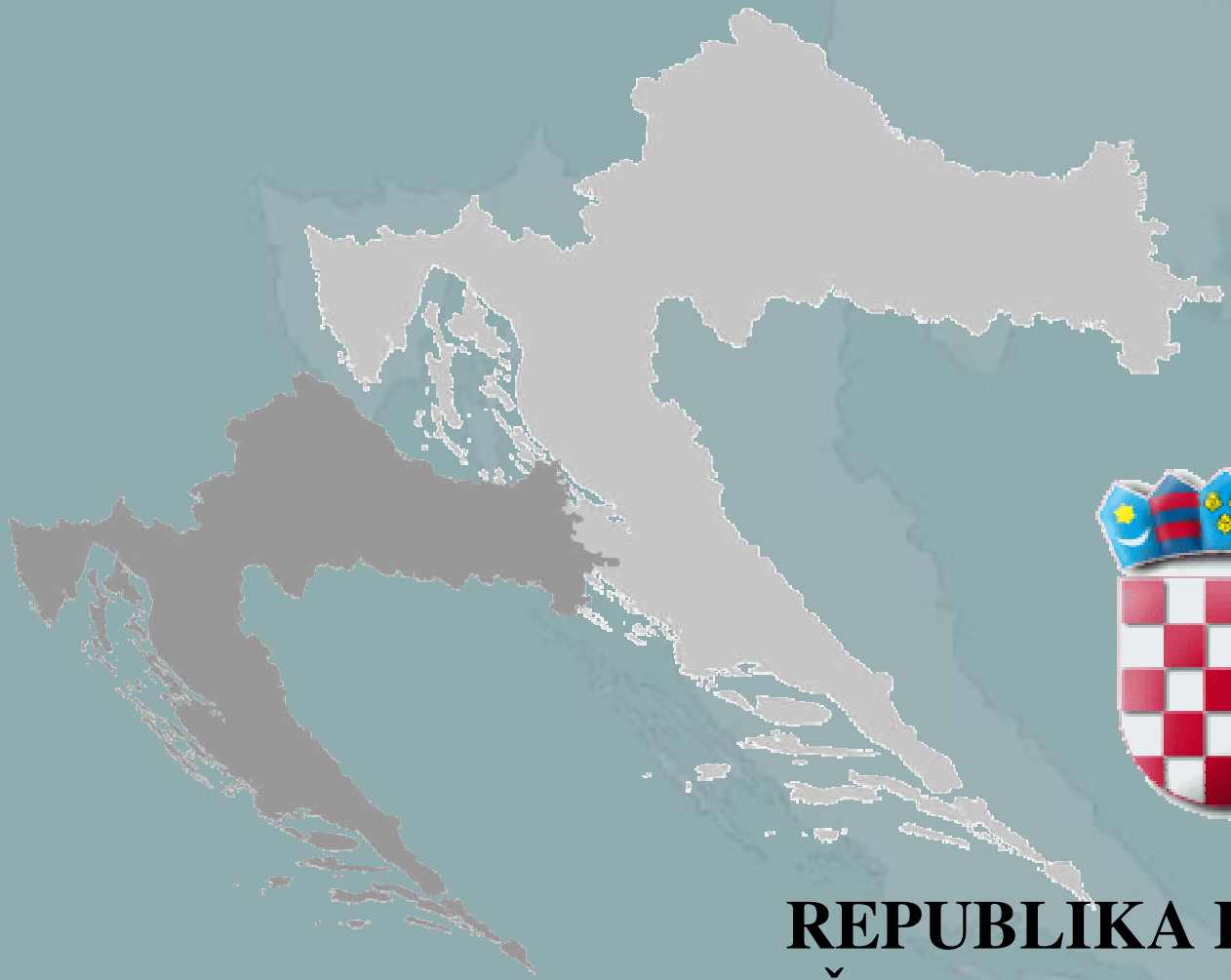

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NATIONAL REPORT of CROATIA

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EUREF Symposium 2004, Bratislava, 02 – 05 Juni

National Report of Croatia

- Legislative activities
- GPS activities
- Establishment of Geodetic Points Database
- Basic Gravimetric Network
- Levelling

