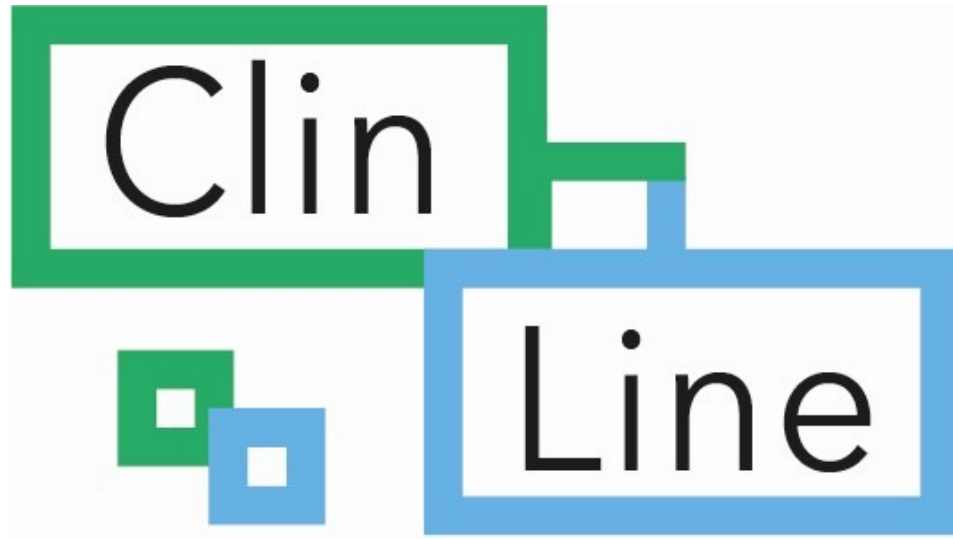


EMA SDE 2021



How to Scale Up Productivity
and Minimise Efforts in Clinical
Programming

04 May 2021

Clin

Line



**Improving and
optimizing
the clinical trial
process**

- Processes
 - Procedures
 - KPIs
 - ICT
- Data
 - Trial
 - RWD
- People
 - Management Drives
 - Appreciative Leadership



Resistance



The problem: Reporting inefficiency

- Why is it inefficient ?
 - Repeats of (parts of) the same work
 - Copying introduces errors
 - Reviewing and validation less and less accurate
 - Labour intensive and time consuming
 - Manual programming
 - Repeats of review process
 - Programming of workarounds

Why?

Why?

Why?

