EVOLVING THE CDE

DISCOVERY KICKOFF

November 2, 2017

18F

THURSDAY, NOVEMBER 2:
## EVOLVING THE CDE

BACKGROUND & GOALS	(10-10:15AM)
REVISITING THE VISION & ROADMAP FOR THE CDE	(10:15AM-11AM)
CONTEXT FOR DECISION MAKING	(11:15AM-12:15PM)
SETTING PRIORITIES FOR DISCOVERY	(1:15-2:15PM)
WHAT IS A DIGITAL ORGANIZATION?	(2:15-3:15PM)
HOW WE'LL WORK TOGETHER	(3:15-3:30PM)

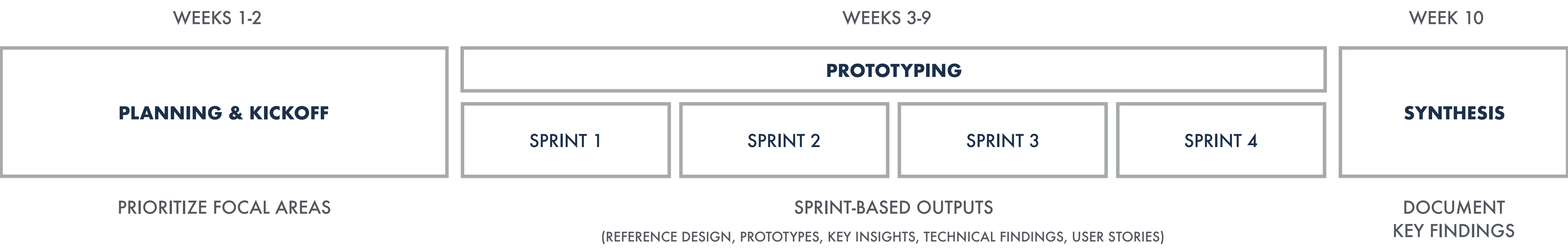**THE GOAL OF THIS DISCOVERY EFFORT IS TO DEFINE HOW THE CDE MAY BE EVOLVED TO MEET STAKEHOLDER & USER NEEDS.** We will work with our Product Owner to define and prioritize opportunity areas to explore, such as expanding the availability of NIBRS in the CDE, and leverage techniques like design thinking and prototyping to shape solutions.

These activities will result in a revised product vision & roadmap that helps align stakeholders and guides future development efforts at CJIS. Since 18F's focus is "future-oriented" it will not deliver new features as part of this scope of work; however, it will provide coaching, knowledge transfer, and other activities to build capacity within CJIS to own and evolve the CDE.

IDEA   BUILD

LEARN   LAUNCH
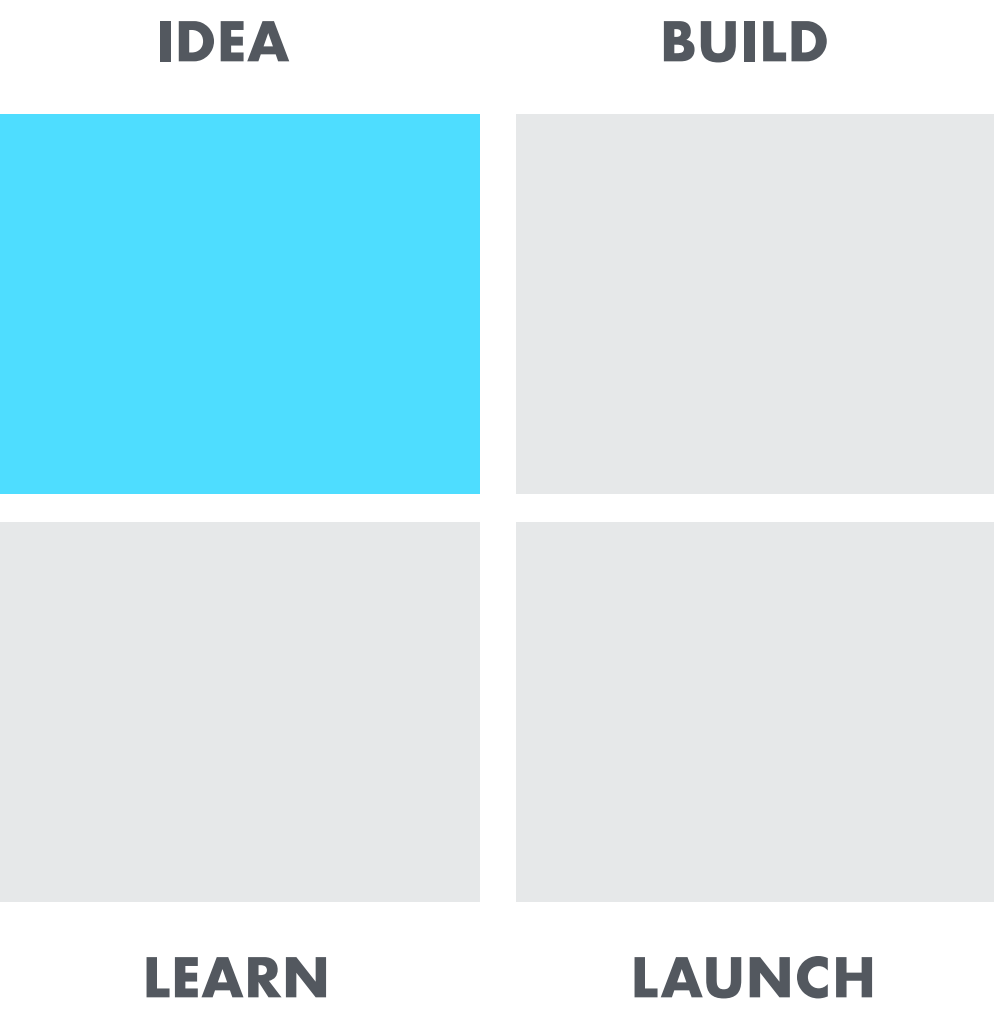
Discovery allows us to quickly explore and iterate on ideas to assess value & feasibility and set direction. In practice this isn't a discrete step that precedes development, rather its a process that you repeat throughout the development process to evolve ideas.

TIMELINE & APPROACH

WEEKS 1-2   WEEKS 3-9   WEEK 10

| PLANNING & KICKOFF | PROTOTYPING | | | | SYNTHESIS |
| | SPRINT 1 | SPRINT 2 | SPRINT 3 | SPRINT 4 | |

PRIORITIZE FOCAL AREAS   SPRINT-BASED OUTPUTS   DOCUMENT
                                                                                             KEY FINDINGS

(REFERENCE DESIGN, PROTOTYPES, KEY INSIGHTS, TECHNICAL FINDINGS, USER STORIES)

- -

DURING WEEKS 1-2 WE WILL REVIEW THE VISION & GOALS FOR THE CDE AND DEVELOP AN INITIAL SET OF HYPOTHESES TO GUIDE PROTOTYPING.

WE'LL ALSO DEFINE TEAM ROLES, RESPONSIBILITIES, AND PROCESSES FOR THE ENGAGEMENT.

THE PRODUCT OWNER WILL DIRECT 18F TOWARDS THE MOST VALUABLE LEARNING OPPORTUNITIES BASED ON THE PRIORITIES THAT EMERGE FROM KICKOFF.

THE TEAM WILL DOCUMENT & SHARE WHAT IS LEARNED FROM EACH SPRINT TO INFORM SUBSEQUENT ITERATIONS.

THE PROJECT TEAM WILL SHARE IT'S KEY LEARNINGS FROM PROTOTYPING AND OFFER RECOMMENDATIONS FOR NEXT STEPS. THESE LEARNINGS WILL INFORM A REVISED PRODUCT BACKLOG & ROADMAP FOR THE CDE.

"DESIGN AND BUILD A CAR THAT
OUR CUSTOMERS WILL LOVE"

**USERS DON'T TELL US WHAT TO BUILD.
THEY HELP US BUILD THE RIGHT THING.**

USER RESEARCH

WHAT KIND OF CAR SHOULD IT BE - SUV, COMPACT, SPORT?

