In memory of Professor Giorgio Manzoni

Trieste, 18 – 20 February 2016

Main Conference Room - H3 Building
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NEW ADVANCED GNSS AND 3D SPATIAL TECHNIQUES
APPLICATIONS to CIVIL and ENVIRONMENTAL ENGINEERING, GEOPHYSICS, ARCHITECTURE, ARCHEOLOGY and CULTURAL HERITAGE

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Project for a GNSS Widespread Territorial Park

University of Kazan’

A. D. 1804 – Emperor Alexander I

Polytechnic of Kazan’

Project for a GNSS
Widespread Territorial Park

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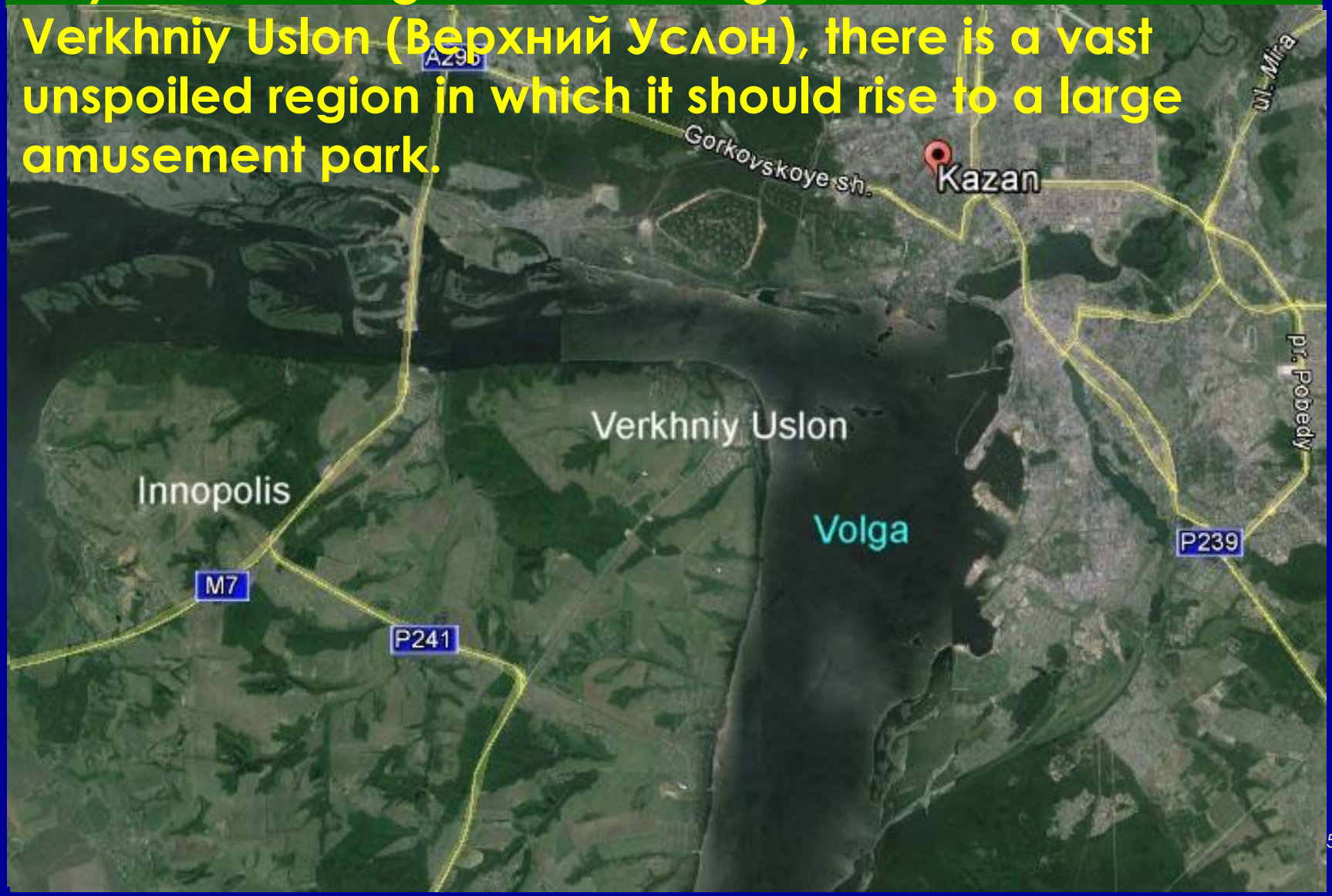
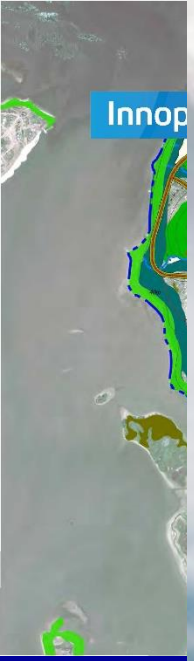
Tatarstan