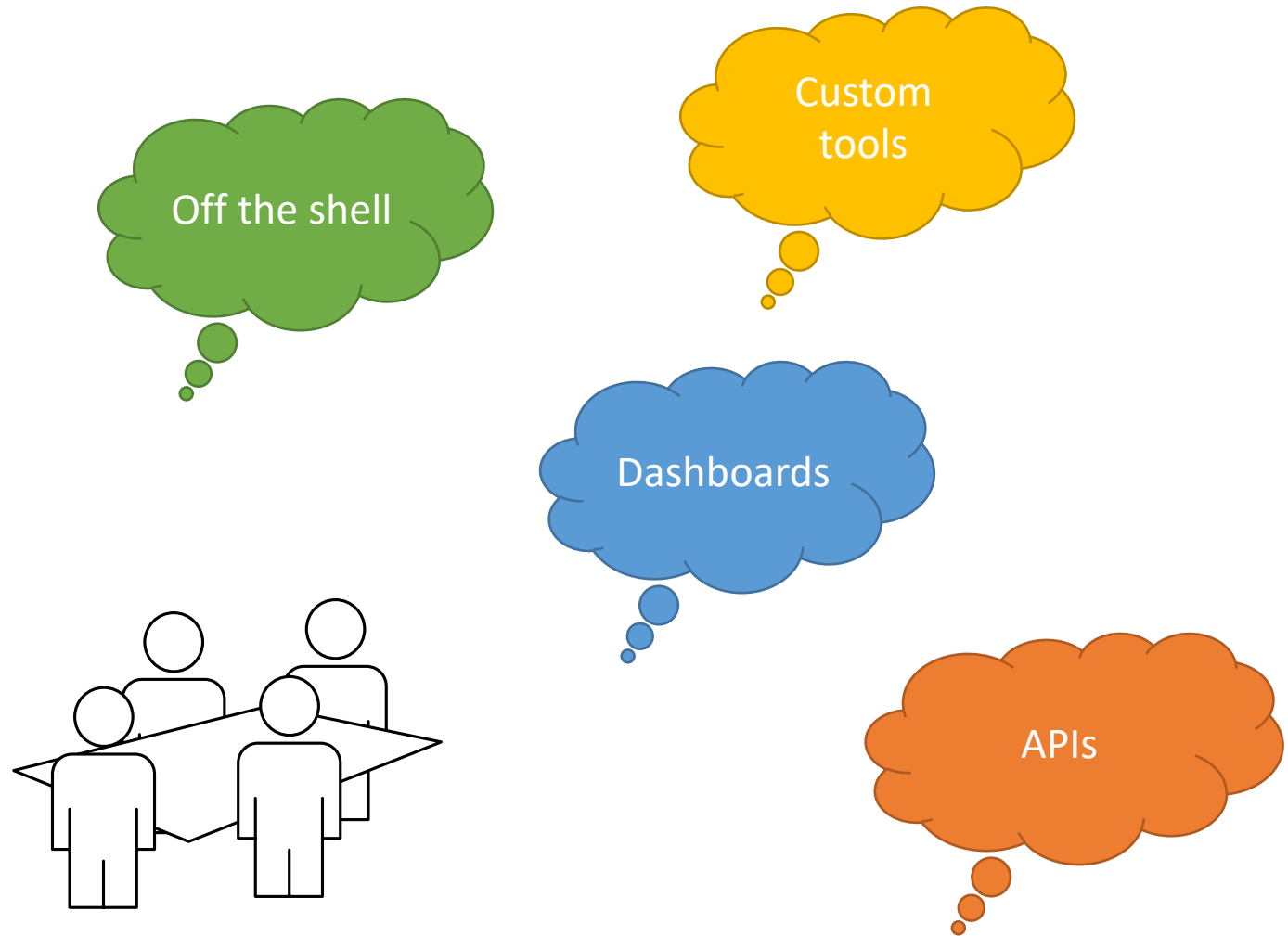
Why?

Why?



The solution: A reporting engine

- Automated reports
- Flexible
- Interoperable
- Validating
- Interactive ?
- Validated !!



User Requirement Specifications

- Content
- Examples
- Exceptions
- Errors
- Time delays
- Additional requests



User requirements grouping

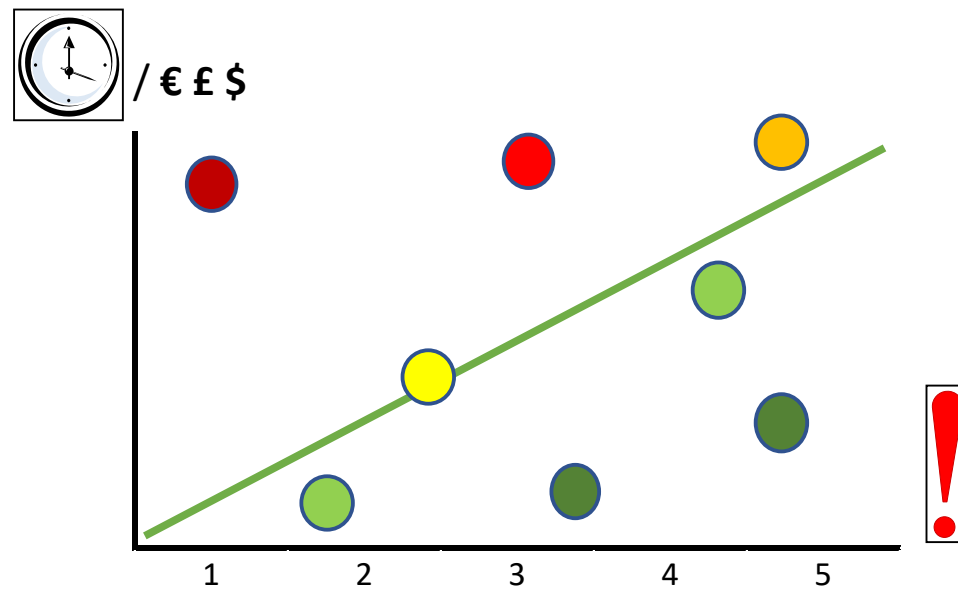
- History and events
- Demographics and safety
- Efficacy
- Derivations