WHAT DEMOGRAPHICS SHOULD WE TARGET?

WHAT FEATURES & CHARACTERISTICS ARE MOST DESIRABLE?

PROTOTYPING

HOW MIGHT WE DESIGN AN EFFECTIVE DASHBOARD?

HOW CAN WE ACHIEVE CERTAIN PERFORMANCE CHARACTERISTICS?

ARE THE NEW TECHNOLOGIES WE WOULD LIKE TO USE VIABLE?

USABILITY TESTING

DOES THE INTERIOR MATCH UP WITH CUSTOMER EXPECTATIONS?

WHAT DO PEOPLE THINK ABOUT THE WAY IT DRIVES - HOW CAN WE IMPROVE?

HOW DOES OUR PRICE POINT COMPETE IN THE MARKETPLACE?

WOULD YOU WANT TO SELL A CAR WITHOUT
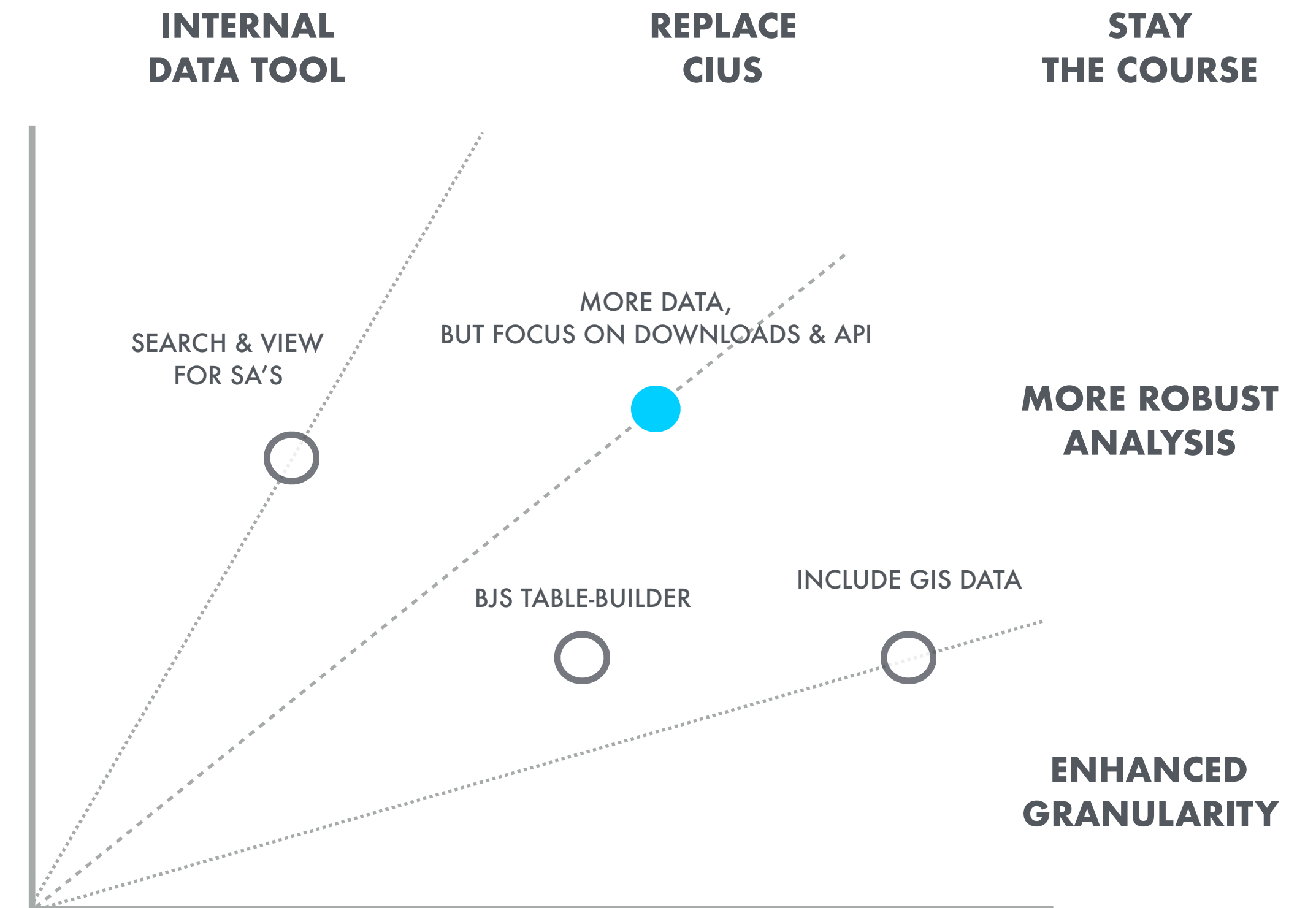KNOWING THE ANSWERS TO THESE QUESTIONS FIRST?

VISION & ROADMAP

QUESTIONS FROM AUGUST, 2017:

IS THE VISION FOR THE CDE STILL TO IMPROVE ACCESS TO UCR DATA? OR SHOULD IT EVOLVE INTO A MORE SPECIALIZED ROLE?

WHAT HAVE WE LEARNED FROM THE MVP?

SHOULD WE STILL FOCUS ON BOTH LAW ENFORCEMENT & THE GENERAL PUBLIC? WHAT ABOUT INTERNAL USERS & THEIR NEEDS?

INTERNAL DATA TOOL   **REPLACE CIUS**   **STAY THE COURSE**

SEARCH & VIEW FOR SA'S

MORE DATA, BUT FOCUS ON DOWNLOADS & API

MORE ROBUST ANALYSIS

BJS TABLE-BUILDER

INCLUDE GIS DATA

ENHANCED GRANULARITY

All of these things are possible, but not all of them are necessary. What trajectory we set depends on the "why" behind the CDE. What are the 1-2 things the CDE should continue to do well?

