

IV. User Program and Statistics

In principle, SPring-8 calls for public use proposals twice a year. Since the 2022B term, nine public beamlines have started inviting proposals six times annually, including the beamlines previously intended for industrial applications. Submitted proposals are reviewed by the SPring-8 Proposal Review Committee (SPring-8 PRC). Since 1997, SPring-8 has accepted a variety of proposals. For the promotion of research on industrial applications at SPring-8, currently, Industrial Application Proposals account for approximately 16%–19% of the total number of proposals conducted at various public beamlines. Certain companies and research institutes find retaining specialized staff and accommodating the need for quick access to SPring-8 difficult. The SPring-8 Measurement Service has been provided to appropriately respond to these circumstances.

In this framework of service, JASRI staff members perform measurements on behalf of users. Users may visit SPring-8 and be present during the measurements or simply send their samples to SPring-8. BL28XU was added to the Measurement Service BL in 2022B. JASRI

expanded the purview of the SPring-8 Measurement Service to include five measurement methods (XAFS, Powder X-ray Diffraction, Small Angle X-ray Scattering, High energy X-ray CT, Hard X-ray Photoemission Spectroscopy). In addition, JASRI provides Protein Crystallography Automatic Data Collection at the Macromolecular Crystallography beamlines. Therefore, users can choose to be present at SPring-8 during the measurements or simply send their samples to SPring-8. Since 2022A, JASRI has begun suggesting Hour-based usage at most public beamlines as part of its proprietary time-designated proposals. According to this change, the feasibility study proposals for industrial applications have been integrated into this proposal program. Further, SPring-8 is developing a remote operation system that allows users to control the experimental instruments from outside to promote remote access. The numbers of experiments conducted and user visits to public and contract beamlines are presented in Fig. 3. Part of the proposals are for proprietary use, and do not require refereed reports. Figures 4 to 13 show information related to the user programs.

