



IMPLEMENTING LSAF THE DANONE NUTRICIA JOURNEY

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Paper DH07

PHUSE US Connect 2020



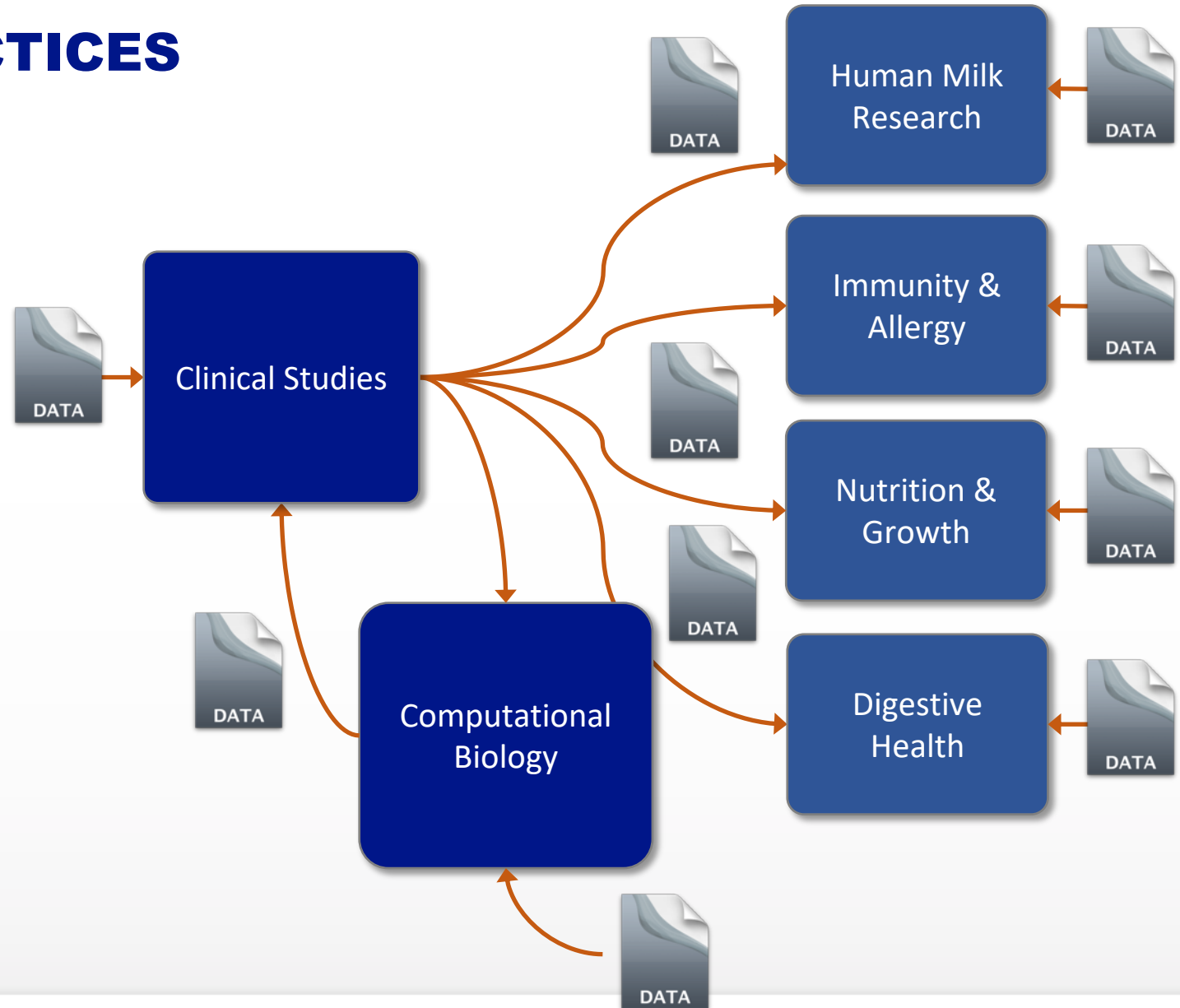
AGENDA

- Introduction
- Project phasing
- High-level Architecture
- Piloting & Risk Based Approach
- Automation of Tasks and Use of LSAF APIs
- Support Process
- Summary