THE CDE IS THE "DIGITAL FRONT DOOR" FOR THE UCR PROGRAM & THE GO-TO RESOURCE FOR UCR DATA.
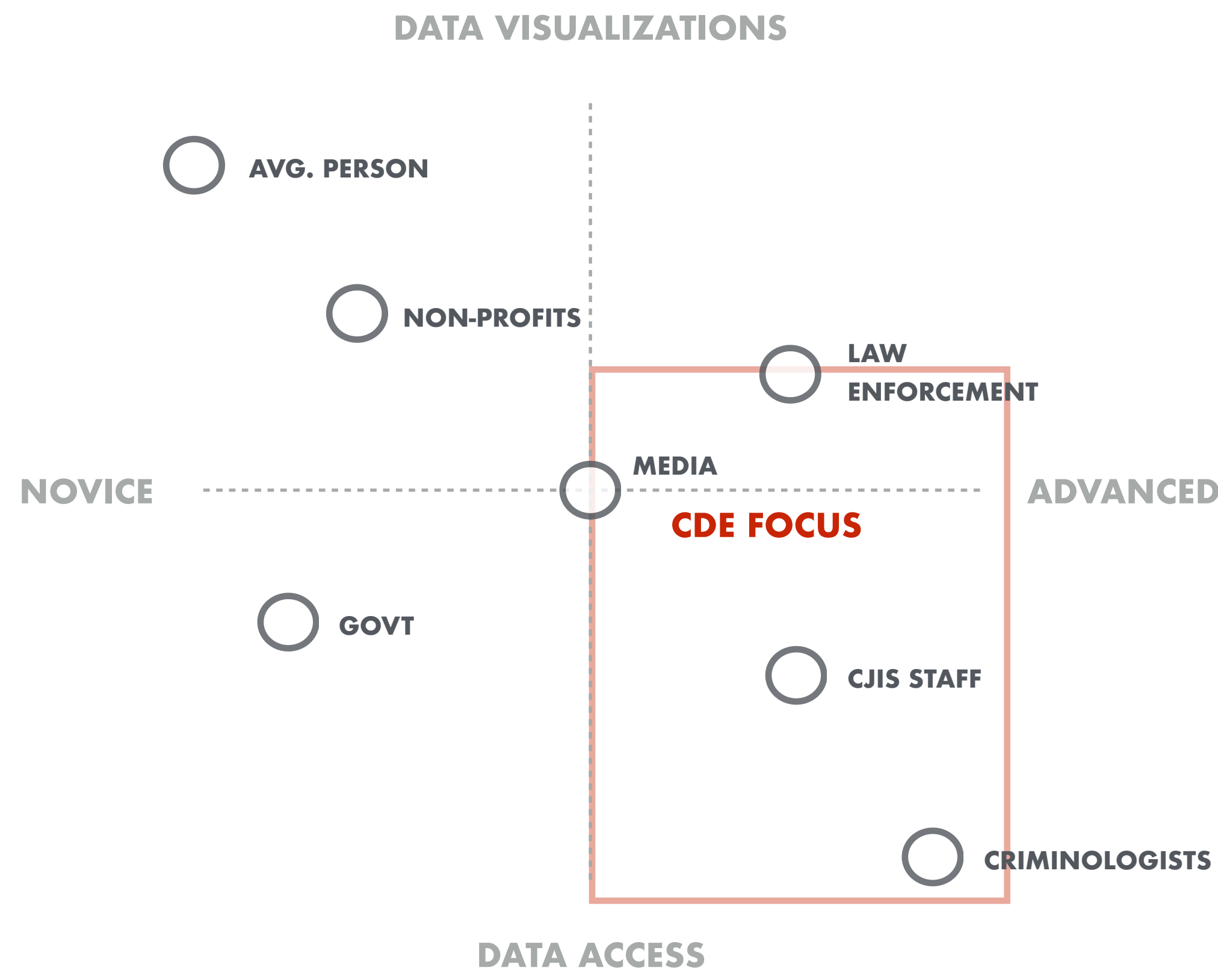
IT PROMOTES PROGRAM MODERNIZATION THROUGH IMPROVED ACCESS TO UCR DATA.

THIS IS WHAT WE ASPIRE THE CDE TO BE. USE THIS STATEMENT TO ALIGN STAKEHOLDERS AND TO GUIDE DECISION MAKING. IT IS YOUR NORTH STAR.
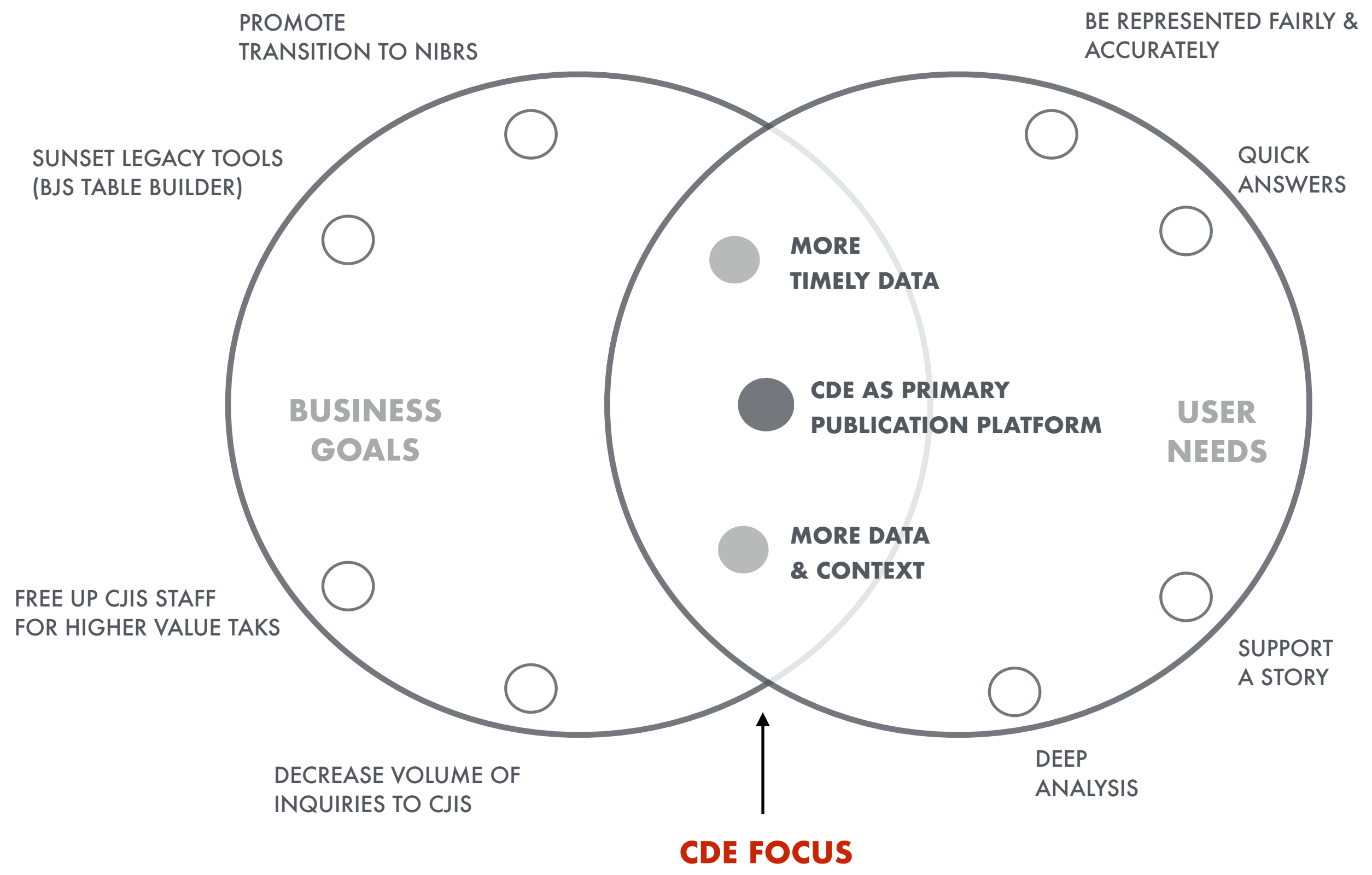
TARGET USERS

HOW USERS DIFFER IN BACKGROUND & PREFERENCES

DATA VISUALIZATIONS

AVG. PERSON

NON-PROFITS

LAW ENFORCEMENT

MEDIA

NOVICE — — — ADVANCED

CDE FOCUS

GOVT

CJIS STAFF

CRIMINOLOGISTS

DATA ACCESS

THEMES & CAPABILITIES

HOW BUSINESS GOALS & USER NEEDS INTERSECT

PROMOTE TRANSITION TO NIBRS

BE REPRESENTED FAIRLY & ACCURATELY

SUNSET LEGACY TOOLS (BJS TABLE BUILDER)

QUICK ANSWERS

MORE TIMELY DATA

BUSINESS GOALS

CDE AS PRIMARY PUBLICATION PLATFORM

USER NEEDS

MORE DATA & CONTEXT

FREE UP CJIS STAFF FOR HIGHER VALUE TAKS

SUPPORT A STORY

DECREASE VOLUME OF INQUIRIES TO CJIS

DEEP ANALYSIS

CDE FOCUS

CDE DIGITAL ROADMAP

PRODUCT VISION: The CDE is the "digital front door" for the UCR program. It promotes program modernization through improved access to UCR data.

