

Useful Platforms for the SHAMAN Engineering case? Survey Search Platforms used in Library Institutions

A Study derived in the context of the SHAMAN
R&D challenges

Methodology used for the Survey

1. **Desk-based Research** (Internet, Marketing Material, Scientific publications, Journals)
2. Creation of a **Multidimensional Product Feature** and **Purchase Decision Making** Questionnaire by InConTec
3. **Coordination and Adjustment** of the Questionnaire with FU Hagen

Methodology used for the Survey

4. Letter to **Selected Interviewees**
5. **Interviews** (local or by phone, audio recorded)
6. **Documentation of the Interviews** in the Questionnaires and ***Crosscheck with Interviewees***
7. **Internal Status Reports** for progress tracking

8. Definition of **Multidimensional Scoring and Ranking Schemata**
9. **Data Entry** of Interview Results in Scoring and Ranking Calculation Sheets
10. **Calculation and Competitive Visualization of Scoring and Ranking**
11. **Production of a Presentation** for Shaman meeting in Frankfurt

Methodology: Excerpt of the Survey Questionnaire (28 pages)

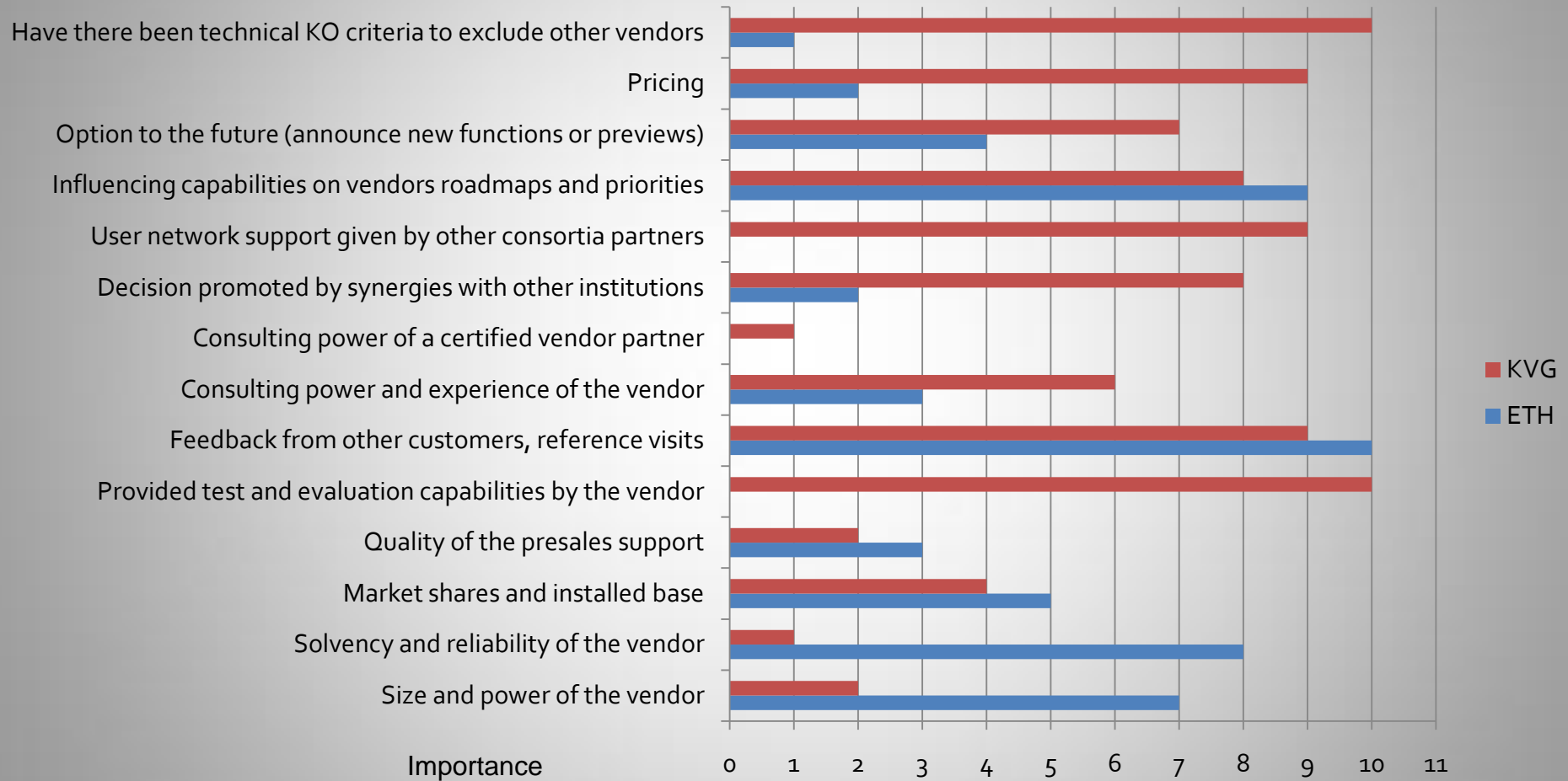
F3.0 Browsing functions (simple and advanced search modus)				
	Which browsing function can be influenced by the user	Yes	No	
1	Can you browse in predefined lists, hosted by the system itself?	Yes		facets
2	Can you browse in predefined lists or documents hosted on a global base?		No	
3	Can you sort these lists to your favor (alphabetic, theme oriented, ...)		No	
4	In Browsing lists are there the most important information resource prioritized on top of the lists		No	
5	Is alphabetic browsing in different fields e.g. Authors, Magazine title, ...) possible	Yes		
6	Can the theme oriented structure of lists easy get adapted or changed?	don't know		
7	Can you browse in newspapers to reach articles?		No	I would imagine that these are not functionalities of an integrated search solution per se but more of the underlying (remote) databases.
8	Can you brows in Magazines to reach articles?		No	
9	Can you browse in Conferences to reach articles?		No	
10	Can the user return each time to the search mode?	Yes		

Methodology: Excerpt of the Survey Calculation Sheet

F9.3	History tracking features															4c, e
12	Does history tracking belong to the personalization features?	1	1	1	4	5	6	1	7	1	4	4	4	1	2	
13	Is the storage of query or query structures supported?	4	1	1	4	5	5	9	7	1	4	4	4	1	1	
14	Can the user permanent store his personal query list?	4	1	1	4	2	5	1	7	1	4	4	4	1	1	
15	Can the user adopt functionalities (like "super queries")?	4	4	4	4	5	6	4	7	3	4	4	4	1	0	
16	Can the user store his personal search strategies and recall or reuse later?	1	1	1	4	2	2	4	7	1	4	4	4	1	0	
17	Can a user select specific queries from a list?	1	1	1	4	2	2	4	1	2	4	4	4	1	1	
18	Can the user subscribe for alerts?	1	1	1	4	2	2	1	1	1	4	4	4	1	2	
19	Can the user define his own alerts?	4	1	1	4	7	6	1	1	1	4	4	4	1	2	
20	Is a alert wizard existing?	4	1	1	4	7	6	4	4	3	4	4	4	1	2	
21	Can the user create his own book shelves?	4	1	1	4	2	2	1	5	2	4	4	4	1	2	
22	Provides the system specific predefined queries in personal research spaces?	4	4	4	4	5	5	4	4	1	4	4	4	1	0	

