



研发创新顶级峰会

TiD 2018

下一代软件研发 构建智能生态

TiD2018质量竞争力大会

FinTech下的QA

演讲人：Roy Tan

Agenda

- Fintech Products in Moody's Analytics
- What Does it Mean to QA?
- Testing Strategy Overview
 - Data Layer Testing
 - Service Layer Testing
 - UI-layer Testing
- What's Next?

Moody's Analytics



Content



Features &
Functionality

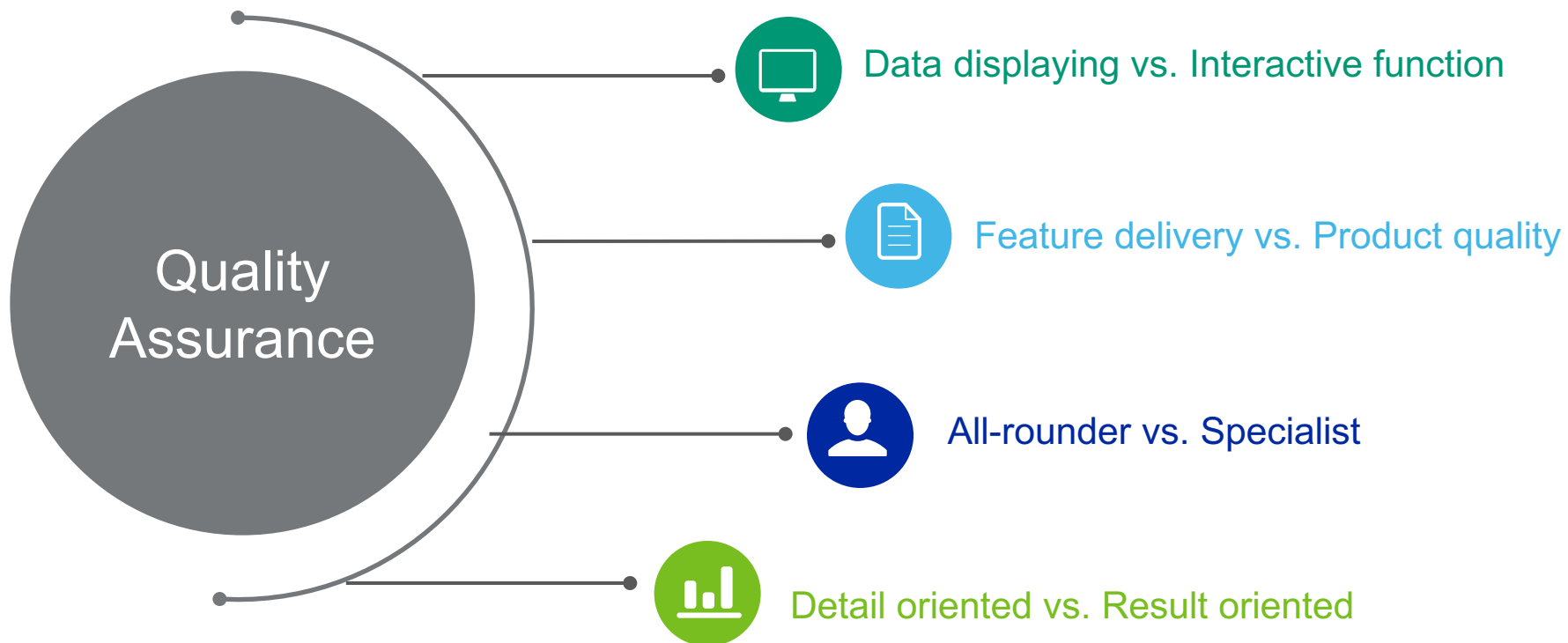


Channels /
Capabilities

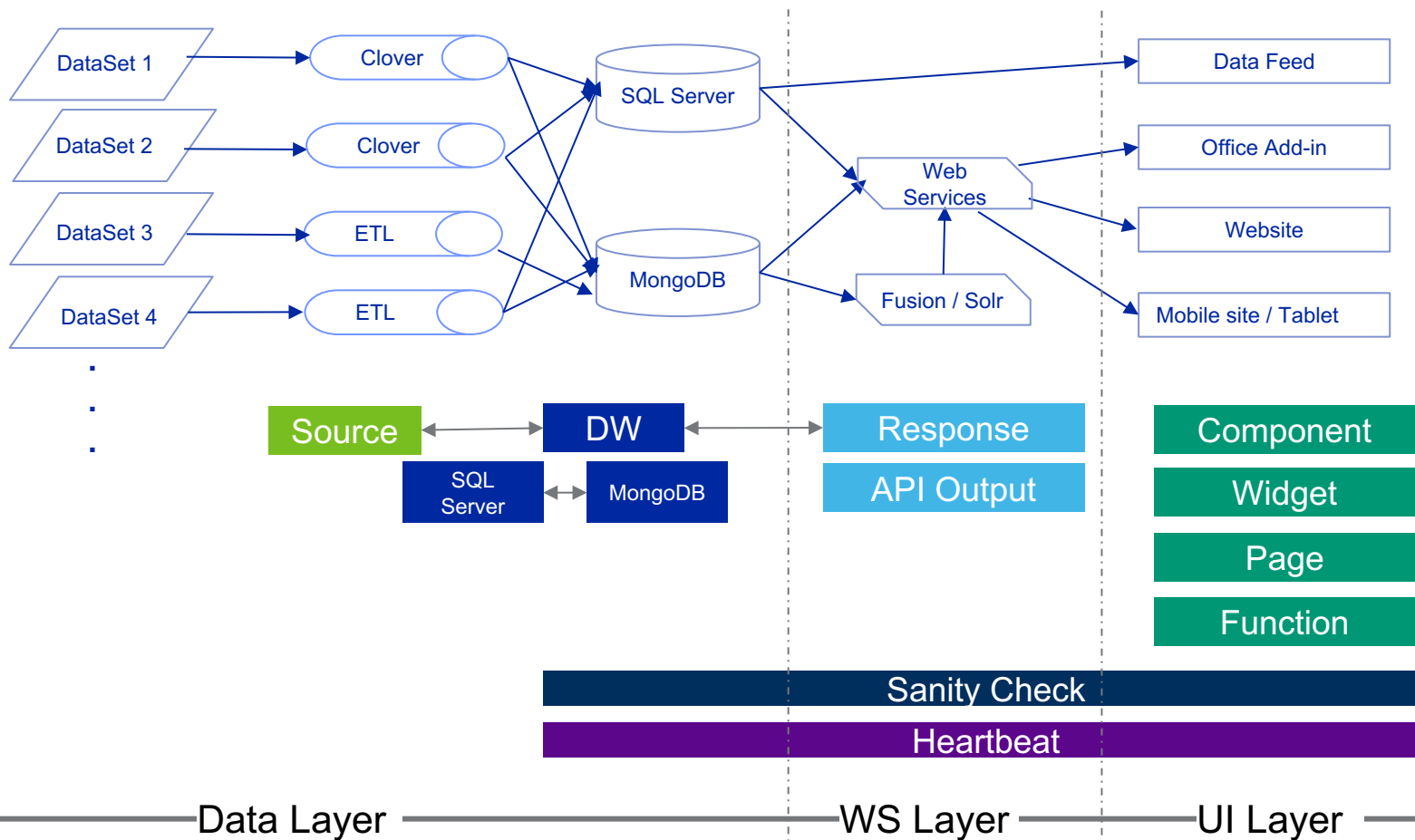


Modern,
Intuitive
Design

What Does It Mean to QA?