|	NOW (2-4 MONTHS)	SOON (3-6 MONTHS)	LATER (6+ MONTHS)
PRODUCT THEMES	● MORE DATA ● ENABLE A DIGITAL ORGANIZATION	● IMPROVED CONTEXT & CAVEATS ● MORE ROBUST ANALYTICAL CAPABILITIES	● IMPROVED GRANULARITY ● MORE TIMELY DATA
STORY CANDIDATES	● Add incident endpoint (expand API) ● Add dimensions for existing NIBRS offenses ● Add new NIBRS offenses to Explorer ● Add SHR dataset for download	● Enable dynamic flagging/footnotes for the data ● Enable trend-based comparisons between states ● Add demographics to complement crime data ● Add a BJS-like table builder for custom queries	● Enable new geographic perspectives of the data, such cities, counties, and regions. ● Allow users to flag potential issues with the data for correction
PROCESS	● Collect feedback on which datasets to add ● Consider prioritizing access to the data via the API & downloads over changes to the interface that require more UI/UX work	● Conduct research to determine if a custom query tool similar to the BJS table-builder is needed, or if pre-generated downloads will suffice	● Decide how to represent non-standard reporting areas, like cities, responsibly ● Explore opportunities for tighter integration between CDE and New UCR to facilitate more regular updates
ORGANIZATION	● Establish a cross-functional digital team that is fully dedicated to the CDE. Hire UI/UX help ● Seek out agile & product owner training ● Start building a culture that embraces more widespread use of agile & open source	● Work with the publication team to develop a mechanism and process for mapping annotations with specific agencies & years	● Consider collecting more GIS information from LEA's to improve the granularity of the data available. ● Explore reforms to the UCR program that improve the volume and quality of the data available to the CDE.

BREAK

CONTEXT

WE DELIVERED AN INITIAL OFFERING, OR MVP, THAT IMPROVES ACCESS TO UCR DATA.
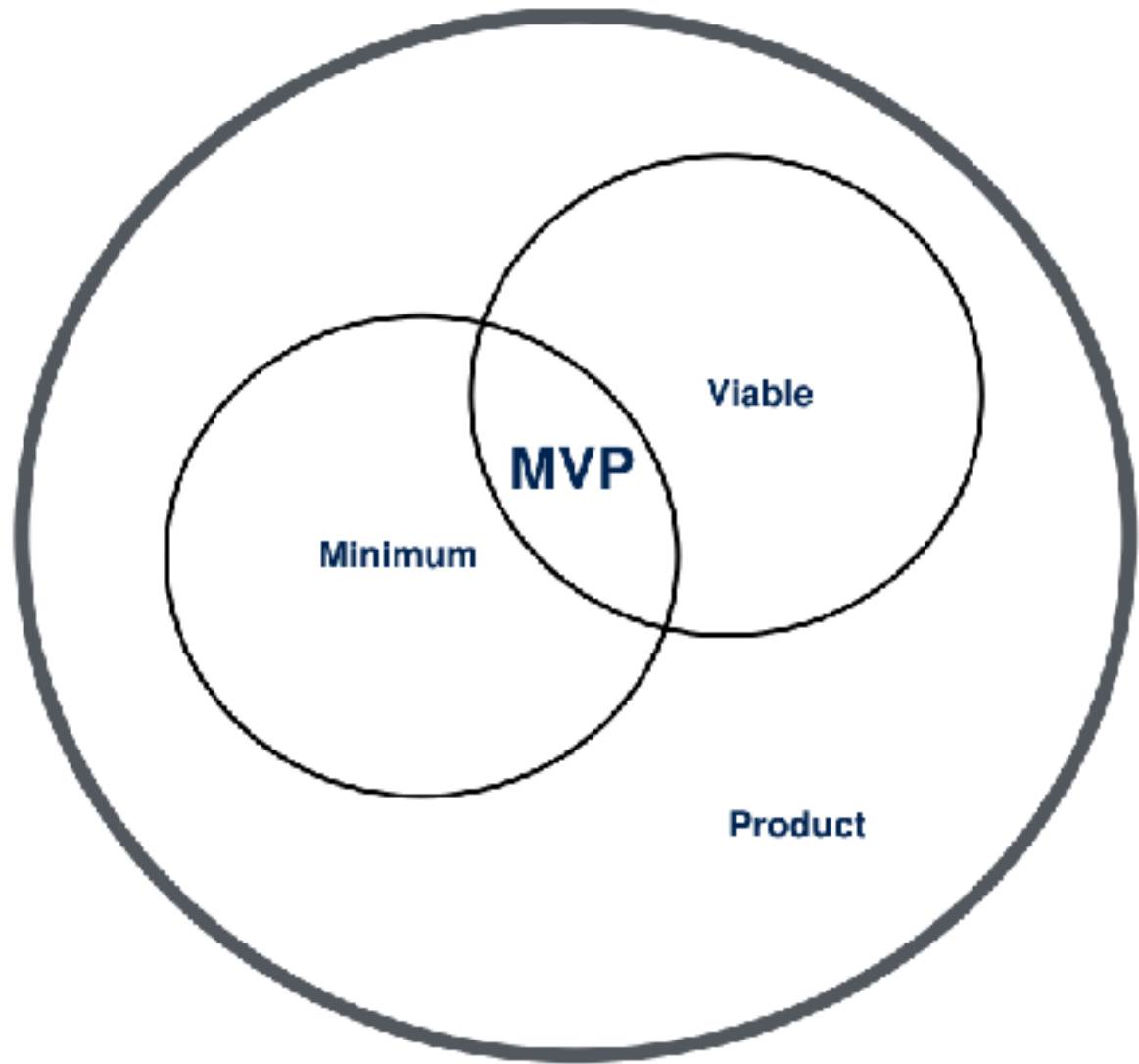
AN MVP IS A START, NOT AN END. IT IS MEANT TO VALIDATE DIRECTION AND INFORM NEXT STEPS.

Providing multiple pathways to the data via the CDE

WEB INTERFACE

DOWNLOADS

API
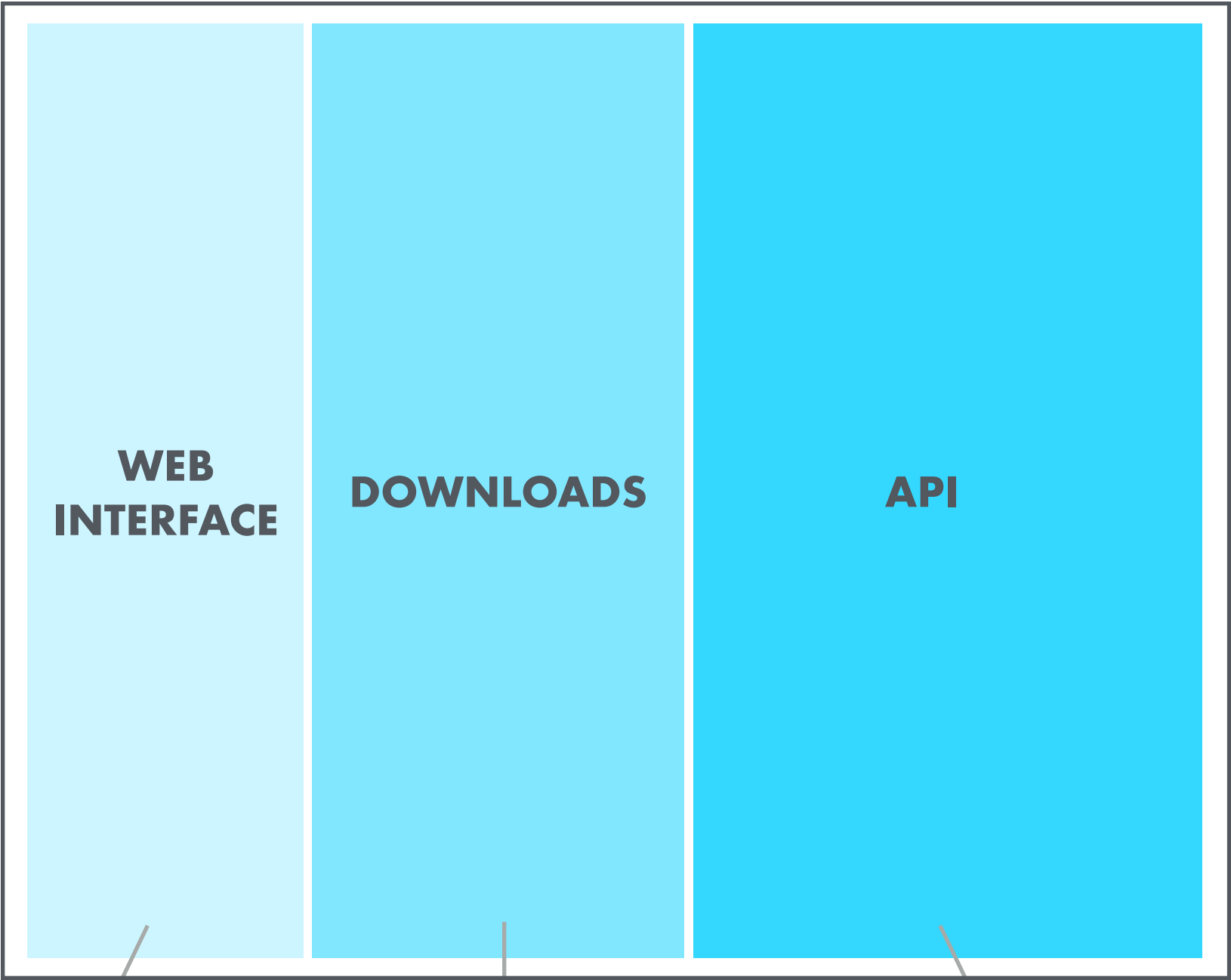
National, state, local trends. Limited to major SRS & NIBRS offenses.

