CORRECTIONS TECHNOLOGY ASSOCIATION

The Gateway to Innovation

Agile Implementation of an Offender Management System

Indiana Project Delta   ⋮   5/13/2022

Agile System Implementation

Method	Concepts	Results
Principles	The Sprint	Work Product
People	Analysis	Build
Technology	Backlog	Status

Perspectives from the Indiana Team

Indiana Department of Correction

Mi-Case

Agile Method

Agile and Waterfall Method Comparison

Waterfall

Requirements upfront and less time to refine

Little to no feedback during requirements

End users engaged at beginning and end

Durations based on estimates

Agile

Refining requirements throughout

Product iterates improvement

End users engaged throughout

Durations based on experience

Agile Method: Principles 1 - 6

Working software is the primary measure of progress.

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Continuous attention to technical excellence and good design enhances agility.

Simplicity—the art of maximizing the amount of work not done—is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Agile Method: Principles 7 - 12

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
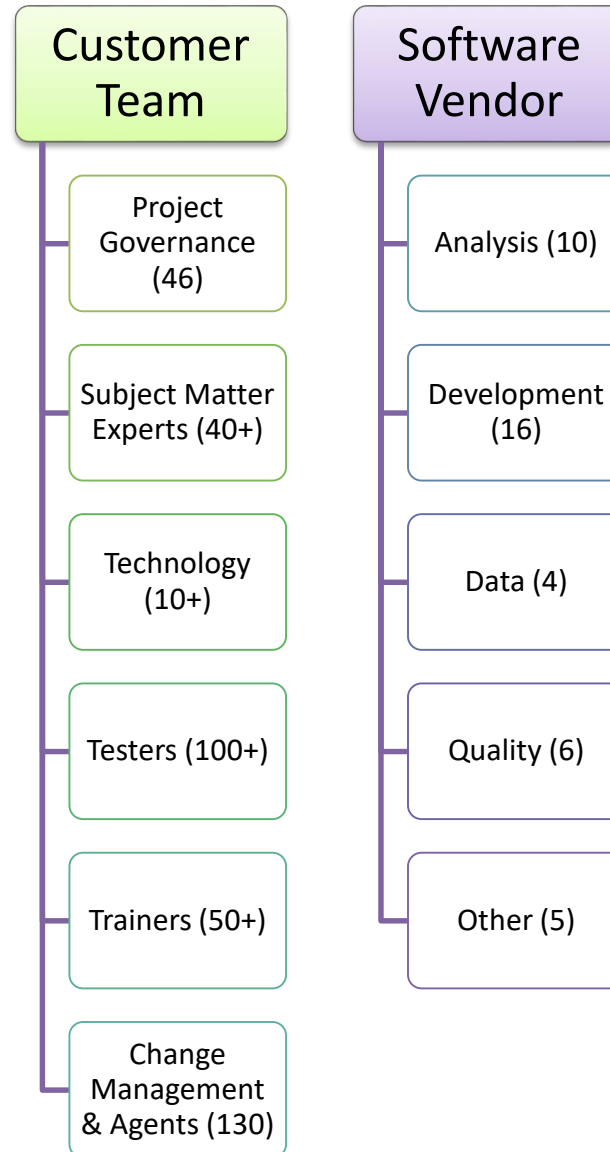
Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

Business people and developers must work together daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

Agile Method: People

Customer Team

- Project Governance (46)
- Subject Matter Experts (40+)
- Technology (10+)
- Testers (100+)
- Trainers (50+)
- Change Management & Agents (130)

