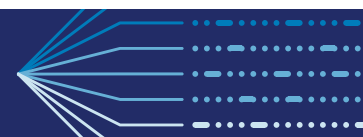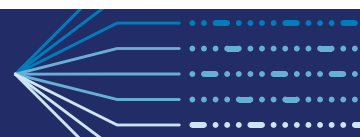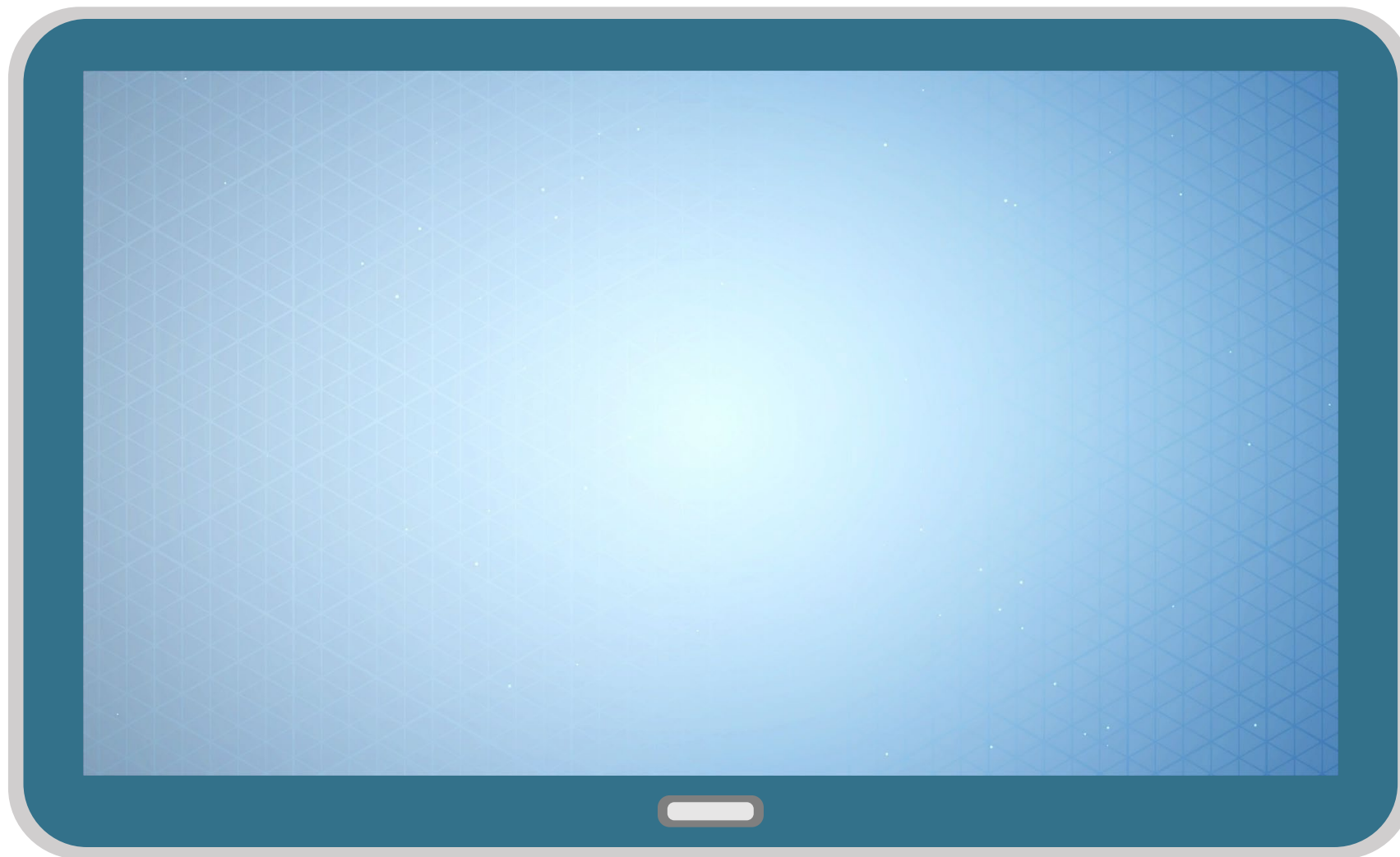# RAPID

