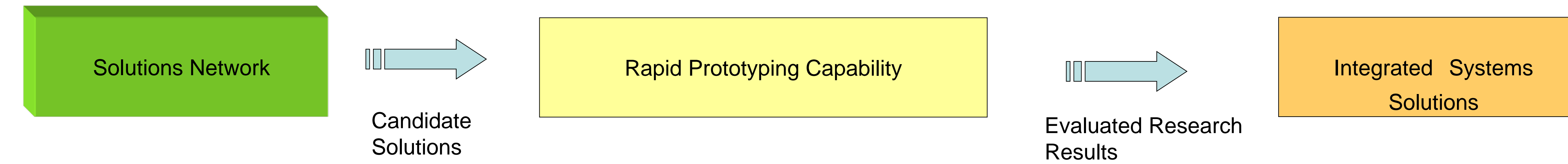
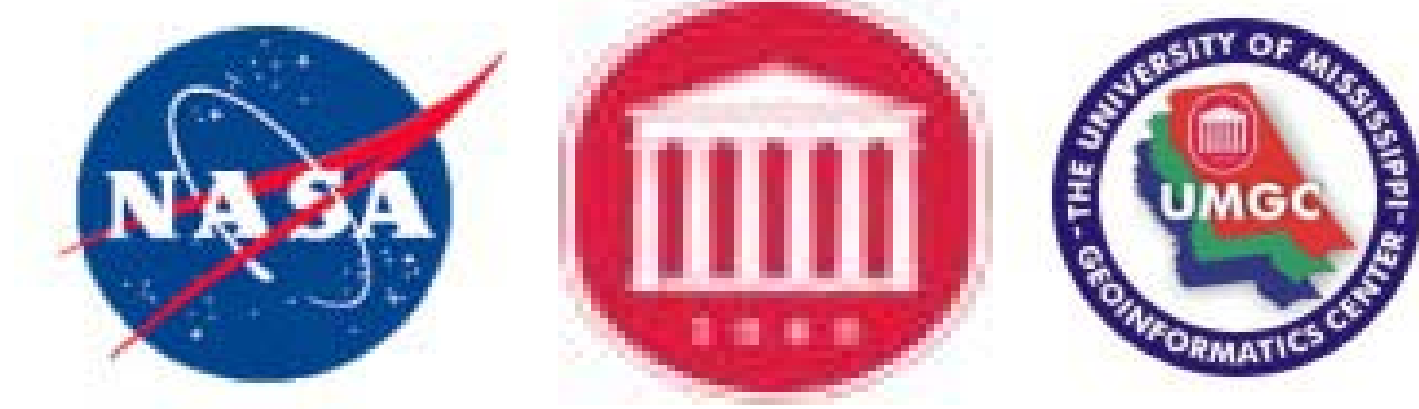


Earth Science Enterprise Solutions Network User Needs Analysis

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INTRODUCTION

The NASA Solutions Network Project is a combined effort of The Mississippi Research Consortium (MRC) and Stennis Space Center. The objectives of the project include (a) developing, deploying, and evolving the Earth-Sun System Research Knowledge Data Base (RKDB) and (b) developing a Partnership Network Knowledge Base (PNKB) on the network of partners that NASA has established with entities and individuals from all sectors of society. These tools are essential to NASA's Applied Sciences Program Approach to Integrated Systems Solutions (Figure 1). Fully operational RKDB and PNKB will act as a centralized data warehouse for information about NASA funded Earth-Sun Science research results. They will also provide advanced data-mining resources for analyzing the research results and identifying candidate solutions that offer the best potential for transition from research to operations or integrated into decision support systems.