Software Vendor

- Analysis (10)
- Development (16)
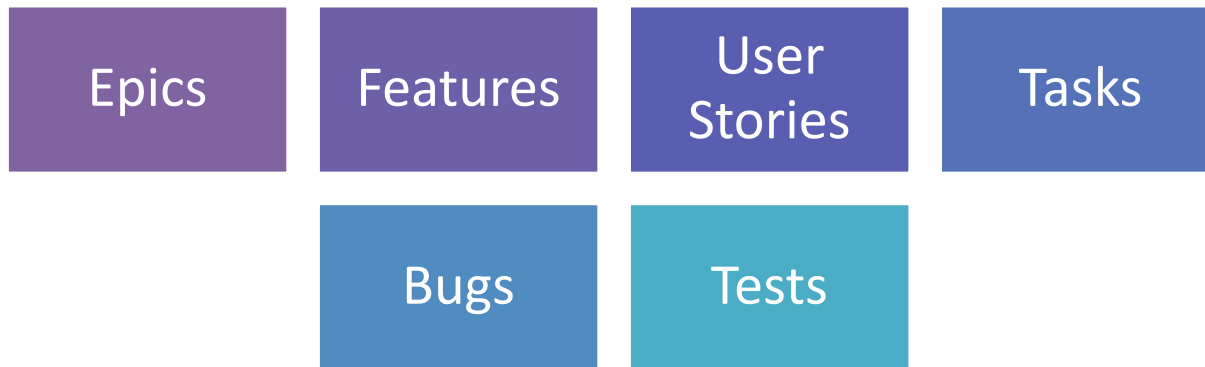- Data (4)
- Quality (6)
- Other (5)

Agile Method: Technology

Azure DevOps provides developer services for allowing teams to plan work, collaborate on code development, and build and deploy applications.

11,400+ records in 15 months

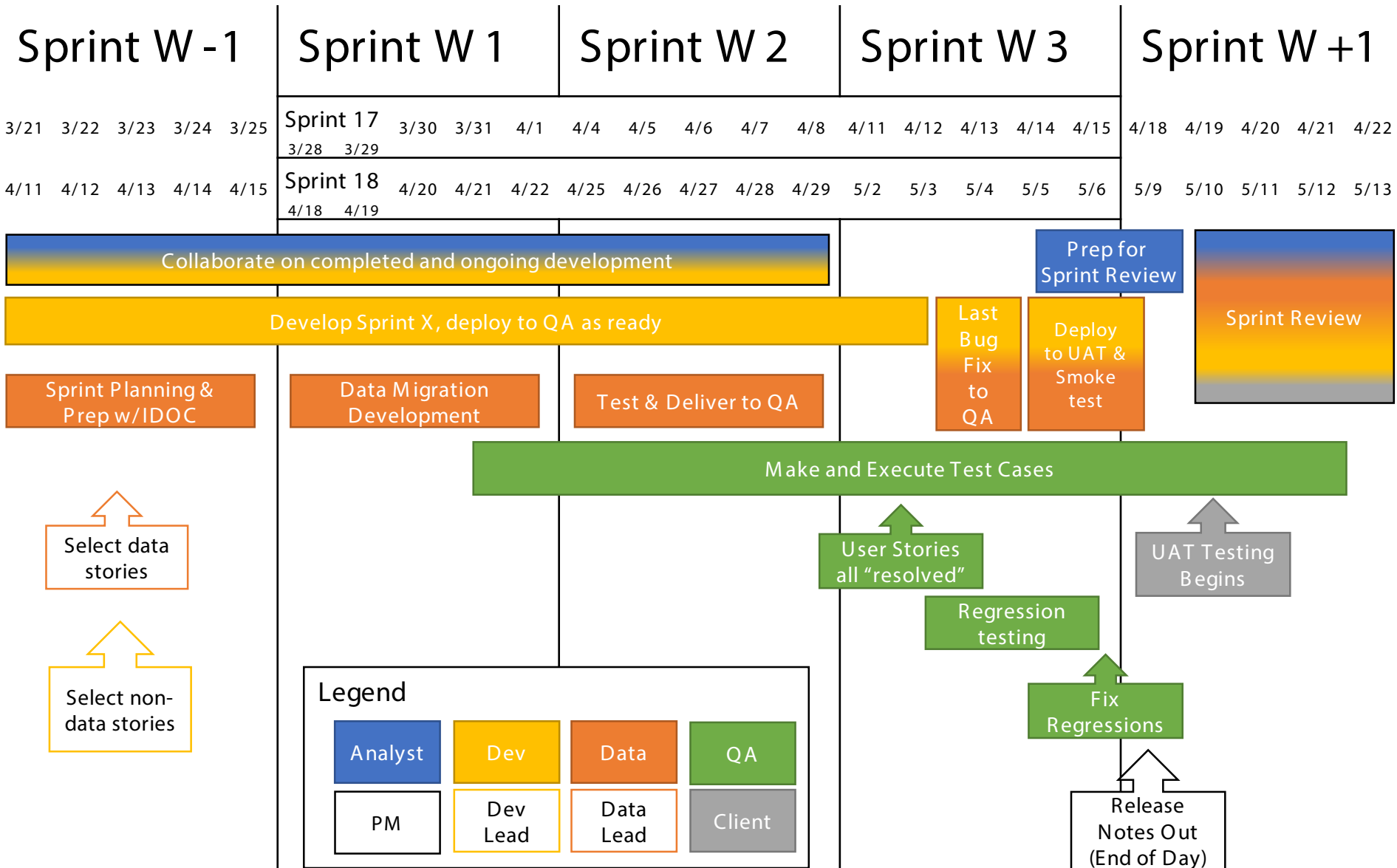| Epics	Features	User Stories	Tasks
	Bugs	Tests	