To the west of the city of Kazan, capital of the Autonomous Republic of Tatarstan, Russian Federation, beyond the Volga river, starting from the town of Verkhniy Uslon (Верхний Услон), there is a vast unspoiled region in which it should rise to a large amusement park.



It has recently launched the project of a ropeway to quickly reach the left bank of the Volga, in order also to prevent access to endothermic motor vehicles inside that area.



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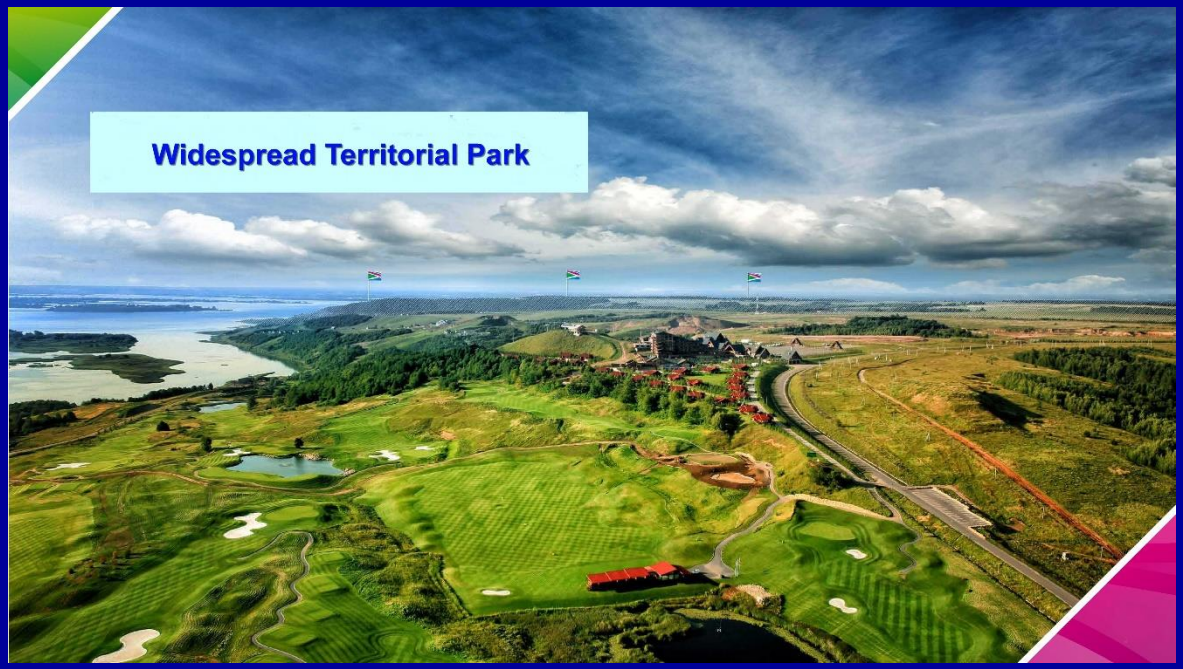
All this area has a great tourist attraction



Parks of Recreation and Entertainment

The first recognized form of public place of amusement in the European city is the Medieval Cemetery, which was also a central free zone and extraterritorial, a meeting space and freedom.

