

US Office of National Coordinator (ONC)
Standards and Interoperability (S&I) Framework
Cross Initiative – S&I Simplification Work Group

Simplification & UCAT Priorities

In collaboration with NIST and AHRQ

23 April 2014

S&I Simplification - Analysis Status - 23 April 2014 - Core Matrix Version 3 (Consensus Draft)
Incorporation of Use Case Initiatives in S&I Simplification Core Matrix

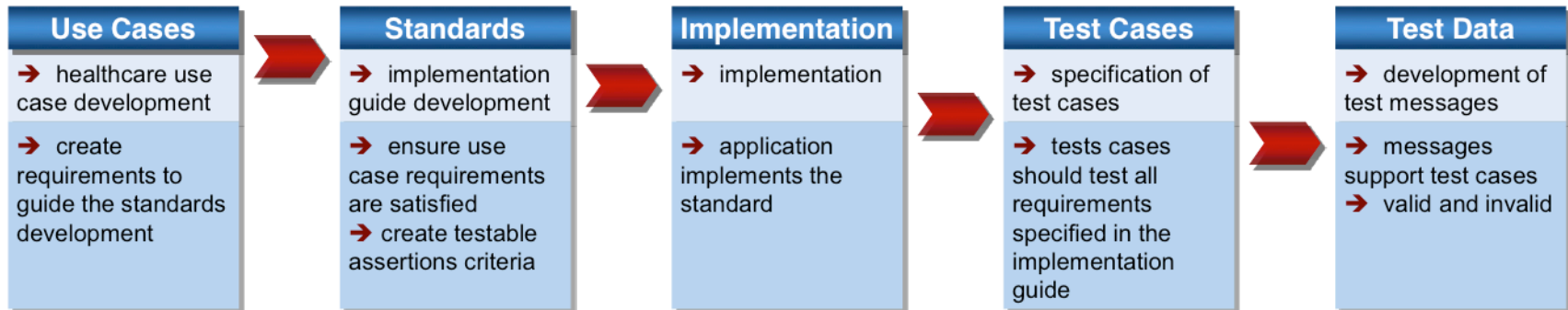
Initiative	Initial Analysis Phase - Core Matrix					FHIM	AHRQ	Consensus Core Matrix
	Analysis Type	Common Requirements	Common Actors, Systems, Roles	Scenarios, Event Steps	Common Actions	Common Data Objects, Elements	US Health Information Knowledgebase	
Transitions of Care (TOC)	Retro	COMPLETE	COMPLETE	COMPLETE	COMPLETE	Data Requirements Compiled	REGISTERED	v1
Lab Results Interface (LRI)								v2.1
Longitudinal Coordination of Care (LCC) 1								TBD
LCC 2		In Progress						
Lab Orders Interface (LOI)		COMPLETE	COMPLETE	COMPLETE	COMPLETE	Compiled	REGISTERED	v2.1
Provider Directory (PD) - Digital Certificate								
PD - Electronic Address								
esMD 1 - Electronic Submission of Medical Documentation, Provider Profiles Authentication								
esMD 2 - Structured Content of Electronic Medical Documentation Request (eMDR)								
esMD 3 - Author of Record Level 1								
esMD 3 - Author of Record Level 2	Retro							
esMD 3 - Author of Record Level 3	TBD	Future						
Query Health (QH)	Retro	COMPLETE	COMPLETE	COMPLETE	COMPLETE	Compiled	REGISTERED	v2.1
Data Segmentation for Privacy (DS4P)								
Public Health Reporting (PHRI)								
HeD 1 - Health eDecisions - Clinical Decision Support (CDS) Artifact Sharing								
HeD 2 - CDS Guidance Service								
Structured Data Capture								
EU/US eHealth Initiative							Concurrent	
DAF 1 - Data Access Framework - Local Access	Retro							
DAF 2 - Targeted Access								
RESTful Health Exchange (RHEX)	TBD	TBD						TBD
Automated Blue Button								
Electronic Certificate		N/A				Compiled	REGISTERED	N/A

S&I Simplification

Priorities

- Analyze Components from Latest UC Requirements
 - Data Access Framework
- ISO 19969 – Re-Usable Component Strategy for Use Case Development
 - Approved as New Work Item Proposal: April 2014
 - Scope: S&I Use Case Simplification Methodology
 - Example:
 - EU/US eHealth Cooperation Initiative Interoperability Use Case

What will the tools address?

