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SuGIK – Submitted to the EDULINK 2nd Call for Proposals (October 2007)
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**Lead Institution**

Instituto Superior de Estatística e Gestão de Informação Universidade Nova de Lisboa - ISEGIUNL (Portugal)

**Partner Institutions**

Universidade Católica de Moçambique – UCM (Mozambique)

Universidade de Cabo Verde – UniCV (Cape Verde)

**Associate Institution**

ESRI-Portugal
Overall objective

Develop, implement and disseminate a best practice model consortium of EU-ACP Higher Education Institutions (HEIs) for the institutionalization of GIS&Science Master Programs in Cape Verde and Mozambique
Specific objectives

- Enhance the overall management, academic, and technological capacity of UniCV and UCM, in order to support the transfer and the implementation of the three editions of a GIS&Science postgraduate course.

- Support target HEIs with training, quality standards, resources and technologies.

- Provide scope for mutually beneficial structural and educational development in a perspective of long-term collaboration, allowing other network co-operation initiatives and further study and skills transfer opportunities between the partners and other European institutions.
1. Enhancing post-graduate administration capacity

- SuGIK’s first set of activities will aim at strengthening administrative and technical capacities of the partner universities to effectively implement a distance Master’s program in GIS&Science.

- To this end, a management and administration model will be developed in cooperation with the ISEGIUNL.
2. Adapting European curricula to African reality

- The ISEGIUNL’s GIS&Science postgraduate program will be adapted to the needs and realities of the labor market in Mozambique and Cape Verde.

- During the project’s first year, the partner institutions will conduct a regional and local study on the necessities of professionals in different activities in the areas of geographic information.

This will help to identify the specific competencies that the GIS&Science postgraduate course should promote and ensure an efficient reformulation of the contents that must be proposed for the 2nd and 3th editions of the course.
3. Delivering a self-sustainable Master’s programme

- The postgraduate course will be organized into two semester modules distributed through five learning areas.

- During the first year, the course will be taught by ISEGIUNL teachers to a group of selected students from both partner institutions.

- In the second year this course will be given by ISEGIUNL teachers in a partnership with selected students from the 1st edition of the course.

- Lastly, in the third year of the project, all teaching activities will be carried out by the best students of the 1st and 2nd editions of the course.
4. Meeting geoinformation professional needs

- Upon completion of the Master’s program, students will be able to apply their knowledge in key scientific and technological fields considered strategically relevant to support decision making in key social and environmental development areas.

- In a broader sense, SuGIK will benefit the communities in Mozambique and Cape Verde as government departments, local authorities, private companies or NGOs will be able to recruit highly qualified researchers and GI professionals to analyze key issues in disaster prevention, health, public safety, among others.
## SuGIK's Scope

- **The SuGIK Consortium**

## Main Goals

- **Proposed Approach**

## The GIScience Master Program

- **Target Groups & Final beneficiaries**

## Estimated Results

- **Main Activities**

## Current Stage

<table>
<thead>
<tr>
<th>1st SEMESTER</th>
<th>2nd SEMESTER</th>
<th>3rd SEMESTER</th>
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<tbody>
<tr>
<td>Geographic Information System and Science</td>
<td>Remote Sensing</td>
<td>Dissertation</td>
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<tr>
<td>Geospatial data models</td>
<td>GIS and Modeling</td>
<td>Geospatial Data Mining</td>
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<tr>
<td>Geographic databases</td>
<td>GIS Applications</td>
<td>Community GIS</td>
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</tbody>
</table>
Target groups:

- Senior management and faculty staff of the GI partner institutions departments
- Graduate students in Geographic Information relevant areas
- Target professional in local and regional government departments

Final beneficiaries:

- Community Based Organisations
- Local authorities
- Research organisations/Researchers
- SME/SMI businesses which rely on the use of geographic information
1. GIS&Science Postgraduate Diploma/Master Degree Certification - 40 students of UniCV and 60 students of UCM

2. Development and implementation of a Management and Administration Model for GIS&Science postgraduate education in the partner institutions

3. Training of, at least, 8 teachers in each one of the partner institutions. Upgrading and enhancing the qualifications of teaching staff and administrators of the two ACP HEIs.