	Treatment	
	A	B
n		
Mean		
SD		
Min-Max		
95% CI		

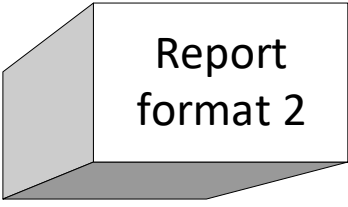
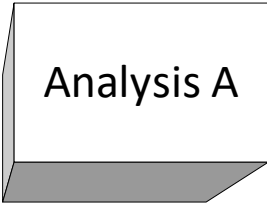
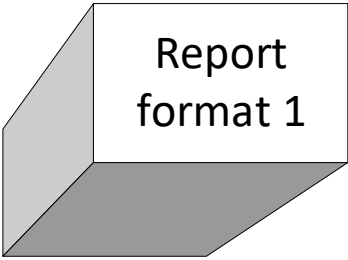
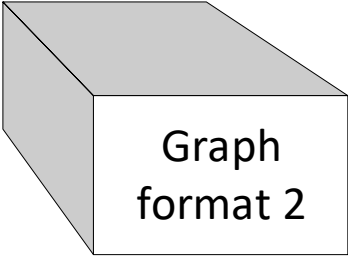
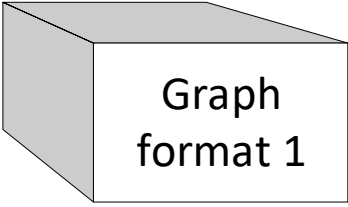
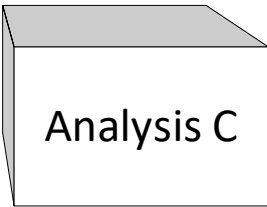
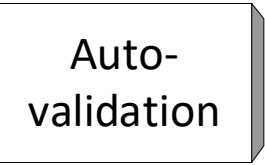
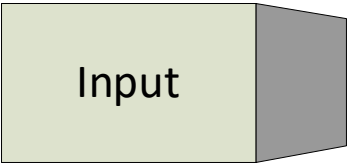
Treatment		Parameter		
		X	Y	Z
A	n			
	Mean			
	SD			
	Min-Max			
	95% CI			
B	n			
	Mean			
	SD			
	Min-Max			
	95% CI			

	Parameter	n	Mean (SD)	Min-Max	95% CI
A	Q				
	R				
	S				
	T				
	U				
	V				
	W				
	X				
B	Y				
	Z				
	Q				
	R				
	S				
	T				
	U				
	V				
	W				
	X				
	Y				
	Z				

URS iterations



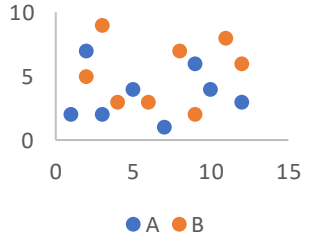
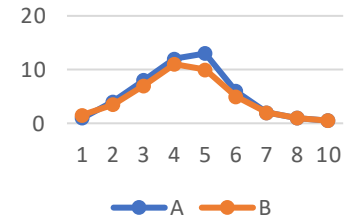
Building blocks