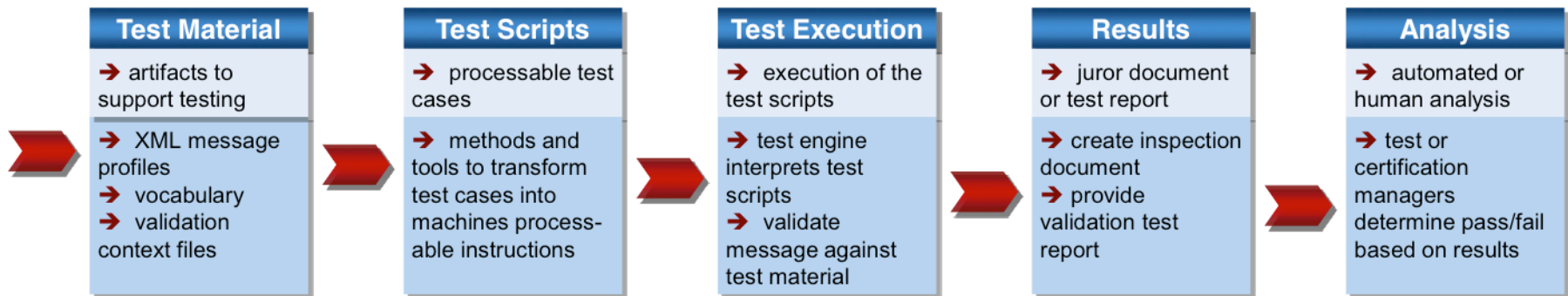


Implementation Guide Authoring and Management Tool (IGAMT)

Vendors

Test Case Authoring and Management Tool (TCAMT)

Message Maker Tool



IGAMT and TCAMT

Test Case Authoring and Management Tool (TCAMT)

Testing Infrastructure (Test Engine)