Comments are not visible in this copy

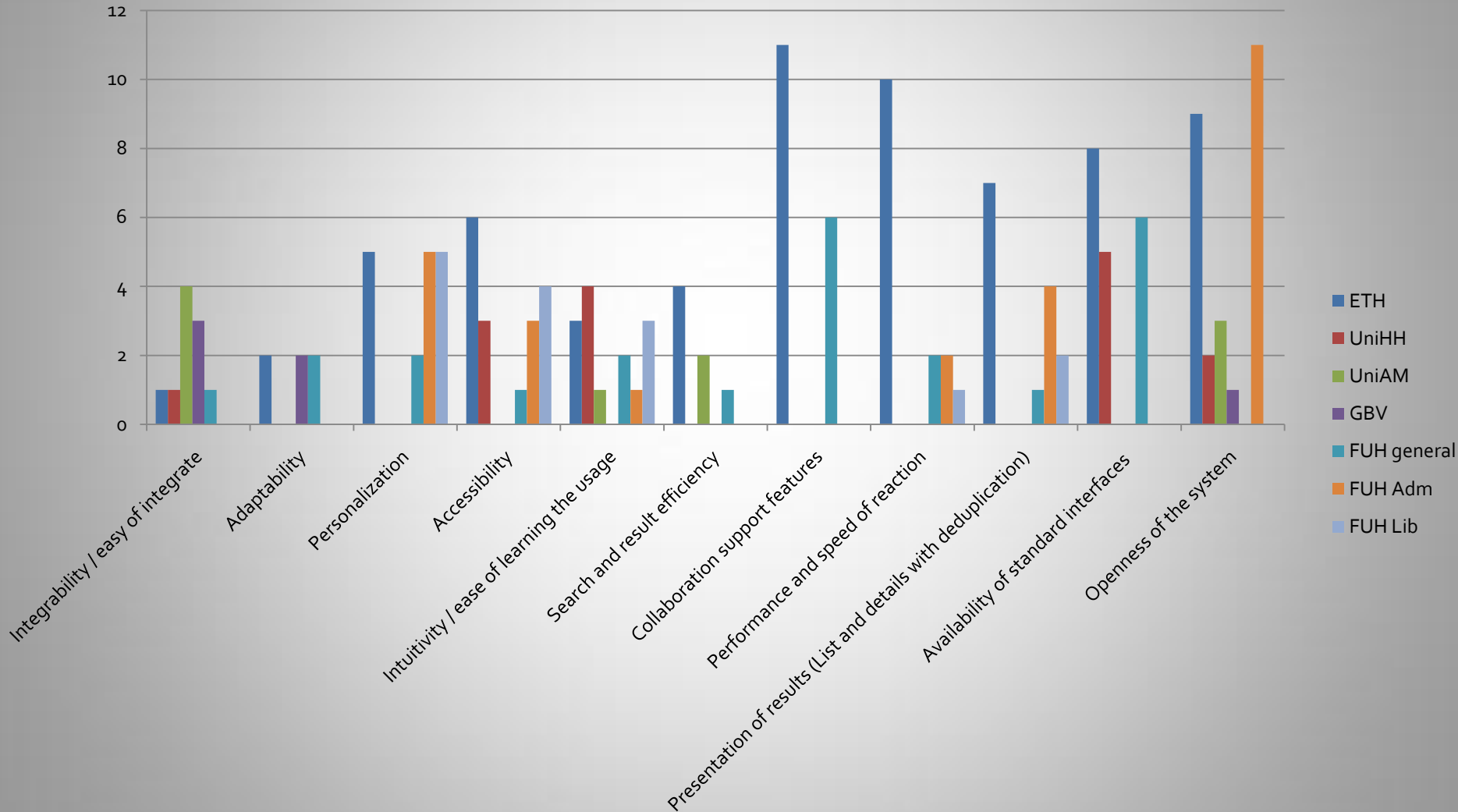
Decision Criteria provided by Customers



Categories used in the survey

Categories	#	Old schema
Integration in ILS systems	1	A
Format & migration support	2	K
Management & administration features for existing standard functions	3	L
Personalization functions	4	C
Collaboration support features	5	G
Efficiency of search functions	6	F
Quality and efficiency of result presentation	7	I
Openness and custom support	8	BL
Usability, User support functions and „Ease of Use“	9	DE
Scoring of the interviewees during the survey	0	none

Priorities from Customers' Point of View



Result Scoring

Answer of Interviewee	Points
Standard functionality delivered with the product	3
Functionality that can be reached with customization	1,5
Functionality that is provided by the core search engine and requires configuration	2
Not covered by the system	0
Will be brought in the next upcoming release	1
Planned for future foreseeable release	0,5
Out of scope or other solution gets used	0
Partly delivered with the standard solution	1,5
Not part of the questionnaire	0

Legend for Requirements of Perspective Users

#	Requirement of interviewee	Points
1	Yes, this is a "MUST HAVE" functionality	3
3	Yes, if no better solution available	1,5
2	Yes, this is expected	2
4	This is a not necessary function	0
6	Nice to have	1
7	Neutral	0,5
5, 8	Don't Know / Need to investigate	0
9	On the wish list	1,5
0	Not part of the questionnaire	0

Influence by the Importance of the Question

Question ranking	Scoring
Questioned function is essential	2
Questioned function is important	1,5
Questioned function is “nice to have”	1
Questioned function is not important	0,5
Question does not influence the scoring of the systems	0

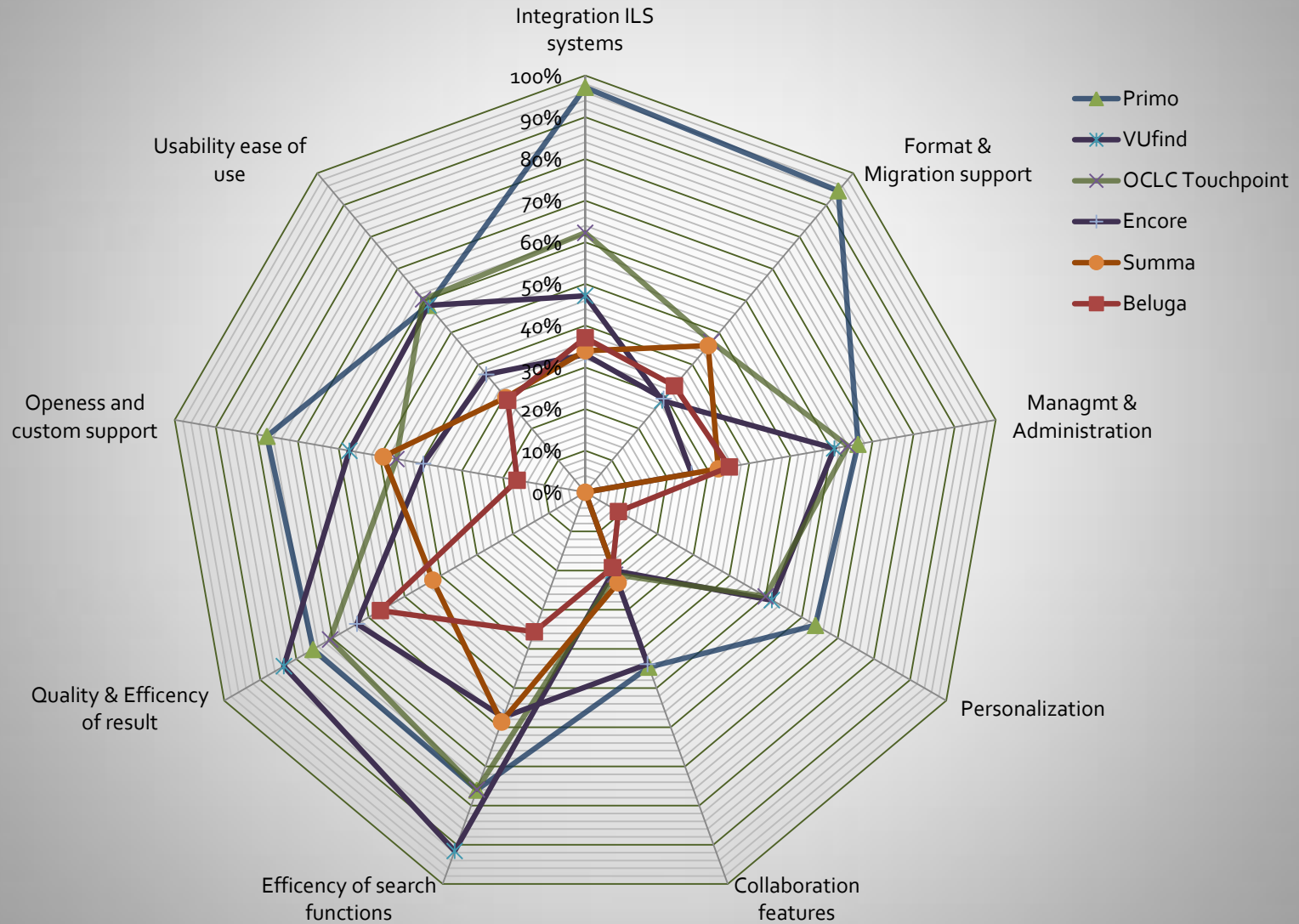
Calculation of Scoring Schema

- ❑ The calculation of the following spider diagrams has been made by the use of the following formula:

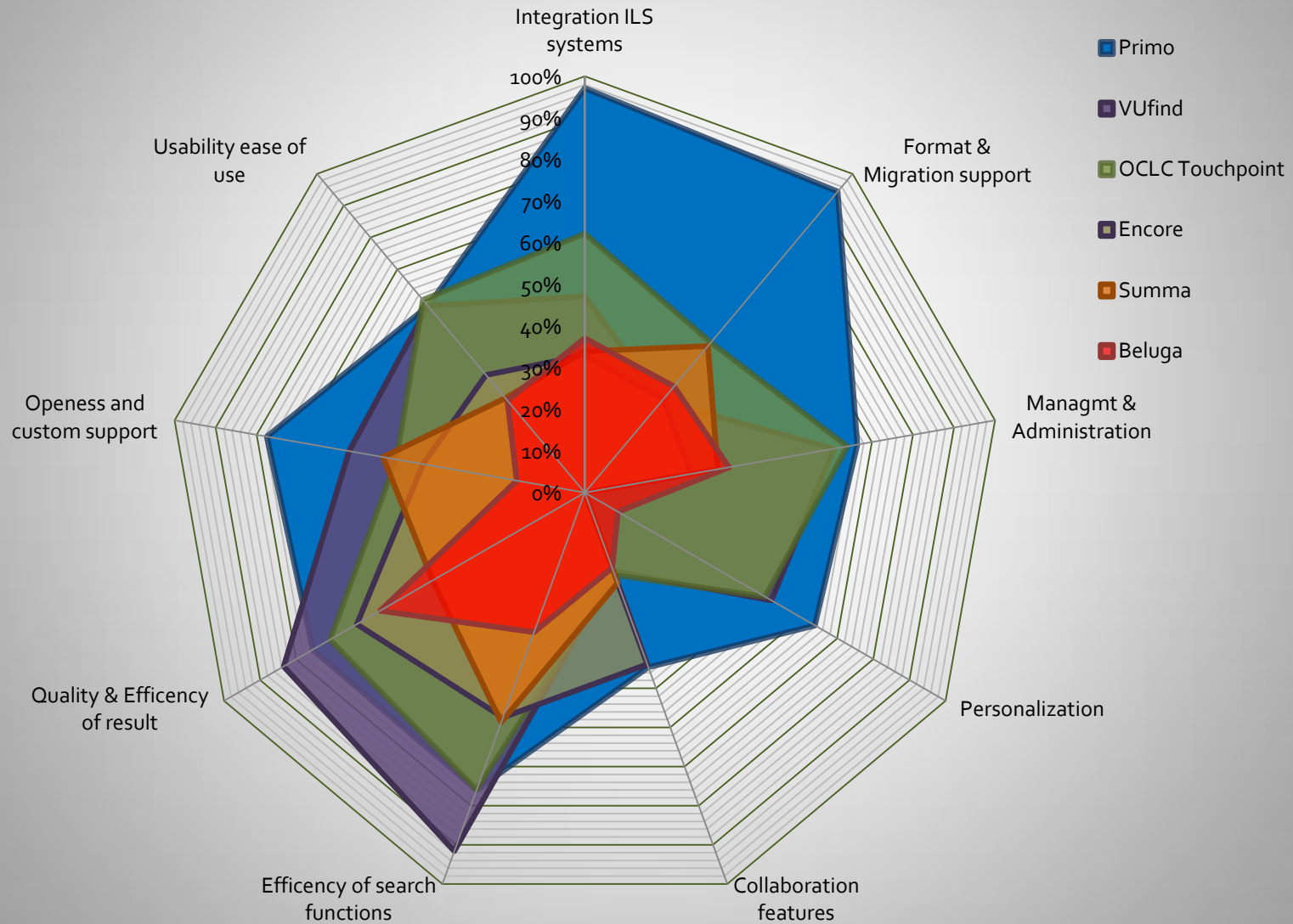
*Answer of the interviewee (points) * Importance of the question (factor) = Volume of points*

- ❑ The volume of points has been summarized in the Questionnaire categories
- ❑ The maximum possible feature set represents 100%
- ❑ The results are presented as percentage of the maximum possible feature sets in each category

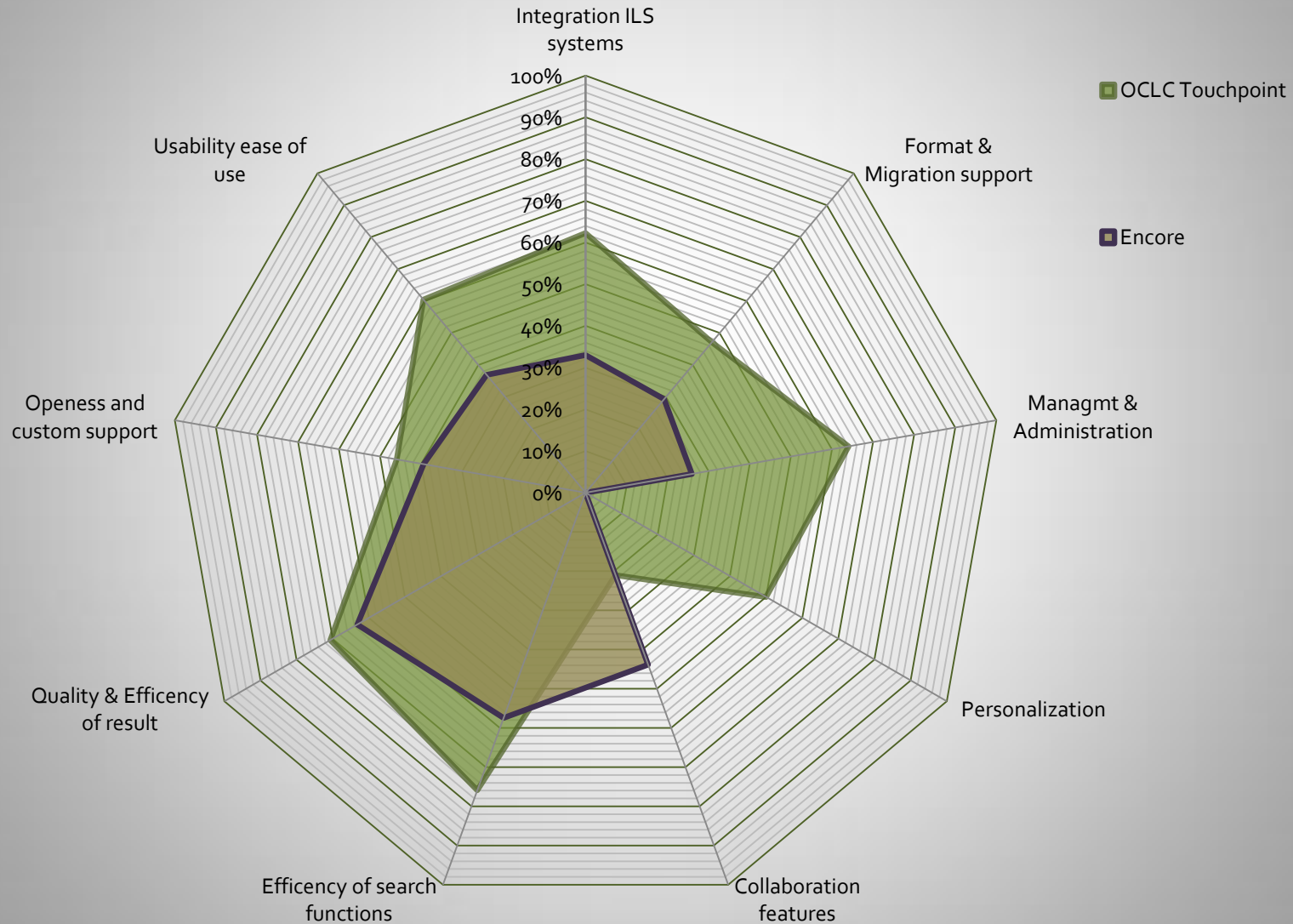
Overview Survey results about all reviewed Search Platforms