Major & minor incident data by state & year. Some specialized datasets, like arrests.

Promotes the broadest access to the data, but is aimed at more technical audiences. Lacks capability to query individual incidents.

DO ONE THING WELL

A GOOD PRODUCT HAS FOCUS. For the CDE that means providing broad access to UCR data; it is not a dedicated tool for data analysis or visualization.

MEET USERS WHERE THEY ARE

OUR USERS HAVE A RANGE OF NEEDS & PREFERENCES. To serve these different groups we provide multiple pathways to the data, such as a web interface, downloads, and an API, rather than attempt a "one-size fits all" approach.

BE INTERESTING, BUT RESPONSIBLE

ORIENT & GUIDE PEOPLE TO THE DATA, BUT LET THEM DRAW THEIR OWN CONCLUSIONS. A persistent challenge for us was striking a balance between presenting information in a way that was engaging to the public, while staying true to the FBI's reporting standards.
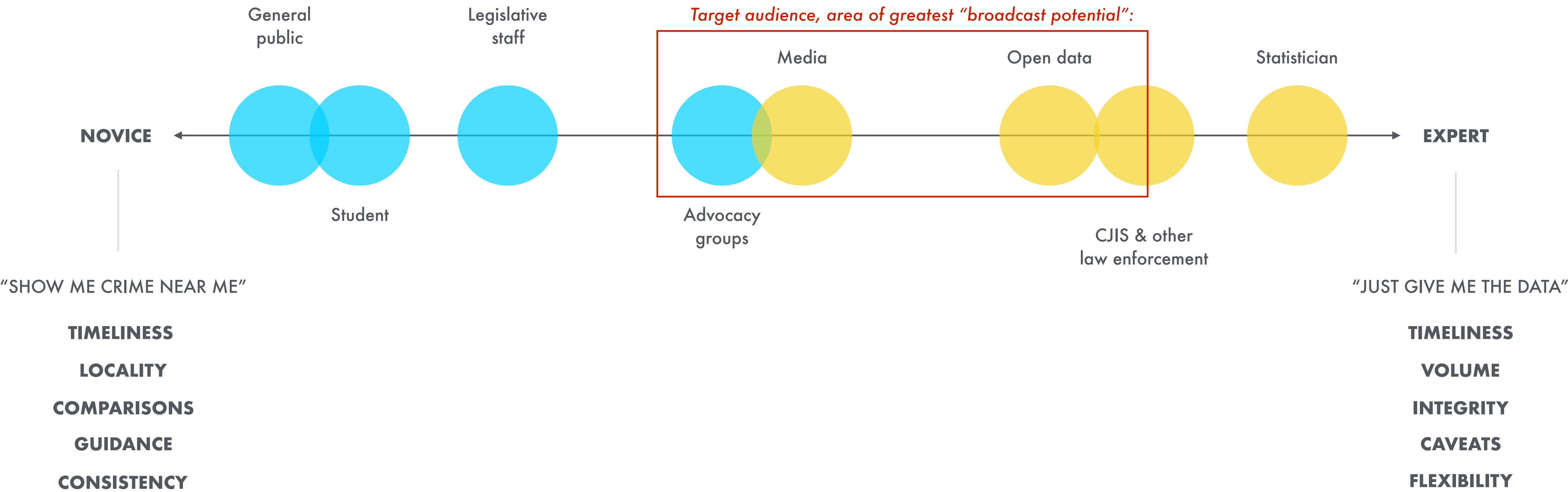
PROVIDE A CONSISTENT EXPERIENCE

USERS DON'T UNDERSTAND THE NUANCES OF THE UCR PROGRAM, LIKE THE DIFFERENCE BETWEEN SRS & NIBRS. We sought to minimize these differences by centering the web experience around a common set of crime types and maintaining a similar look and feel regardless of the data type being displayed.
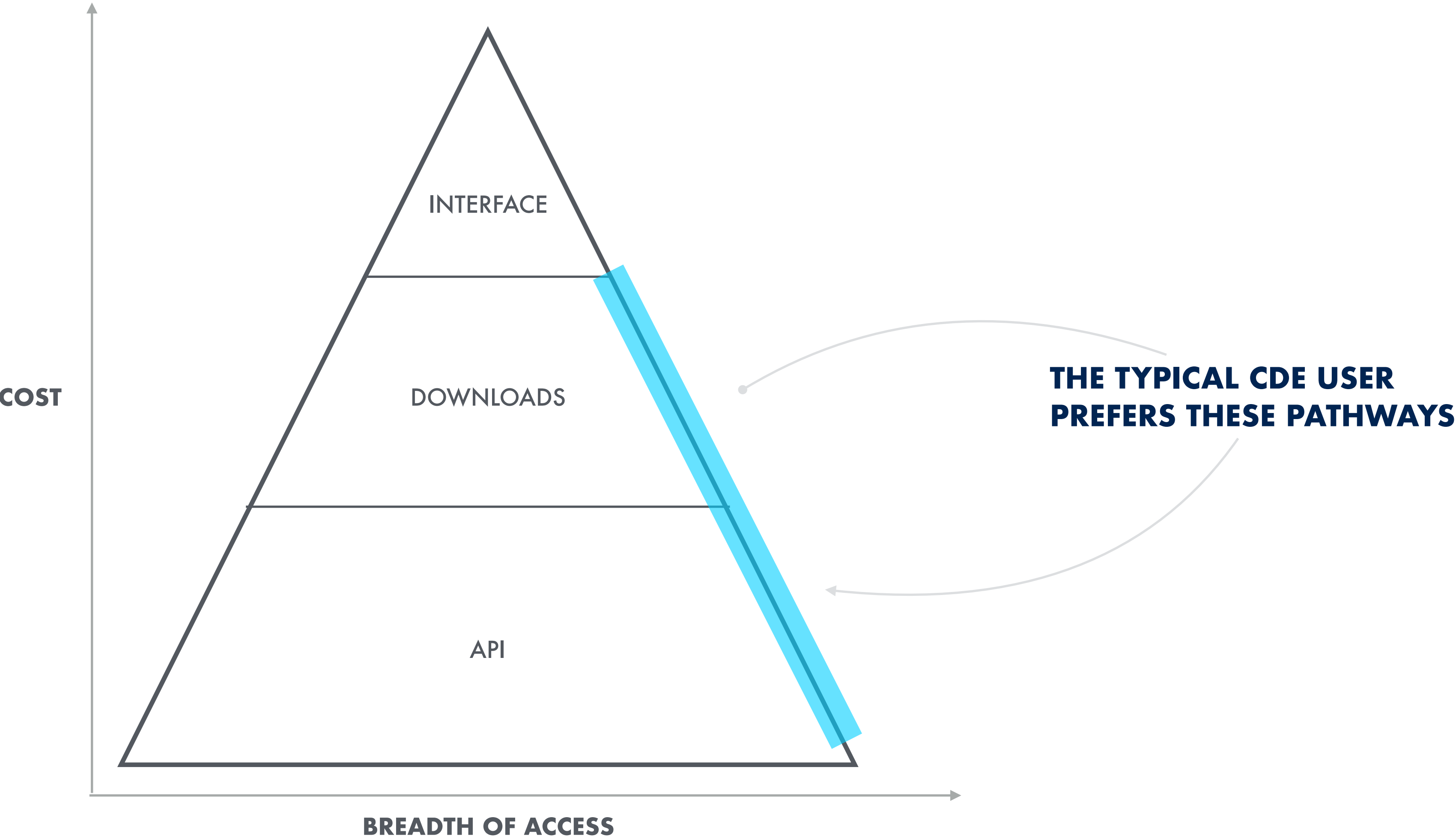
INSPIRE TRUST