Testing Infrastructure (Validation) and TCAMT

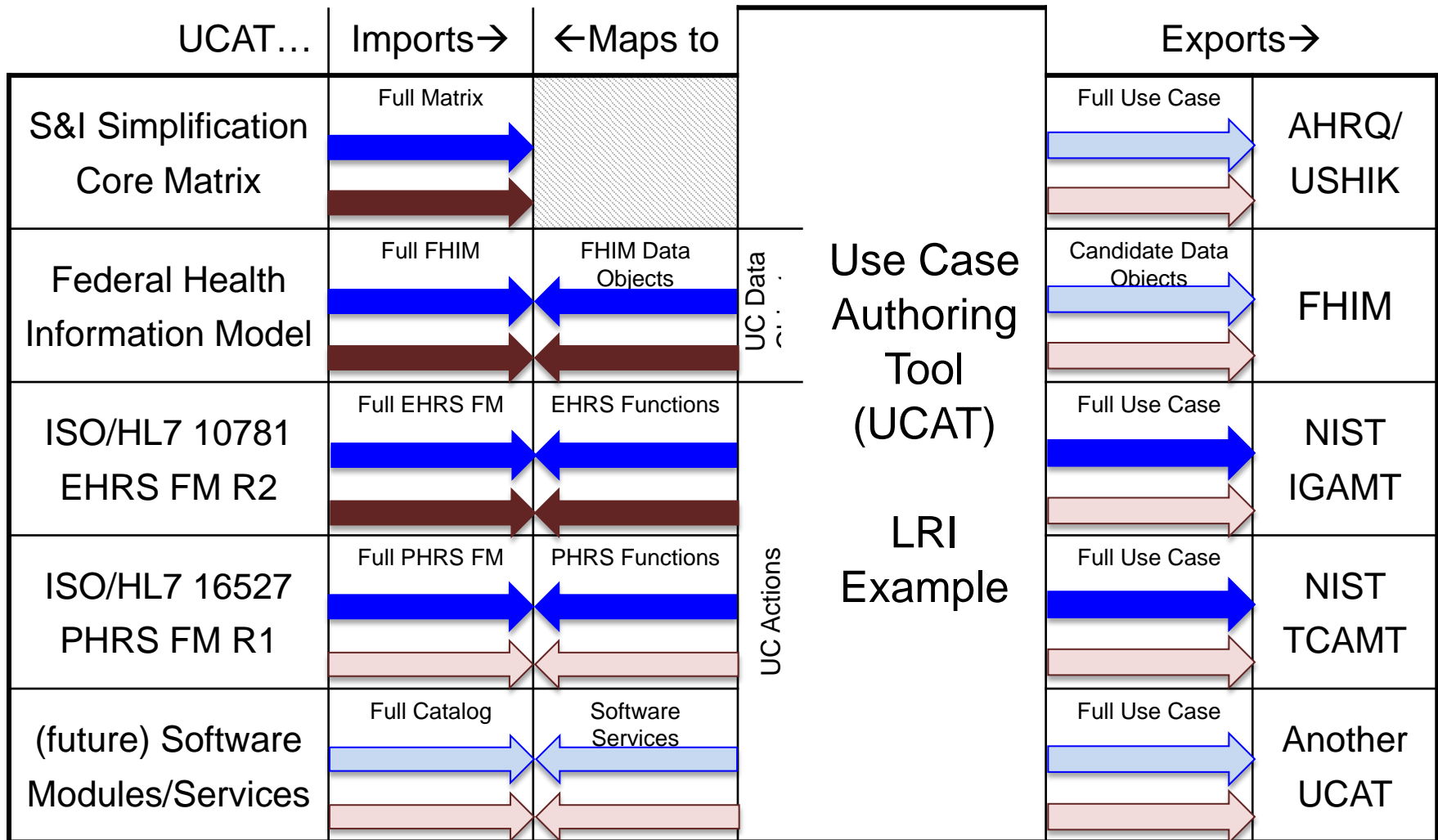
Testing Organizations

S&I Simplification

Progression Steps*

Steps	Tool	Used to...
S&I Use Case Requirements (UCR) Phase		
A-B	Excel	(Current) Analyze UC Components, Update Core Simplification Matrix
C-D	UCAT	Build Use Case, specify Requirements and Details
E		Render completed Use Case per S&I UCR Template (Word .docx)
F		Identify New Core Component Candidates from this Use Case
G		For FHIM update: identify new UC data objects, elements
H		Output to USHIK: full Use Case
I		Output to NIST Tool Suite (IGAMT/TCAMT): full Use Case
S&I Harmonization Phase		
J-K	IGAMT	Develop/manage Implementation Guides for selected standards
NIST-designed Software Testing and Certification		
M-S	IG/TCAMT	Develop/manage software test cases; support testing and validation

* See S&I Simplification – Progression Spreadsheet



Complete Anticipated



S&I Simplification – Use Case Authoring Tool

UCAT Priorities

Priorities identified in consultation with ONC and S&I leadership.	
Priority	Status
1. Seek Commercially Available UCAT Options <ul style="list-style-type: none"> • Prometheus Use Case Editor (Art Griesser) • Sparx Enterprise Architect w/extensions (J.D. Baker) 	<ul style="list-style-type: none"> • UCAT Requirements are described in S&I Simplification Progress spreadsheet (rows 14-16) • Each vendor has agreed to self-report tool development progress and status vs. UCAT Requirements <ul style="list-style-type: none"> • Prometheus report posted • Sparx to post
2. Show UCAT options side-by-side <ul style="list-style-type: none"> • With fit to S&I and Simplification Methodology 	
3. Identify UCAT interest with other FHA agencies	<ul style="list-style-type: none"> • Engaged – NIST, AHRQ • In discussion – VA, DOD, FDA, Federal Health Architecture

S&I Simplification – Use Case Authoring Tool (UCAT)

UCAT Priorities

Priority	Status
<p>4. Achieve UCAT/FHIM integration</p> <ul style="list-style-type: none"> • FHIM is released in periodic versions • UCAT captures each new FHIM version (as .xmi) • UCAT maps UC Data Requirements to FHIM objects • UCAT captures new UC Data Objects (new FHIM candidates) 	<ul style="list-style-type: none"> • Prometheus and Sparx: <ul style="list-style-type: none"> • Have captured latest FHIM .xmi file • Can map UC to FHIM data objects
<p>5. Use UCAT in parallel w/upcoming S&I Use Case(s)</p> <ul style="list-style-type: none"> • To complete UC Requirements Template 	<ul style="list-style-type: none"> • Prometheus: Currently capturing EU/US eHealth Cooperation Initiative – Interoperability Use Case • Sparx: TBD