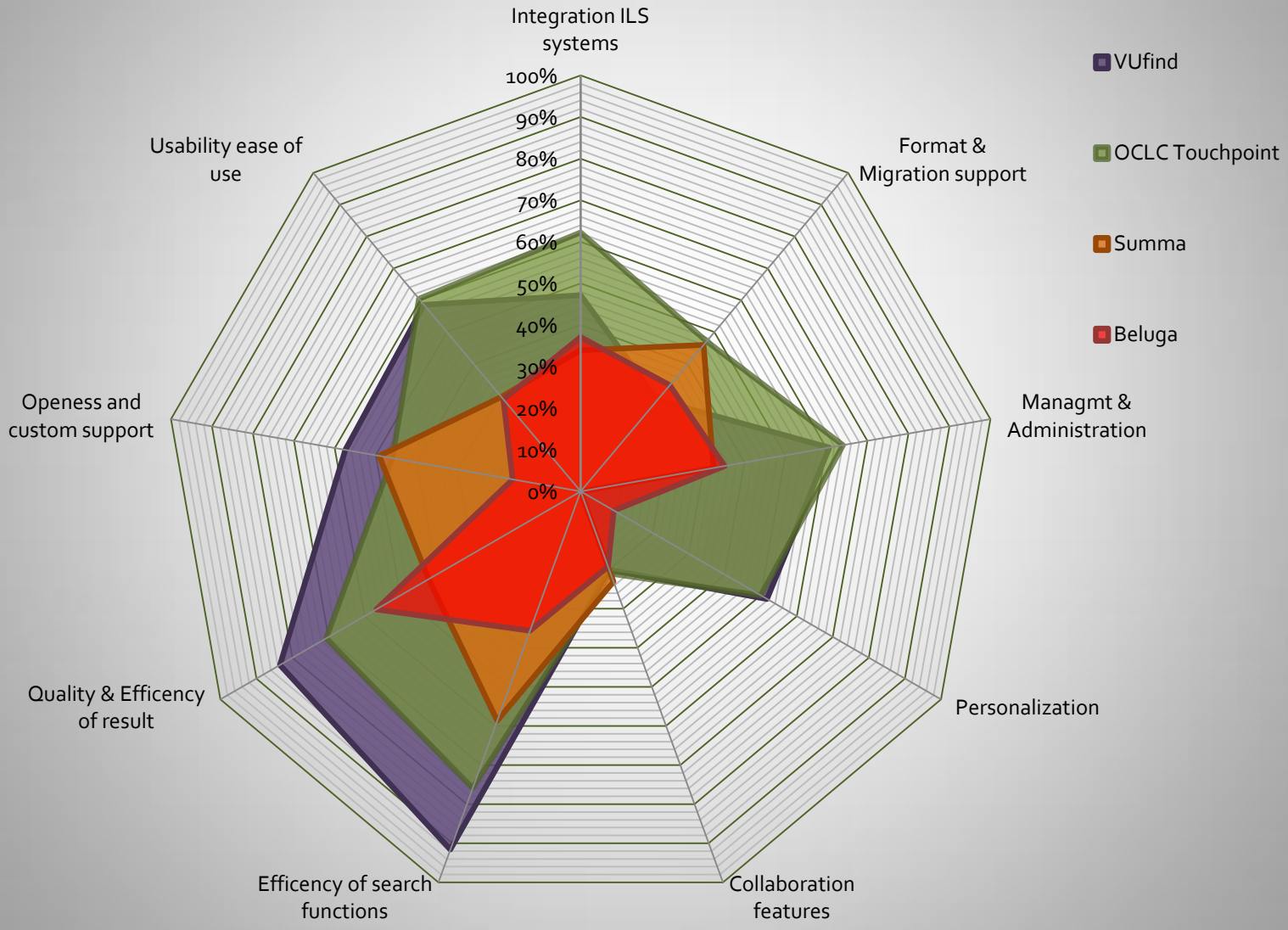
Overlapping view about reviewed Systems



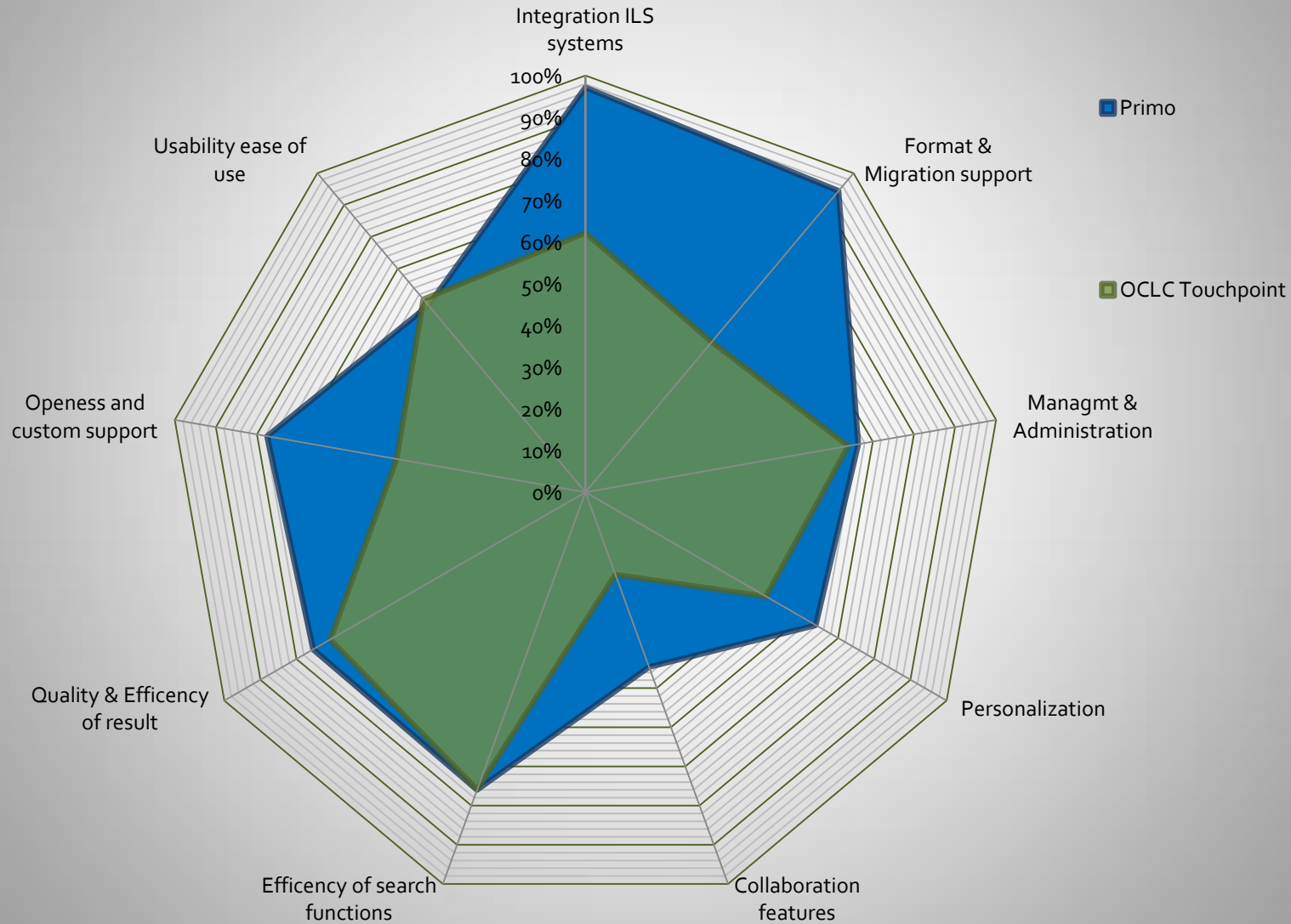
Comparison OCLC TouchPoint with Innovation Systems Encore



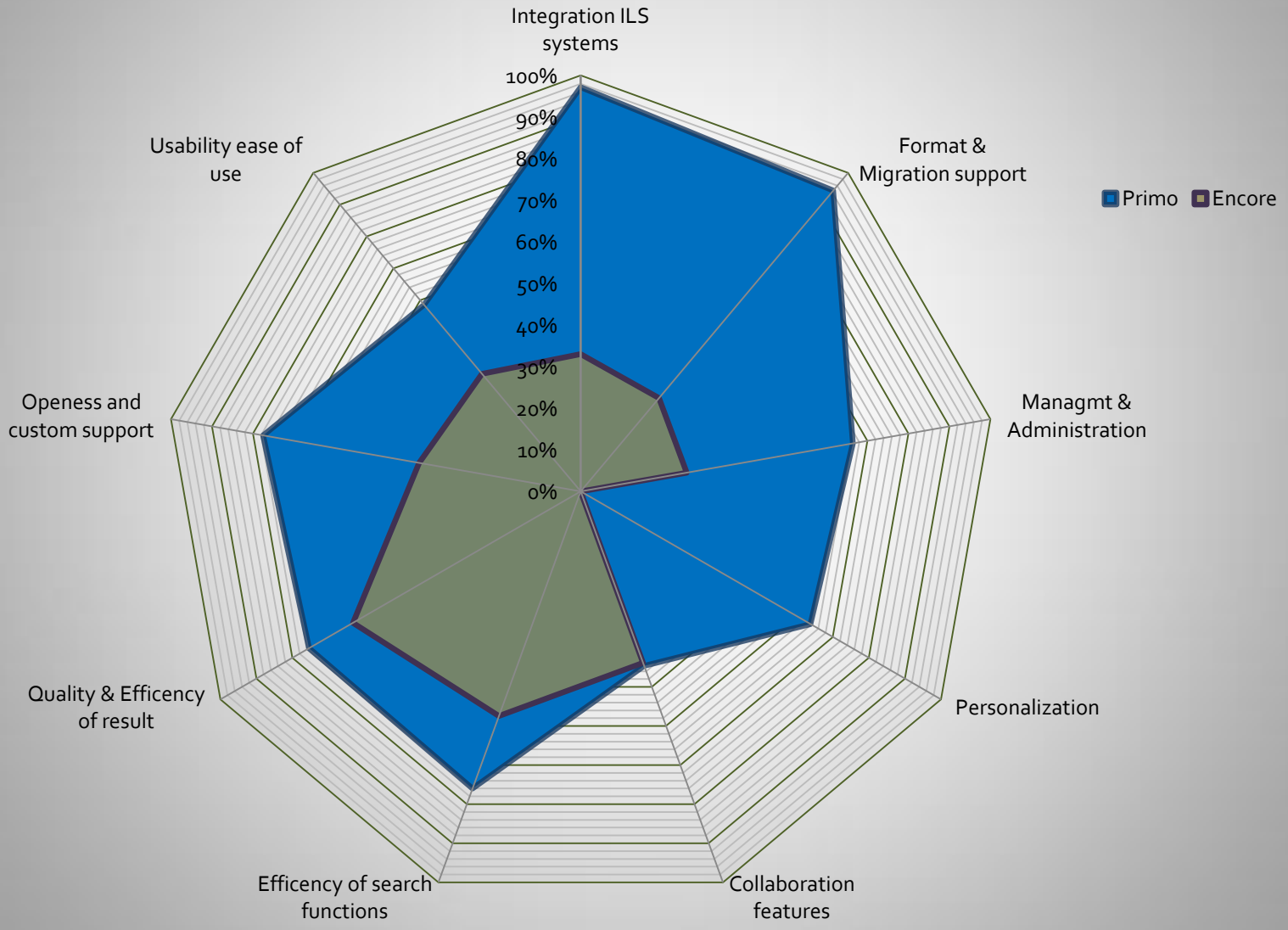
OCLC compared with Open Source Search Platforms