RETHINK DATA PRACTICES

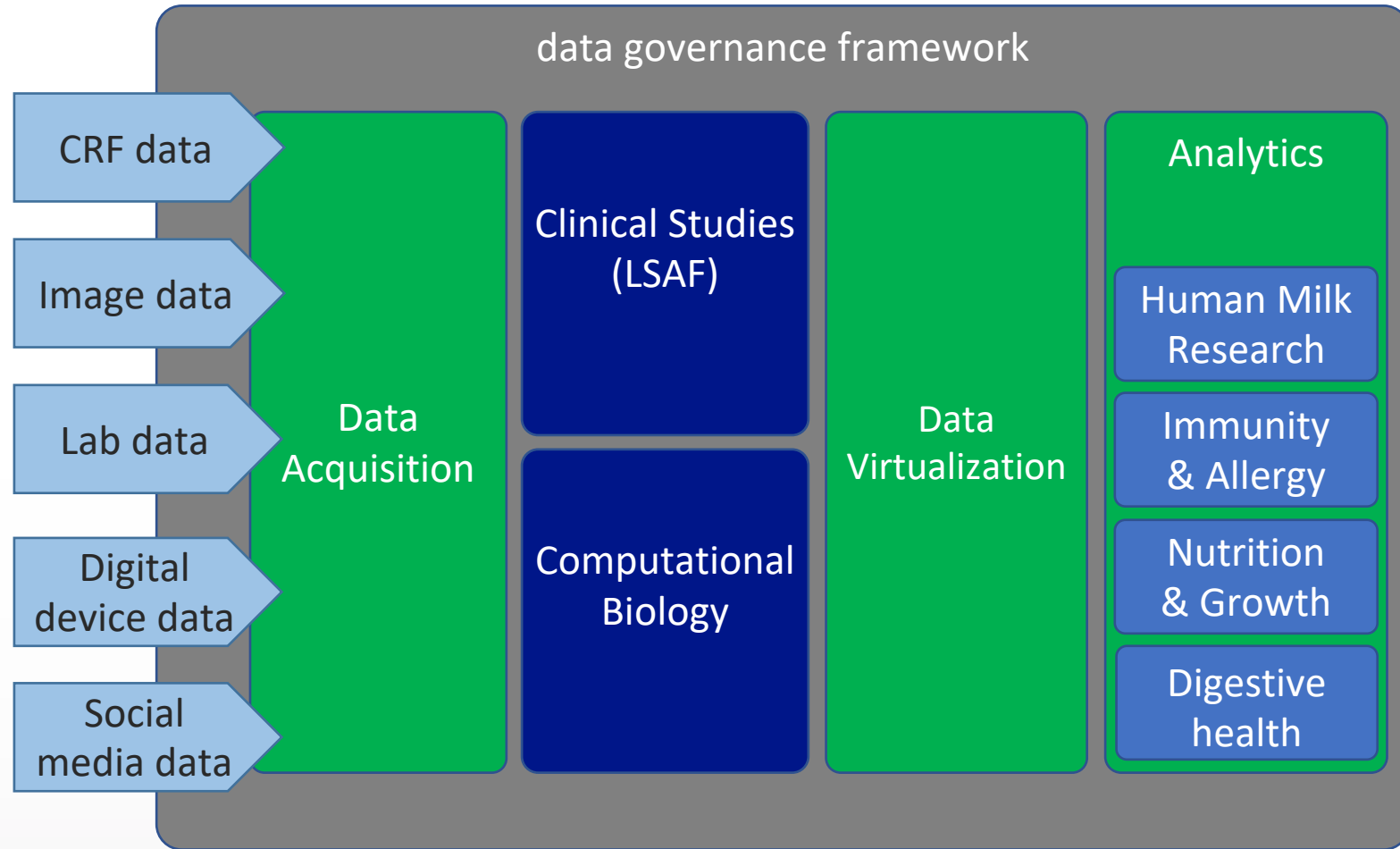
Issues:

- Manual data exchange
- No clear oversight
- No shared standards
- No full data lineage
- No shared workspaces



TARGET SITUATION

- Common principles, data policies and practices
- Shared data acquisition processes and data standards
- Responsible sharing of research data
- Collaboration spaces with advanced analytics capabilities
- Mature level of auditability, data lineage, reproducibility, and automation