Agile Concepts

Agile Concepts: The Sprint

Agile Concepts: Analysis

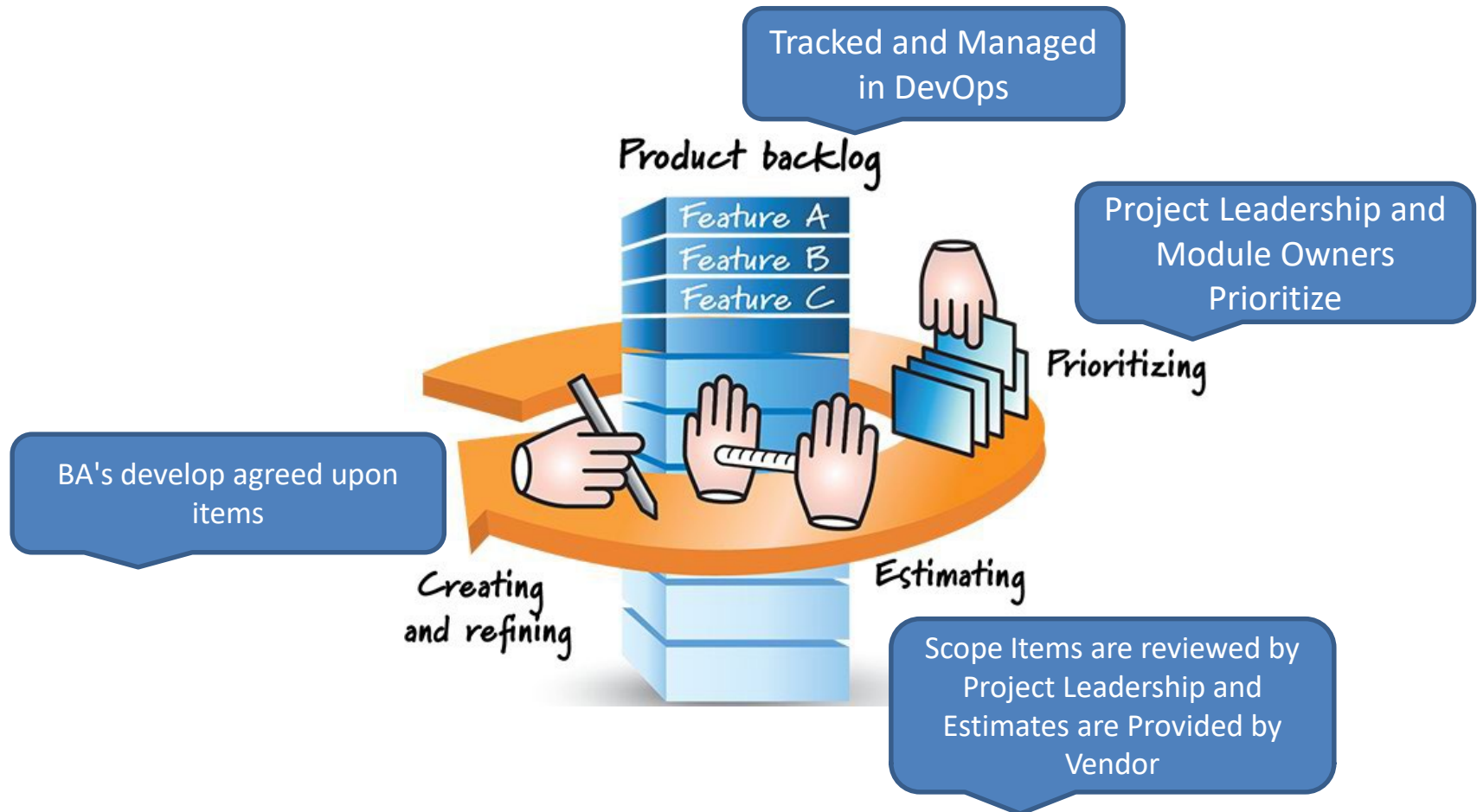User Stories are the unit of development

As a [type of user] I want to [do something in the system] so I can [accomplish this outcome]

Each story is simple and testable

