From the Digitalized Cadastral Map toward a Vestorized one for the 3\textsuperscript{rd} Contract on Computerization of the Cadastral Map on Ardeche, France (de la Grotte Chauvet au cadastre numérisé)

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Key words:

SUMMARY

Numerising cadastre has permitted to build a tool to facilitate decisions about planning poor territories.

Ardeche is a small and economically poor region of FRANCE (350 000 inhabitants). In this region, the « geometre-expert » have been ##at the origin to create a financial partnership between the ministry of finances, towns, towns associations, water electrically, phone utilities providers and themselves.

This project has been financially shared, fact which has authorised an ideal and national process.

The paper format has been numerised. This give the basic tool to work on: urban planning, rural planning, water planning and fire security planning. it gives also the basic information for G.I.S. and planning on the territory in general.

RESUME

La numérisation du cadastre a permis au cadastre de devenir un outil d'aide à la décision pour l'aménagement les territoires pauvres.

Le département de l'Ardèche est un petit département (350 000 habitants) pauvre économiquement. Les Géomètre-Experts ont été dans ce département les instigateurs d'un partenariat financier entre le ministère des Finances, les Géomètre-Experts, les communes, les groupements de communes, les gestionnaires d'eau potable, Electricité de France et France Telecom. Le projet a été partagé financièrement, ce qui a rendu possible et exemplaire cette opération au plan national. Le fond de plan cadastral a donc été transféré du support papier au numérique. Le cadastre, ainsi numérisé, permet désormais d'élaborer : Plan d'urbanisme, plan d'aménagement foncier, plan d'aménagement hydraulique, schéma d'intervention et de desserte incendie), il sert de fond de cartes aux bases de données géographiques et contribue donc à un meilleur aménagement du territoire.
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FROM THE DIGITIZED CADAstral MAP TOWARD A VESTORIZED ONE FOR THE 3rd CONTRACT ON COMPUTERIZATION OF THE CADAstral MAP IN ARDECHE (FRANCE)

Contract of computerization:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Capital structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>French County Council</td>
<td>30% (0.6 €)</td>
</tr>
<tr>
<td>Inland Revenue Service</td>
<td>25% (0.5 €)</td>
</tr>
<tr>
<td>Capital structure budget = 6000 € per each town or village</td>
<td></td>
</tr>
<tr>
<td>Networks Administrators</td>
<td>5% (0.1 €)</td>
</tr>
<tr>
<td>French Land Surveyors</td>
<td>13.33% (0.26 €)</td>
</tr>
<tr>
<td>Town Councils</td>
<td>13.33% (0.26 €)</td>
</tr>
<tr>
<td>The French Electricity &amp; Gaz Board</td>
<td>13.33% (0.26 €)</td>
</tr>
</tbody>
</table>

**Contracts in Ardeche:**

1st Contract: 13 towns
2nd Contract: 112 towns
3rd Contract: Project with 214 towns

The French land surveyors, instigator of the 1st and 2nd contract, now initiate the project CIPARD 3 in order to keep control on the digitization in Ardeche and benefit of the long-term side-effects. This project has been set up with the financial help of the County Council of Ardeche that had not formerly wished to be involved in the contracts.

The French land surveyors want to avoid invitations to tender and also to get ahead of the dematerialization of the cadastral map organized by the Inland Revenue Service.

In this poor district, this partnership enabled them to have a quality document.

**Techniques to vectorize:**
- with a digitizer
- halftones vectorized on screen
- mixed method by combining both

The 1st objective was to find a new method to digitize with, if possible, a better output.
Screen digitizing offers interesting prospects. This method is efficient but its profitability in a firm of land surveyors is still inferior to that of a digitizer. Moreover, it offers less comfortable working conditions to the operators.

This method may become inescapable thanks to the progresses made about automatic halftone detection.

Nevertheless, today, only manual digitizing corresponds to the standards fixed by the Inland Revenue Service about the digitizing of the cadastral maps.

In the present state, the method chosen will use digitizers for the 3rd Contract of Digitizing of the Cadastral Map of Ardeche (CIPARD).