(**R**eal World **A**pplication **P**latform for **I**nnovation and **D**evelopment)

Isaac Chang, PhD
Deputy Director, Office of Computational Science
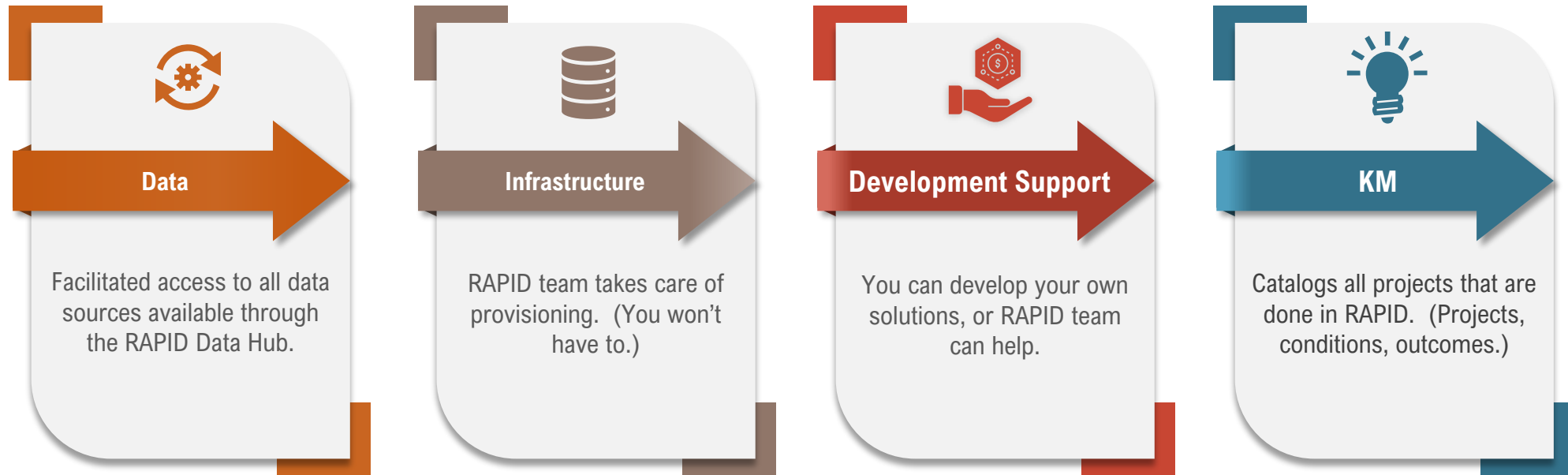**Office of Translational Sciences, CDER, FDA**
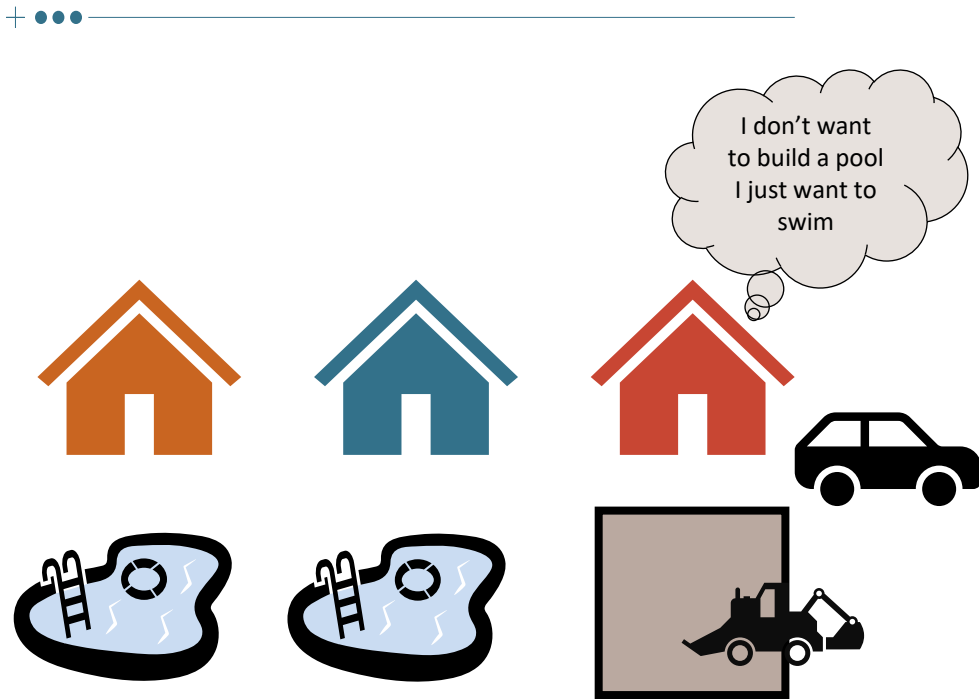
Overview of RAPID