Each story is released in a sprint

Stories are associated with features and epics

Agile Concepts: Backlog and Timeline

Agile Results

Agile Results: Work Product

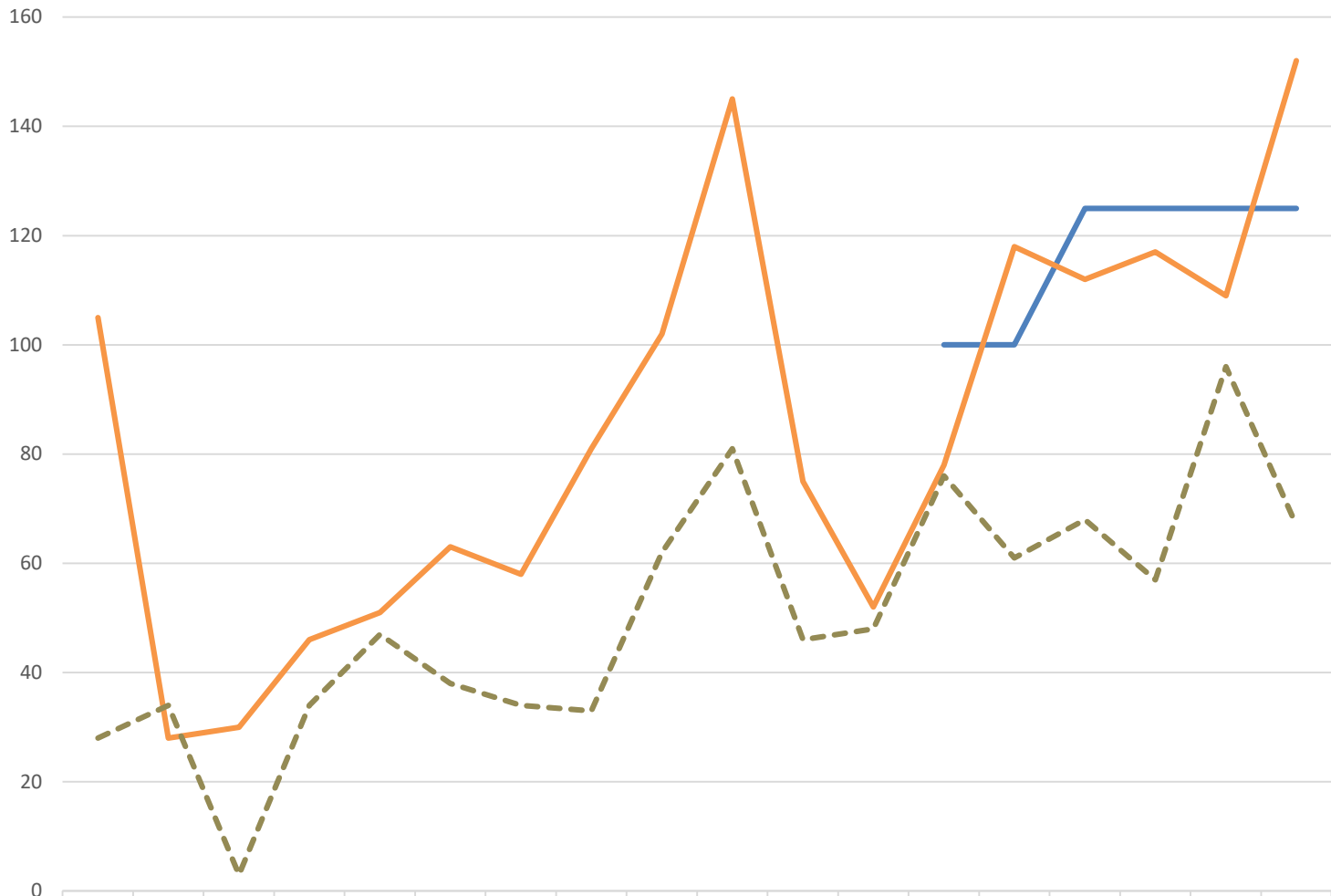Completed user stories earlier in the project