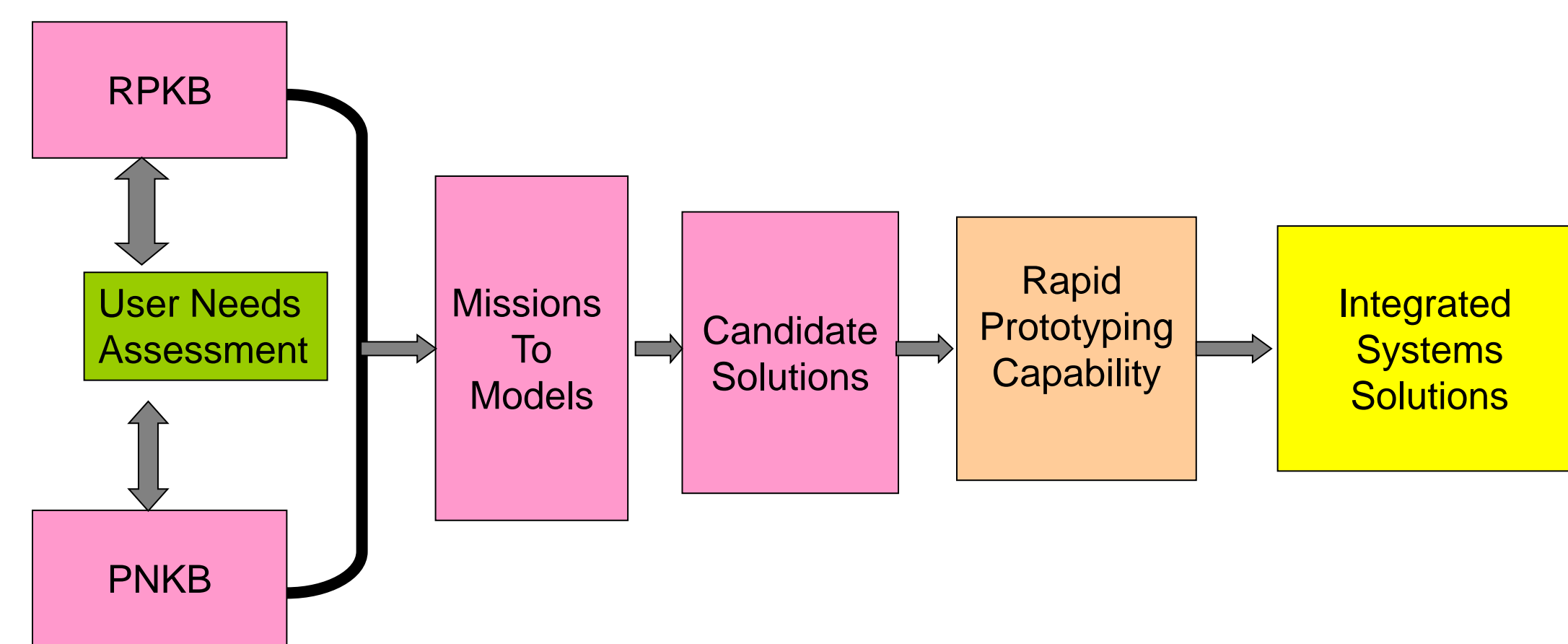


Figure 1.

In an effort to assure that the data base can meet the needs and requirements of the community-of-users, a survey was developed to:

- (1) Determine how researchers are currently locating information about NASA- funded research.
- (2) Determine what tools researchers employ when reviewing NASA Earth-Sun Science research.
- (3) Determine what type of information researchers want and need in their work.

METHODS

A user needs assessment questionnaire was designed and distributed to over 300 respondents (n=300) drawn from government, commercial, and educational institutions. The sample distribution list was drawn from a data base of scientists/researchers who have or are involved in NASA funded research activities. The questionnaire was distributed by email and respondents had the options of returning the completed questionnaire by email, fax, or ordinary mail. Respondents were asked to provide information by answering a total of 16 questions. The information was analyzed by accumulating total responses and the total number of respondents for each answer. The graphical presentation of the results were generated based on the number of respondents. Given the fact that the survey had multiple-selection questions, the summaries represented percent of respondents who chose a particular answer. The percentages are allowed to total over 100 because of the multiple selections.

RESULTS

The following is a summary of the preliminary survey results based on analysis and information from 27 completed questionnaires.

The survey results indicated that the majority of respondents use the internet (Figure 2) as their initial starting point for conducting literature review about past, current, and future NASA research projects. They also use NASA data base (s) as the main tool for finding previously NASA funded research activities (Figure 3)