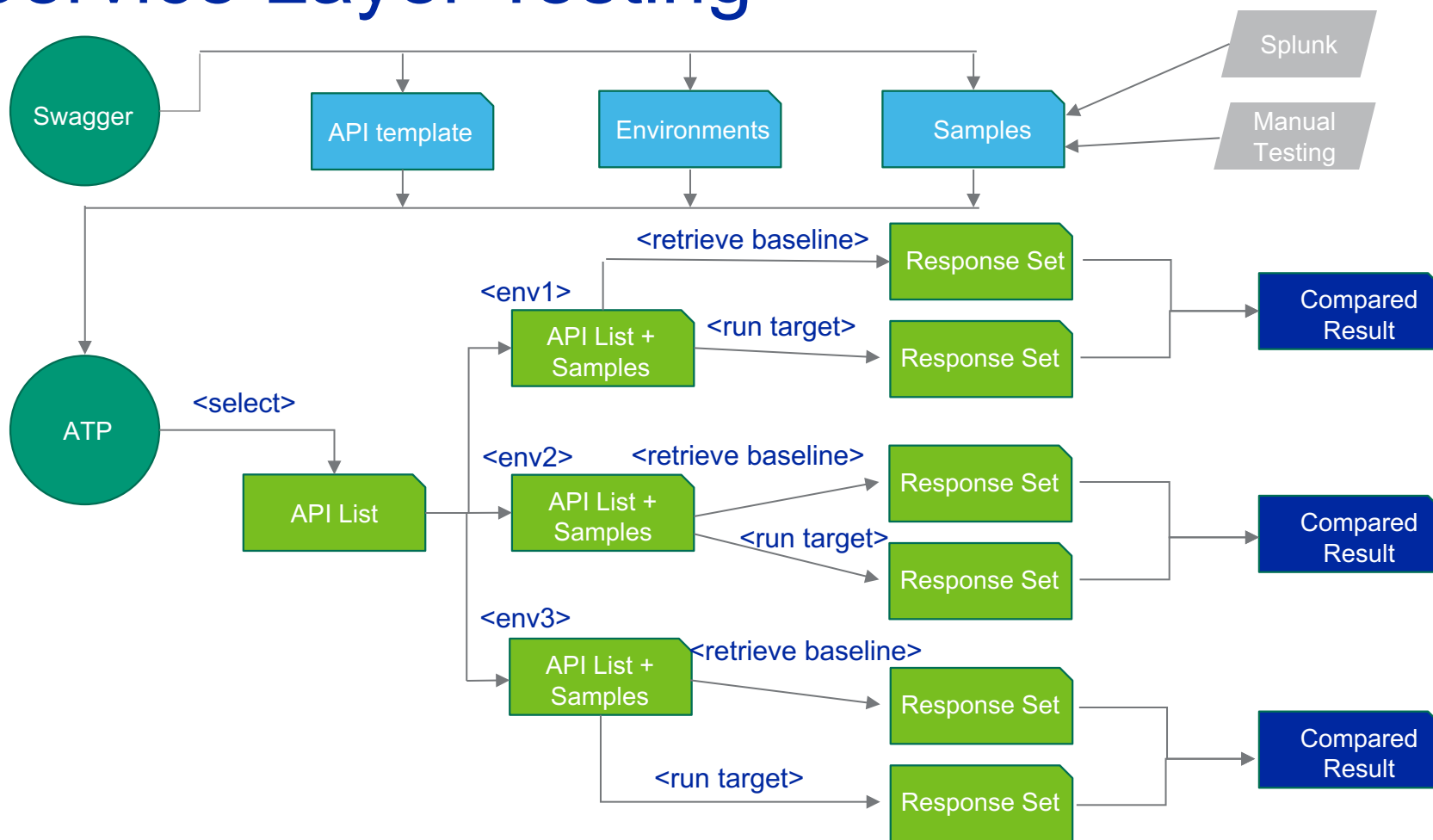
Testing Strategy Overview



Data Layer Validation

- » Comparison based on rows
- » NoSQL → Structured data
- » $\text{Baseline 1} + \Delta N == \text{Baseline 2}$
- » Version A vs Version B
- » Automated testing framework (reporting; scheduling; monitoring etc)

Service Layer Testing



Service Layer Testing

Template

Test Data

Tasks

Compare

Result

Result

3. Response Comparison

Compare Name

cmp_search_search ▾

List Result

Results & Filter

☐ PASSED (7) ☐ FAILED (1) ☐ UNKNOWN (25)