Assurance of the development of working software

Increase buy-in and engagement at the client

Able to find and fix problems earlier, which reduces the accumulation of technical debt

Agile Results: Build – Development Output

	Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7	Sprint 8	Sprint 9	Sprint 10	Sprint 11	Sprint 12	Sprint 13	Sprint 14	Sprint 15	Sprint 16	Sprint 17	Sprint 18
Mi-Case Target Non-Mig User Stories													100	100	125	125	125	125
User Stories	105	28	30	46	51	63	58	81	102	145	75	52	78	118	112	117	109	152
Bug Fixes	28	34	3	34	47	38	34	33	62	81	46	48	76	61	68	57	96	67

Agile Results: Status

Approved Non-Mig User Stories by Area Path

	Closed	New	Resolved	Blocked	QA Ready	Active	Total
Parole Module	168	138	32	17	10	0	365
Classification ...	119	132	14	25	5	10	305
Conduct Module	136	40	53	15	36	0	280
Sentencing Modu...	145	66	10	22	2	0	245
Case Management...	104	53	54	29	4	0	244
Parole Board Mo...	47	69	8	2	0	0	126
Movement Module	71	8	13	6	1	1	100
Intake Module	74	3	2	4	0	0	83
PREA Screening	35	9	2	0	0	0	46
Visitation	21	5	2	0	0	0	28
Release Module	5	16	0	0	0	0	21
Events	17	1	0	0	0	0	18
Offender Grieva...	12	3	0	0	0	0	15
Gang Management	12	0	0	2	0	0	14
Detainers and H...	10	0	1	2	0	0	13
Scheduling	0	4	6	0	0	0	10
Religious Servi...	0	2	7	0	0	0	9
(other)	23	15	1	2	0	0	41
Total	999	564	205	126	58	11	2.0K