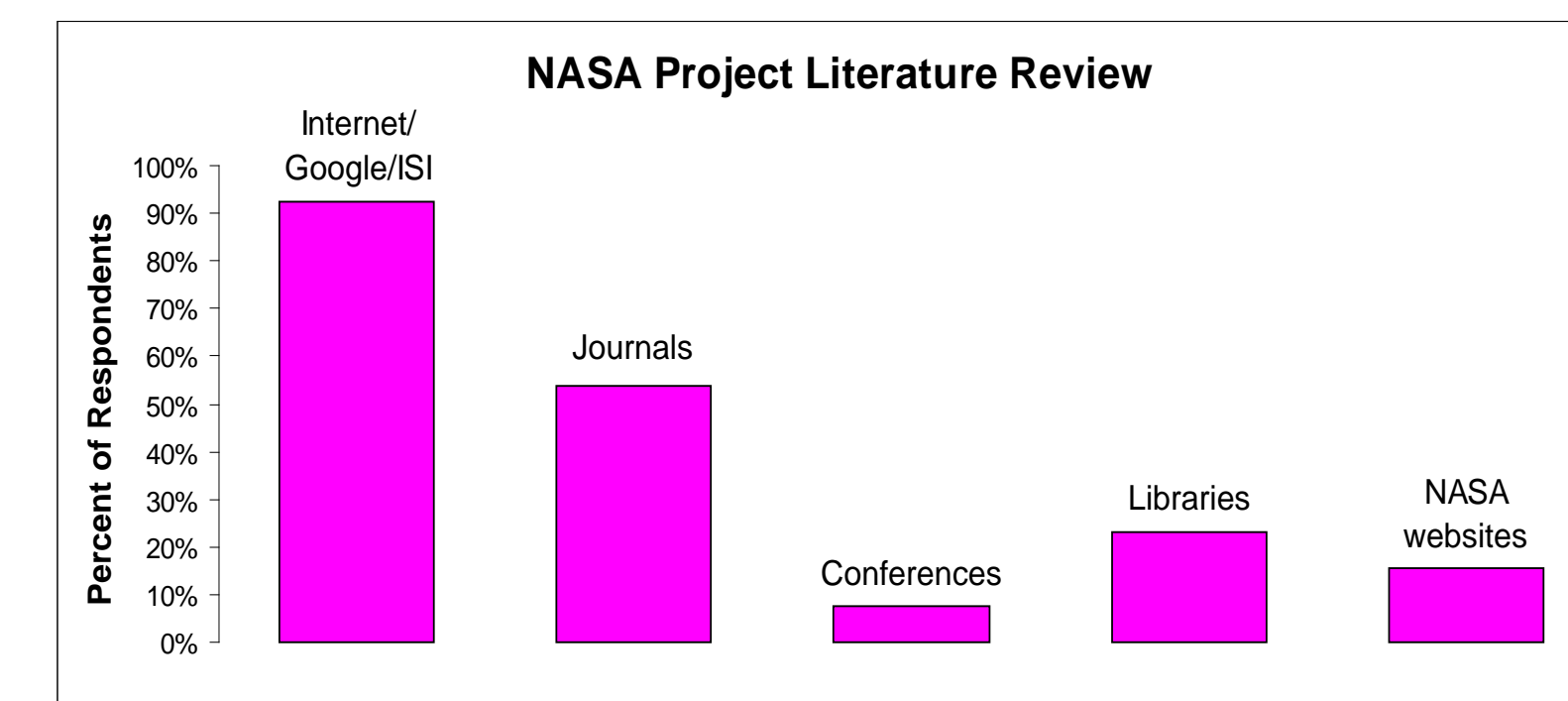


Figure 2.

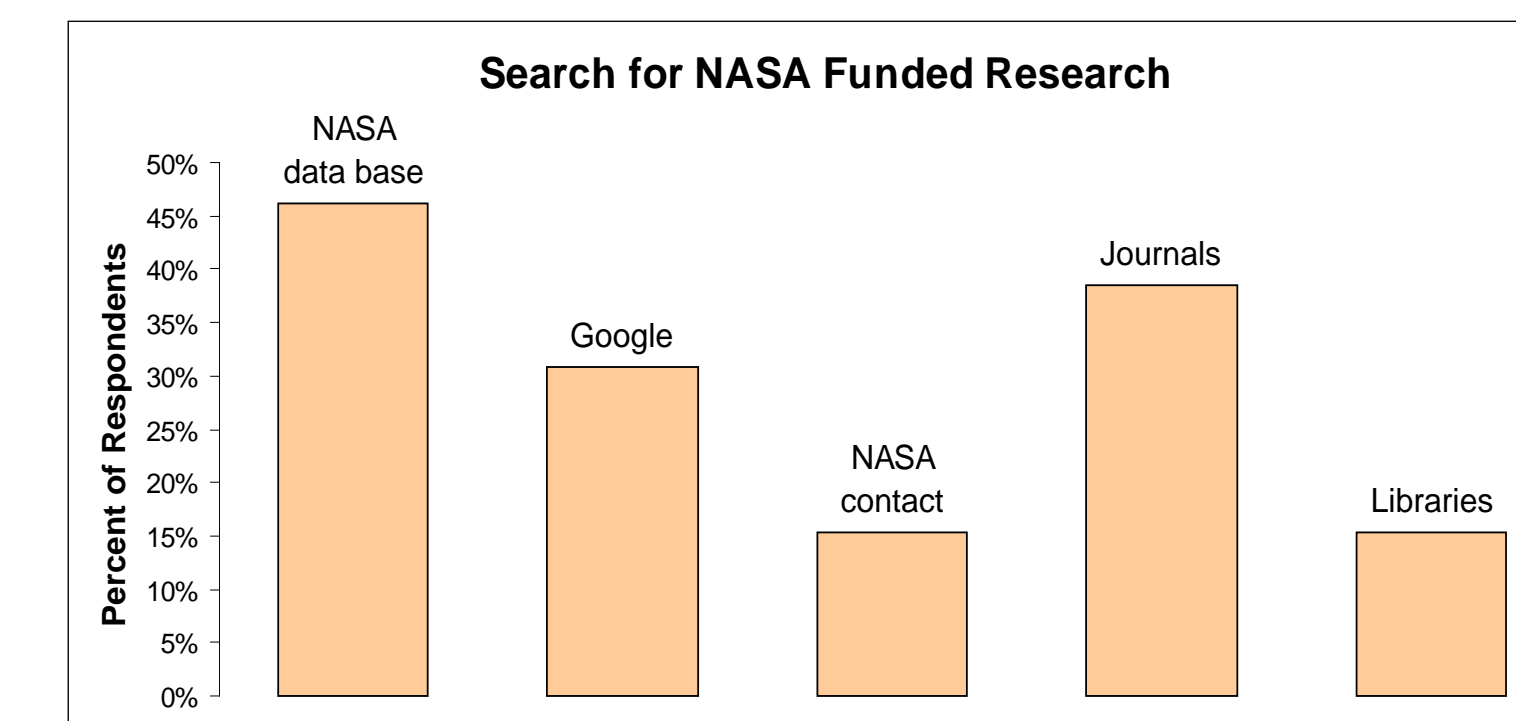


Figure 3.