Identity	Result	Comment	Edit	Operations
search Search GetMyRecentSearches#1	PASSED		Edit	Q A B I
search Search SearchOrganizations#1	FAILED	Missing File: /usr/lib/udev/rules.d/60-usb.rules	Edit	Q A B I
search Search TypeAheadBanking#1	PASSED		Edit	Q A B I
search Search SearchSeriesV3#1	UNKNOWN	Missing File: /usr/lib/udev/rules.d/60-usb.rules	Edit	Q A B I

UI Layer-test

Moody's

Neil Mack, CFA

15 - US

15 SERVICE

on

remain

lowing

15 SERVICE

body's

RATINGS

VIEW ALL

LONG TERM RATING

Baa2

Senior Unsecured - Fgn Curr

15 JUN 2018

Not on Watch

SHORT TERM RATING

P-2

Commercial Paper - Dom Curr

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Not on Watch

OUTLOOK

Stable

15 JUN 2018

OTHER DEBTS ON WATCH?

No

Source: Moody's Investors Service

FEEDBACK

```

::after
</div>
▶<div class="cb-row">...</div>
▶<div class="cb-row">...</div>
▶<div class="cb-row">...</div>
▶<div class="cb-row">...</div>
</div>
::after
</div>
▼<div class="cb-col col-right width-right">
  ▼<div class="mdc-app issuer-mis-ratings--widget" data-render="ready">
    ▶<script type="application/json">...</script>
    ▼<div class="w">
      ▼<div class="mis-ratings-container" data-reactroot>
        ▼<div class="mis-ratings">
          ▼<div class="header">
            ▶<div class="left">...</div>
            ▶<div class="right">...</div>
          </div>
          ▼<div class="details">
            ▼<div class="rating clearfix">
              <span data-nep="Label" class="default neptune_LABEL-
                STANDARD_1h3i4">LONG TERM RATING</span> == $0
            </div>
            ▶<div>...</div>
          </div>
          ▶<div class="rating clearfix">...</div>
          ▶<div class="rating clearfix">...</div>
          ▶<div class="rating clearfix">...</div>
        </div>
        ▶<div data-nep="Label" class="source-mis default neptune_block_15yk4
          neptune_LABEL-STANDARD_1h3i4">...</div>
      </div>
    </div>
  </div>

