VITALAS is an innovative project designed to provide advanced solutions for indexing, searching and accessing large scale digital audio-visual content. The strength of this initiative is the application of advanced technology to real use-cases, which reflect the expectations and concerns of major European multimedia archives.

**Project Description**

The VITALAS work plan relies on 3 core activities:

- **Cross-media indexing and retrieval methods:** Efficient cross indexing methods will be developed through semi-automatic multimedia content annotation using several media inputs. VITALAS will put forward appropriate probabilistic retrieval techniques. Advanced hybrid relevance feedback model will be investigated to provide better user target retrieval. VITALAS will consider machine learning methods together with the development of more informative new content description methods.

- **Interactivity and Context adapting:** considering the preliminary use-cases expressed by our content provider partners, approaches which adapt the search space to the user profile and provide interactive functionalities to control the results are expected. Interactive cartographies and video synthetic views should allow users to give feedback, analyse and manipulate the results according to the task being achieved. Off-line user profiles and on-line personalisation will also be used to provide more user satisfaction by expressing users’ subjective preferences.

- **Search scalability issue:** to enable search in very large and heterogeneous databases, the system validation will be performed on real and live databases, up to 10,000 hours of television archives and several tens of millions of political/societal news content images.

**Specification and Validation based on professional use-cases:**

The VITALAS system will be defined and validated by major European multimedia content and archive professionals, in conjunction with the academic and the industrial partners of the project. VITALAS expects to deliver relevant and usable technology. The evaluation issues will be carefully addressed through the definition and selection of test corpora, success criteria statement and external user trials.
Expected Results & Impact

The VITALAS project will develop new technological functionalities and services considering all media inputs (visual, textual and audio) to facilitate access to multimedia content in large databases.

The system functionalities will provide the core system and technologies for intuitive multimedia search engine services, whose development is currently constrained by technological bottlenecks.

The principle of VITALAS is that professional usage validation is an essential milestone before an extension to mass market applications (general public). To this end the project can rely on three leading European professionals in the field:

- INA (France)
- BELGA (Belgium)
- IRT (Germany)

Their expertise will not only be essential to validate the VITALAS technology and to apply it in real case scenarios, it will also be a strong indicator of user satisfaction and a gateway to the technology adoption by the rest of the community.

The project also foresees the organisation of open tutorials to invite the broad potential user community to interact with the VITALAS functionalities.

Ultimately, the VITALAS technology could also be adapted to mobile platforms with further collaboration with partners having expertise in mobile technologies and networked systems.