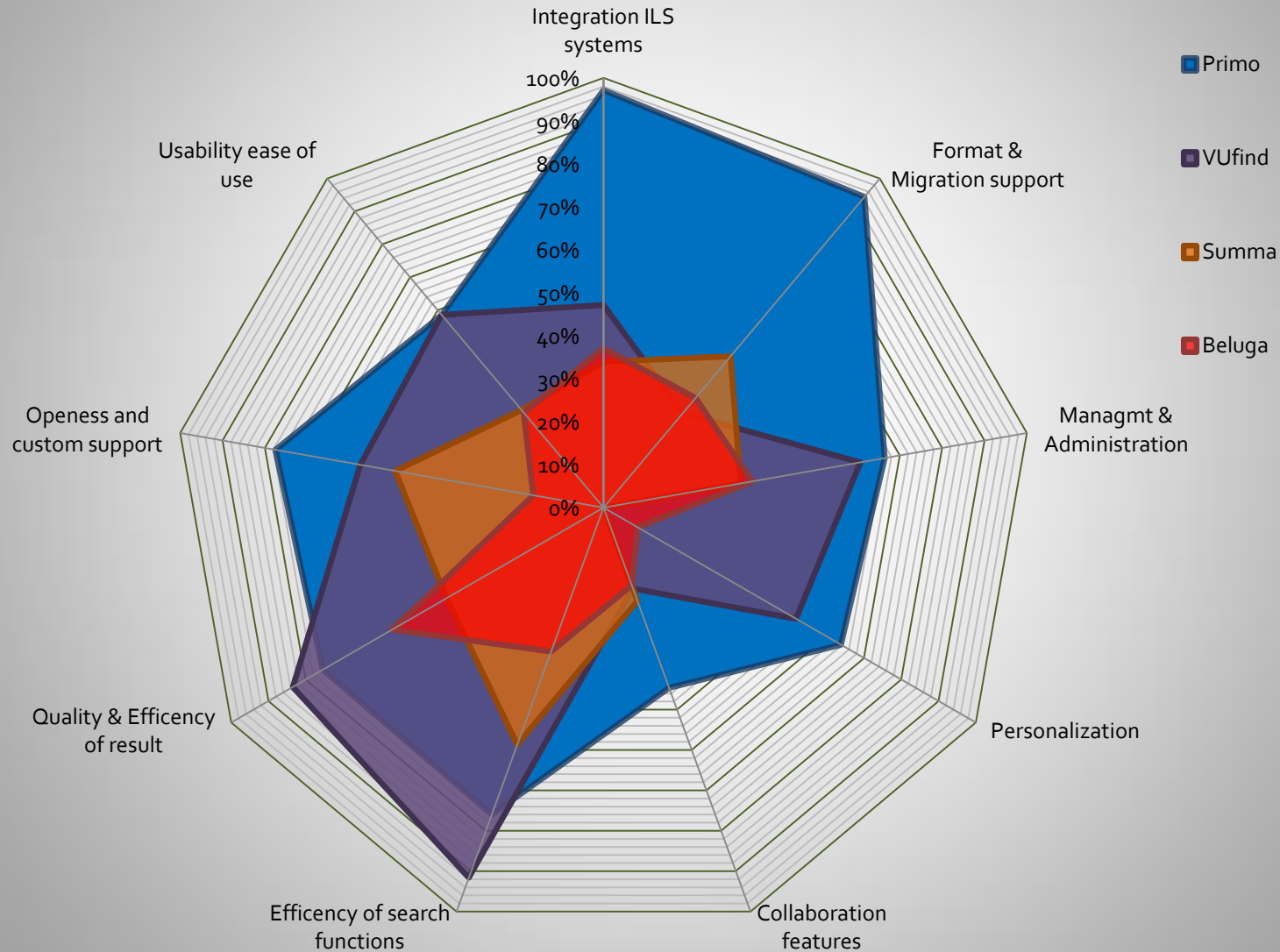
Comparison OCLC TouchPoint with Ex Libris Primo



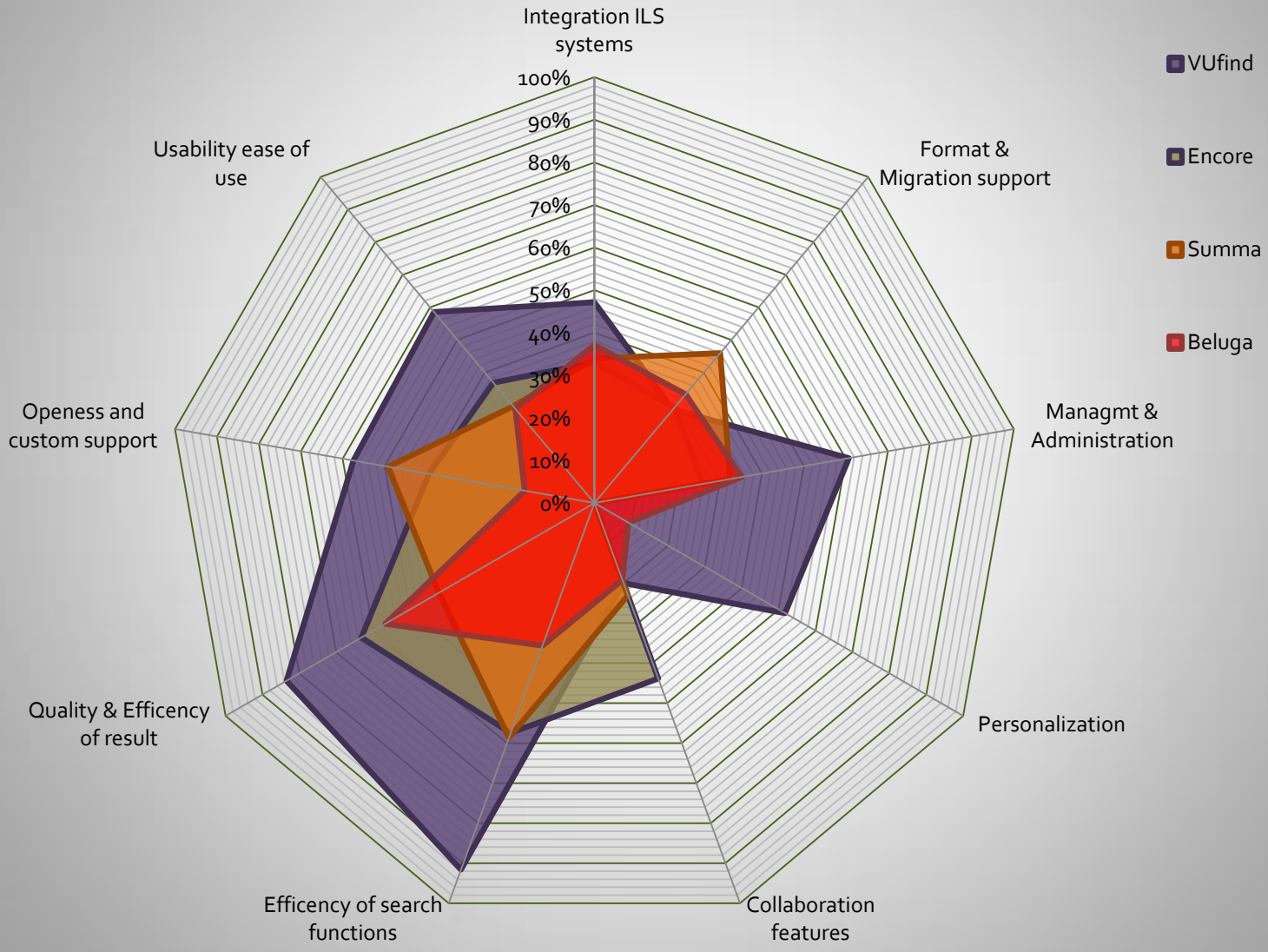
Comparison Innovative Systems Encore with Ex Libris Primo