```

Baa2

BOND-IMPLIED RATING

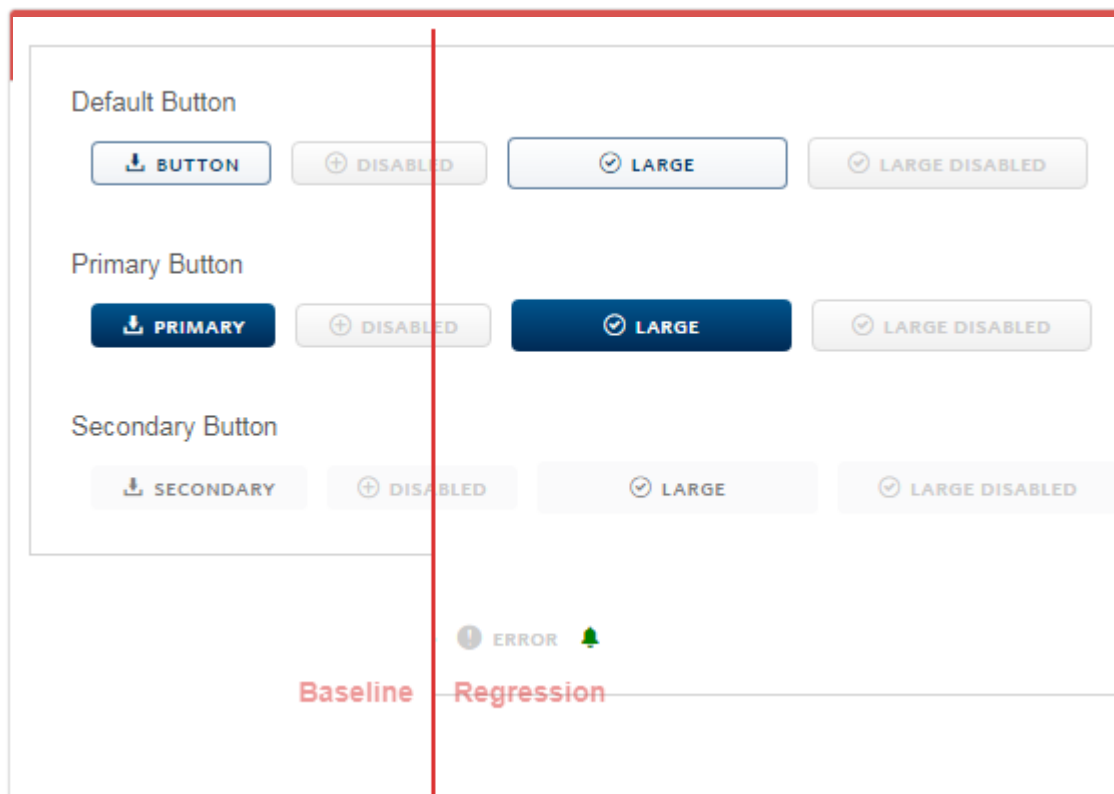
Component Testing

» Testing Strategy

- Take snapshot of component
- Compare with previous one
- Highlight differences

» Benefits

- Testing component specifically
- NO scripting