THE CDE IS AN EXTENSION OF THE FBI BRAND. We sought to build trust in the CDE by explaining how the data should be used and what its limitations are. Similarly, we prioritized usability, performance, and data integrity over expanded functionality.

RESEARCH SUGGESTS THAT THE TYPICAL CDE USER IS FAMILIAR WITH THE UCR PROGRAM AND OR WORKING WITH OPEN DATA. SIMILAR TO THE "NOVICE" THEY VALUE CONTEXT, BUT PREFER TO WORK WITH THE DATA IN ITS PRIMARY FORM - FAVORING DOWNLOADS & THE API OVER THE INTERFACE.

General public

Legislative staff

Target audience, area of greatest "broadcast potential":

Media

Open data

Statistician

NOVICE ← → **EXPERT**

Student

Advocacy groups

CJIS & other law enforcement

"SHOW ME CRIME NEAR ME"

"JUST GIVE ME THE DATA"

TIMELINESS

LOCALITY

COMPARISONS

GUIDANCE

CONSISTENCY

TIMELINESS

VOLUME

INTEGRITY

CAVEATS

FLEXIBILITY

MEETING USERS WHERE THEY ARE: "PYRAMID OF COST"

COST

INTERFACE

DOWNLOADS

API

BREADTH OF ACCESS

THE TYPICAL CDE USER
PREFERS THESE PATHWAYS

THE CDE IS A FUNDAMENTALLY DIFFERENT APPROACH TO PRESENTING UCR DATA

Data is segmented by crime type and published as trends over time, rather than by year.

The CDE provides perspectives, such as agencies, that aren't available in CIUS.

The presentation of the data is influenced by CDE-specific interpretations of concepts like participation and coverage.

IT'S NOT A 1:1 REPLACEMENT FOR CIUS, IT'S AN OPPORTUNITY TO IMPROVE HOW UCR DATA IS PUBLISHED

The current table types published by CIUS are problematic and a primary reason why the CDE was built in the first place.

The CDE & the CIUS reports will never match exactly for a variety of reasons that include mismatched reporting periods post processing & adjustments.

WHAT IS THE VALUE OF FOCUSING ON NIBRS WHEN IT ONLY COVERS 30% OF THE POPULATION?

HOW DO WE PROVIDE A CONSISTENT USER EXPERIENCE GIVEN THE SRS/NIBRS DIVIDE?

WHAT OPPORTUNITIES EXIST FOR MORE MEANINGFUL GROUPINGS OF DATA - I.E., CITIES, COUNTIES?

WHAT CONTENT IS MOST VALUABLE TO MIGRATE FROM CIUS?

HOW MIGHT THE CDE CHANGE HOW WE PUBLISH UCR DATA GOING FORWARD?

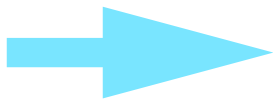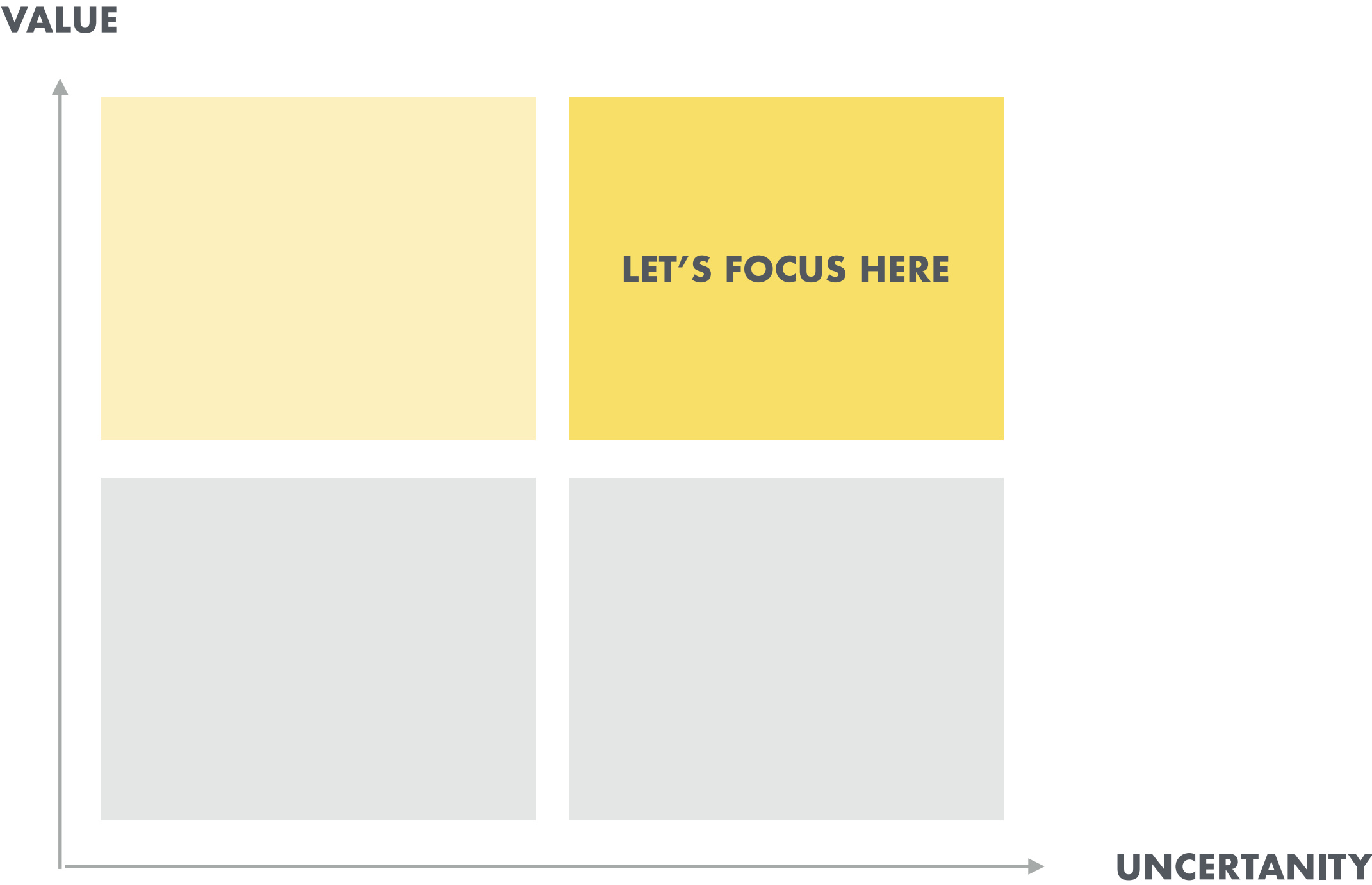HOW CAN WE USE FEEDBACK FROM THE CDE TO INFORM CHANGES TO THE NIBRS STANDARD?