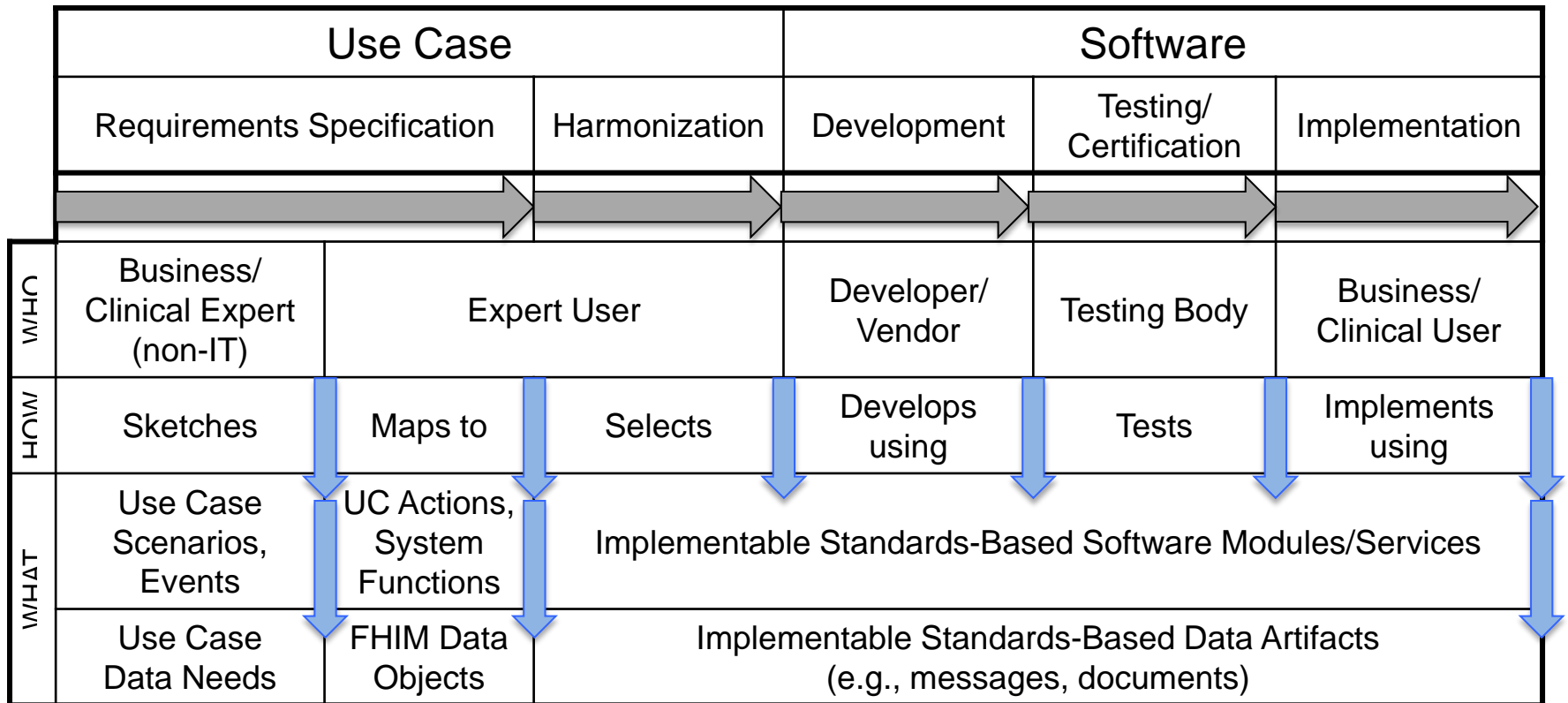
S&I Simplification – Use Case Authoring Tool (UCAT)

UCAT Priorities

Priority	Status
6. Validate non-IT Technical User Interface – To Create Initial Use Case Sketch by Clinical/Business SME	<ul style="list-style-type: none">• Prometheus – In Progress, to demo in April• Sparx TBD

Anchored by the Use Case Authoring Tool (UCAT)

From Sketch to Implementation



Requirements

← Traceability →

Implementation

S&I Simplification – Use Case Authoring Tool (UCAT)

UCAT Priorities

Priority	Status
<p>7. Develop UC Exchange Format</p> <ul style="list-style-type: none">– Render paginated UC template<ul style="list-style-type: none">• As .pdf and .html files– Render computable UC details<ul style="list-style-type: none">• As .json file– To facilitate output to:<ul style="list-style-type: none">• NIST IGAMT/TCAMT Tools• AHRQ/USHIK• Another UCAT	<ul style="list-style-type: none">• NIST has drafted exchange format for UCAT to IGAMT/TCAMT<ul style="list-style-type: none">• Prometheus has output LRI files according to NIST specification• Sparx TBD• Will convene expert team to draft UC Exchange format• Will contact OMG seeking interest

S&I Framework – Cross Initiative – S&I Simplification Links

- US Office of National Coordinator (ONC) Standards and Interoperability (S&I) Framework Wiki
 - <http://wiki.siframework.org>
- S&I Simplification Wiki
 - <http://wiki.siframework.org/Cross+Initiative+-+S%26I+Simplification+WG>
 - <http://wiki.siframework.org/Use+Case+Simplification+Reference+Materials>
- Federal Health Information Model (FHIM)
 - <http://www.fhims.org>
- AHRQ/USHIK S&I Pilot Site
 - <http://ushik-stg.dcggroupinc.com/mdr/portals/si?system=si&enableAsynchronousLoading=true>
- HL7 EHR Interoperability Wiki
 - http://wiki.hl7.org/index.php?title=EHR_Interoperability_WG