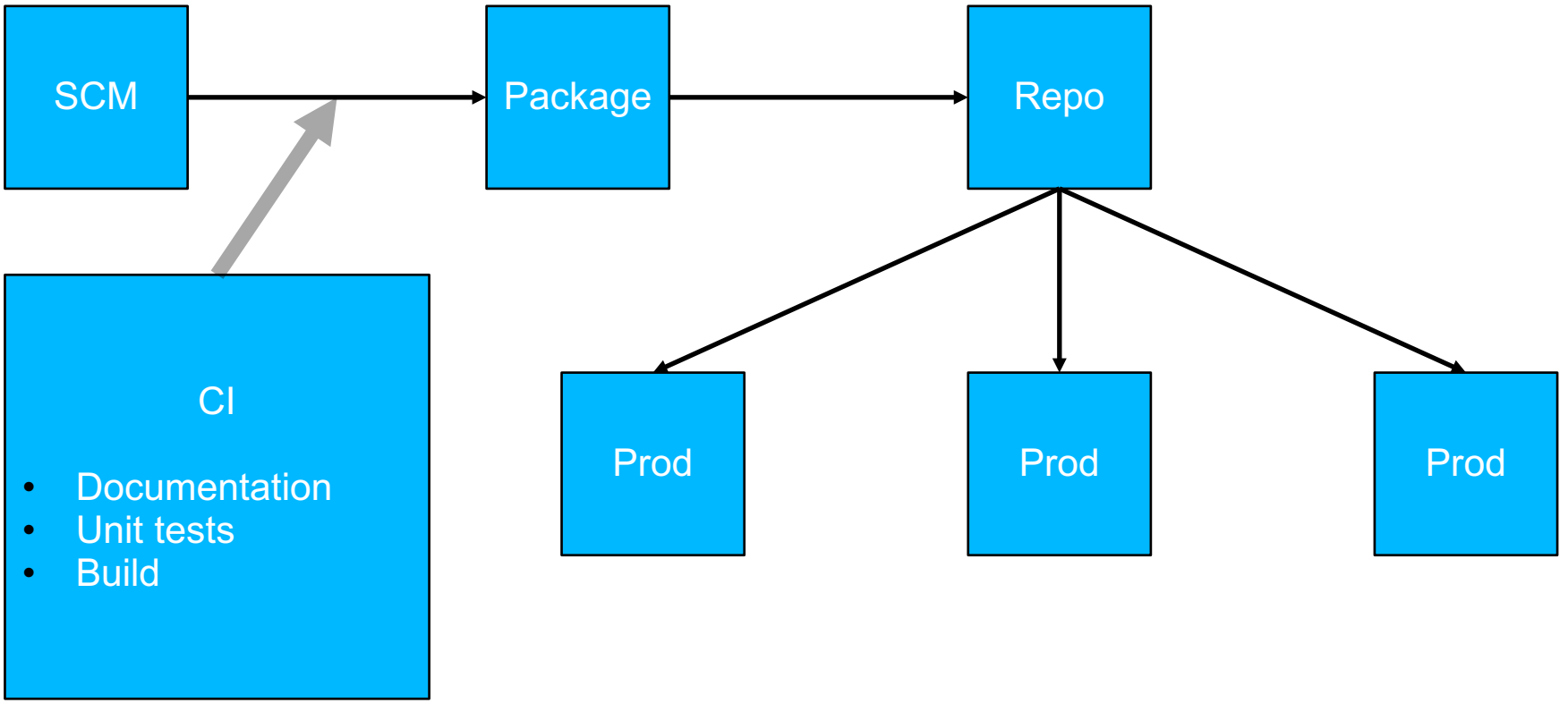