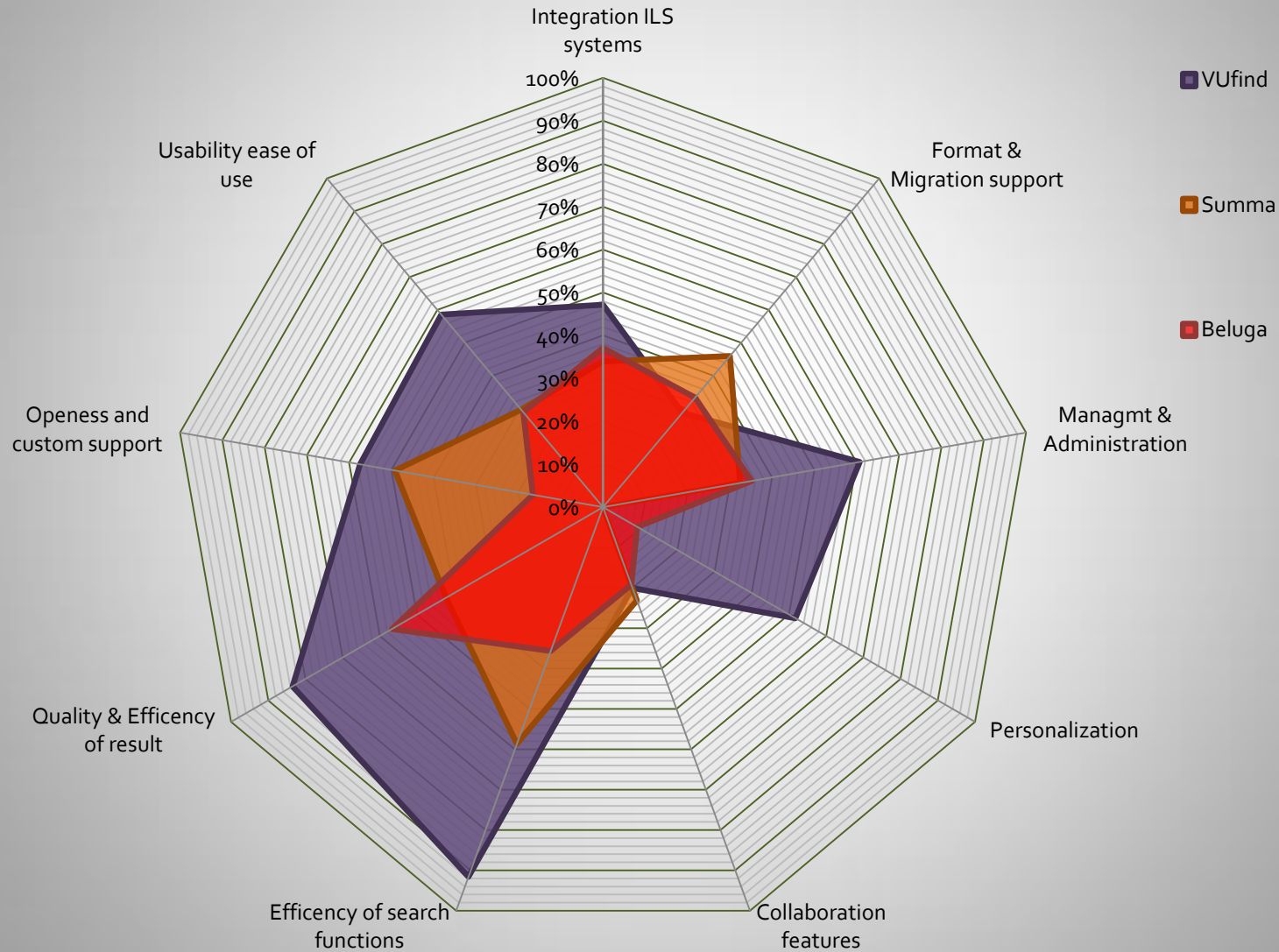
Comparison Open Source Systems with Ex Libris Primo



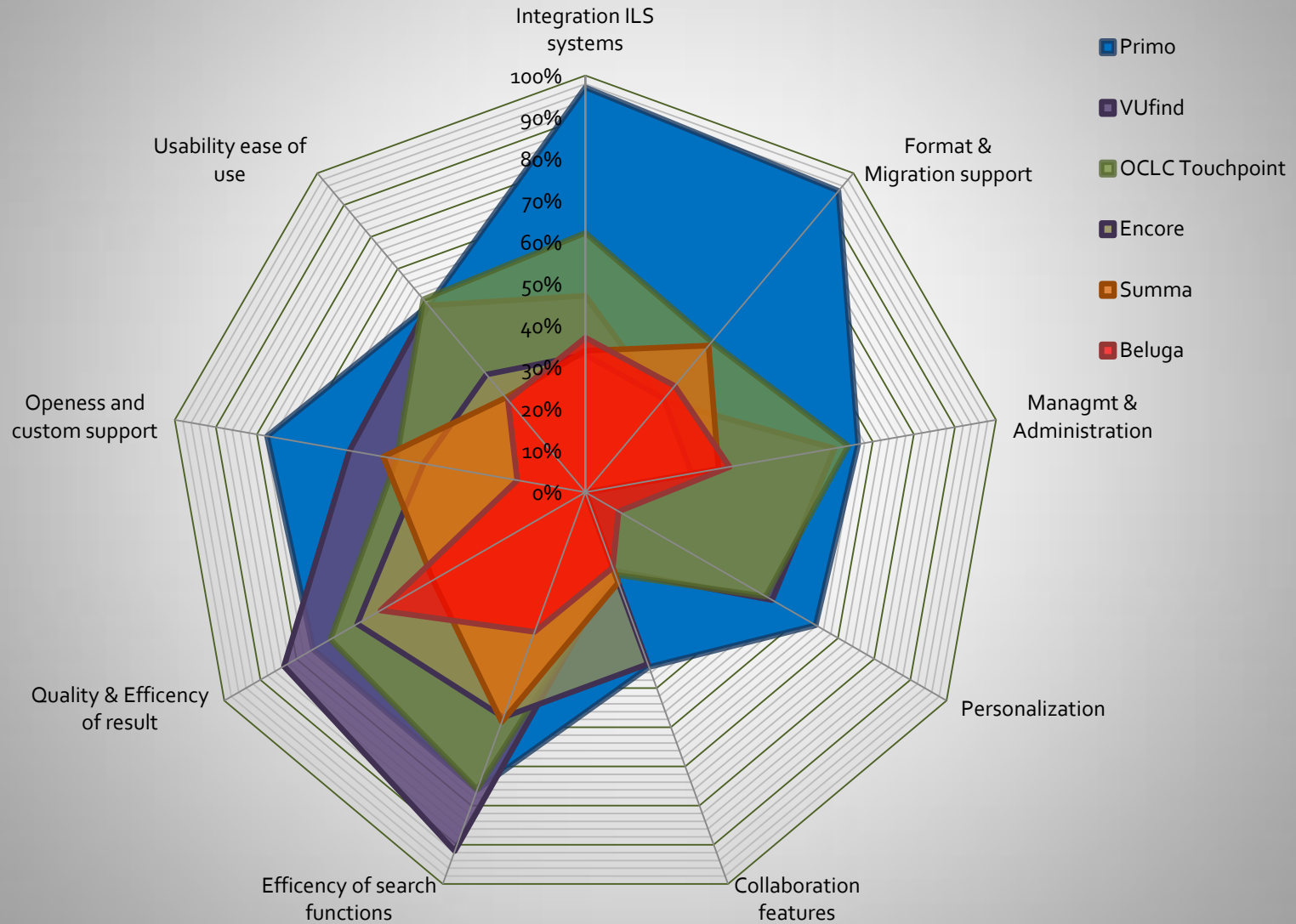
Comparison Innovative Systems Encore with Open Source Systems



Comparison Open Source Systems VUfind-Summa-Beluga



Left free not used: Placeholder



General observations

All systems have been reviewed along the SHAMAN given requirements, that include libraries, memory institutions, engineering and scientific and e-learning data.

Only those search platform functions that don't require additional licenses have been considered.

Some of the systems offer additional licenses with extended functionalities and cost

Weaknesses of all reviewed systems

- No variants supported
- Metadata structure limited
- No classification hierarchy
- Values, ranges ... missing
- No workflow integration

Strengths

- Integration with various ILS and other sources
- Interoperability
- Adaptability by the user
- Real-time status availability
- Harvesting of library data
- Ranking variations
- Software development kit
- Web-based customization and reporting functionality

Weaknesses

- User role orientation missing
- Project collaboration in shared environments
- Reuse of query history

Strengths

- Integration with PICA and SunRise (self-service)
- Networked Access to WorldCat DB (84 mio rec)
- Open programming and Wrapper configuration
- Supports Grid computing strategies
- Support of various search engines (Fast, Solr, Lucene)
- My Account (konto)

Weaknesses

- Data ownership unclear
- Social services only via WorldCat DB
- Notification limited
- Small programmer group
- Deduplication in federated sources
- Limited export /extraction capabilities
- Caught in WorldCat DB
- No productive installation

Strengths

- Real time status availability
- Positive look and feel
- Rating and feedback well integrated
- Interface to Google Analytics
- Video Tutorials

Weaknesses

- No Thesaurus
- Missing personalization
- Missing user openness (Java API will appear)
- No management capabilities for tags
- Missing Export functionality
- Limited facets
- No context sensitive help function

Strengths

- Relevance building integrated in the search
- Suggestions adjusting with input progress and user search successes
- Find an expert
- Recommender service “a user who borrowed “
- Editorial reviews from Amazon
- Resource basket

Weaknesses

- Access rights and security in the website
- Website functionality is not part of the delivery
- No admin interface in the open source
- No natural-language- or phrase-based querying
- Only one similarity given
- No tagging management
- No personalization

Strengths

- E-learning features
- Browsing about articles
- User generated meta data extension enforced
- Export function with reformatting
- Sharing of personal lists
- Circulation statistics

Weaknesses

- Real Prototype
- No advanced modes
- No access to licensed repositories (planned)
- Personalization missing
- No Help function
- No user rating or feedback
- Only Pica and iMat (Dublin Core) supported
- No open API !!!
- No snippets