Most people use a variety of search criteria to find information about NASA funded research (Figure 4). However NASA's National Application Areas were the most favored search criteria.

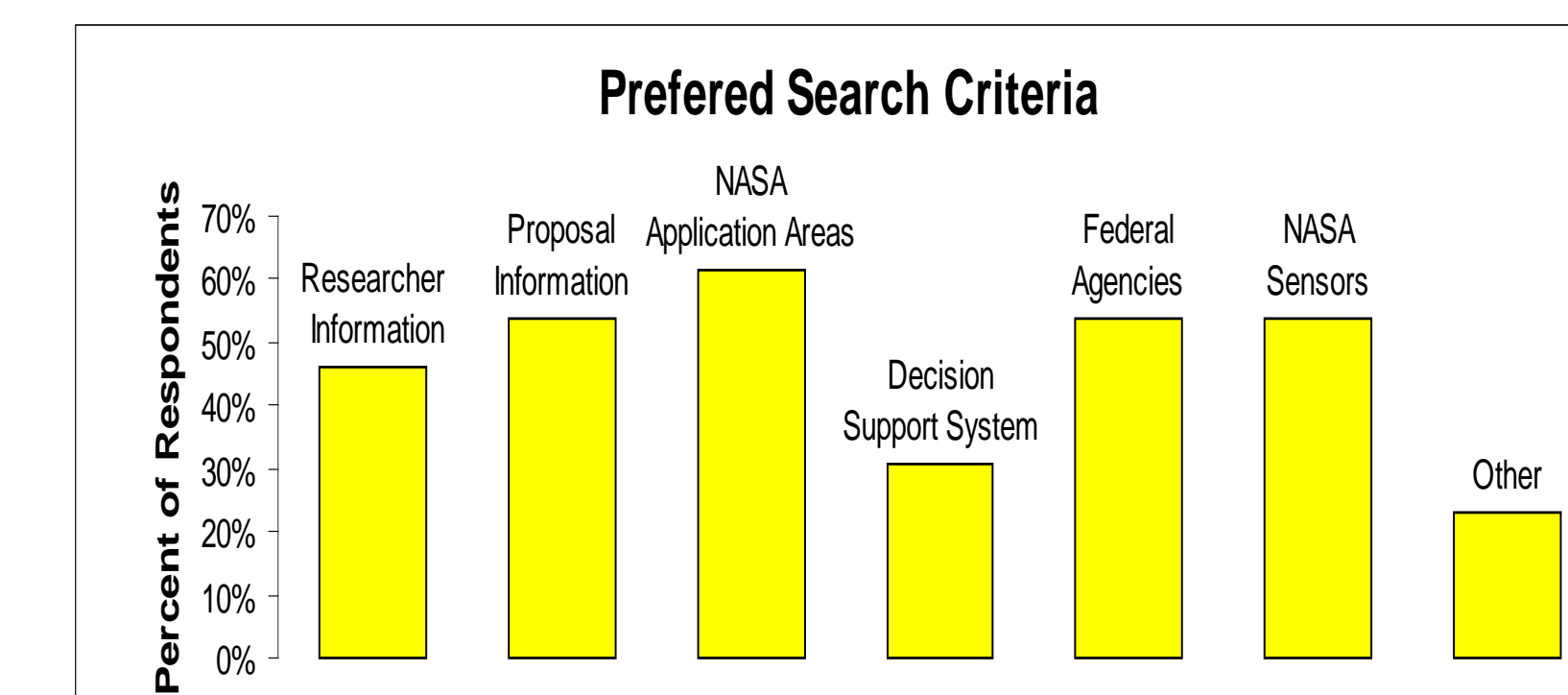


Figure 4.

When asked about what type of information they would most likely want to be made available in a NASA Research data base, most respondents indicated the need for specific funded proposals (Figure 5).