4. Re-design and Implementation of the 8 current modules of the ISEGIUNL’s postgraduate course

5. Creation of a Quality Assurance Board and provide target HEIs with a best practice model and adequate methodologies, guidelines, and tools to develop, improve and consolidate the existing academic network between EU and ACP Portuguese-speaking countries.
Activity Area 1: Project management development

Activity Area 2: Administrative and organisational project implementation

Activity Area 3: Implementation and Delivery of the 1st edition of GIS&Science Postgraduate Course Training Activities

Activity Area 4: Reformulation and design of the GIS&Science Master Program and didactic preparation of the curricula content for the 2nd edition

Activity Area 5: Support a self-sustainable GIS&Science postgraduate programme delivery and innovation during the 3rd edition

Activity Area 6: Promotion of cooperation between EU and ACP Portuguese-countries HEIs in the field of GIS&Science education and research
SuGIK's identity: design studies
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SuGIK’s Portal: design studies

SuGIK's Portal

Projecto SuGIK | Curso de Pós-graduação e Mostrado C&SIG | Curso de C&SIG na UniCY | Curso de C&SIG na UCM

Log in

Novidades

Target Groups & Final beneficiaries

Current Stage

Geographic Information Knowledge Transfer for a Sustainable Postgraduate Education
**SuGIK’s Master Program: Course re-design and contents adaptation**

<table>
<thead>
<tr>
<th>CÍVÍCIA E SISTEMAS DE INFORMAÇÃO GEOGRÁFICA</th>
<th>NOVA Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Espaço geográfico e cognição espacial</td>
<td>e-book</td>
</tr>
</tbody>
</table>

### 3.3 MAGNITUDE

A terceira prémisa do conhecimento espacial está estreitamente relacionada com as duas anteriores. De facto, após determinada a identidade e a locatibilidade de uma xéndra, uma ligeira análise a estes questões orienta-nos para: segue ou não segue MAGNITUDE? Por outras palavras, de que modo é transmitida e comunicada a natureza de uma xéndra num dado local? Para Gough (1986), a resposta a estas questões liga-nos diretamente à "natureza de xéndras", que ao contrário das estruturas com os mesmos objectivos de expressão da MAGNITUDE de uma xéndra e para o seu contexto existencial e significativo.

**Figure 1** – A histórica de cidade de New Cuyama na Califórnia. Um exemplo que nos leva considerar a magnitude de MAGNITUDE, de uma mesma posição dos xéndras e no contexto de ordenação dos xéndras espaciais. (Fonte: Gough, 1986).

### 3.4 TEMPO

A quarta prémisa necessária à construção de conceitos espaciais é o TEMPO. De um modo geral, o tempo descrim de sensibilidade de tratar e carateririz de estatísticas, utilizáveis e necessários de um determinado fenómeno estudado. Conhecer e frequentemente o modo como estas mudanças ocorrem é um dos fatores determinantes na representação adequada dos fenómenos do mundo real. Por esse motivo, o tempo é outro dos fatores que interagem significativamente com os conceitos espaciais.

**Figure 2** – A representação do tempo-espacial e espaço-temporal nos mesmos contextos de dados. (Fonte: Gough, 1986).

### 3.5 CONCEITOS DERIVADOS

De uma maneira geral, e apesar de utilizarem conceitos diferentes, outras árvores de conceitos de suporte podem ser efetivamente realizadas. (Fonte: Gough, 1986). Esta árvore de conceitos de suporte visa a construção de um esquema conceitual que sintetiza o aspeto necessários de conceitos espaciais para a representação espacial que inerente e想起 spacial na conceção e desenvolvimento dos sistemas de informação geográfica (Gough, 1986).

- **Conceitos espaciais presentes:**
  - CONCEITOS DE MAGNITUDE
  - CONCEITOS DE TEMPO
  - CONCEITOS DE ESPAÇO
  - CONCEITOS DE NATUREZA

As primitivas árvores de conceitos podem derivar conceitos como **Classe** ou **CATEGORIA**.
SuGIK’s Master Program: Course divulgation and promotion

Flyer production and dissemination of the GIS&Science Master Program – UniCV and UCM

Opening workshop arrangement – allowing for project kick off and the validation of the working procedures related to the project management and the initial action plan operations review.
Doubts

Comments

Suggestions?

Geographic Information Knowledge Transfer for a Sustainable Postgraduate Education

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