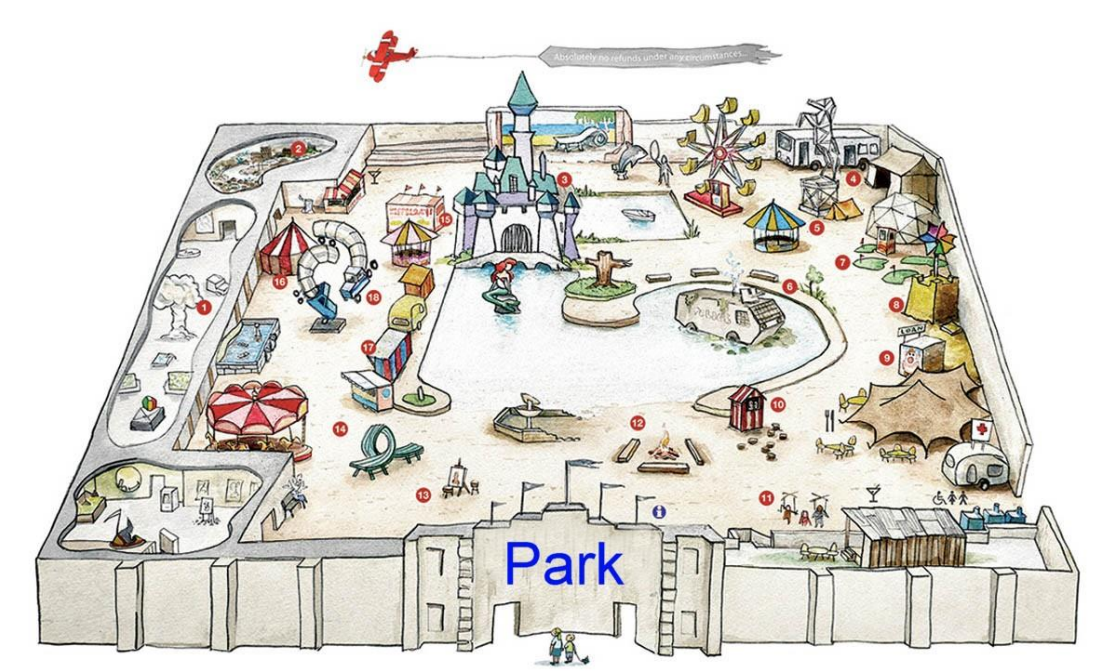
The term "park" designates almost anywhere a space devoted to leisure and it is, above all, a place circumscribed, limited by a border. Going inside it, there is a desire to live a real experience of displacement, that is, of neglecting the everyday landscape.

Since 1950, it arose a new generation of parks, designed on the model of American amusement parks and especially referring to Disneyland.

In the fifties, they began to spring up all over Europe, at first in West Germany in Belgium and the Netherlands and, later, in England in France and in the countries of southern Europe.

These were and are fixed installations for a large welcome and a massive influx of visitors from throughout the surrounding region, but located far from cities and without any obvious relationship with them.

Over time this sector has evolved and were born the so-called "theme parks" (amusement, scientific, aquatic, wildlife, nature, etc.), which are closer and closer to the concept of "resort", and consist not only of an entertainment area (usually more of various types of subjects), but also of shopping areas and outlets, cinemas, hotels, sports area and all it does entertainment.



All these structures and facilities require, however, always the availability of a territory enclosed within well-defined boundaries, which is required, not only for the delimitation of the property and safety, but above all to be able to cash the tickets.