	Treatment	
	A	B
n		
Mean		
SD		
Min-Max		
95% CI		

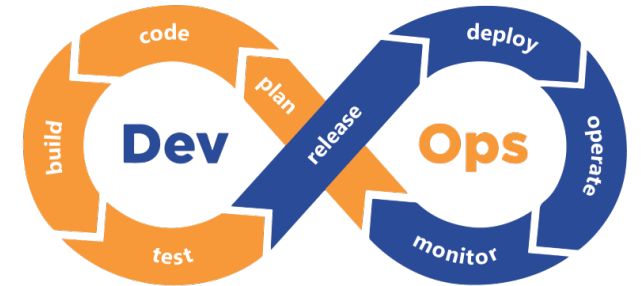
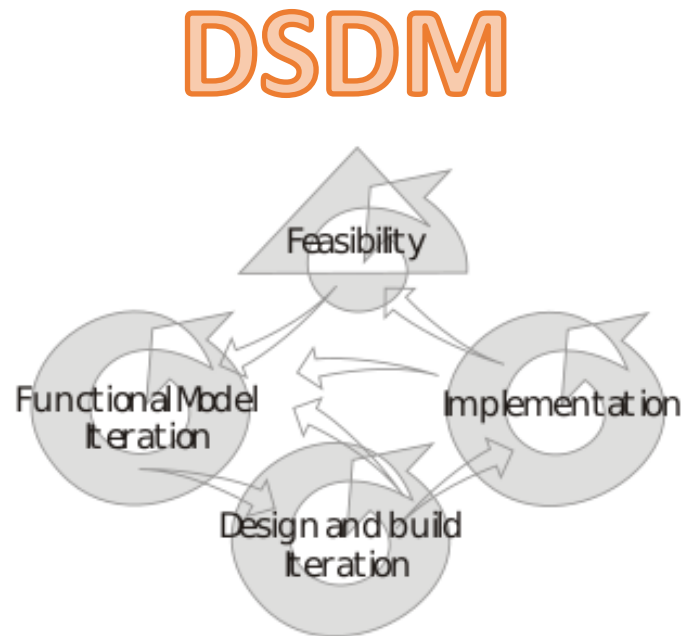
Treatment		Parameter		
		X	Y	Z
A	n			
	Mean			
	SD			
	Min-Max			
	95% CI			
B	n			
	Mean			
	SD			
	Min-Max			
	95% CI			

	Parameter	n	Mean (SD)	Min-Max	95% CI
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	U				
	V				
	W				
	X				
	Y				
	Z				
B	Q				
	R				
	S				
	T				
	U				
	V				
	W				
	X				
	Y				
	Z				



Functional Design Specifications

- By building block
 - Input / output
 - Process
 - Validation
- Dynamic !
- Basis for validation



Implementation - Change management

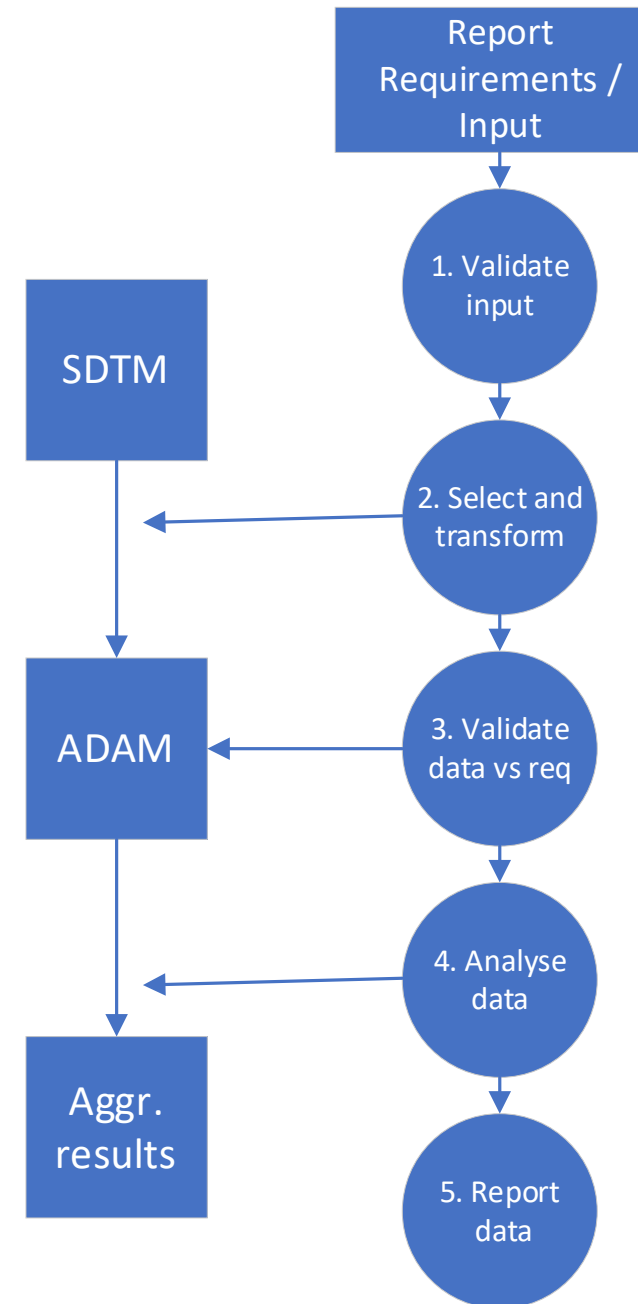
- Technical transition
- Test phase
- Support base
- Communication