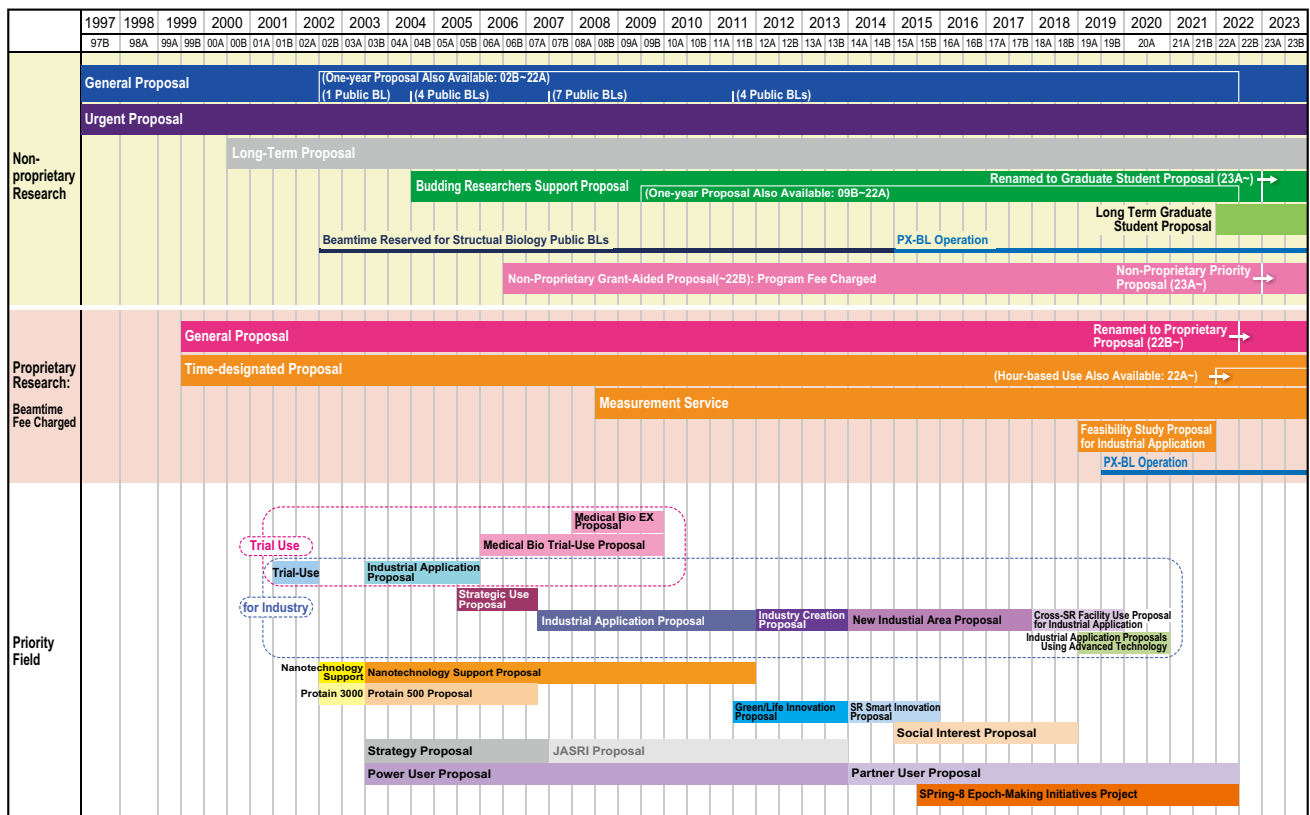


Fig. 3. Categories of proposals for the public beamlines.

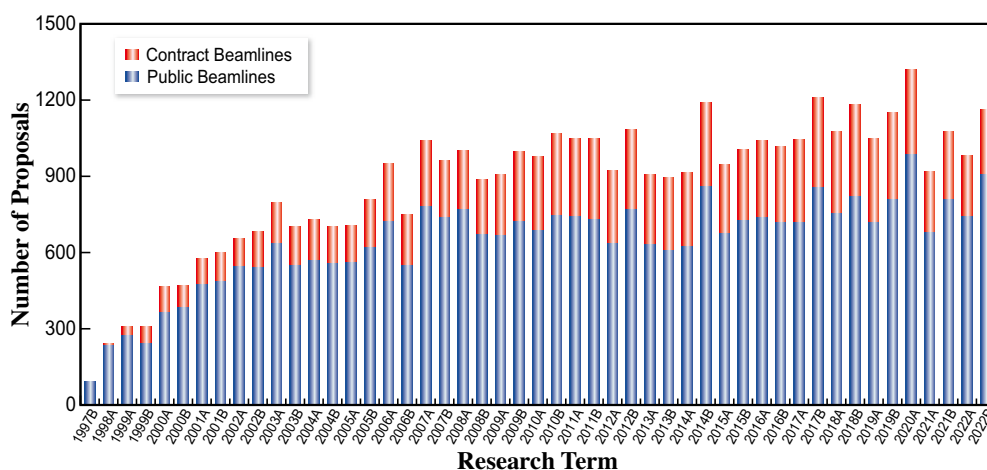


Fig. 4. Numbers of conducted experiments.

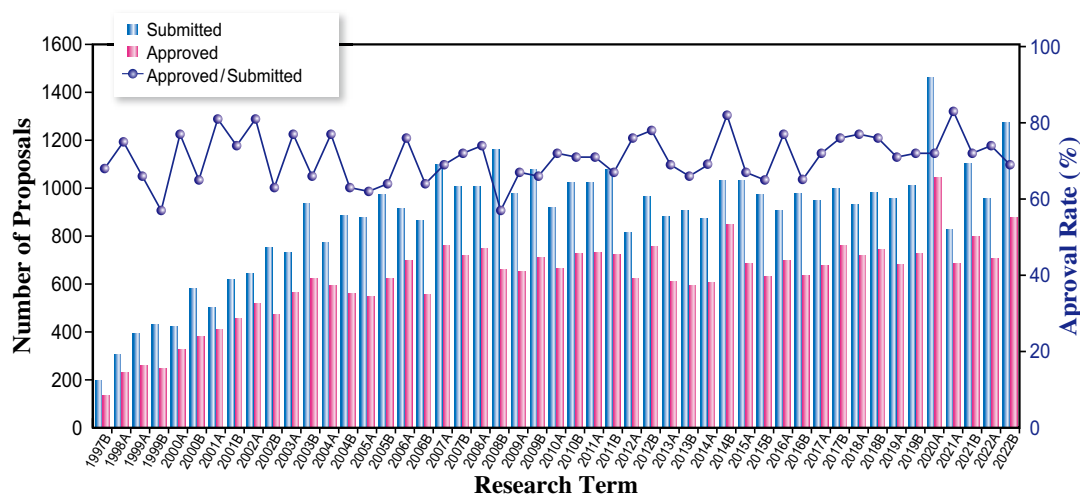


Fig. 5. Numbers of submitted proposals and approved proposals by research term (public beamlines).