LSAF @ Danone Nutricia Research

Data Science & Biometrics team

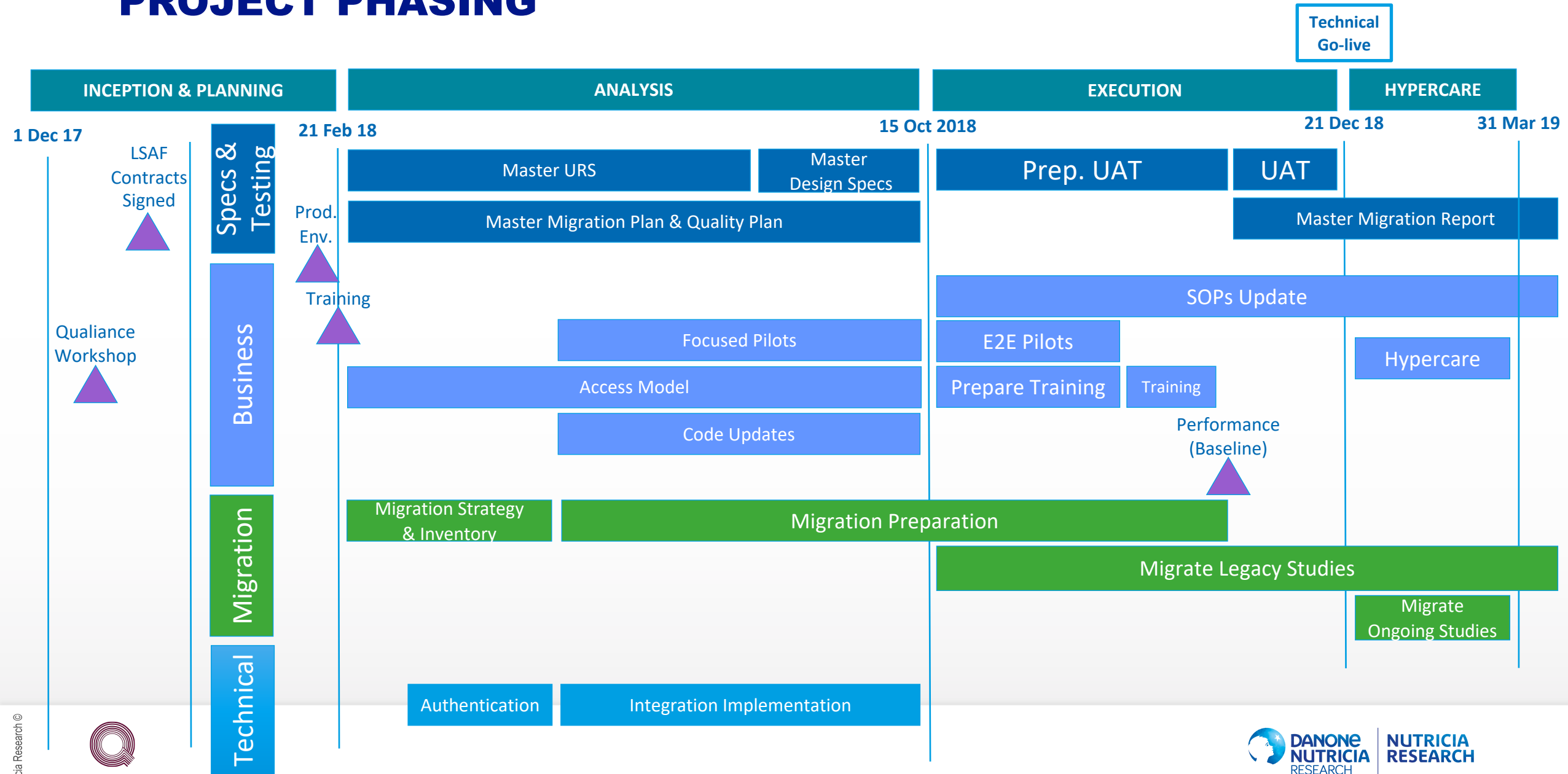
- Approx. 50 user in Data Management, Statistical Programming & Biostatistics (NL, SG)
- Legacy environment: local SAS server + file server
- Key needs: Performance, User management, Life cycle management, Automation, Global collaboration