Strengths

- Table result presentation with drill down functionality
- Social tagging
- Bookmarking user oriented

Weaknesses

- No sufficient user interface (HTW Chur project)
- No Thesaurus or synonyms
- No social network or collaboration support
- No statistics about usage
- No FRBR support
- ILS status slow and no user action implemented(today)

Capabilities of the Survey Questionnaire

- Comparison of fulfillment of customer requirements
 - Based on given ranking schema
 - Schema can be adopted to market and requirement changes
 - Fast recognition of possible gaps
 - Base for cost calculation of gap fills
 - Example with FU Hagen library team interview to the current known requirements

Conclusions for SHAMAN

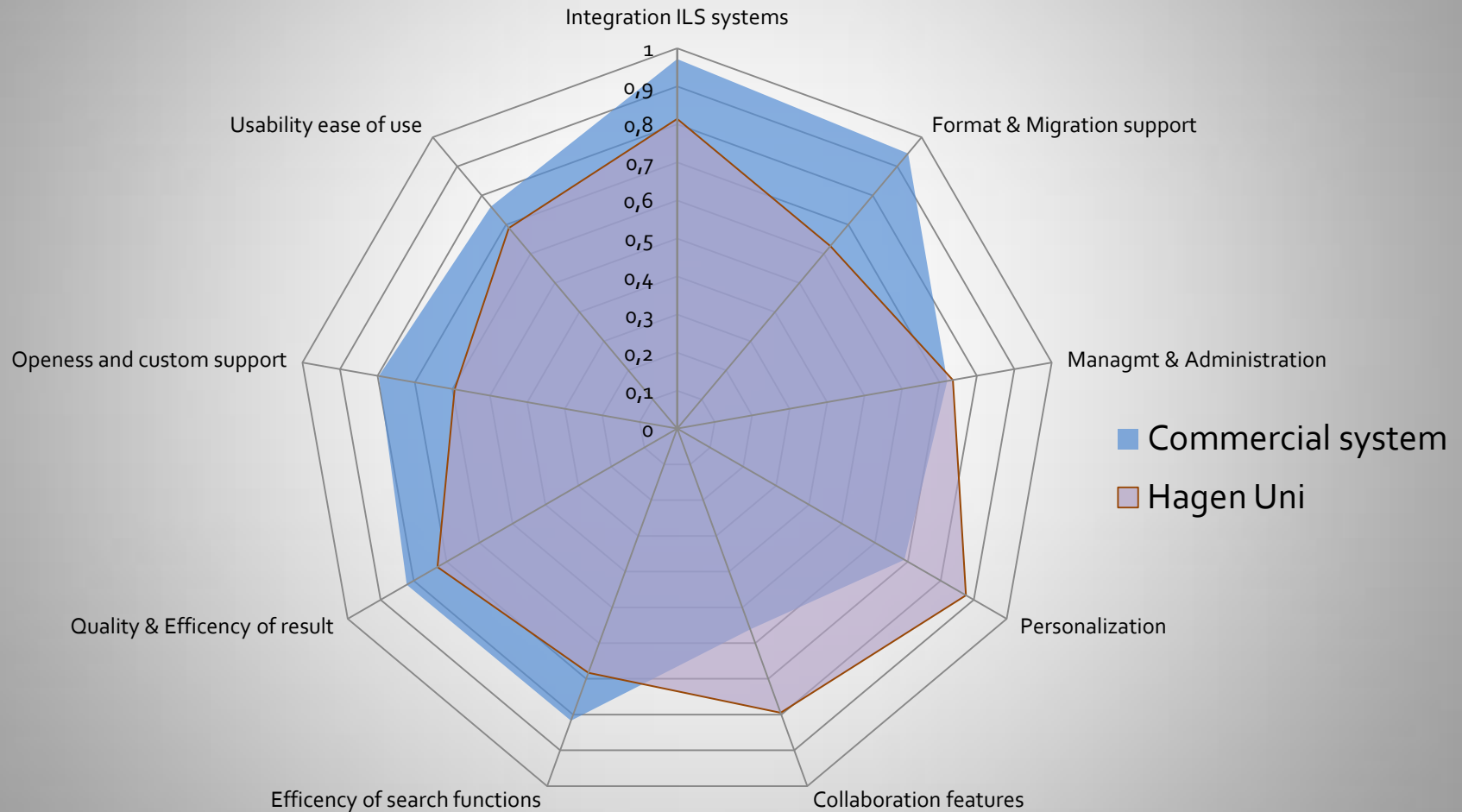
Strengths and Weaknesses as perceived by prospective customers have been qualitatively identified and prioritized

Competitive Advantages have been identified qualitatively

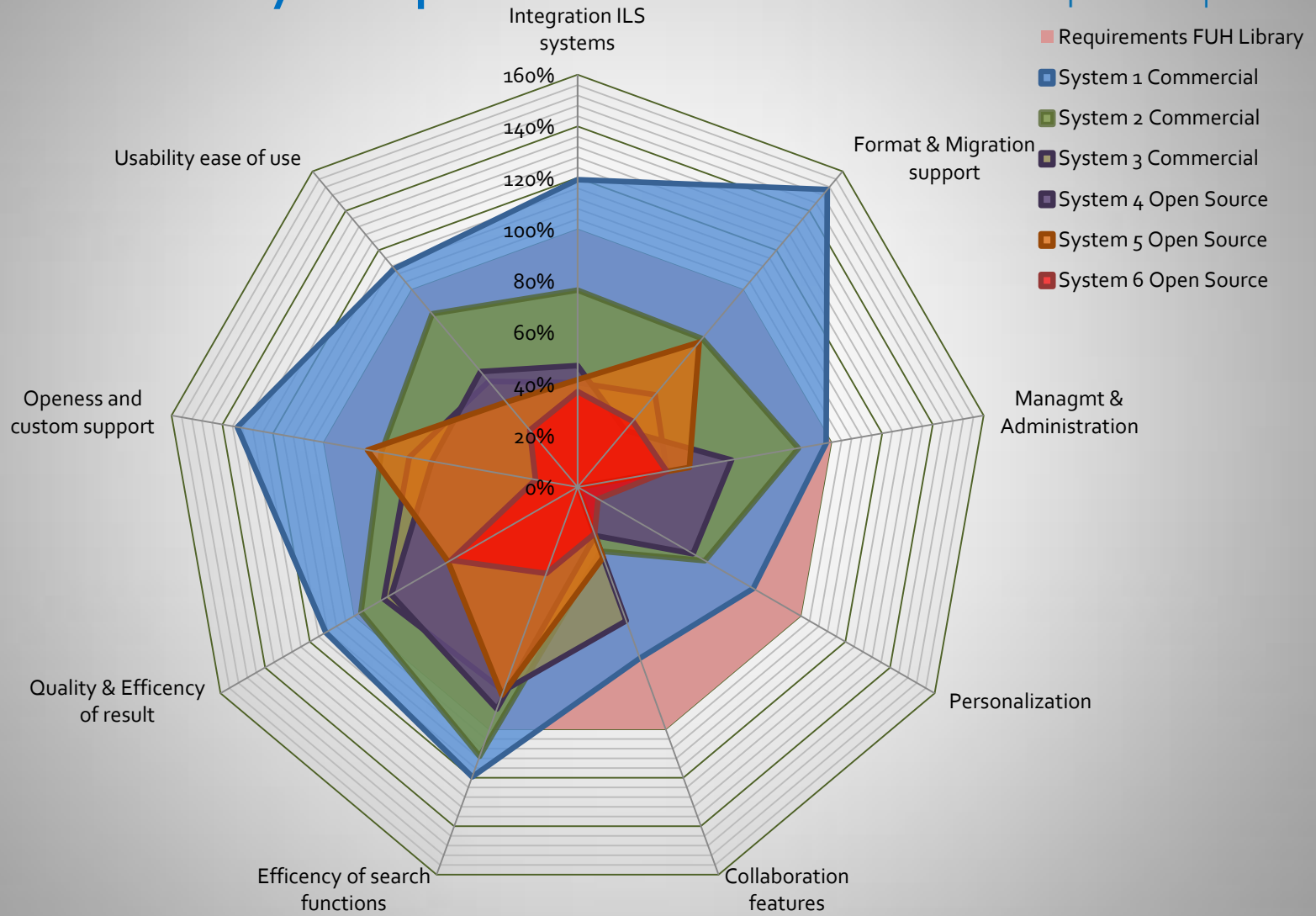
Searching for a real case

- ❑ The library of the FU Hagen, one of the SHAMAN project partners, intends to invest in a new search, hosting and archival platform that should expand the current capabilities and include e-learning documents and scientific contents
- ❑ Interviews with
 - IT Management
 - Librarians
 - Future implementation team
- ❑ Due to the study and it's gap analysis a higher requirement level has been recognized