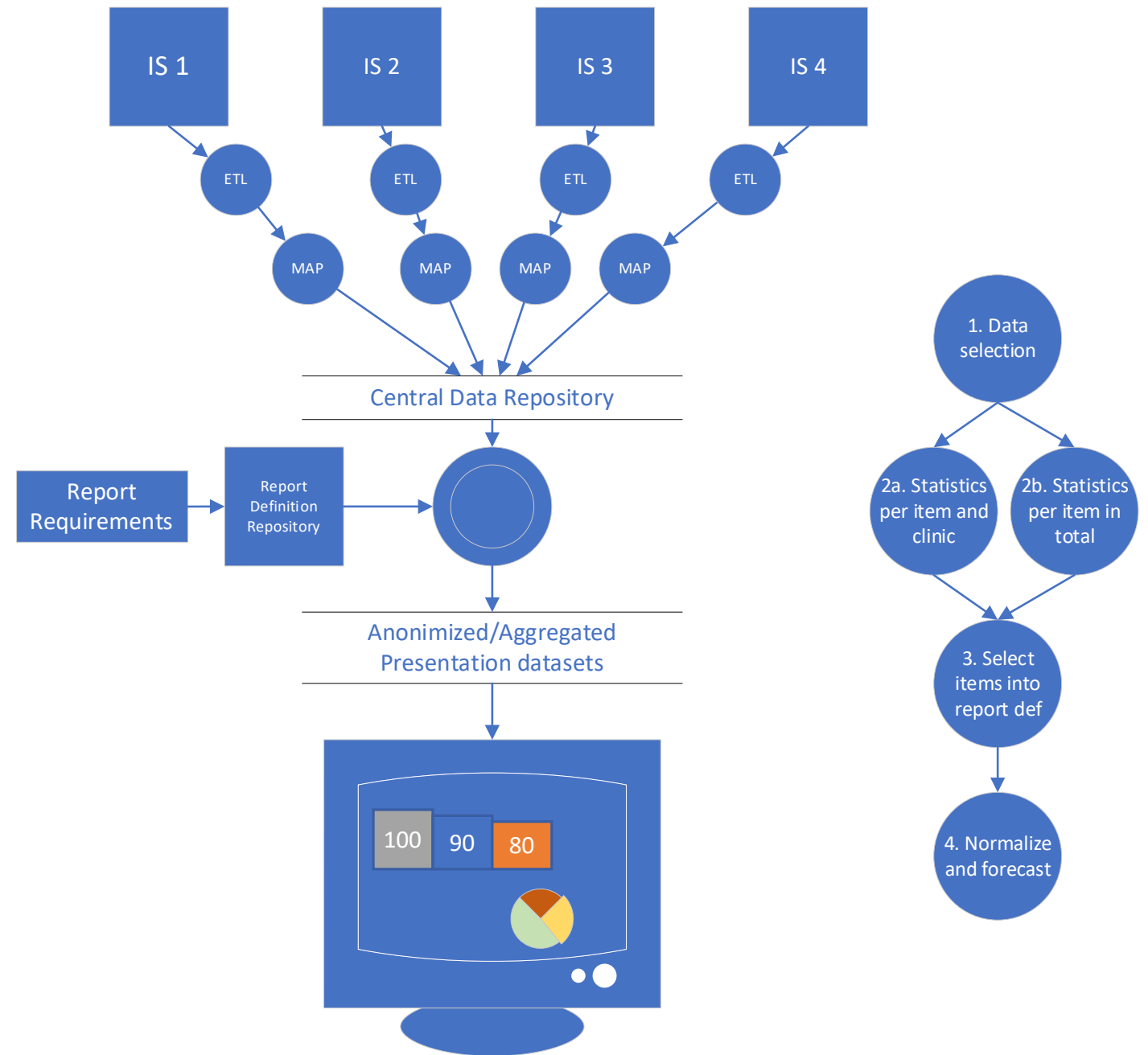
Example – SDTM data

Input:

- Data source
- Required report formats
- Required graphs
- Required statistics
- Analysis variable(s)
- Rounding option
- By option
- Population
- Output location and name
- Output dataset name



Example - RWD



Example – feasibility check

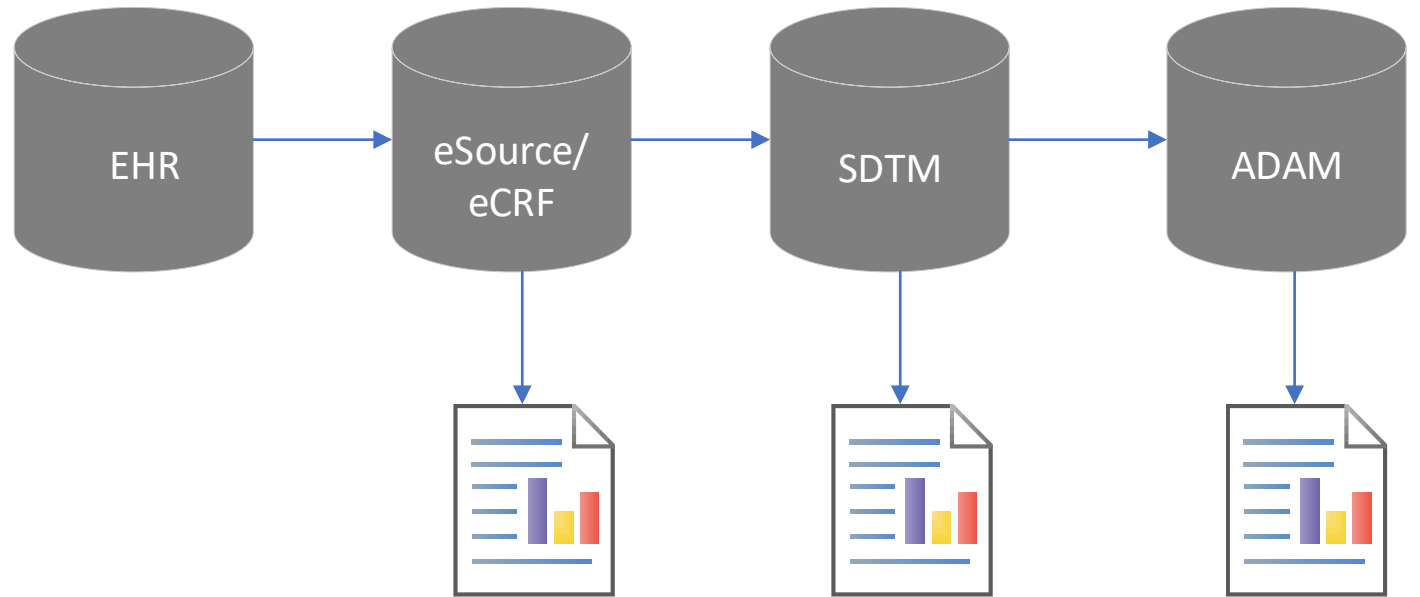
- Check feasibility based on mapped input criteria
 - Mapping flexible input file
- Validate mapping
- Validate input data
- Evaluate eligibility per domain
- Analyse
- Present and export

OMOP	FHIR	CDISC
Basic		
INPUT AND TRANSFORM REAL WORLD DATA		
INPUT AND VALIDATE CRITERIA		
VALIDATE REAL WORLD DATA		
EVALUATE CRITERIA PER DOMAIN		
DEMO SCORE	DRUG LAB	COND OTHER
COMBINE EVALUATIONS PER PATIENT		
ANALYSE, PRESENT AND EXPORT		



End to end automation

- Efficiency gain
- Preliminary insights
- Auto validation
- Interoperability
- Data protection



Clinline online workshops in 2021

Improving efficiency in clinical research

- 13 May: End to end automation in Clinical research
- 17 June: Digitalized clinical trials: Planning and design
- 02 Sep: Improving clinical trial efficiency by using Real World Data
- 16 Sep: Improving procedures using Lean
- 06 Oct: Managing remote teams using MD and AL

www.clinline.org/workshops



Questions?

For more information /
questions and requests:

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