

55th IAA SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE
ACTIVITIES (D5)

Knowledge management in the digital transformation (2)

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CONNECTING GLOBAL SPACE EXPERTS TO DEVELOPING SPACE PROGRAMS AND
COUNTRIES**Abstract**

In the coming years, more intense cooperation is expected between countries with established space capabilities and those gaining experience in space utilization and programs. Experts are retiring, but knowledge, lessons learned, and the best practices gained from their expertise and involvement should be utilized for space activities in emerging space countries. Building on the International Academy of Astronautics 50-year activity in electing experts on space activities, we are creating a database of experts in the world and matching experts for developing programs and countries space needs. The team has created a questionnaire for the various groups, a website, outreach to nations just developing their space activities, and conducting training in such nations to understand the needs from a broad perspective. The results of this questionnaire highlight the needs of developing programs and the ability of experts to provide support.

A second component involves ongoing training and capacity building for promoting global space knowledge and expertise in developing countries by providing training in satellite technologies in addition to gathering, organizing, and matchmaking experts. For example, the African Union Commission level is implementing the Global Monitoring of the Environment and Security (GMES) and Africa. A network of over 80 national and regional institutions are on this project, being led by 13 focal institutions across the 5 regions of the continent. Areas of focus include improving Earth observation data access by strengthening ground receiving infrastructure, utilizing the data by developing end-user-focused services, and strengthening human and institutional capacities through education and training. A multifaceted infrastructure has been developed with the Joint Research Center (JRC) and EUMETSAT, which contains an antenna to receive data through Eutelsat, an inbuilt software to process and visualize data. This infrastructure has been deployed about 200 times in Africa. The innovative approach has been realized through involvement of the universities to establish research clouds, and the private sector for Earth observation services. Additional training has been done through Open Data Collaboratives' series of conferences and training sessions held since 2014 in Tanzania, Uganda, Sierra Leone, Kenya, Senegal, Ghana, and South Africa. In each "Africa Open Data Conference" there are training sessions around satellite data and the use of geospatial data and imagery. More than 2500 youth, students, and government officials have attended. There is also a monthly global call that includes geospatial data and satellite imagery discussions.