standards and numerous specially developed adapters for integrating applications, that cannot support open standards, makes the proposed platform a unique means of effective informational support of any engineering solutions or managerial decisions.

The implementation of NetArea platform provides:

- a new level of communication and interrelationship between people, information flows, and economic processes, increasing the efficiency of business, which can now be organized in the common information field;
- new possibilities for effective cooperation with business partners due to optimization of economic processes - both within and outside the catchment-coastal zone under consideration;
- possibility of developing new multifunctional processes on the basis of the existing diverse schemes;
- quick implementation of innovative solutions, permanent improvement of the process, which becomes possible due to simplicity and safety of introducing any changes in the system;
- new functional options provided by simple implementation of new strategies and use of outsourcing;
- a higher level of capital investments profitability ensured effective investments in the IT sphere, its achievement being important for the management process.

NetArea information platform was tested for individual sections of the Russian catchment-coastal area, where oil is intensely produced. The trial NetArea operation allowed for the increase in the competitiveness of economic objects operating in the zone in question.

Estuarine and coastal zone ecohydrology

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The successful management of estuaries and coastal waters requires an ecohydrology-based, basin-wide approach. This necessitates getting away from present practices by official institutions based on municipalities or counties as an administrative unit, or the narrowly-focused approaches of managers of specific activities (e.g. farming and fisheries, water resources, urbanisation, shipping, wetlands management and recreation). Without this change in thinking and management concept, estuaries and coastal waters will continue to degrade, whatever integrated coastal management plans are implemented. This is demonstrated in my 2006 Springer book "The environment in Asia Pacific harbours" for twelve mega-cities and harbours in the Asia Pacific region, including Shanghai and Hong Kong. Ecohydrology is neglected and the best of engineering practices have failed to provide a healthy environment to 100 million people.

To help foster this change, UNESCO-ROSTE and a number of agencies supported

(1) the implementation of ecohydrology in the planning of human activities in watersheds draining estuaries,

(2) the development of an estuarine and coastal waters ecohydrology model.

The aims were to

-base the model on the dominant estuarine ecohydrological processes,

-Keep the model simple but realistic,

-to use the model to study scenarios of impacts n the estuary of developments in the watershed on the estuary, its fringing wetlands, and its coastal waters

-enable an interaction between scientists, economists, and the public and decision makers to enable decisions based on ecohydrology principles. Examples extracted from my 2007 Elsevier book 'Estuarine Ecohydrology' will be shown for - Darwin Harbour, Australia

- estuaries in Palau and Pohnpei (Micronesia)
- the Great Barrier Reef of Australia
- the Guadiana Estuary, Portugal

as well as a new study of remediation for coral reefs in Hawaii.

Limitation of nutrient loading to the Baltic Sea

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Marine eutrophication is now becoming a world-wide problem. Eutrophication is the most environmental problem in the Baltic Sea to be solved by the HELCOM Baltic Sea Action Plan. Effects of eutrophication such as cyanobacterial summer blooms and extensive bottom water hypoxia are now more pronounced than ever before. Nutrient pollution dies not recognize state borders and nutrient inputs from one country eventually affect the marine environment of all other countries. The purpose of research consist in a substantiation of quotas on anthropogenic nutrient loading the unfiltered phosphorus to sub-