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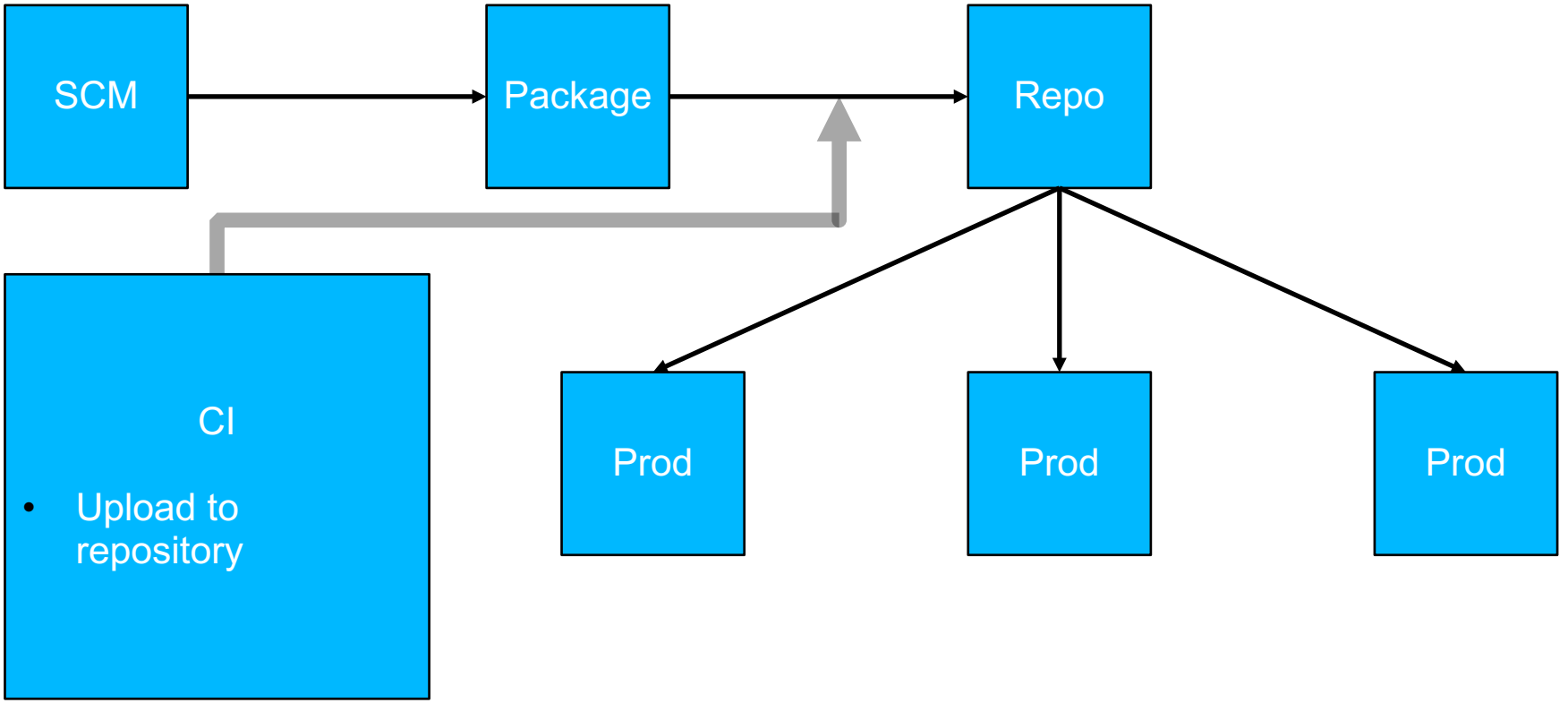

