# Tool Coverage - Protocol

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Protocol Development	Ability to update the protocol at any stage	F		F		F	F
Protocol Development	Provide templetes for the protocol	F		F		F	F
Protocol Development	Support protocol piloting						
Protocol Development	Support Protocol Development and Validation						
Decision Tracking & Tracability	Tracking decisions						
Differences of SLR and Mapping Studies	Support differences in the process between SLR vs. Mapping Studies						
Connecting with Industry	Portal to find industry problems that can be turned to SLRs						
Data Maintenance	Reference management	F	F	F	F	F	F
Data Maintenance	Document management	F	F	F	F	F	F
Data Maintenance	Data management	F	F	F	F	F	F
Data Maintenance	Support backup and maintenance of data for longterm evolution of research	F	F	F	F	F	F
Traceability	The ability to take snapshots and roll back features	F					Р
Traceability	Consistent documentation of results across the process	F	F	F	F	F	F
Traceability	Support for tracing extracted data back to source study	F				F	Р
Traceability	Map relationships between papers	F		F	F	F	F
Data Sharing	Citation and Document Sharing						
Data Sharing	Share and reuse SLR data and meterial						
Collaboration Support	Support for distributed review teams	F	F		F	F	F
Collaboration Support	Support for collaborative SLR	F	F		F	F	F
Collaboration Support	Support for conflict resolution	F	F			F	F
Motivation and RQ Templates	Support for motivation and RQ (picco) templates						

# **Tool Coverage - Search**

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Seach Execution	Support the ability pause/resume the search process						
Seach Execution	Search string standrization						
Seach Execution	Factoring search strings into multiple searches						
Seach Execution	Archive search queries and search process						
Seach Execution	Export search results						
Search Results	Duplicates removal						
Search Results	Need mass export of results in different formats(bibtex, XLS, etc)						
Search Results	Support search results filtering						
Storage of Studies	Automated storage of PDFs						
Storage of Studies	Management of stored studies	F	F	F	F	F	F
Storage of Studies	Ability to import external studies not from digital libraries	F	F	F	F	F	F
Integrated Search	Search and storage of data other than PDFs					F	
Integrated Search	Portal to search stored literature	F	F	F	F		
Integrated Search	Automated search in digital libraries					Р	Р
Integrated Search	Support for collaborative search					F	F
Integrated Search	Automated search and storage of studies in digital libraries					Р	Р
Integrated Search	Integration with databases services					Р	Р
Integrated Search	libraries					Р	Р
Integrated Search	Cross search of digital libraries						
Integrated Search	Importing search results from different databases	F	F	F	F	F	F
Integrated Search	Support piloting search string					F	F
Integrated Search	Support for search iterations	F				F	F

# **Tool Coverage - Selection**

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Collaboration Support	Generate "random set" for validation (IRR)						
Collaboration Support	Support collaborative Selection process	F	F		F	F	F
Collaboration Support	Conflict detection and resolution	F	F		F	F	F
Selection Process	Citations and documents management	F	F	F	F	F	F
Support Text Mining	Natural language processor for included studies						
Support Text Mining	Automated search of similar studies based on defined keywords						
Support Text Mining	Textual analysis support	F	Р	Р	Р	Р	Р
Support Text Mining	Keywords definition support					F	
Support Text Mining	Automated keyword/phrases extraction, topic analysis in primary studies	Ρ	Ρ	Ρ	Р	Ρ	
Support Text Mining	Support search automation for evidence in study						
Support Inclusion and Exclusion	Semi-Automated inclusion/exclusion of studies			Р	Р	Р	Р
Support Inclusion and Exclusion	Automated support to map snowballing of references	F					
Support Inclusion and Exclusion	Support pilot of inclusion/exclusion						
Support Inclusion and Exclusion	Semi-Automated to conduct snowballing	F					
Support Inclusion and Exclusion	Support for inclusion/exclusion criteria management	F	F	F	F	F	F

# Tool Coverage - Quality Assessment

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Collaboration Support	Support for collaborative assessment of articles	F	F		F	F	F
Collaboration Support	Conflict resultions during assessment	F	F		F	F	F
QA Process	Provide QA checklist						
QA Process	Support assessing study relevence	F	F	F	F	F	F
QA Process	Support the ability to assess the quality of study while extracting data						
Assessing Articles Quality	Measuring study relevence using the content of the study						
Studies Diversity	Provide QA criteria for different types of studies						
QA Measurement	Validating selected papers/studies						
Process Standardization	Ability to create QA criteria list						
Process Standardization	Provide quality assesment criteria template						
Process Standardization	Ability to reuse existing QA criteria						
Support Quality Assessment	Support quality assessment of studies, protocol, and process activites.	F	Р	Р	Р	Р	Ρ

# **Tool Requirements - Data Extraction**

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Data Extraction Form	Ability to revise data extraction form at any stage	F	F	F	F	F	F
Data Extraction Form	Ability to extract multiple studies from one article						
Data Management	Export extracted data						
Process Efficacy Assurance	Data Extraction Validity						
Tool Support	Integration with Excel						
Tool Support	Extraction of bibliographical items from web pages						
Tool Support	Support traceability of extracted data	F	F	F	F	F	F
Tool Support	Data management	F	F	F	F	F	F
Tool Support	Document management	F	F	F	F	F	F
Tool Support	Support automated reading of articles	Р	Р			Р	Р
Collaboration Support	Comments for reasons made when applying criteria						
Collaboration Support	Collaborative coding	F	F		F	F	F
Collaboration Support	Support collaborative data extraction process	F	F		F	F	F
Collaboration Support	Conflict resolution during extraction						
Coding of Methods and Data	Support encode study methodology						
Coding of Methods and Data	Support categories management						
Coding of Methods and Data	Quantitative data capture						
Coding of Methods and Data	Support codes management and results		F		F		
Coding of Methods and Data	Qualitative data capture	F					
Coding of Methods and Data	Support pilot of data extraction						
Coding of Methods and Data	Support PDF annotation						

# **Tool Requirements - Synthesis**

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Synthesizing Primary Studies	Tracing a definition back to the original article						
Synthesizing Primary Studies	Population analysis of studies						
Synthesizing Primary Studies	Measure how close articles are	Р	Р	Р	Р	Р	Р
Synthesizing Primary Studies	Mix evidences from multiple studies						
Synthesizing Primary Studies	Mix evidences across study design						
Synthesizing Primary Studies	Support export of synthesied data						
Automated Analysis	Coding Support		F				
Automated Analysis	Automated analysis and summary of coding						
Automated Analysis	Automated classification based on coding		F				
Automated Analysis	Automated reports generation of stuides meta-data	F				F	F
Automated Analysis	Automated reports generation of statistical data, list of included/excluded stuides, and criteria	F	F	F	F	F	F
Automated Analysis	Support graph generation	F	F	F	F	F	F
Handling Data	Summarizing qualitative and quantitative data						
Collaboration Support	Support collaborative process during the synthesis	F	F		F	F	F
Statistical Analysis	Support comparision of qualitative evidence						

# **Tool Requirements - Documentation**

Composite	Requirement	StArt	SLuRP	SLR-Tool	SLRTOOL	Parsifal	SESRA
Report Preparation	Ability to aggreagate the extracted data in one place	F	F	F	F	F	F
Report Preparation	Generate a template for the documentation						
Validation	Report Validation						
Visualization	Visualization support of cluster of papers	F	F	F	F	F	F
Visualization	Generate presentations using Latex		F				
Visualization	Visualization support of qualitative findings	F	F	F	F	F	F