Legislative activities

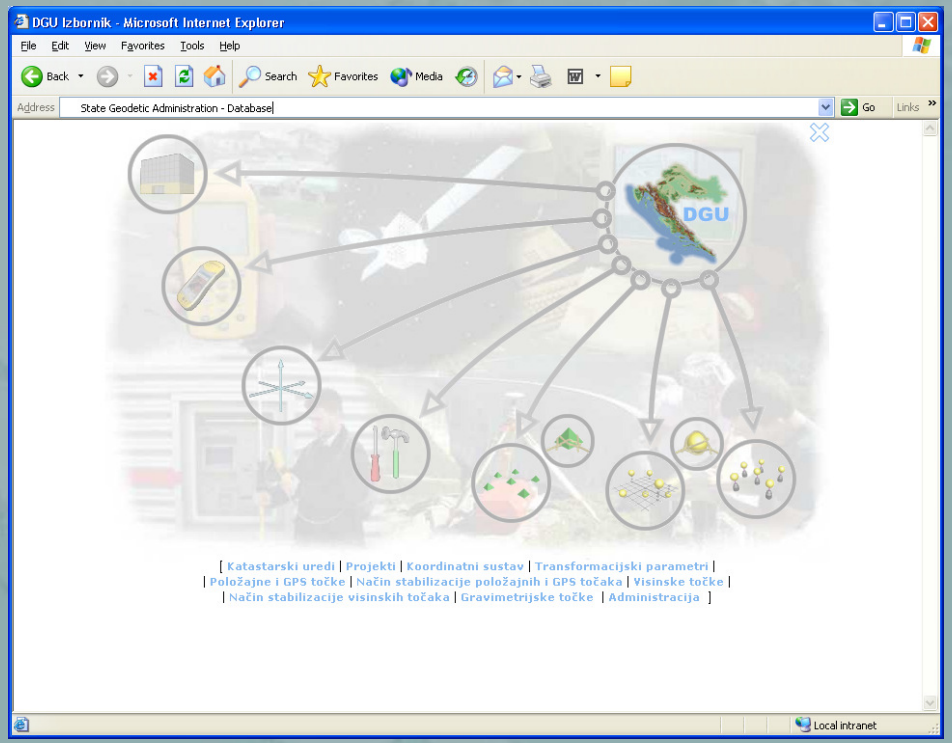
- **Introducing new official geodetic datums and maps projections**
  - **Decision on establishing new geodetic datums and maps projection will be brought by Goverment of the Republic of Croatia**
  - **The Decision proposal with follow up documentation is done and directed to further procedure**
- **The formation of the Book of rules for fundamental geodetic works will finally be finished**

GPS activities

- **Feasibility study for establishing permanent GPS-network in cooperation with GTZ, Germany**
  - **Advisors are Dr. sc. Olaf Ludwig from GeoSAT and Prof. Asim Bilajbegović from Hochschule Dresden**
  - **Goals of study**
    - **Enable faster introducement of new geodetic datums**
    - **Support the reconstruction of cadastar through more efficient and economic way of work**
    - **Use of such service by other state institution, public and private company in their own spatially-information system**
  - **1st draft is finished**
  - **Study shall be finished in September 2004**

Database of Geodetic Points

- Through developing process of database model tree different applications were finished
  - Application for input and updating of data (Intranet Application),
  - Application for Export and Import a large amount of data,
  - Application for publishing and distribution of data (ArcGIS Application).