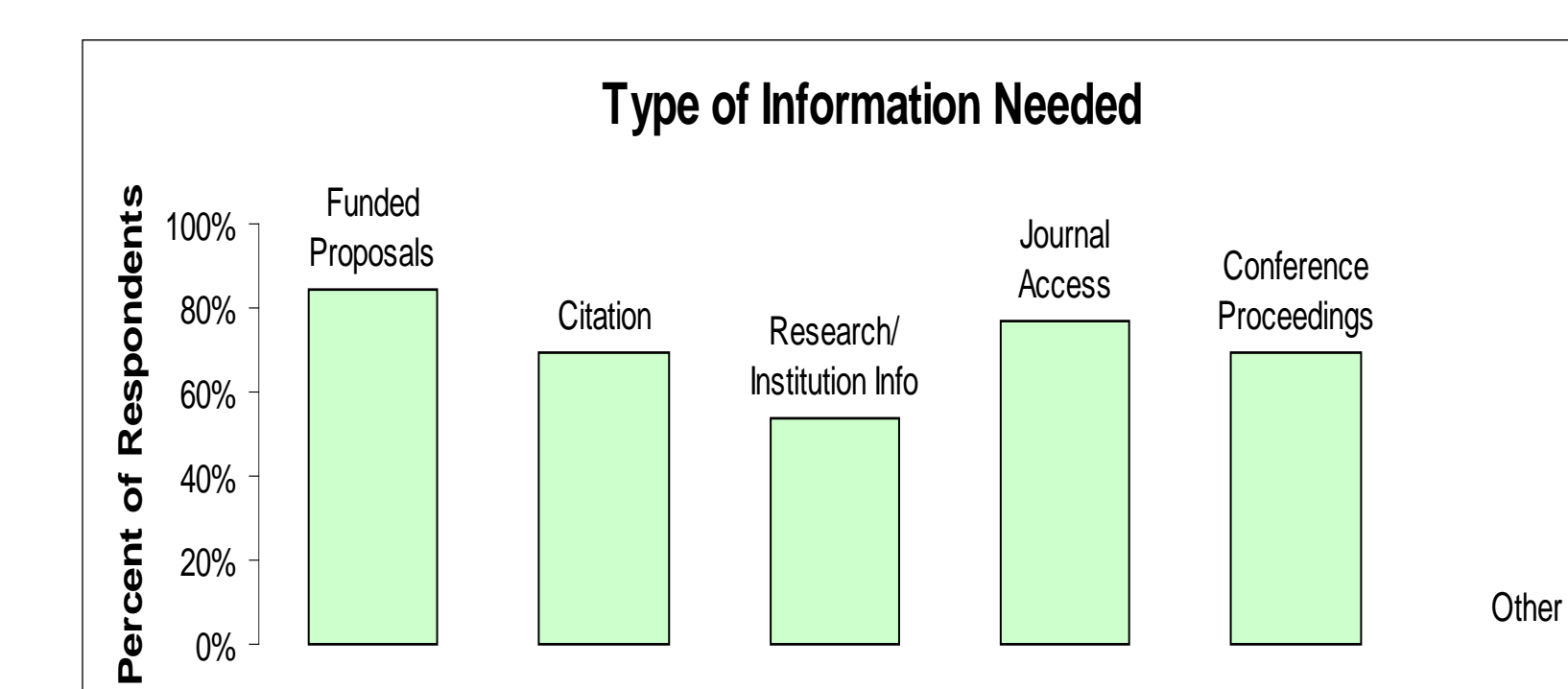


Figure 5.

The majority of respondents indicated that characteristics of an ideal search tool were: simple, fast, and advanced, as well as the use of keyword and filters (Figure 6).