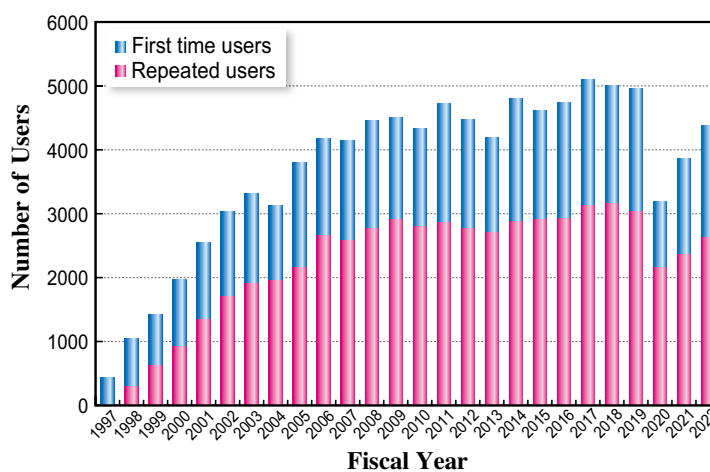


Fig. 6. Numbers of users by fiscal year.

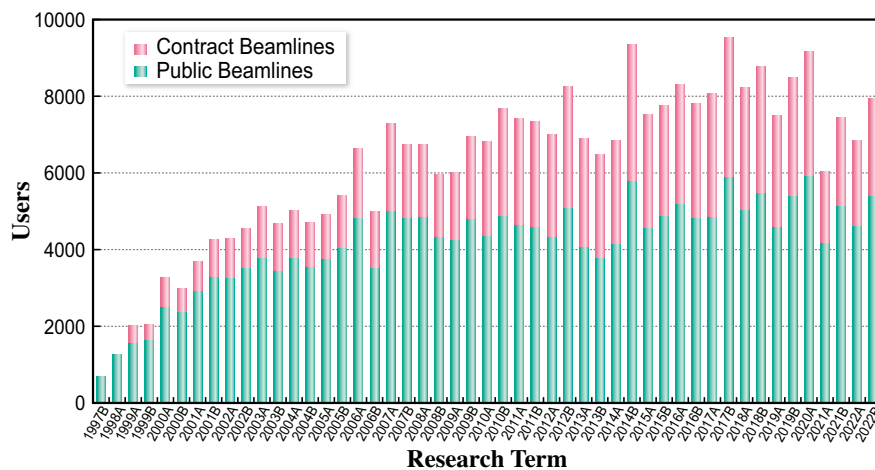


Fig. 7. Numbers of users visits by research term.

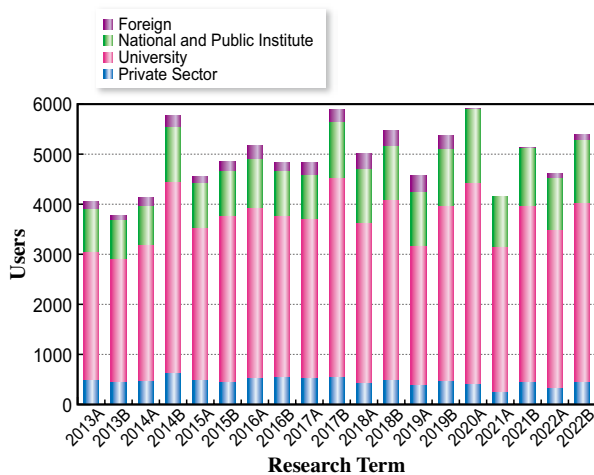


Fig. 8. Numbers of users by affiliation categories (public beamlines).

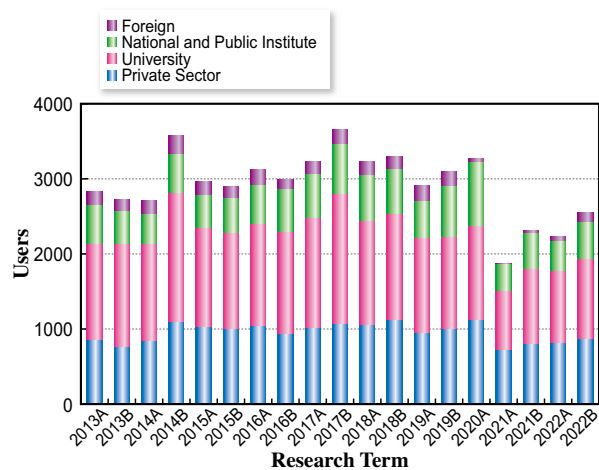


Fig. 9. Numbers of users by affiliation categories (contract beamlines).