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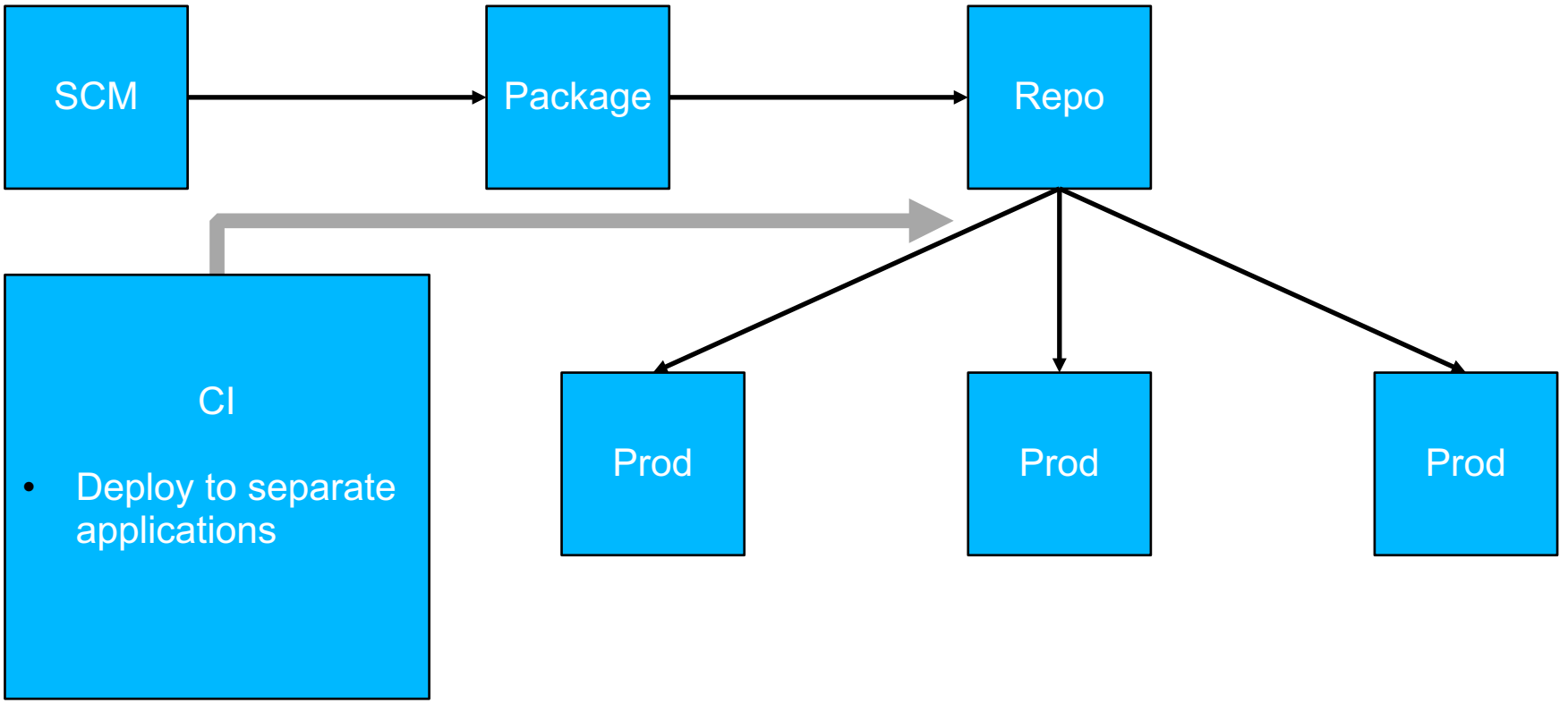

laiR

The R package repository

1. Multiple repositories
    - Shared repositories without authorization
    - Private repositories
    - CRAN & Bioconductor
2. Upload any tar.gz with a DESCRIPTION
3. Search packages
4. Dependency management across all repositories
5. Zero-config installation
6. Maintain multiple versions of the same package

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roveR

R container management

1. Preconfigured, separated R environments
2. Open-source R package
3. Linking R environments to laiR installations
4. Release packages into laiR
5. Install dependencies with specific versions using laiR API
6. Install rover using the following command:

```
install.packages("rover",
                 repos = c("https://lair.functionalfinances.com/repos/cran/",
                           "https://lair.functionalfinances.com/repos/shared/"),
                 method = "curl")
```

roveR + laiR

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exposeR

REST API for R containers

1. Access selected R calculations via REST
2. roveR container management - CRUD
3. Select functions to expose from packages in container
4. Allows other application to integrate R calculation
5. R in a dedicated environment
6. Zero-config installation