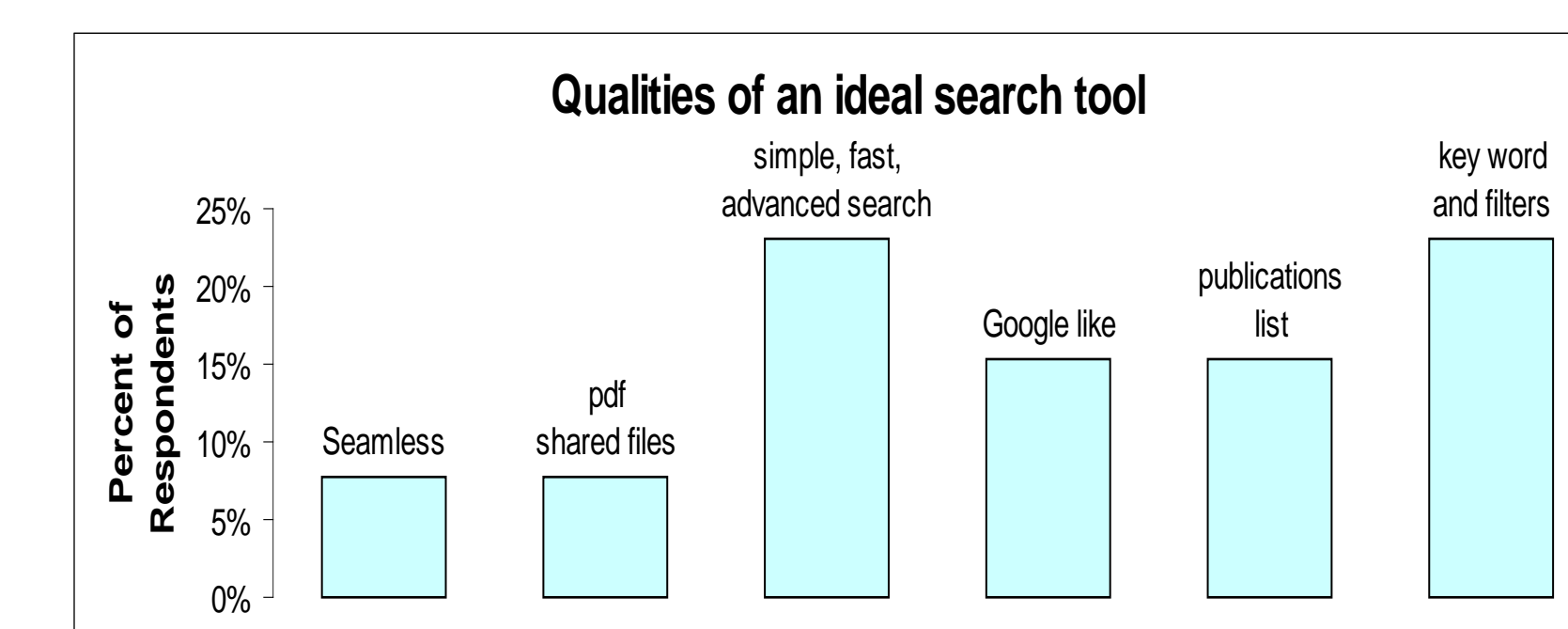


Figure 6.

Most users expressed their willingness to submit information for updating NASA database (Figure 7).

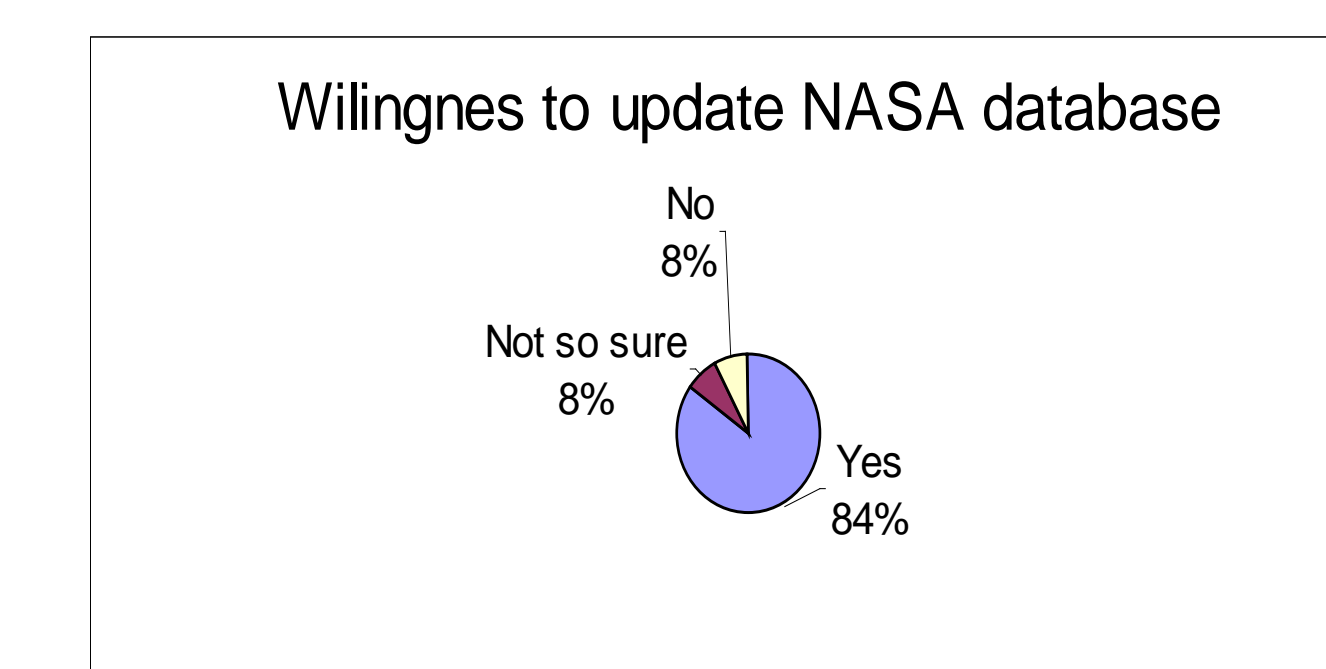


Figure 7.

According to the majority of respondents, NASA Partnership information is most important for seeking collaboration and technical expertise (Figure 8).