GNSS Widespread Territorial Park

- **Information & Education**

  Project
  Training
  Consulting
  Sharing
  Documents
  Software

- **Feedbacks**

  List of experiences
  Development of operational practice
  Integration of skills
  Updating documents and software
  Production of new documents and software

AUAF model

- **New paradigms**

  IT
  TLC
  New media

- **Advanced Communications**

  Utilizing the communication Sciences

- The concept of "boundaries" can be overcome by using the existing ICT technologies, which are able to guarantee all those services until now provided in a closed park.
- Here then is that you can think to an open park, or "widespread," which does not need any boundaries, since will be the technology to offer this function in a virtual mode.

Fall of all barriers

The park complex will provide low energy vehicles, capable of carrying the visitors in the chosen destination.

Unmanned-car-vehicles (Driverless Cars) will be also utilized, since they are equipped with advanced control systems to interpret sensory information for identifying appropriate navigation paths, as well as obstacles and relevant signage.

Driverless vehicles are, by definition, capable of updating their maps based on sensory input, allowing these cars to keep track of their position and to distinguish between different cars on the road, which is very useful in planning a path to the desired destination.

The tracking of routes can be of course made via an integrated GNS system with a navigation software, with the advantage to be set from time to time according to the needs of users (visits to museums, travel through natural beauty, wine tasting tours, etc.), for the timing of events and for calculating intercurrent distances.

GNSS +WLAN+4G

Franco C. Grossi

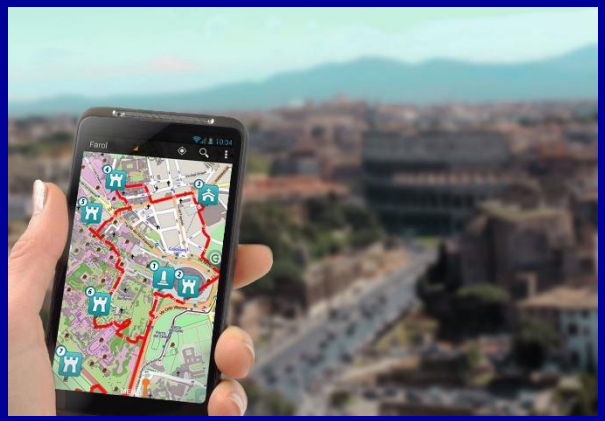
GNSS +WLAN+4G

- The geographical area covered by the project will be easily identifiable by the equipment with which they will be provided with the vehicles for transferring trippers.

- The resident population will be actively involved in the "performances", which will be implemented in predetermined paths, thus making the citizens themselves "actors" of representations with different themes: the history of the place, the stories, the gnomes, the witches, the products of the earth, the aromatic herbs, the typical gastronomy, etc.

GNSS +WiFi+LTE4G

- **The tourists will follow the descriptions of the areas visited also by means of tablets or smart phones, which will receive the necessary information via WLAN, LTE4G and GPS.**