exposeR + roveR + laiR

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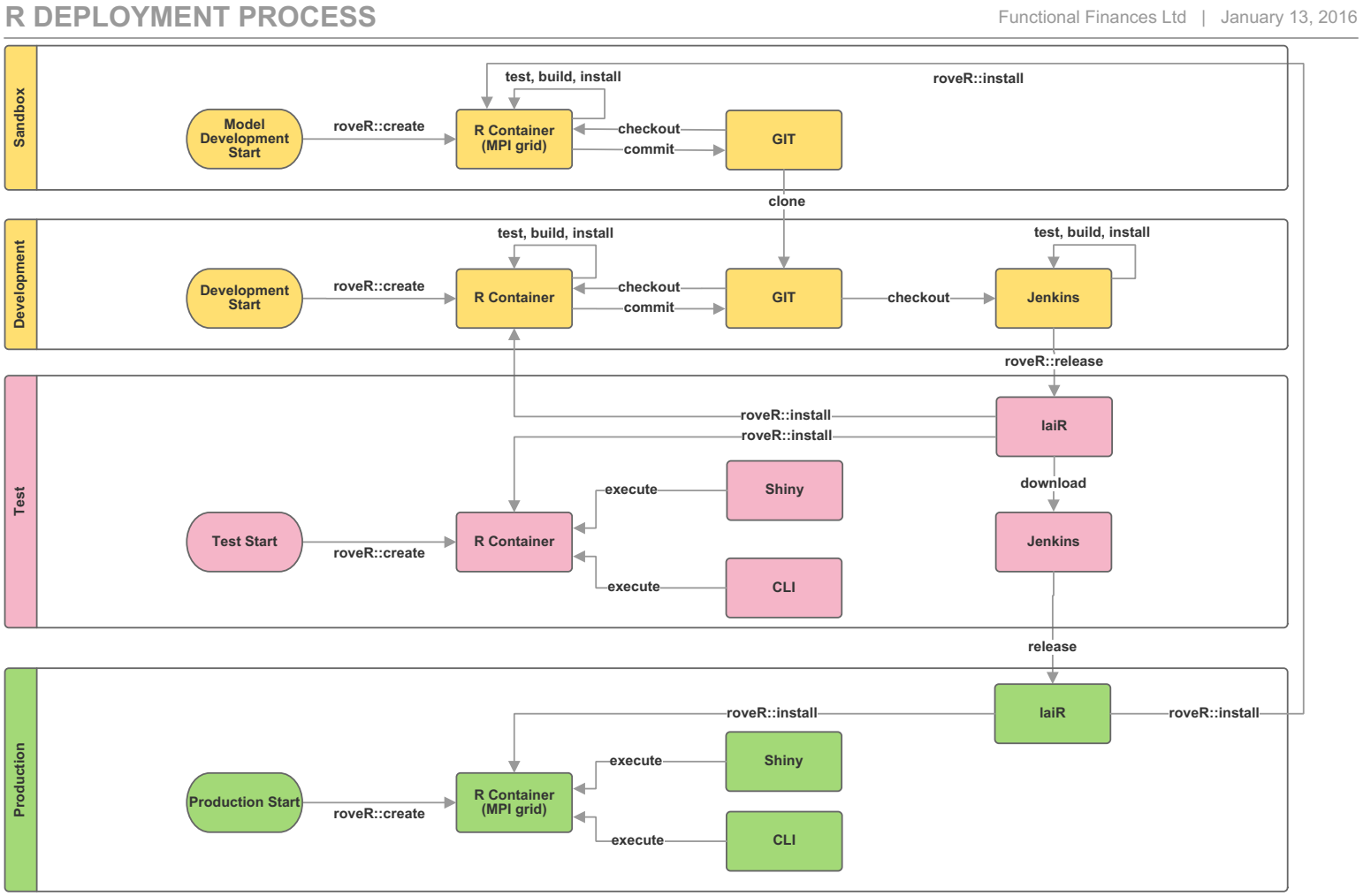
Reference Implementation

The Delta-Lloyd case study



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Questions?