- Integrated with CI



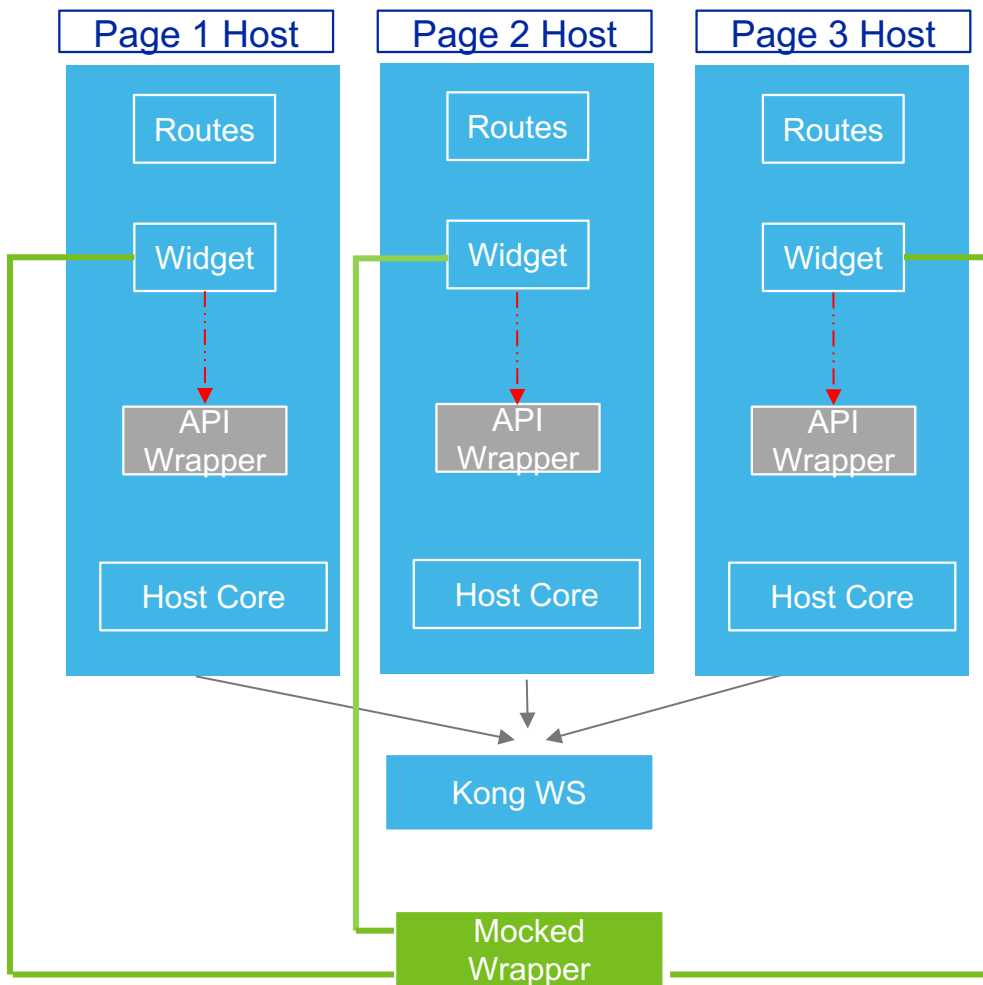
Widget Testing

» Testing Strategy

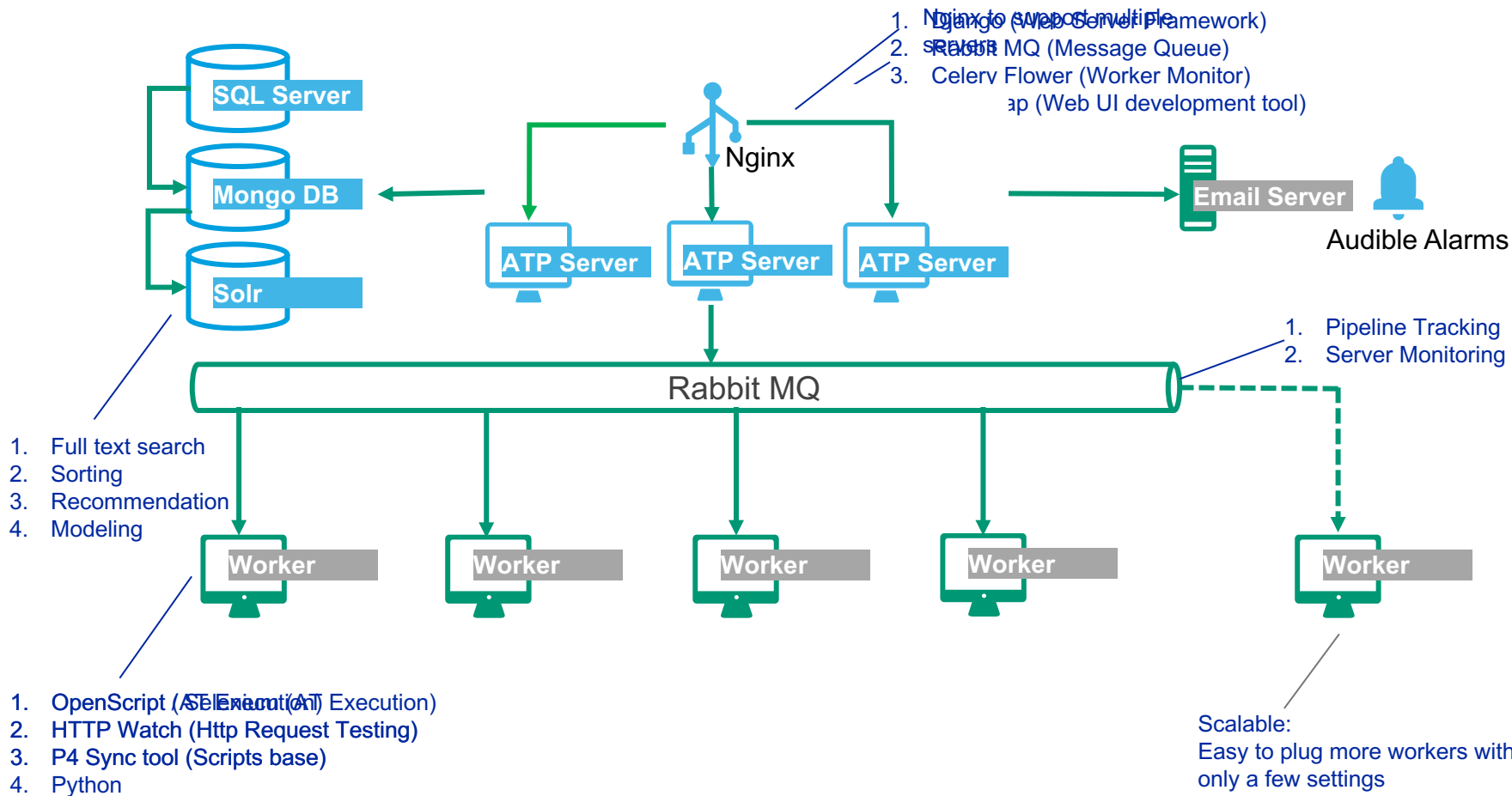
- Mock the wrapper API response
- Take snapshot of the rendered widget
- Compare with previous one