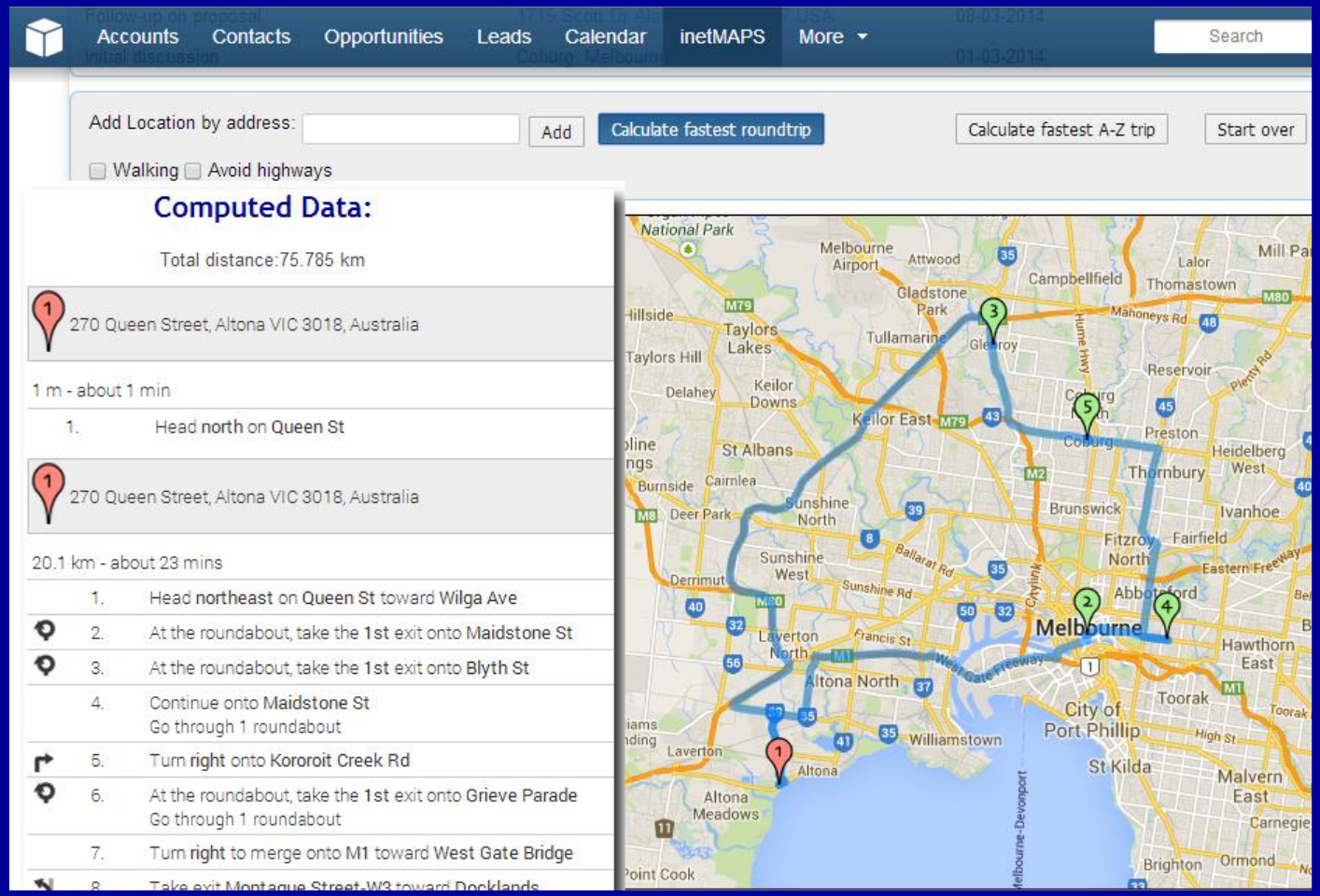
Visitors will so be able to enjoy the attractions of the area (rivers, hills, exhibitions, markets, etc.) and enjoy all the services (restaurants, hotels, spa, swimming pools, shopping centers, etc.).

GNSS +WLAN+4G

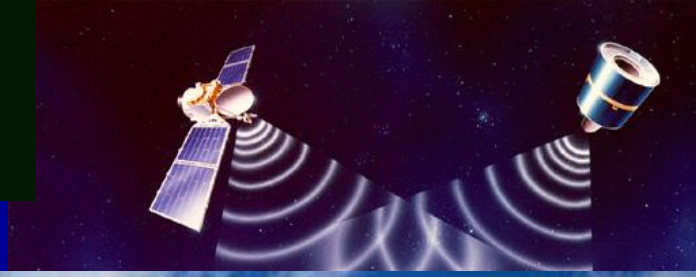
- All these activities will be served and managed by a single operations center that will be able not only to provide navigation programs targeted, but also to carry out the supervision and control of real-time paths and positioning on the territory of the groups of tourists.