Database of Geodetic Points

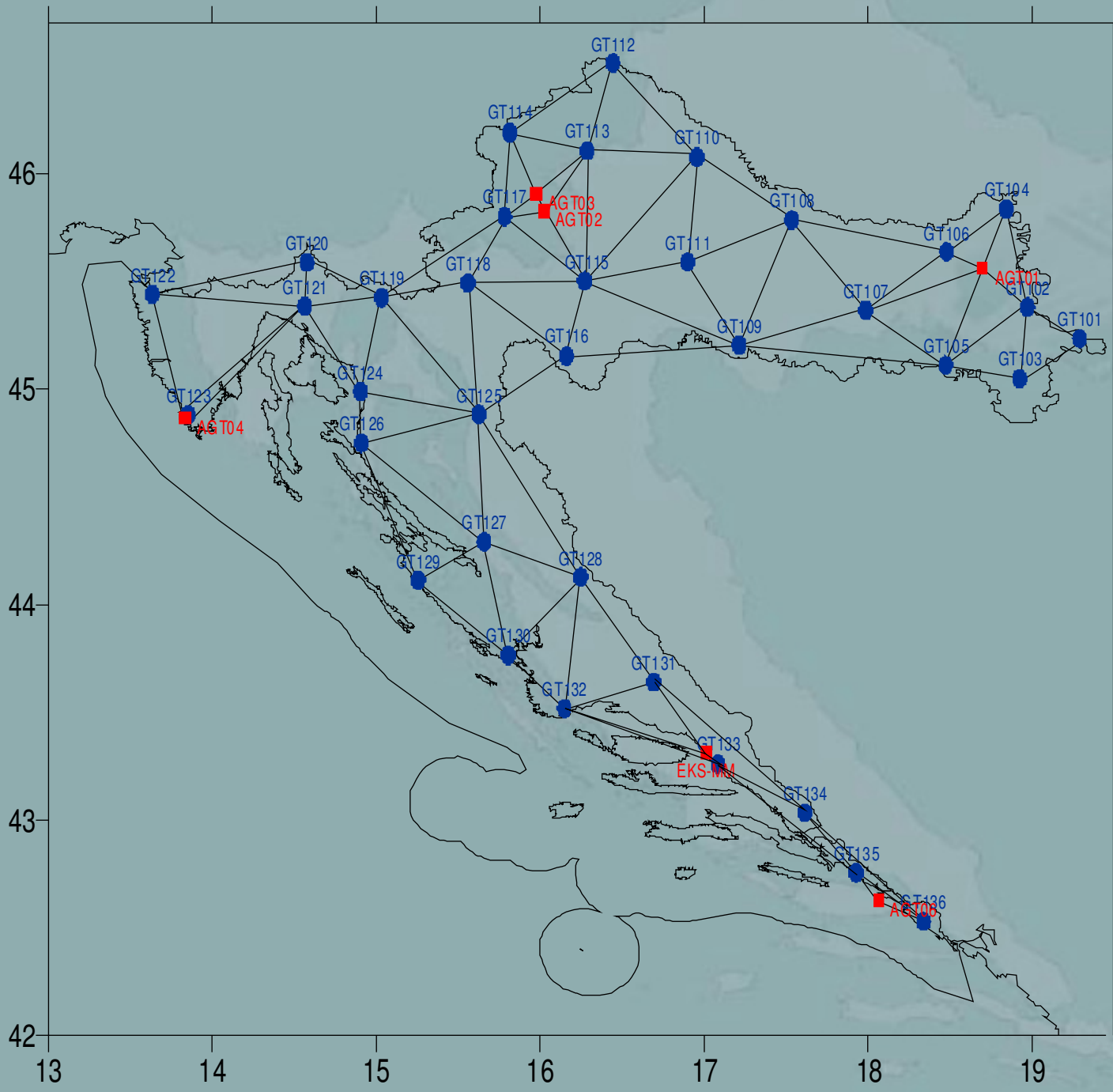
- The data are stored in Oracle Database System in combination with ESRI ArcGIS software in order to performe connection with the Register of Spatial Units Database and digital maps 1 : 25 000
- Following processing steps were carried
  - 1. Input of alpha-numerical data,
  - 2. Double control of entered alpha-numerical data,
  - 3. Scanning of old point descriptions,
  - 4. Input of graphichal data into database,
  - 5. Connection of alpha-numerical and graphical data of geodetic points,
  - 6. Connection of geodetic point database with Register of Spatial Units Database and digital maps 1 : 25 000.

Database of Geodetic Points

- In accordance with planned program activities for the year 2003 we conducted scanning all site description forms, integrated them into database and established a connection between graphical and alpha-numerical data.
- In autumn 2004 we plan to develop, establish and put into the function an applicable solution for internet data access for all our costumers, that is to take into account needs and limitations of the data access for the consumers.

Basic Gravimetric Network

- The Gravimetric Network of 0. order was established within UNIGRACE Project in period 1996-2000 and consist of 6 points
- The Gravimetric Network of 1. order consist of 36 points. The zero series gravimetric measurements were performed in 2003. in with two SCINTREX CG-3M relative gravity meters.
- After pre-processing, the data were adjusted by method of least squeres and estimated accuracy is ±7.51 x 10-8 ms-2 (Bašić et al, 2003).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Basic Gravimetric Network

- In realization is also the first phase of microgravimetric network determination project that has been conducted in co-operation with Geodetic Faculty, University of Zagreb
- This project complements the following:
  - projection and stabilization of microgravimetric network points ,
  - constructing the project of connecting to the reference GPS-network, levelling and gravimetric network
  - making technical documentation.

Levelling

- **In order to examine the possibility for determining mathematical model for heights transformation between new and old height system, benchmark height analysis was conducted for the northwestern part of Croatia that constitutes 20% of the national teritory.**
- **Analysis has shown that differences in benchmark heights change pretty much incorrectly and that they differ much in their size**

Levelling

- **Defining mathematical transformation model for height data between new and old hight system will be complex**
- **Analyis was computed by the Geodetic Faculty, University of Zagreb, under the guidance of Prof.dr.sc Nevio Rožić**

We appresciate your attention!