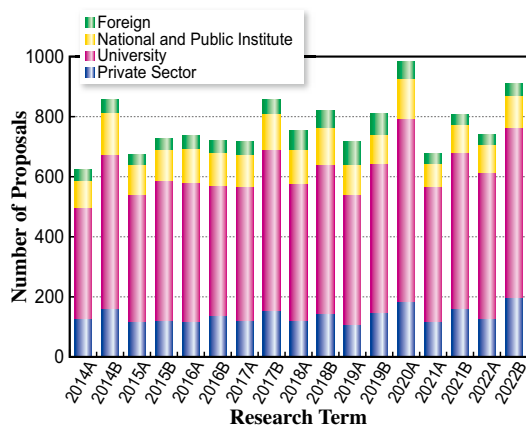


Fig. 10. Numbers of conducted proposals by affiliation (public beamlines).

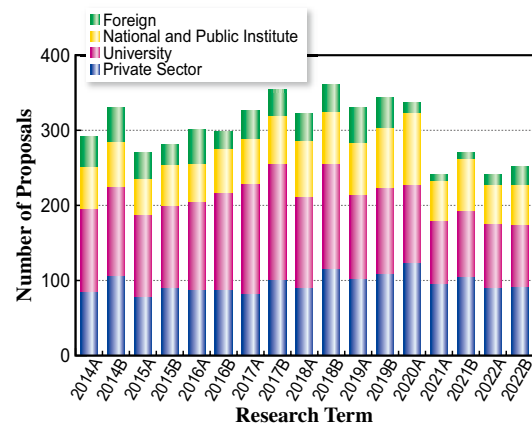


Fig. 11. Numbers of conducted proposals by affiliation categories (contract beamlines).

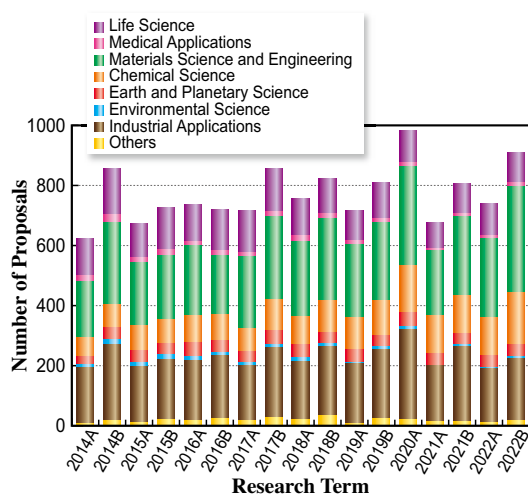


Fig. 12. Numbers of conducted proposals by research area (public beamlines).

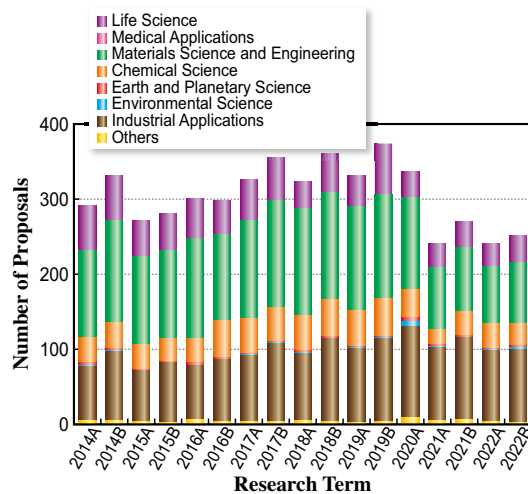


Fig. 13. Numbers of conducted proposals by research area (contract beamlines).

V. Research Outcome

As of March 2023, the total number of registered refereed papers from SPring-8 is 21,044. Figure 14 shows the annual statistics of refereed papers.

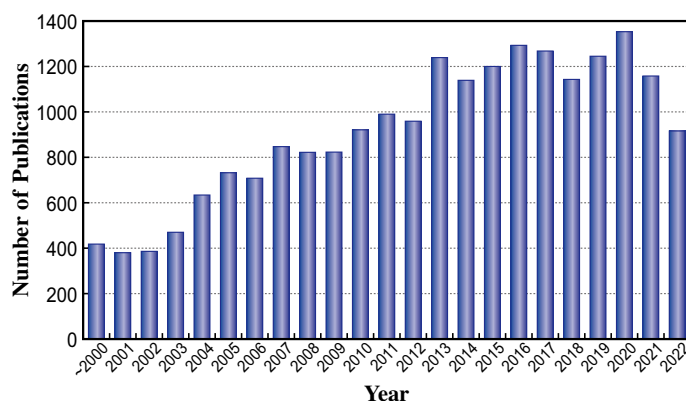


Fig. 14. Number of refereed publications.