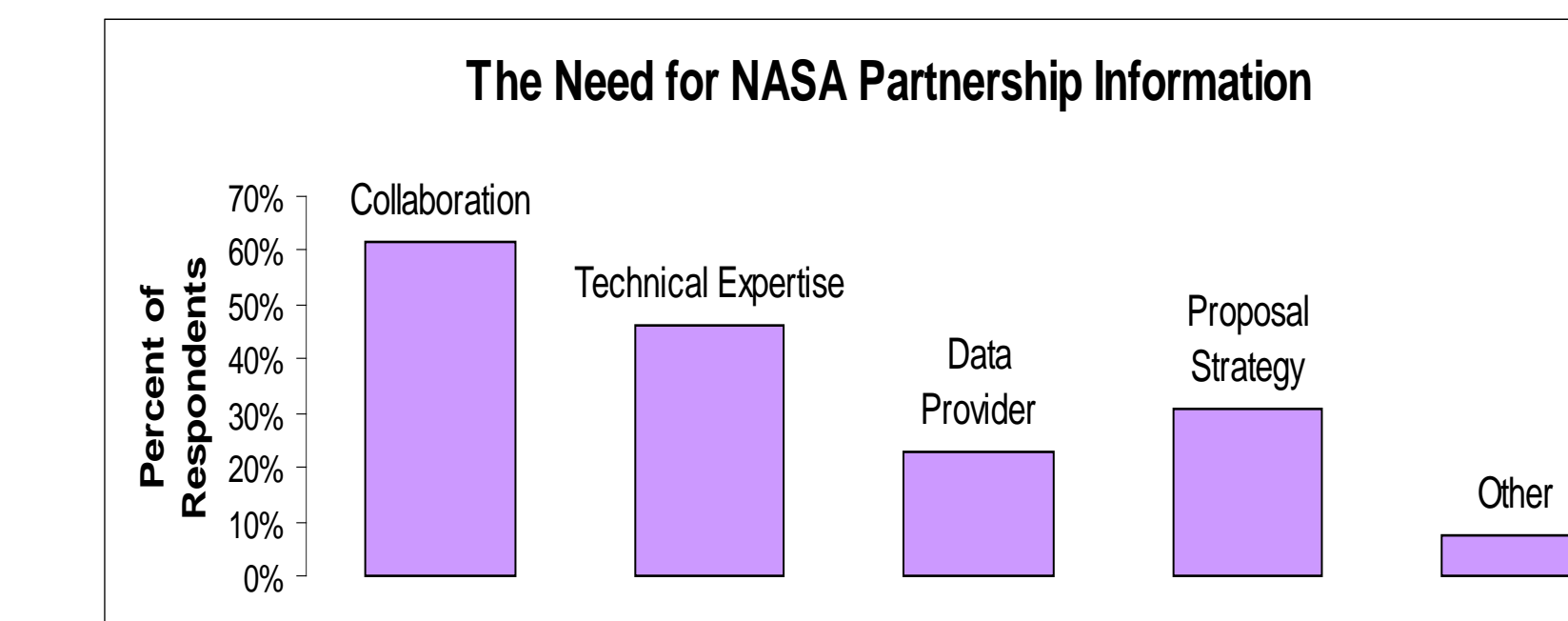


Figure 8.

A wide range of NASA partnership information was important to PNKB data base (Figure 9).

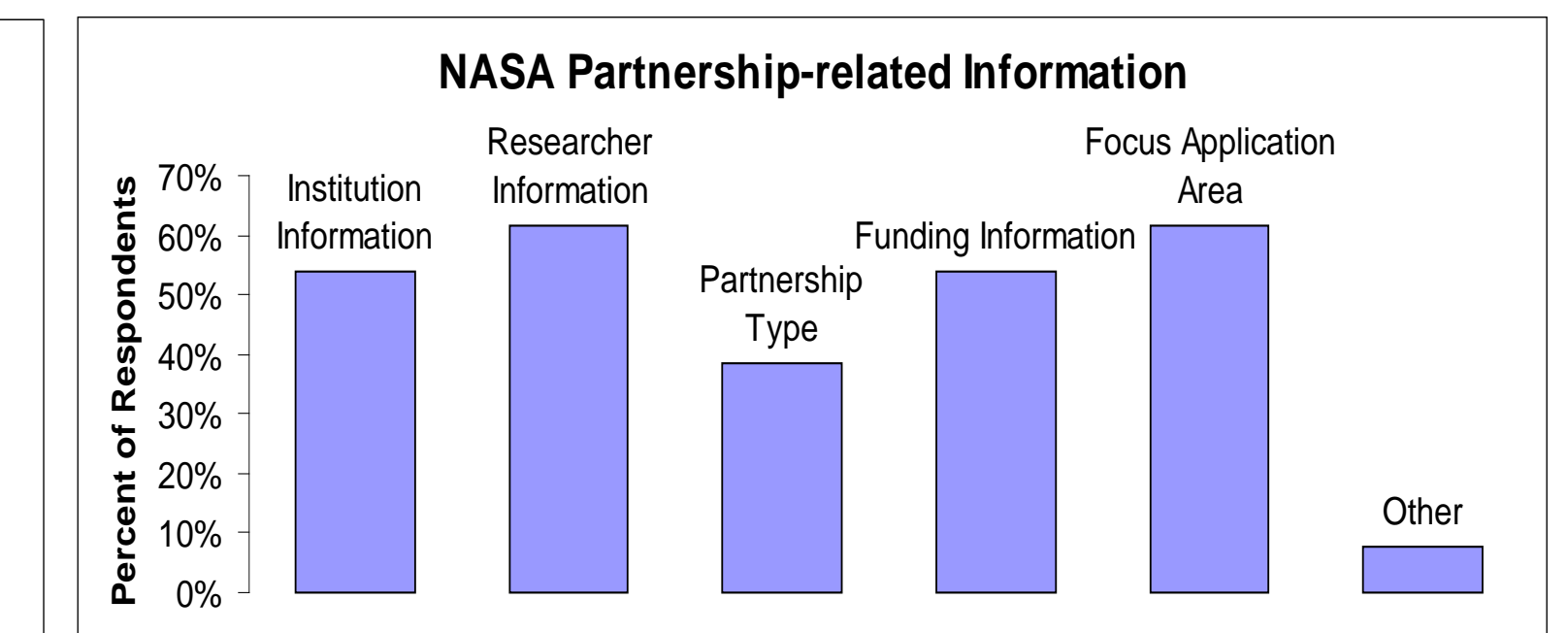


Figure 9.