WHAT IS THE PLAN FOR FULLY STAFFING THE CDE PRODUCT TEAM?

SETTING PRIORITIES FOR DISCOVERY

TODAY

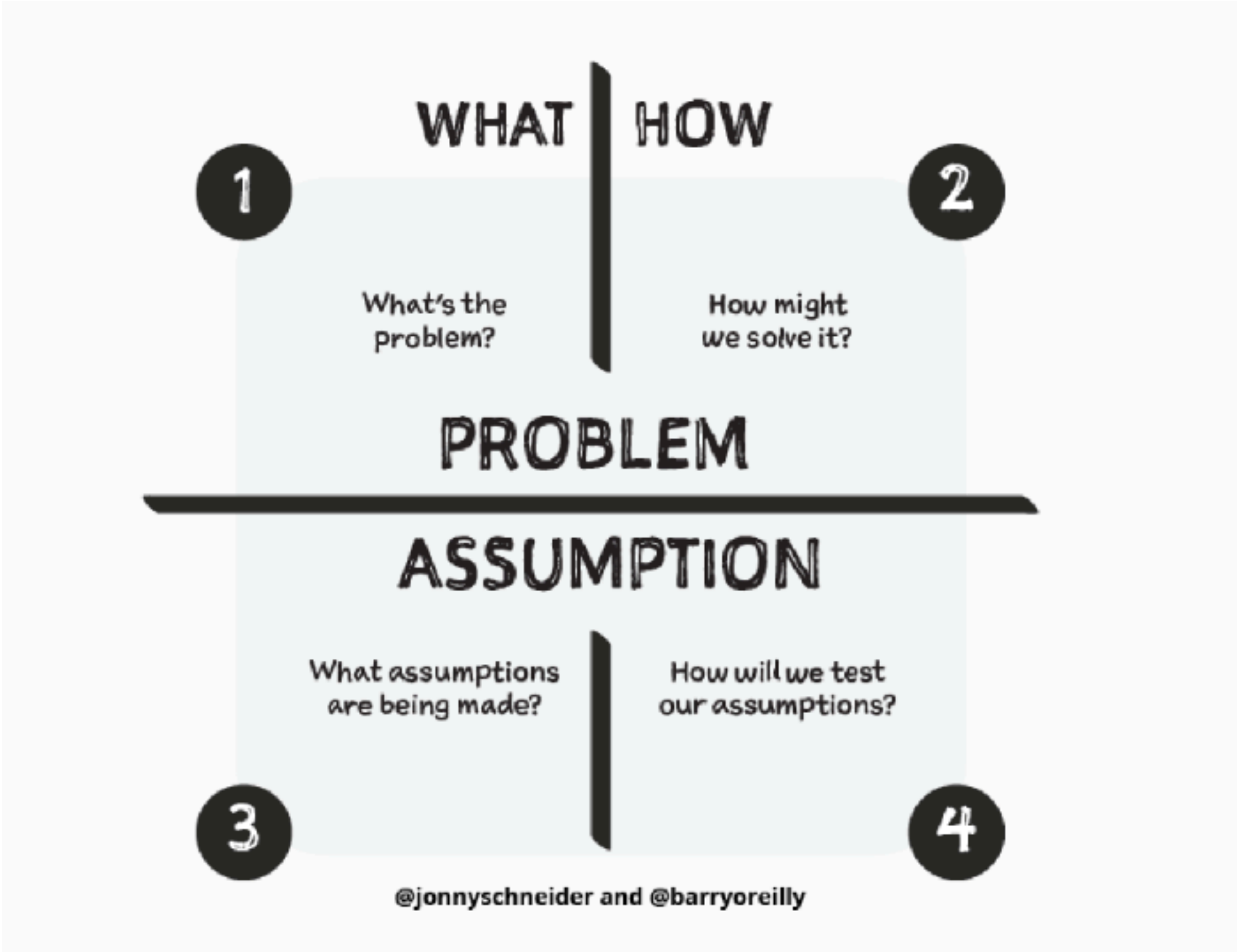### SET DIRECTION, IDENTIFY FOCAL AREAS

VALUE

LET'S FOCUS HERE

UNCERTANITY

➡ MURAL LINK HERE:

NEXT WEEK

DEFINE PROBLEM & ASSUMPTIONS

WHAT | HOW

1 What's the problem?

2 How might we solve it?

PROBLEM

ASSUMPTION

3 What assumptions are being made?

4 How will we test our assumptions?

@jonnyschneider and @barryoreilly

LUNCH!
(or breakfast for the west coast)

ENABLING A DIGITAL ORGANIZATION

OUR GOAL IS TO HELP OUR PARTNERS EVOLVE WHEN IT COMES TO USING TECHNOLOGY TO FURTHER THEIR MISSION.

THE BEST WAY OF ENABLING THIS CHANGE IS BY DOING THE WORK TOGETHER AND BY CREATING ADVOCATES FOR NEW WAYS OF THINKING & DOING.

New ways of engaging with the public; different types of inquiries

More transparency around the program, errors & limitations are more visible

New internal workflows, methods, and responsibilities

PRODUCT **CHANGE**

Improves access to data collected by the UCR program

Provides a foundation for further UCR modernization and new publication strategies

Improves access to law enforcement & the general public by offering multiple pathways to the data

Exposes the FBI to new ways of working, influencing future builds and buys, as well as internal policies

PRODUCT-CENTRIC

BRINGS A PRODUCT-BASED MINDSET TO TECHNOLOGY EFFORTS THAT FOCUSES ON BUILDING THE RIGHT THINGS FOR THE RIGHT PEOPLE; PRIMARILY CONCERNED WITH SOLVING THE RIGHT PROBLEM, RATHER THAN JUST DELIVERING ON TIME & AND ON BUDGET.

RESPONSIVE

REGULARLY ENGAGES STAKEHOLDERS & USERS FOR FEEDBACK; VALUES BOTH QUALITATIVE & QUANTITATIVE DATA POINTS WHEN MAKING DECISIONS; PROMOTES FLEXIBILITY OVER A FIXED PLAN.

EXPERIMENT-DRIVEN

TAKES A HYPOTHESIS-BASED APPROACH TO DEVELOPING NEW TECHNOLOGY; USES PROTOTYPING & SIMILAR PRACTICES TO RAPIDLY EXPLORE & ITERATE ON IDEAS BEFORE COMMITTING TO A DIRECTION.

TRANSPARENT

PROMOTES COMMUNICATION & COLLABORATION ACROSS TEAMS; SHARES WORKS IN PROGRESS WITH THE PUBLIC; LEVERAGES OPEN SOURCE WHEN APPROPRIATE.

PROACTIVE

HAS A CLEAR VISION FOR HOW TECHNOLOGY ENABLES THE ORGANIZATION; DEVELOPS DIGITAL CAPABILITIES AS PART OF A BROADER STRATEGY, RATHER THAN AS A REACTION TO EVENTS.