VI. Research Complex

The facilities of SPring-8, SACLA, and NewSUBARU form the Center of Excellence (COE) on the SPring-8 campus where JASRI, public beamline users, contractors of contract beamlines, RIKEN, and the University of Hyogo work in close cooperation. Thus, a research complex has been formed, where

each member has their own role in achieving high-quality results in the field of synchrotron radiation science and technology. The organizational charts of RIKEN and JASRI, which are at the center of this research complex, are shown in Figs. 15 and 16, respectively.

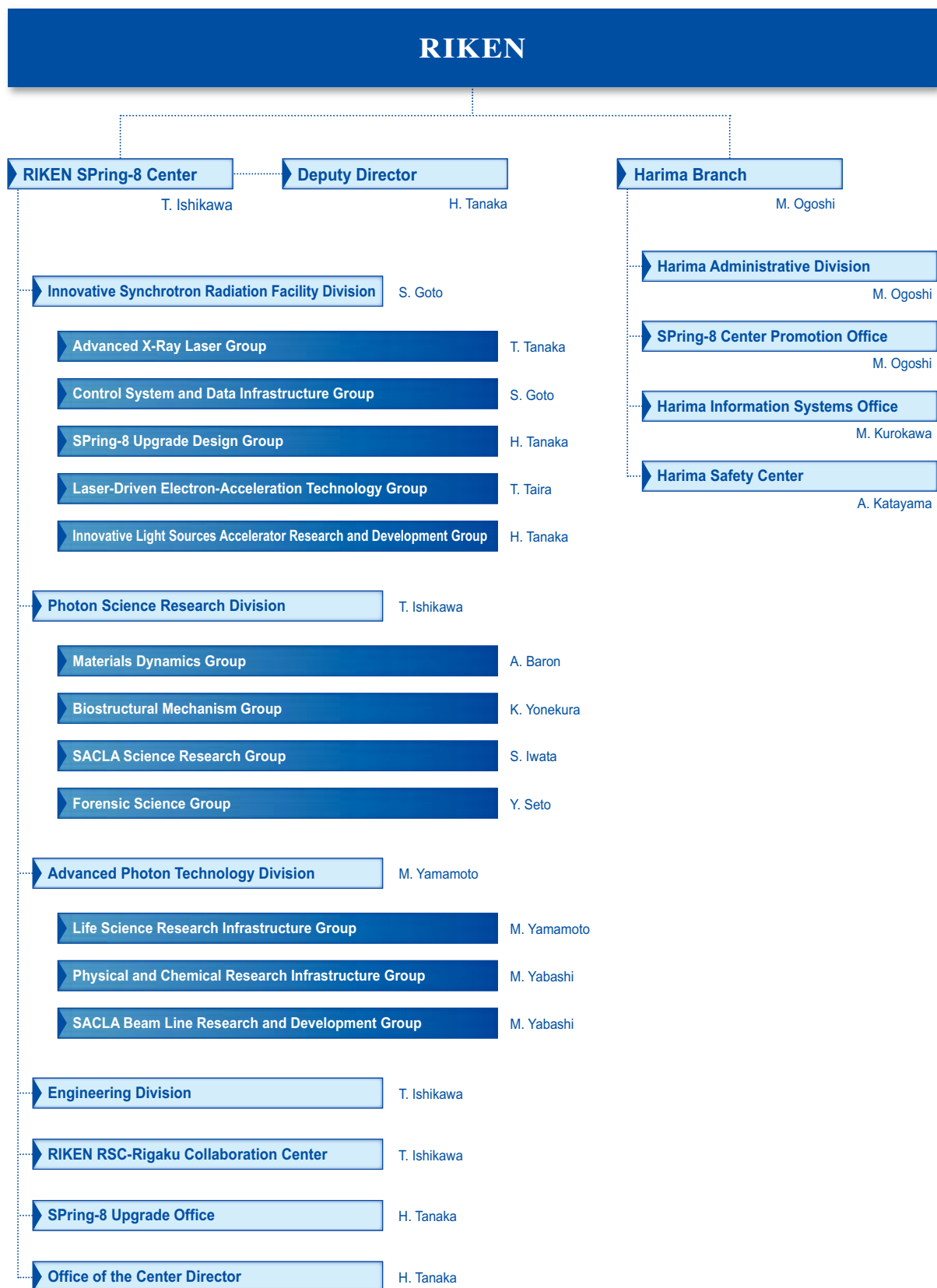


Fig. 15. RIKEN Harima Campus chart as of April 2023.