Implementation approach

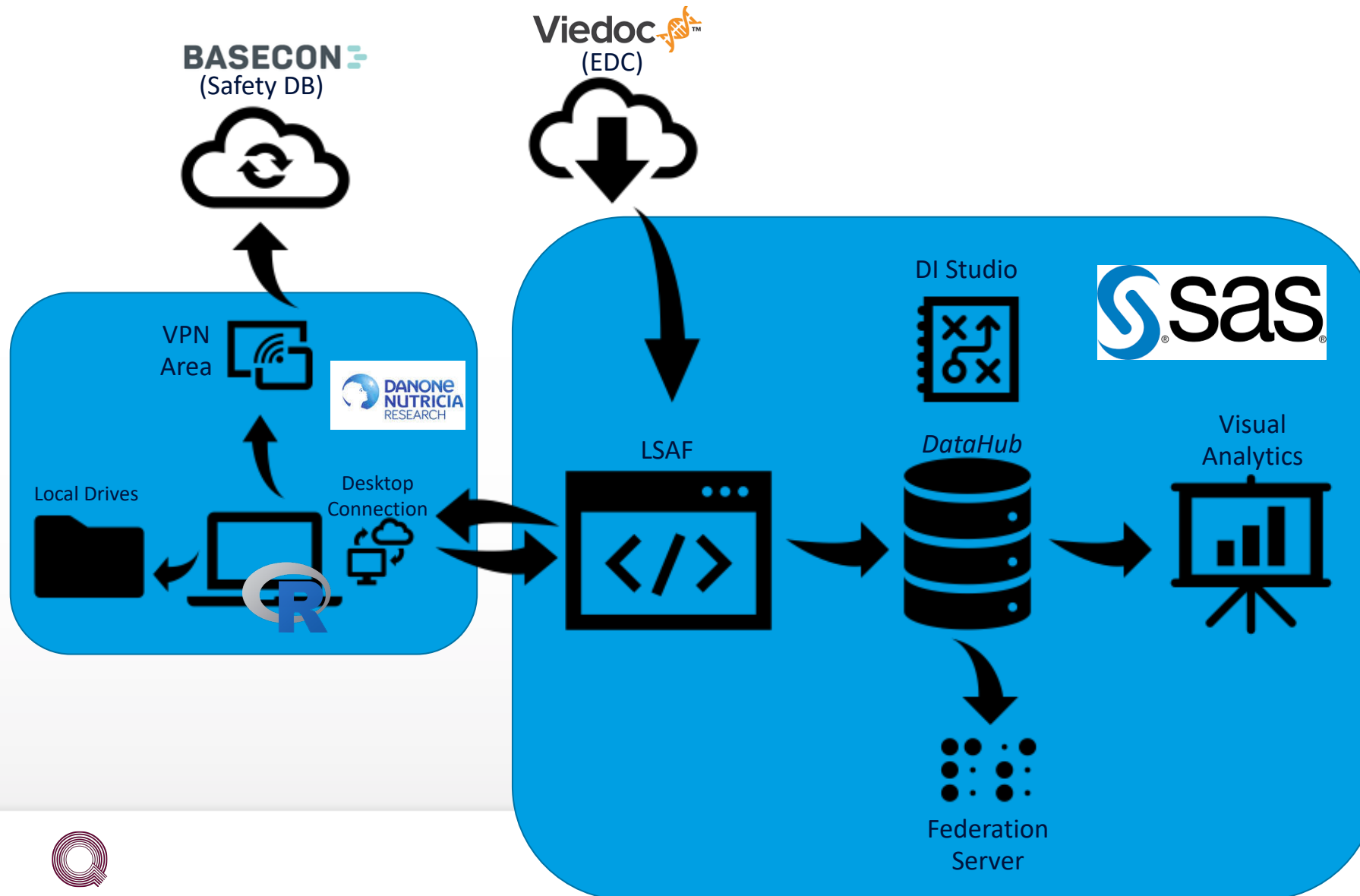
- Achieve go-live within a year (before end of 2018) and decommission legacy environment
- Selective migration of data
 - Approx. 60 'active' studies and some folders for pooled analyses
- Data virtualization and visualization capabilities developed in parallel project