What is RAPID?

- Innovation as a Service (IAAS) platform.
- Experimentation Sandbox <u>and</u> Implementation Environment in the AWS GovCloud.
- Designed to explore data sets, develop and test new analytics.
- Minimizes the barriers to designing analytic solutions by bringing together:

Data

Facilitated access to all data sources available through the RAPID Data Hub.

Infrastructure

RAPID team takes care of provisioning. (You won't have to.)

Development Support

You can develop your own solutions, or RAPID team can help.

KM

Catalogs all projects that are done in RAPID. (Projects, conditions, outcomes.)

New Approach to Building Analytics
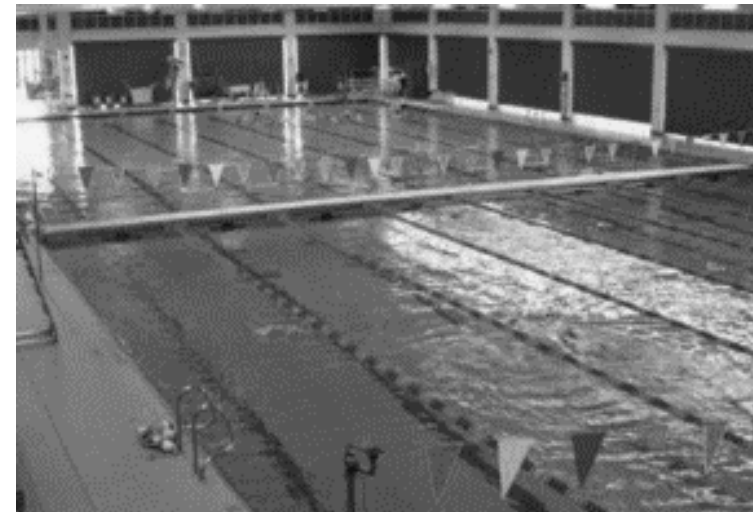
Aquatic Center
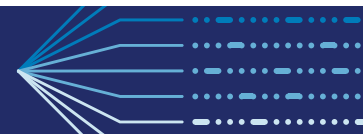
RAPID Architectural View

FISMA Moderate + High

RAPID DataHub

Cloud

On Premise

PostGres

Linguamatics an IQVIA company — ModelOps

R Studio — Qlik Q

jupyter — tableau

R Studio + JAVA

anylogic — aws

Azure — Appian — ORACLE

Data Connections

Data Integrations

Analytics Hub (Managed Services)