Agile Results: Status

Migration Stories (All Modules) by State-Category
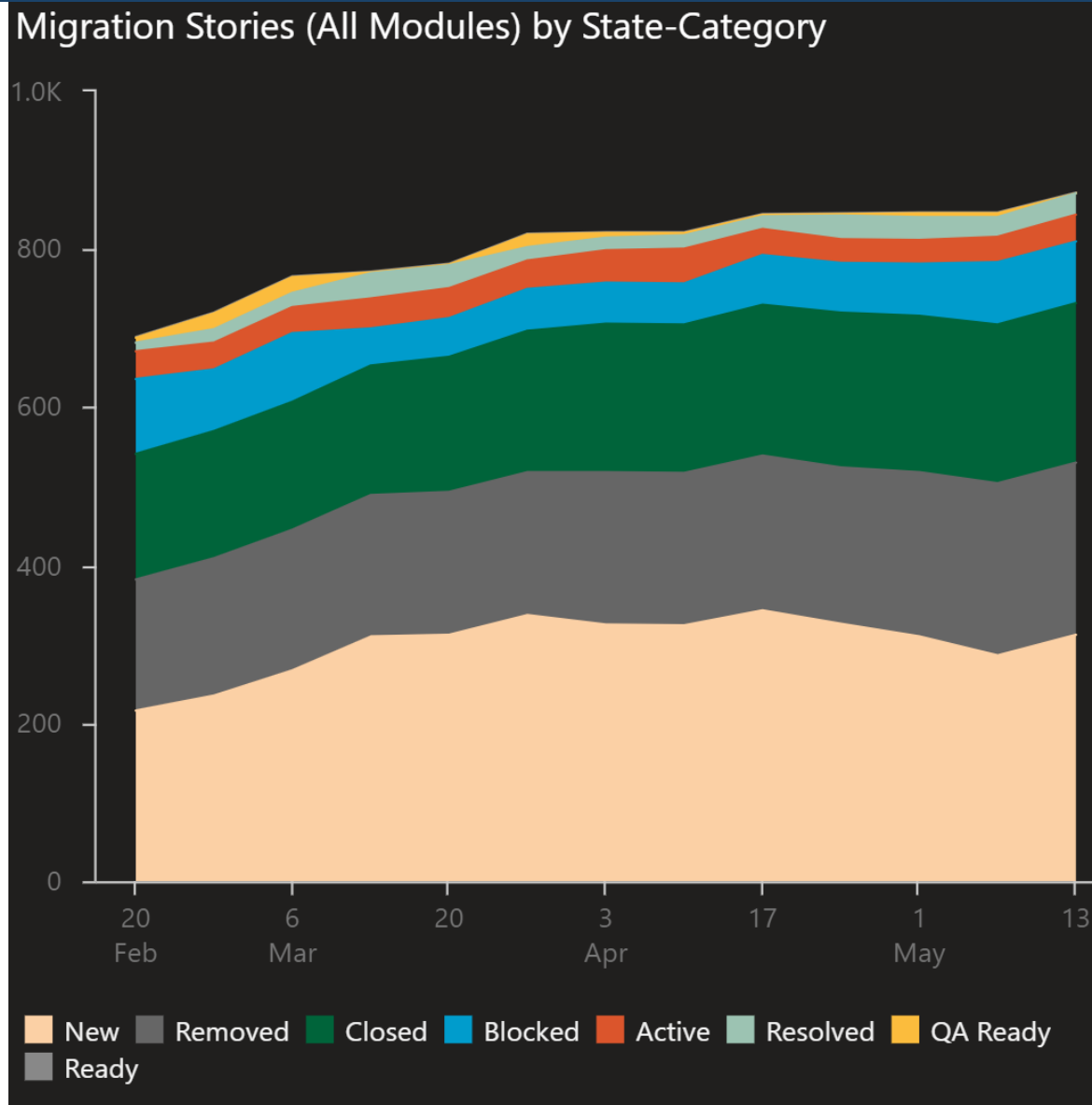
Team Perspectives: Lessons Learned & Applied

Education
- Method is new
- Making sure everyone understands how this method works and what it means for the future of the system

Backlog Management
- Ongoing cycle of US Management
- Expansion and Formalization of review/change process

Organizational Change
- Involvement of members at all levels of the project from all areas of the agency
- Open and regular communication

Vendor Partnership
- Regular meetings with open and honest feedback
  - Daily stand ups
  - Regular meetings with PM vendor and Mi-Case with IDOC leadership