GNSS +WLAN+4G

- The accounting of the costs of the day-trippers will be regulated by separate management software, which will be able to interact with the workstations across the territory.

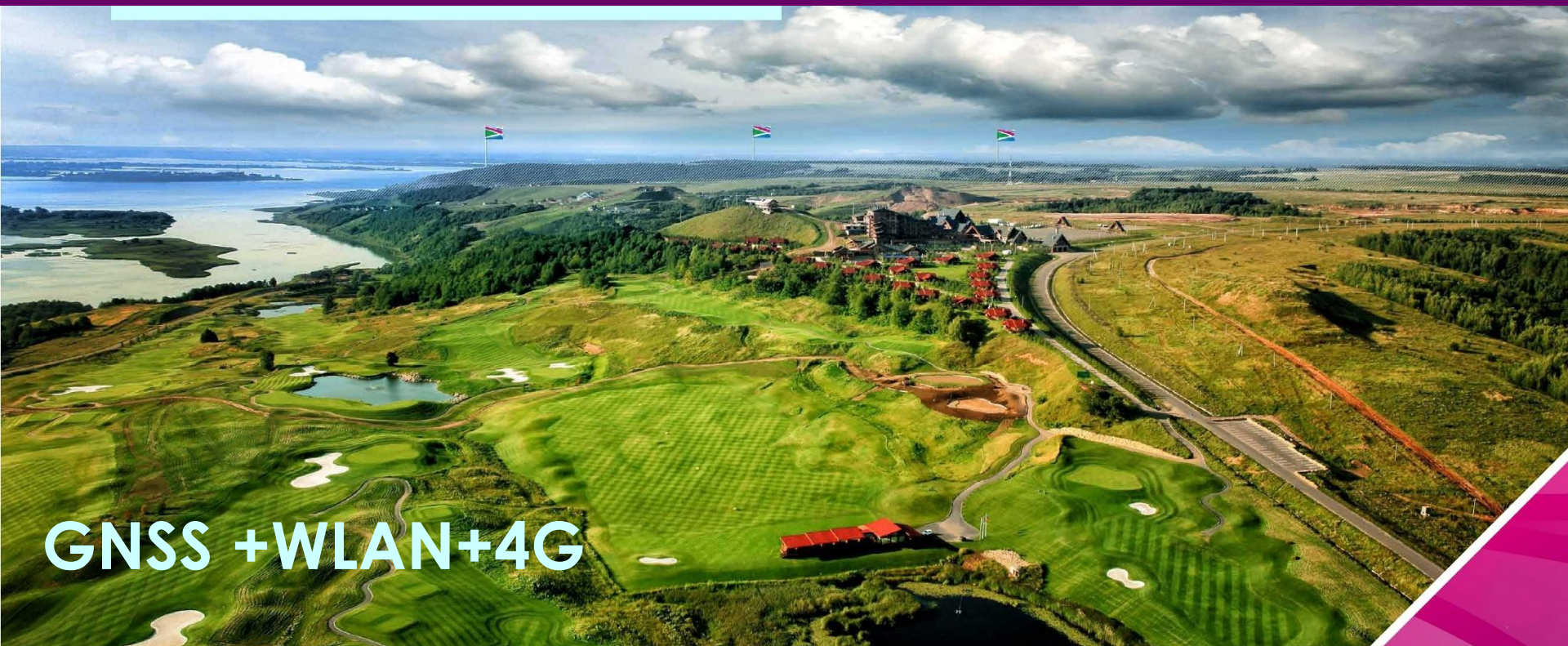


Project for a GNSS Widespread Territorial Park



INNOPOLIS
KAZAN

- The conceptual innovation brought about by this particular type of park and the organizational flexibility, easy to implement with the new information and communication technologies, will make this project, unique in its kind.



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Thank you for your attention

Спасибо за внимание

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