HOW
WE'LL WORK

TOOLKIT

COMMUNICATION PLAN & CADENCE

*ROLES & RESPONSIBILITIES

OTHER CONSIDERATIONS

ACTION ITEMS & NEXT STEPS

PRODUCT OWNER

HAS A PLAN,
TRYING TO GET STUFF DONE,
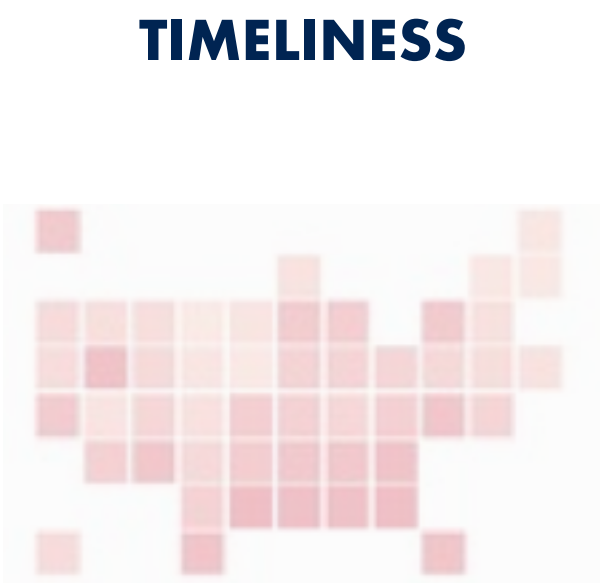FIGHTS CRIME/STAKEHOLDERS

18F TEAM
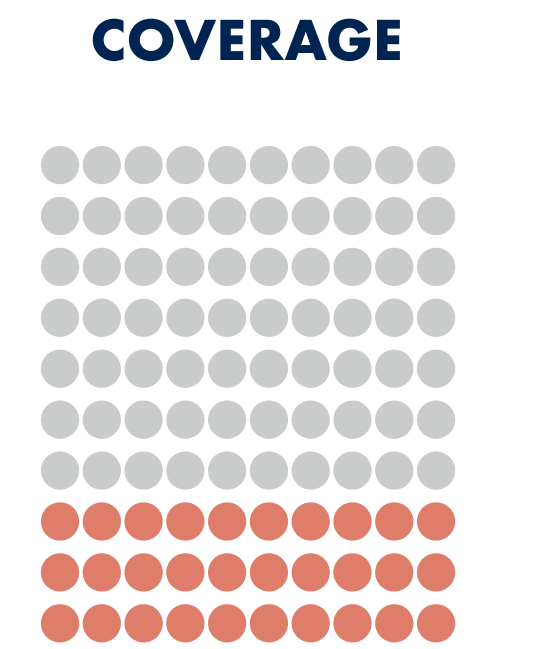
SERVING & ASSISTING,
TRUSTED ADVISOR,
READY TO HELP

APPENDIX

"WE NEED MORE **TRANSPARENCY** IN LAW ENFORCEMENT & BETTER, **MORE INFORMED** CONVERSATIONS ABOUT CRIME."
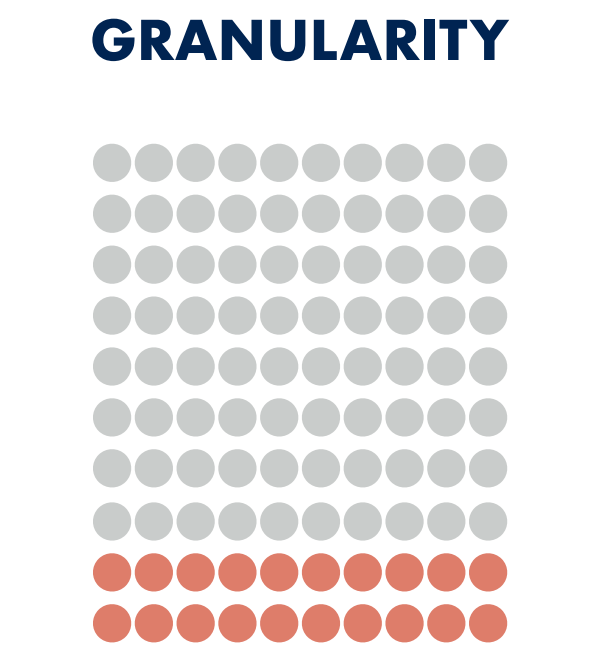
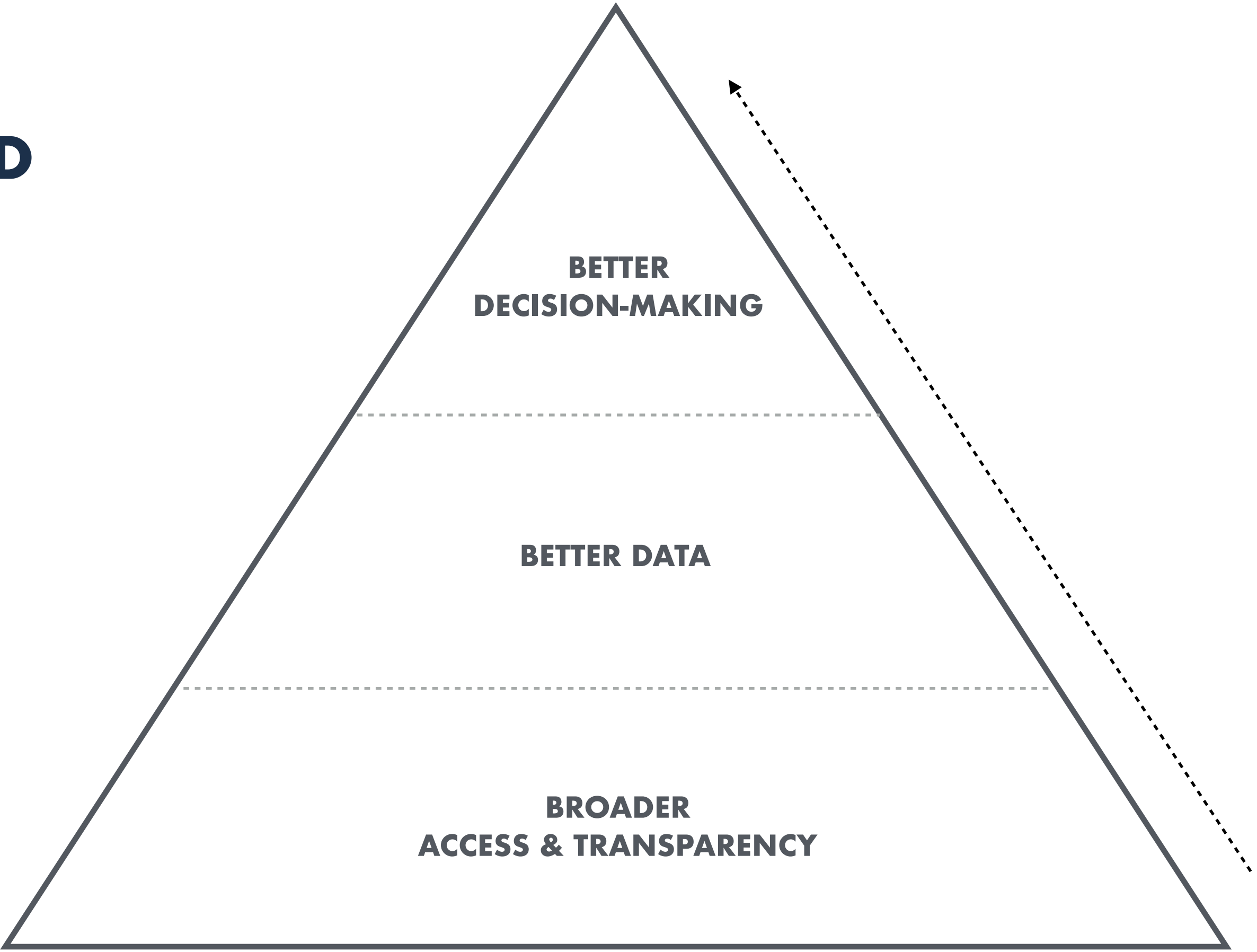-FBI DIR. COMEY, 2015

CURRENT STATE OF UCR PROGRAM:

TIMELINESS

COVERAGE

GRANULARITY

TAKES UP TO 2 YEARS TO PUBLISH THE DATA

ONLY 30% OF POPULATION COVERED BY NIBRS

ONLY 20% OF U.S. LARGEST CITIES COVERED BY NIBRS

BETTER DECISION-MAKING

BETTER DATA

BROADER ACCESS & TRANSPARENCY

PROBLEM SPACE VS. SOLUTION SPACE

START HERE

WHY

WHAT

HOW

NOT HERE