Experimental Architecture
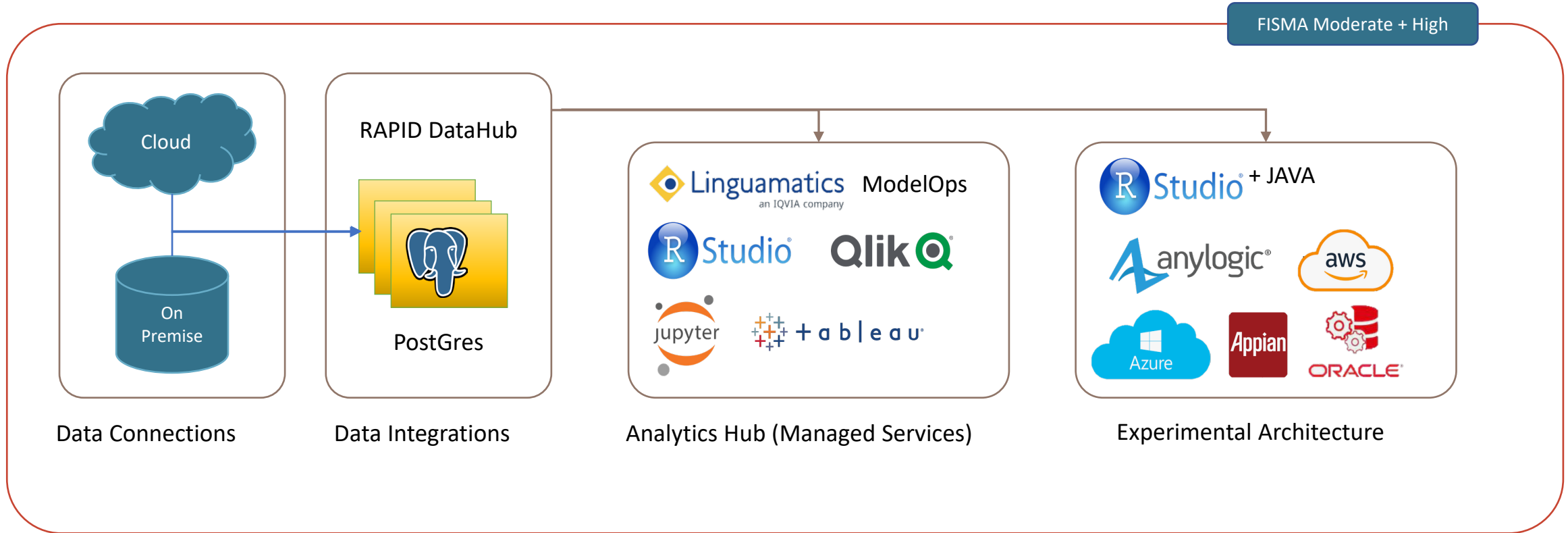
RAPID Functional View

RAPID

Not in RAPID

Concept Development

(An Idea... Not end-to-end)

FEASABILITY

Prototype Development

(Concept + Business Use Case)

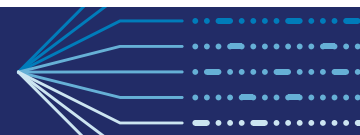**VIABILITY**

Prototype Testing

(Reproducibility + Performance)

SUSTAINABILITY

Operations

ENTERPRISE PRODUCTION

How to Get Started

Intake Process

- Intake of internal projects through the CDER Innovation Board Webpage

- Additional resources available on the RAPID landing page.

Assessment

- Technical Assessment

- Understand Business Need

- Fits the Charter

- Coordinate Timing

Service Level

Self Service

Use the Analytics Hub facilities as-is. Designed for people who need quick access and a place to do their research work.

Facilitated Access

Data connections or custom workspace. Designed for people who need to connect to data or need a configured infrastructure. All other work is done by tenant.

Full Service

RAPID Team builds your concept/prototype.