» Benefits

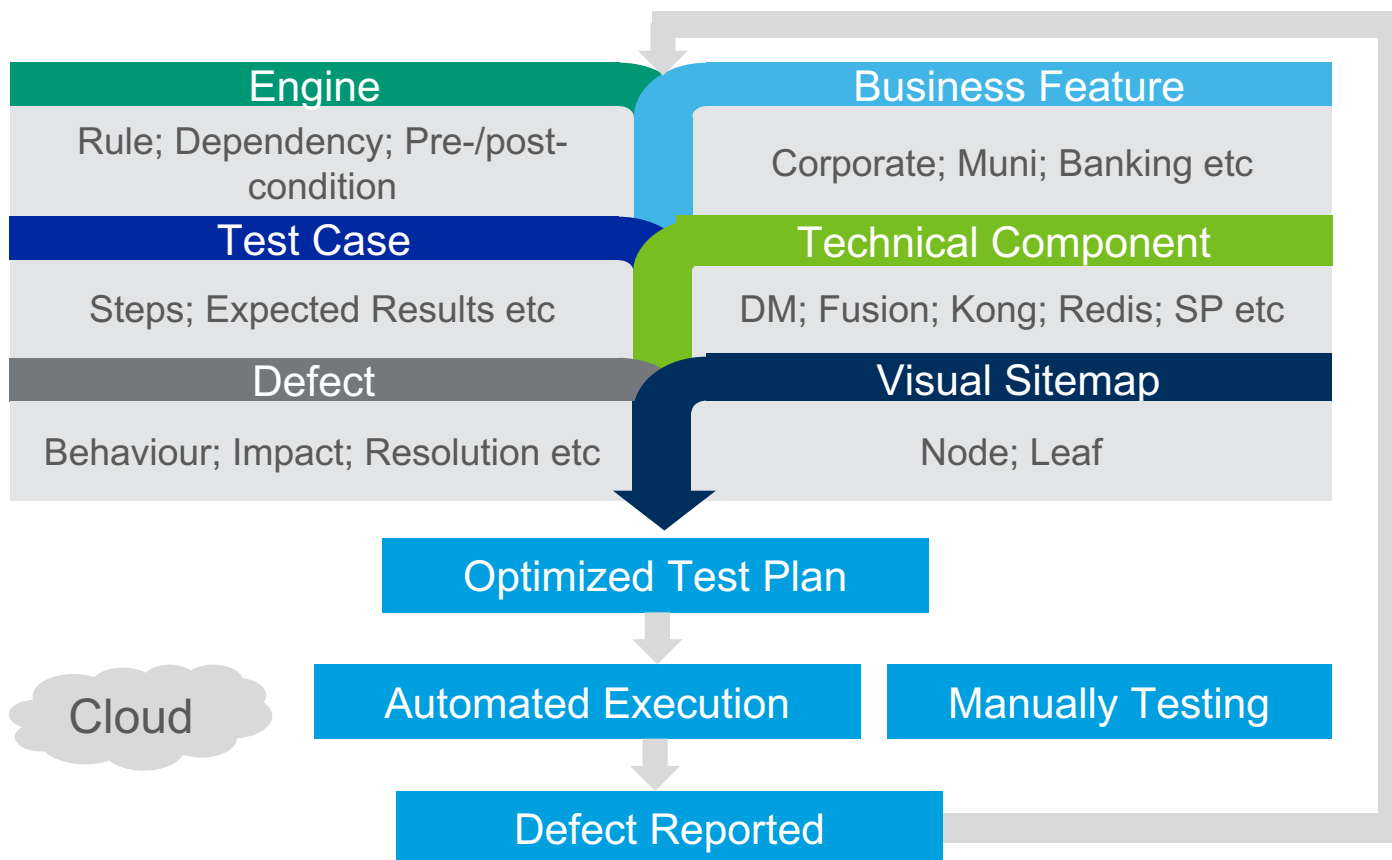
- Testing widget specifically
- Less scripting
- Focus on impacted feature