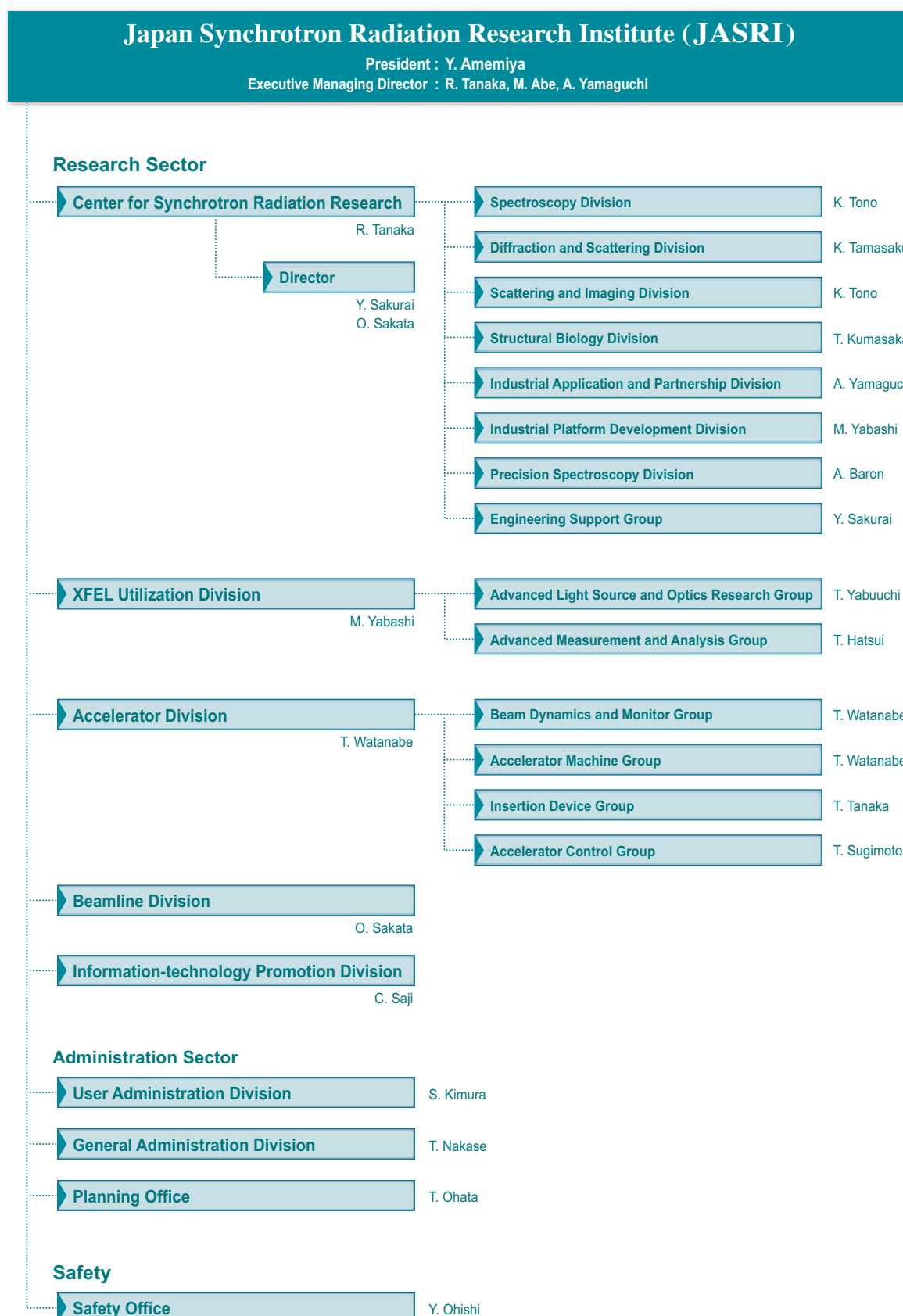


Fig. 16. JASRI chart as of April 2023.