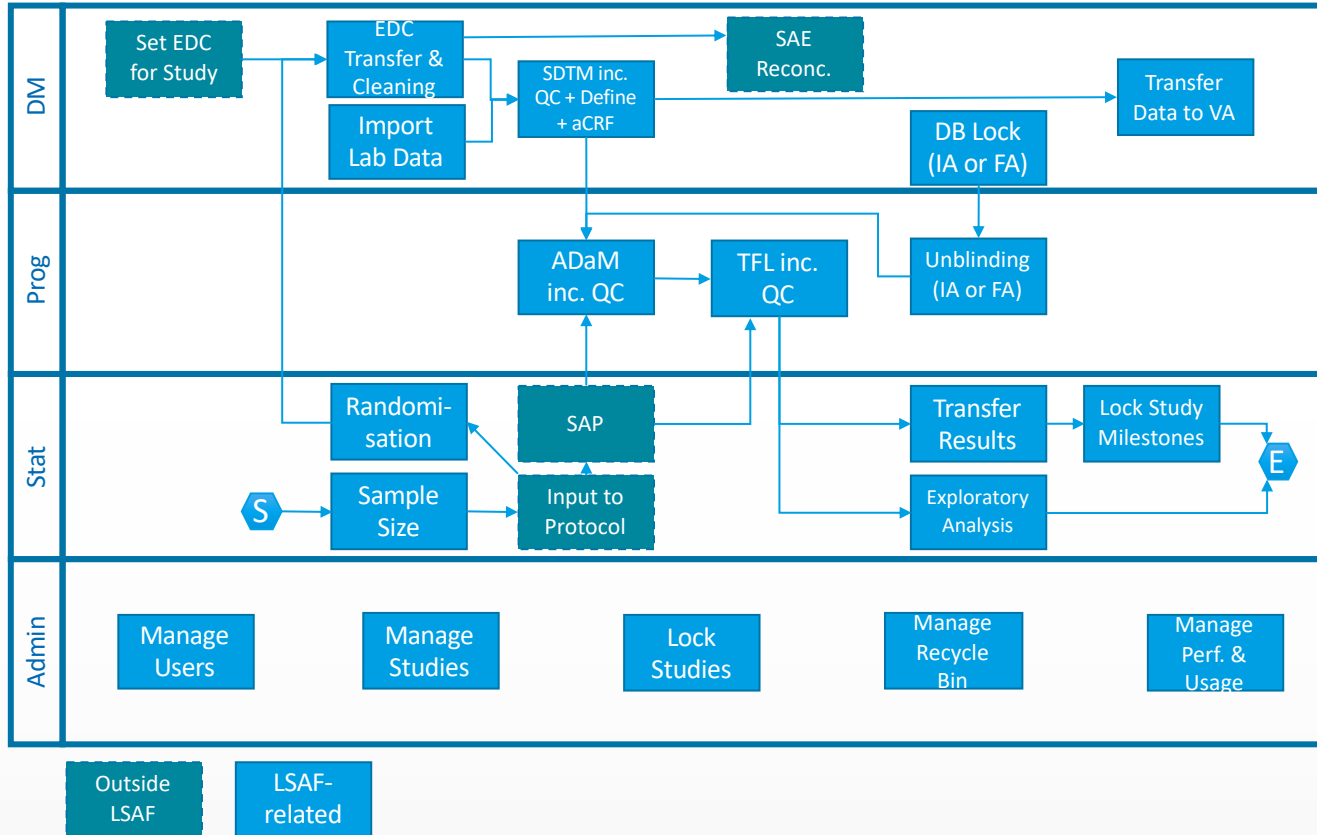
PROJECT PHASING



LSAF+ HIGH-LEVEL ARCHITECTURE



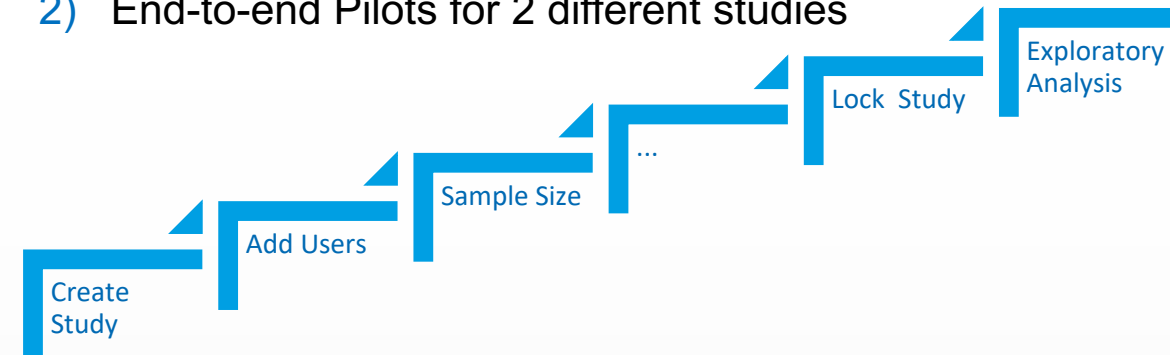
PILOTING – FOCUSED & E2E PILOTS



1) Focused Piloting of each Process