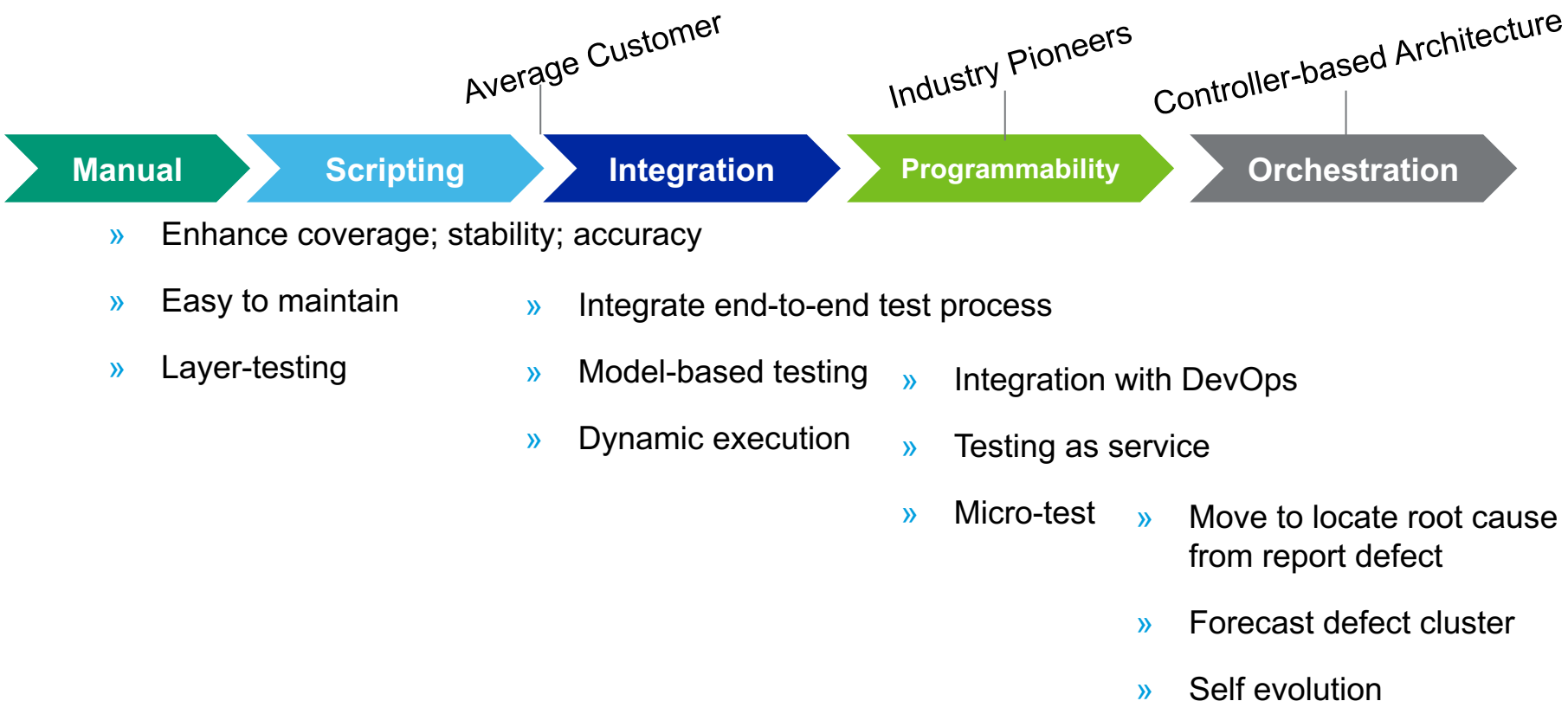
From Scripting to Process Automated



Model-based Testing Cycle



Automated Testing Roadmap





THANK YOU