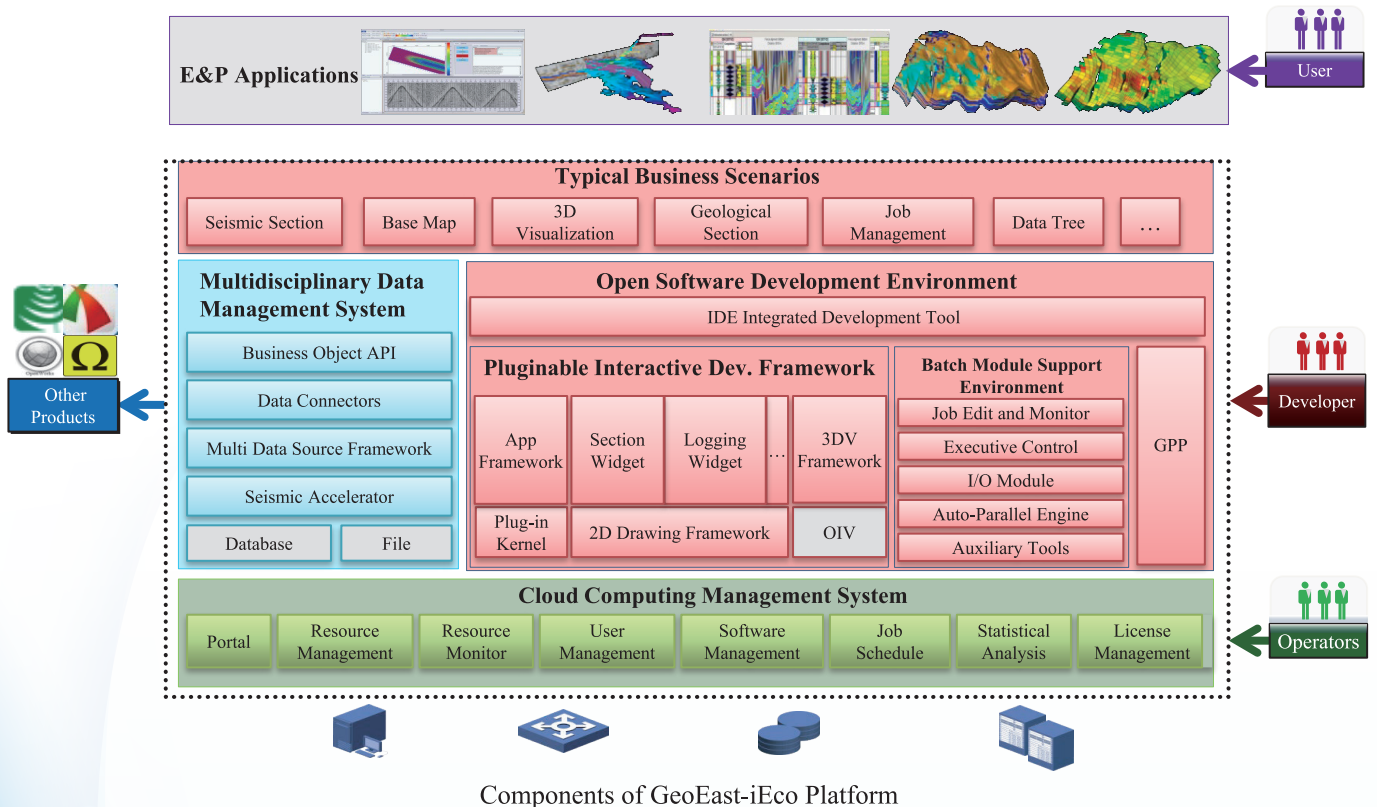# GeoEast-iEco: An Open Software Platform for Multidisciplinary Integration

GeoEast-iEco is an open software platform offering an integration framework for E&P applications. It can manage petabytes of seismic datasets, support large-scale parallel computing, enable cross-domain collaboration and provide a layered opening model. It has three components that are a cloud computing management system, a multidisciplinary data management system and an open software development framework.

Components of GeoEast-iEco Platform

1 The Cloud Computing Management System

The System covers the functions of massive resource management and scheduling, user and software management, remote visualization and statistical analysis, integrates advanced computer technologies such as cloud computing for processing and interpretation, efficient large-scale heterogeneous cluster resource management and monitoring. The system also provides full SaaS support, making mobile officing possible at anytime, anywhere and from any terminal.

2 The Multidisciplinary Data Management System

With the multi-data-source technology, the data management system offers capabilities of sharing and exchanging data in basin level to make cross-domain collaboration possible. The system also perfectly solves PB-scale data problems through a seismic data accelerator.

3 The Open Software Development Framework

The framework supports efficient and high quality programming in areas such as GUI, batch module and parallel computing through a plugin technology and a "scene+plugin" programming model. With these techniques, construction of applications is quick and efficient like building with blocks.

GeoEast-iEco: An Open Software Platform for Multidisciplinary Integration

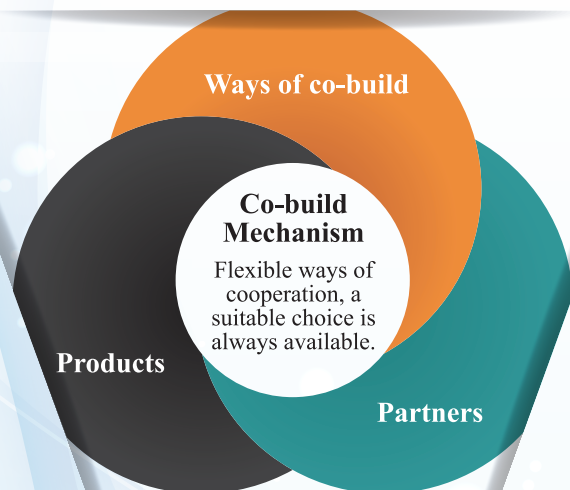## GeoEast-iEco: The Cooperative Development Mechanism of "Co-Build, Share and Win-Win"

Relying upon the innovative mechanism of "co-build, share and win-win", GeoEast-iEco aims to bring together a wide range of R&D forces domestic and abroad, such as oil enterprises, scientific research institutes and social communities and to create an E&P software ecosystem for the oil and gas industry.

Co-Build: Partners develop their characteristic technologies as plug-ins or independent software packages on the GeoEast-iEco platform.

Share: The platform owner, the co-build partner and the GeoEast end users have the right to use the "co-build" products upon authorization.

Win-Win: Sale of co-build products can be carried out alone, or jointly with the platform owner.

Contribute to construction of E&P software ecosystem

Under the framework of "co-build, share and win-win", companies or individuals within or outside the industry can integrate their characteristic and advantageous technologies as plugins or independent software packages onto the GeoEast-iEco platform, which promotes industry specialization, aids in avoiding repeated development, assists in forming a technology alliance and helps establish an E&P software ecosystem.

Co-build Mechanism
Flexible ways of cooperation, a suitable choice is always available.

Ways of co-buildding
□ Develop and Sell Independently
□ Consultation and Cooperation
□ IP Transfer

Products
□ Algorithm Module
□ Interactive Plugin
□ Independent Software

Partners
□ Company
□ Individual
□ Association / Group