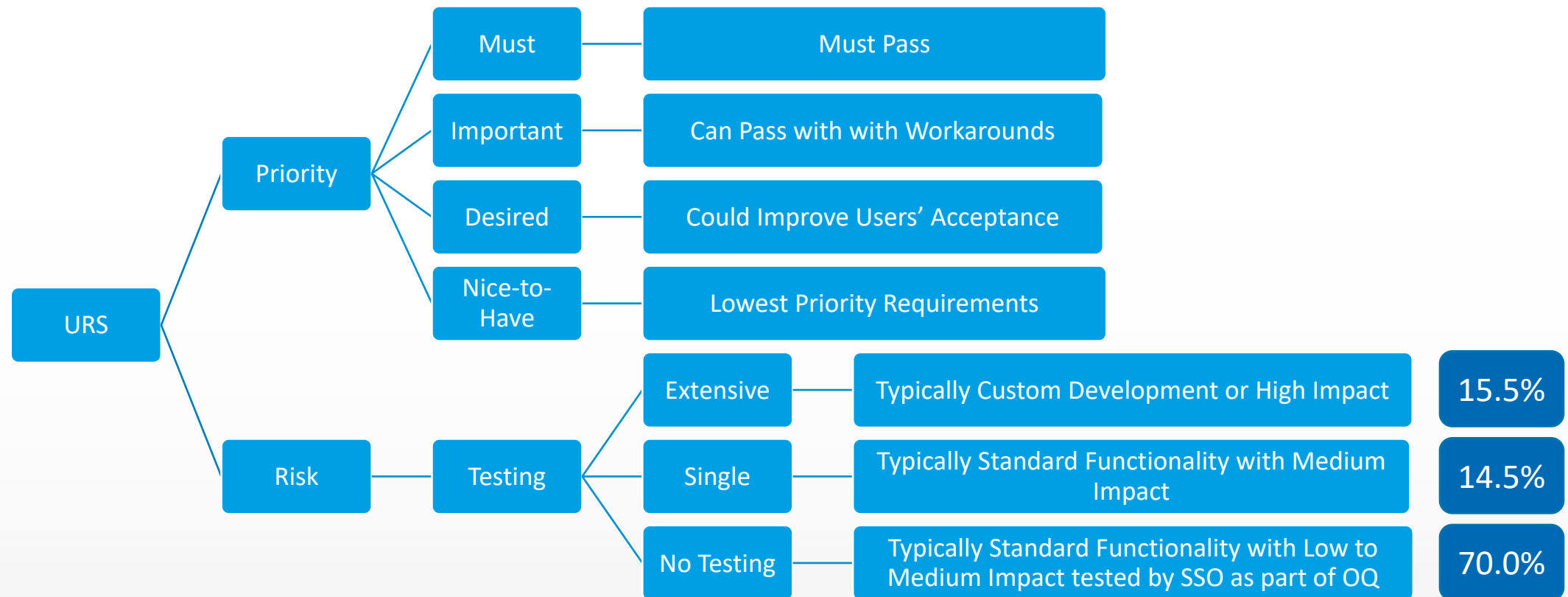
2) End-to-end Pilots for 2 different studies



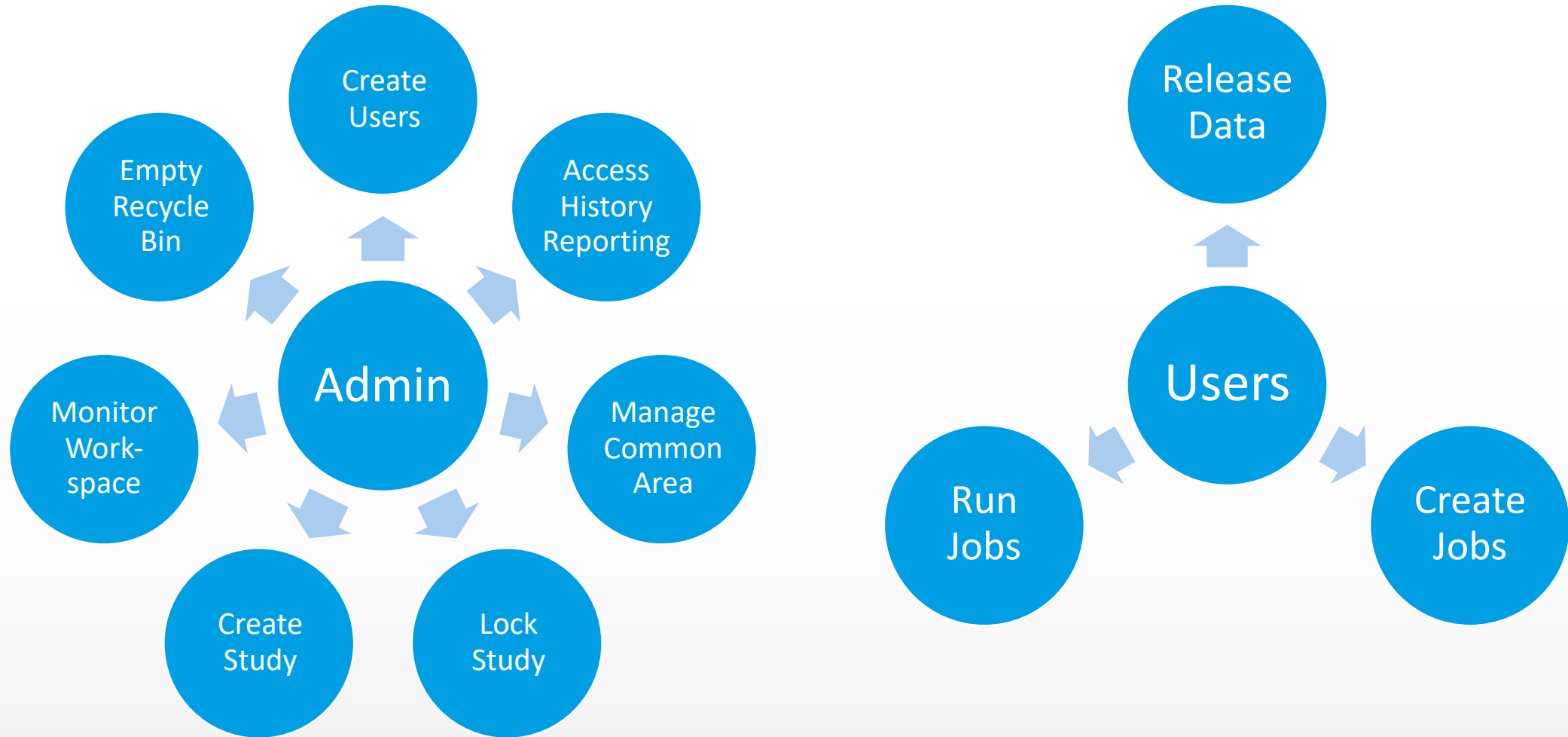
3) Make final changes prior to UAT & Training