The most common benefits of partnerships were increased research capability and collaboration (Figure 10)

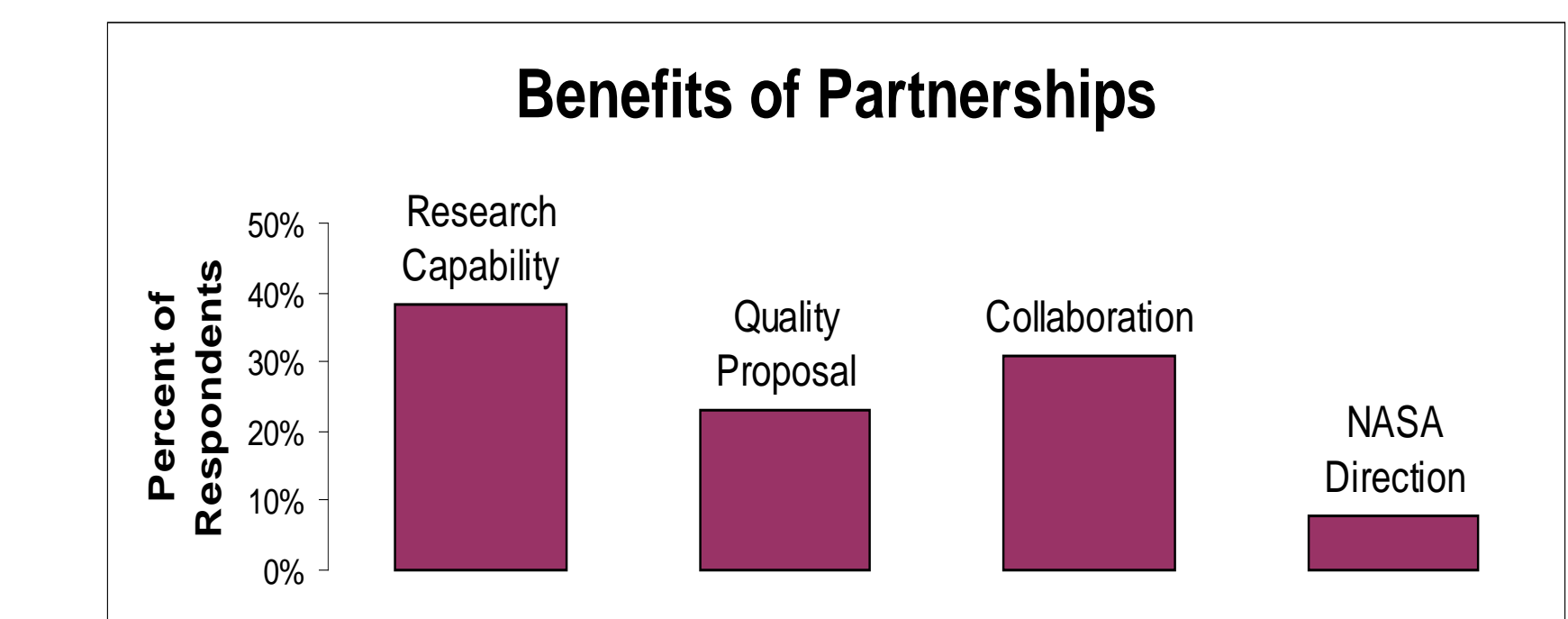


Figure 10.

Addition information:

92 % of the respondents indicated that they were interested in current NASA partnerships. 85% of the respondents use the internet to find information about NASA partnerships

CONCLUSIONS

The survey was initiated to better understand how people currently locate information about NASA funded research activities, what tools are commonly used, and to identify researcher's information requirements.

Though the internet, and NASA data bases in particular, were the major source of NASA-funded research information and its results, many scientists/researchers still view current access to such information to be fragmented and often difficult to find. Respondents would like to have simple, fast, robust data bases that provide specific information. The majority of scientists indicated their willingness to submit updated information to help maintain NASA Research Knowledge Data Base (RKDB) and Partnership Network Knowledge Base (PNKB).

The information gathered through this survey is already being used to help the Solutions Network Project understand and incorporate the user's requirements and expectations in the design and delivery of RKDB and PNKB. This information will play an instrumental role in developing, deploying, and evolving the RKDB and the PNKB.

ACKNOWLEDGEMENT

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