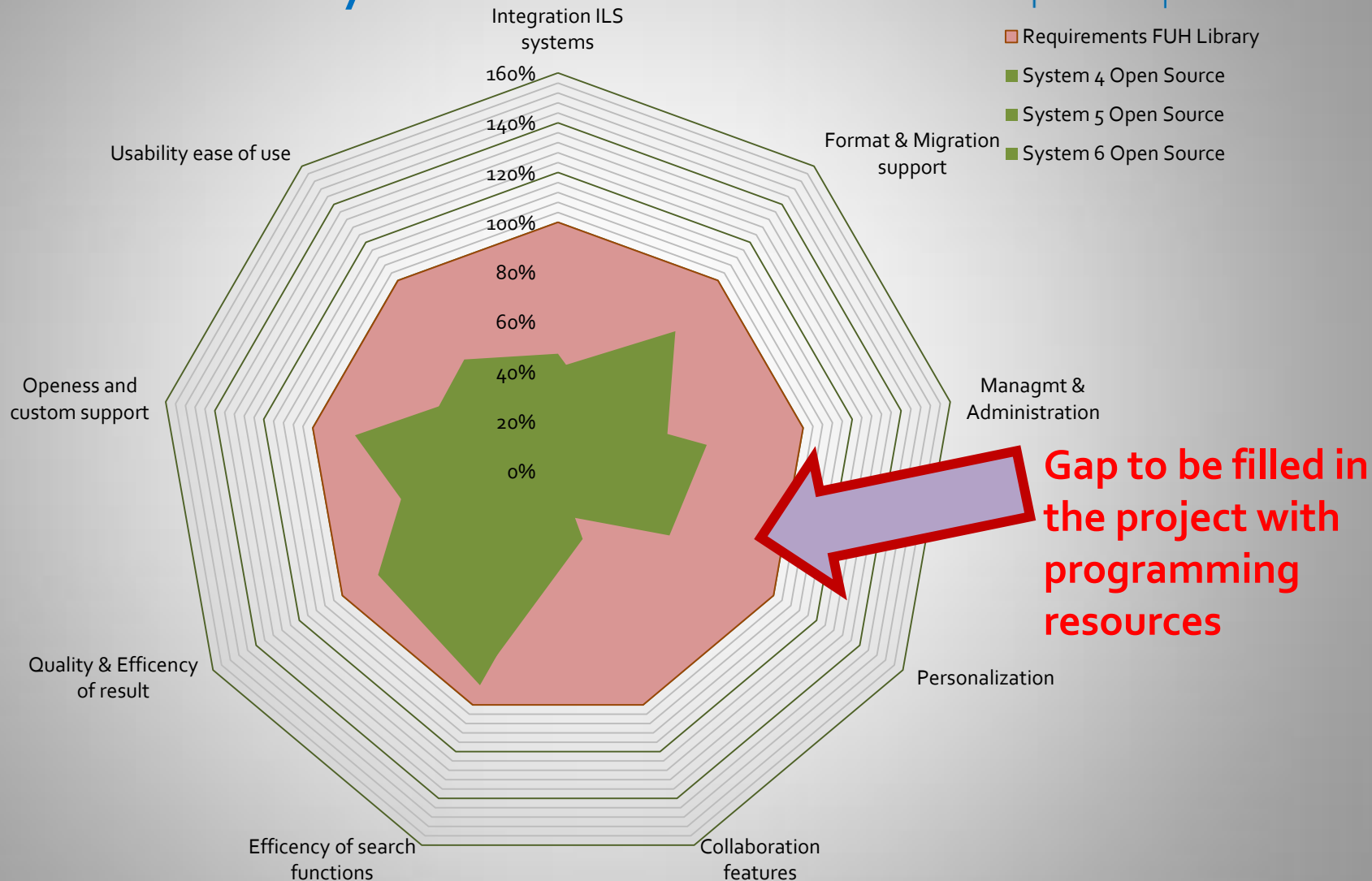
Project Evaluation: Requirements measured with SHAMAN needs



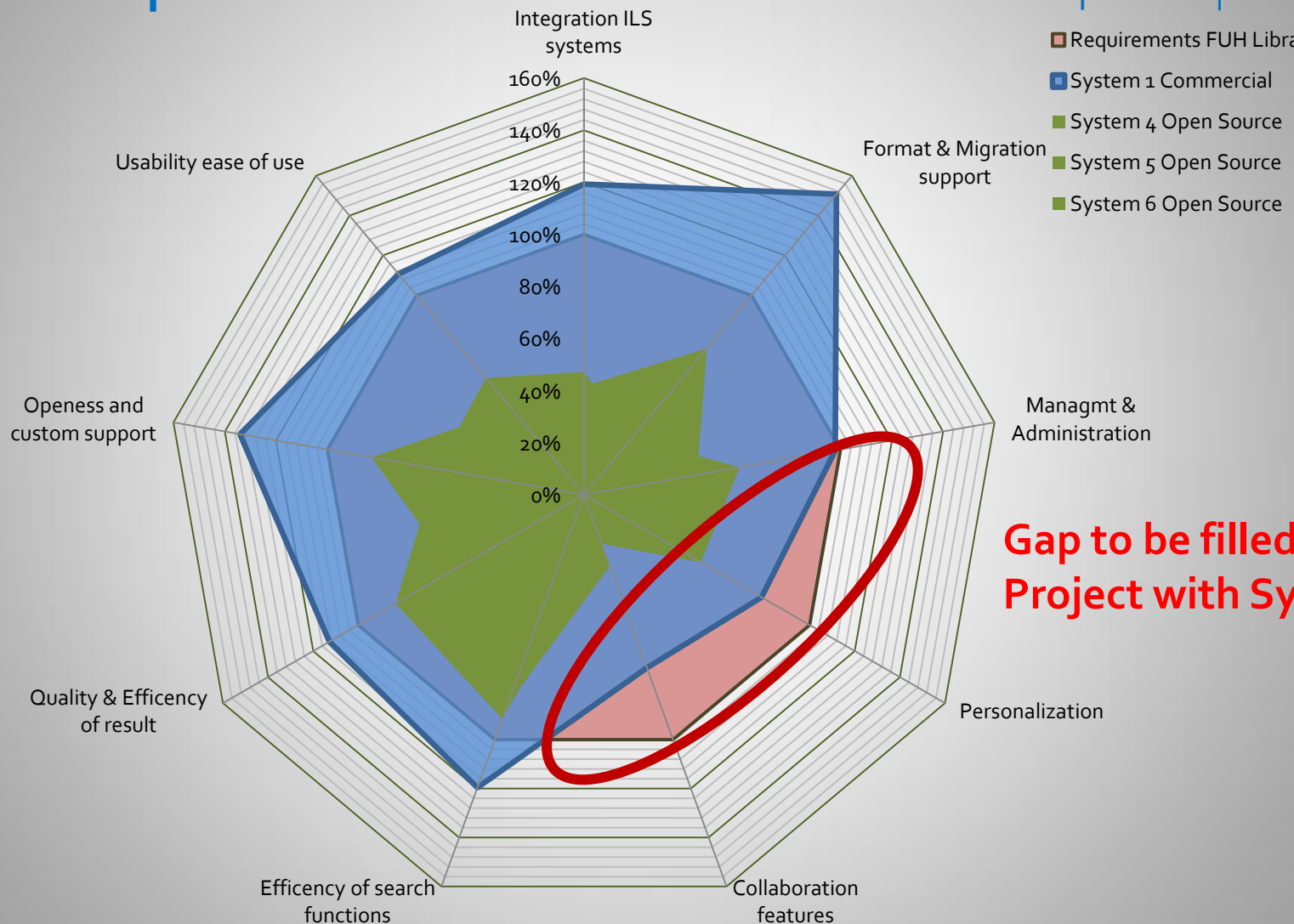
Systems measured against FU-Hagen library requirements =100%



Gap analysis for all (combined) Open Source Systems



Gap analysis Commercial versus Open Source



Gap to be filled in the Project with System 1

Future Work Potential

Exploitation of results in presentations and talks and in industrial disseminations

Investigation in ingest processes with similar methodology

Application of methodology for requirements analysis of workflow methodologies used in the industrial preservation area

Conclusions

The System selection will be discussed in the SHAMAN consortium

Non of the investigated systems covers all requirements

There is the question “Make or Buy”

At the end “Total cost of Ownership” counts most

For any questions please contact InConTec GmbH

User demands and future requirements

□ User management

- Introduce user roles and levels
- Improve collaboration between library and e-learning societies (sharing of book list, social tagging, using of blog, and group chat capabilities)
- Allow project and team work (sharing, project oriented tagging)

□ Extended library perception

- Enforce and promote multimedia capabilities

Conclusions (I)

Search engines for digital preservation projects require more functionality than the today available open source or commercial systems

The metadata structure does not respect value ranges, pattern examples or other technical identifier

Social network access is limited but will be supported from most of the systems in the near future

Conclusions (II)

Viewers / Readers or Players other than textual viewers like 2D vector graphics, 3D graphic models or other multimedia formats are almost not supported, but available on the market

Status analysis or view about the work in progress situation is referred to the archiving or systems

Metadata structure and hierarchy need to be added and extended with technical attributes

Fine

Thank you very much for your attention!