- Update Access Model & Design Specs
- Update & Re-Test Utilities
- Update Impact Analyses
- Re-run E2E Pilots

RISK-BASED APPROACH TO TESTING



AUTOMATION OF TASKS AND USE OF LSAF APIs



DATA GOVERNANCE

'Huge leap forward with regard to auditability, process control, and data protection'

- version control
- e-signing
- Improved lineage
- access management
- audit trail

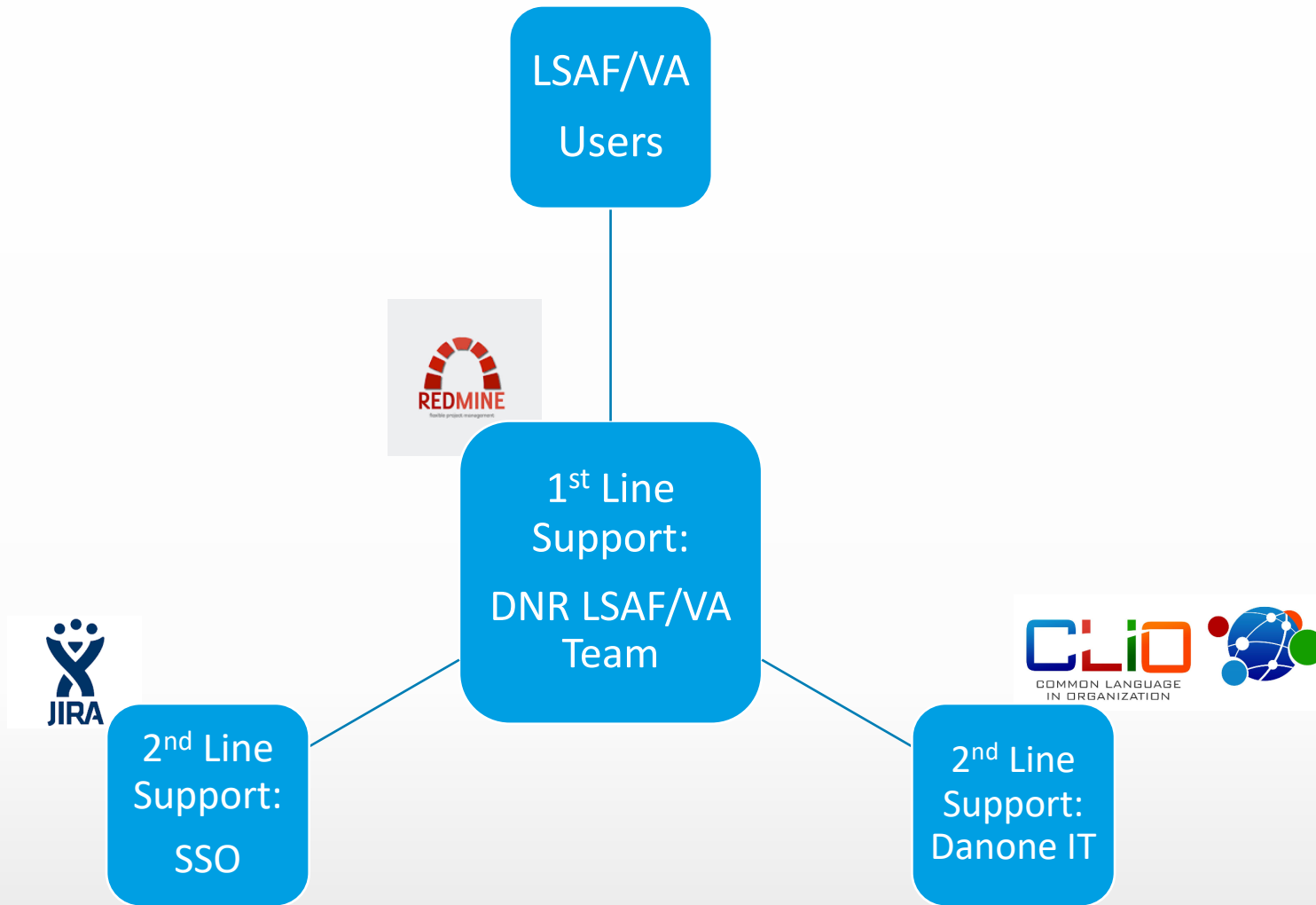
Audit trail report

Name	Date	Time	LSAF_TopLevel	ORG_DM	user1	user2
Project "StudyXYZ" created on 31MAY2018 07:41:26, #1, Deleted 10SEP2018 09:38:31						
MEMBER	31MAY2018	07:41:26	x-x-x	x-x-x	x-x-x	x-x-x
MEMBER	31MAY2018	07:41:40	Start [admin1]	x-x-x	x-x-x	x-x-x
Project "StudyXYZ" recreated 09JAN2019 06:06:10, #2						
MEMBER	09JAN2019	06:06:10	x-x-x	x-x-x	x-x-x	x-x-x
MEMBER	09JAN2019	06:06:27	x-x-x	x-x-x	x-x-x	x-x-x
MEMBER	09JAN2019	06:06:29	x-x-x	x-x-x	Start [admin1]	x-x-x
MEMBER	10JAN2019	10:28:17	Start [admin2]	x-x-x		x-x-x
MEMBER	11JAN2019	08:54:44	End [admin2]	x-x-x		x-x-x
MEMBER	11JAN2019	10:01:41	xxxxxx	x-x-x		x-x-x
MEMBER	11JAN2019	13:28:00	xxxxxx	x-x-x		x-x-x
MEMBER	28MAR2019	07:23:40	xxxxxx	x-x-x		x-x-x
MEMBER	28MAR2019	07:44:59	xxxxxx	Start [admin3]		Start [admin3]
MEMBER	28MAR2019	07:45:14	xxxxxx		End [admin3]	
MEMBER	28MAR2019	07:49:10	xxxxxx		xxxxxx	
MEMBER	28MAR2019	08:40:16	Start [admin3]		xxxxxx	
MEMBER	28MAR2019	08:40:35		End [admin3]	xxxxxx	
MEMBER	03APR2019	14:56:15		xxxxxx	xxxxxx	
