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## **SaDIN (Sahel-Doukkala Information Network) A Starting point for a Spatial Data Infrastructure in Morocco?**

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Internet is revolutionizing the technical and economic conditions of human knowledge management and became the most important tool for data and information exchange. In Morocco, as in a lot of other African countries, the “Digital Divide” between Africa and Europe is remarkable and mainly due to the bad conditions of the infrastructure of information but not less to a deficiency in media skills as a result of limited use of information technology and a lack of trainee possibilities especially for students, not forgetting the traditional methods of teaching that have to be revised. Many highly qualified scientific studies and research projects are realized in Morocco each year, but their results remain dispersed and unexploited.

A first step to bridge the Digital divide was done in a “bottom up” approach: in a locally delimited area, the Sahel-Doukkala region of Morocco, a “geoinformatic knowledge pool” was created, based on new technologies, especially Internet. The idea was to start up from a manageable sized focus point, with the local people involved in decision making, research and any kind of environmental activities. With this procedure (“bottom up”), the acceptance of the population could be achieved and the later use of the results warranted. In contrast to a national wide approach (“top down”), the results of SaDIN could be spread out little by little to other regions, taking into account the different needs of the local population.

Between 2004 and 2005, the SaDIN (Sahel-Doukkala Scientific Information Network) project was undertaken in the centre of the Chouaïb Doukkali University, El Jadida (Morocco), with the contribution of the LIFE – THIRD Countries financial instrument of the European Community. This project was performed in collaboration between the Science Faculty of the Moroccan University, the Data Centre of the GeoForschungsZentrum Potsdam (Germany) and the private enterprise smartcube ltd., Berlin (Germany), in order to provide a basis for any kind of environmental investigations, especially in the field of provision and protection of groundwater resources. The composition of the consortium is the result of an existing cooperation between the researchers of the involved organizations and will profit from the existing knowledge of the Sahel Doukkala region.

The aim of the project was a regional real-time geoinformation system with worldwide access via Internet and interdisciplinary dynamic content enabling the communication between scientists, technicians and policy makers.

The scientific objectives of this project focused on the evaluation of the potential of aquifers in the region, which supply an arid, yet increasingly densely populated area. These investigations were accompanied by an epidemiological study on the health situation of the local population, which would be seriously affected by groundwater

pollution. Another main focus was based on environmental parameters, such as wildlife, vegetation and illegal waste dumps.

The results of SaDIN enables the university to be integrated in the process of land management, offering environmental services and data to local authorities and decision makers. Also, education of the population concerning environmental problems is required. Therefore, the university becomes a regional interface providing scientific data and information management systems, and alongside the data and information itself, the training of experts in these areas, and the creation of human resources was one of the major steps towards implementing such structures.

Actually, SaDIN is functional and used as an online information system for researchers and decision makers. In order to trigger the construction of an sustainable Spatial Data Infrastructure (SDI) for the Sahel-Doukkala Region, for Morocco or even for Africa, cooperations with other initiatives (e.g., SIST, IMPACT, etc.) and the common development and use of services which should be adapted to international standards and efforts are crucial.

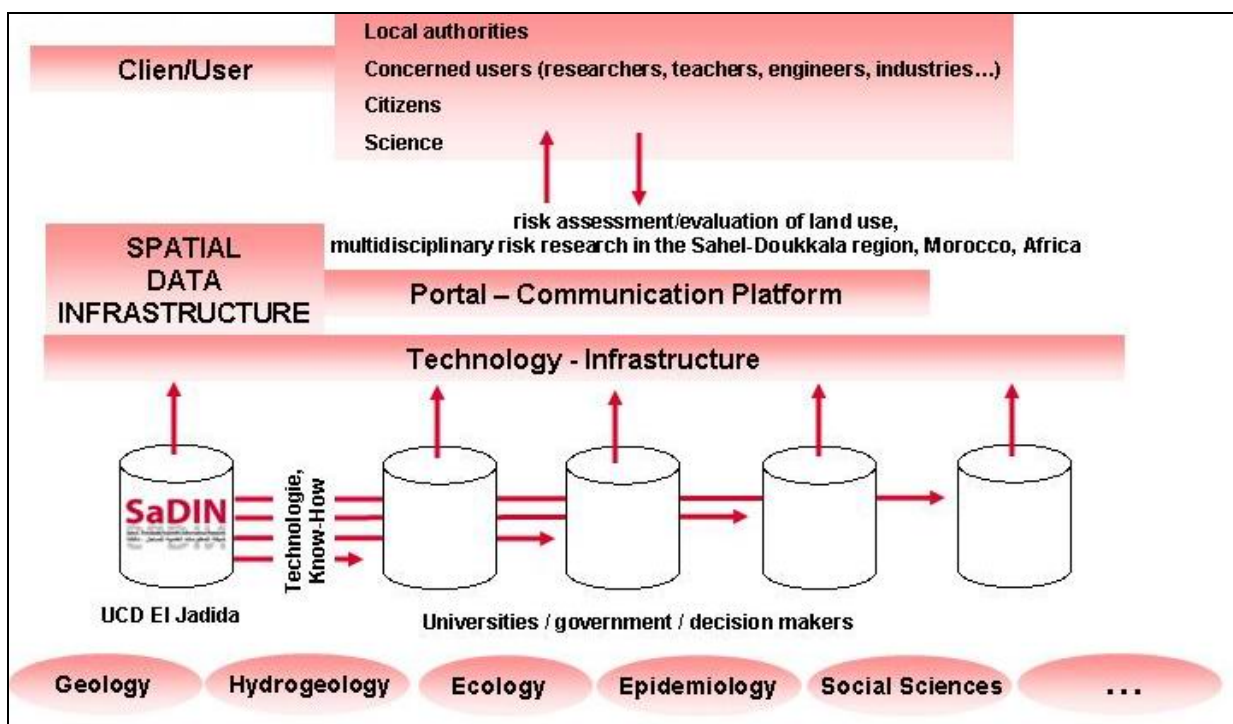


Figure: SaDIN as a trigger for an international sustainable Spatial Data Infrastructure

## Acknowledgement

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## References

SaDIN (Sahel Doukkala Scientific Information Network)	<a href="http://www.sadin.org">www.sadin.org</a>
Chouaïb Doukkali University, El Jadida, Morocco	<a href="http://www.ucd.ac.ma">www.ucd.ac.ma</a>
GeoForschungsZentrum Potsdam, Germany	<a href="http://www.gfz-potsdam.de">www.gfz-potsdam.de</a>
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