MEMBER	15APR2019	11:56:19		xxxxxx	xxxxxx	
Report created at 14MAY2019 09:14, Request path: "/StudyXYZ"						
Current Members MEMBER LSAF_TopLevel ORG_DM DM Pf ... + :						

Source	File name	Version	E-signed	User ID	Role associated with	Reason for sign	Comment entered a
TASK 1	010_ADSL.sas	1	14MAR19:09:29	user1	Clinical Programmer	Approve	Approved after adapta
INPUT	ae.sas7bdat						
INPUT	an.sas7bdat						
INPUT	chk.sas7bdat						
INPUT	dm.sas7bdat						
INPUT	eos.sas7bdat						
INPUT	ex.sas7bdat						
INPUT	f.sas7bdat						
Manifest Job E-Signatures Task(s) Input Output Input Other Log-Listing +							

Manifest report

SUPPORT PROCESS



SUPPORT PROCESS FOR:

Bugs:

- System Unavailability
- Performance Issues
- Data Transfer Issues
- Permission/Privilege Issues
- DNR LSAF Utilities
- Code Issues

Administration:

- Study Creation Request
- User Access Request
 - Add/Remove Permissions
- Lock/Unlock Accounts
- Lock/Unlock Study Milestones

New Features:

- New LSAF functionalities
- New Utilities
- New Integration Capabilities

SUMMARY

- Successful project!
- Success factors: preparations, LSAF expertise, project team
- Connection with Visual Analytics environment made data come alive
- Important benefits realized:
 - Access Control, Traceability of Actions, Standard Folder Structure, Better Data Flow, Better Support
- Next steps: QC process, R, LSAF 5.x



THANK YOU

CONTACT INFORMATION

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