

**Memorandum of Understanding between Deep-time Digital Earth and Zhejiang Lab, Zhejiang Province, China.**

By the present Memorandum of Understanding (MoU),

**the Deep-time Digital Earth** (hereafter referred to as DDE) represented by **Prof. HARVEY THORLEIFSON, CHAIR OF THE DDE GOVERNING Council**

and

**the Zhejiang Lab, Zhejiang Province, China** (hereafter referred to as the **ZhLab**) represented by **Director Jian Wang,**

and the two entities being collectively referred to together as the “Parties”, have agreed as follows:

**1. SUBJECT OF AGREEMENT**

1.1 GeoGPT is a pioneering Large Language Model (LLM) research program, inspired by the vision and mission of DDE, initiated by Yunqi Academy of Engineering, with collaborative development led by ZhLab. GeoGPT is a non-profit initiative, open to the public. The development of GeoGPT involves broad collaboration among experts from various universities and institutes around the world. GeoGPT seeks to drive innovation, facilitate collaboration, and ensure open, transparent, and ethical practices within this field;

The Deep-time Digital Earth (DDE) is the first IUGS-recognized big science programme. DDE is committed to developing itself as a provider of public goods and services for science and technology development globally, in particular to assist countries to realize SDGs adopted by the UN in 2015. The overall mission of DDE is to harmonize global earth evolution data and share global geoscience knowledge. The long-term vision of DDE is to transform the earth sciences by encouraging a data-driven research paradigm. Currently, DDE has 27 Members and 26 Working and Task Groups (WTGs).

1.2. The subject of the present MoU is to build effective and mutually beneficial cooperation between the Parties in topics related to geodata science research and development and applications and to coordinate efforts in areas of shared interest and in support of the DDE mission and ZhLab strategy.

1.3. This MoU defines the nature of the relationship between DDE and ZhLab and will be approved and signed by the respective heads of the Parties.

1.4 This MOU in no way lessens the full independence of DDE and ZhLab as wholly separate organizations with their own leadership and governance.

1.5 While defining the general purpose and terms of cooperation between the Parties, this MoU is not legally enforceable, but may precede a formal contract defining the details of future cooperation.

## **2. RIGHTS AND OBLIGATIONS OF PARTIES**

2.1. The Parties will cooperate and support each other in the achievement of their common objectives and will do so in the spirit of good partnership. Such cooperation will focus on:

- Develop GeoGPT where DDE will provide the necessary geological sciences inputs and ZhLab will contribute technological know-how and expertise including the use of machine learning, AI and other relevant tools and applications;
- Any other mutually beneficial activities pertinent to the earth and atmospheric sciences agreed upon by the Parties.

2.2 The Parties will promote and disseminate information on each other's activities and will accord credit and appropriate visibility on each other's websites and other communications. Details of such communication will be approved by both parties in advance.

2.3. The results of collaborative activities of the Parties will be made open to the public by default unless the two Parties jointly agree on and document necessary access restrictions.

2.4. The Parties will communicate readily and promptly with each other over areas of mutual interest and possible collaboration. This will be done by occasional bi-lateral meetings between the Parties, as well as through ad-hoc meetings at international, regional and national conferences, workshops, and other events.

2.5. Subject to invitation, ZhLab will send representatives of GeoGPT to DDE meetings and events and deliver presentations and reports that are relevant to cooperation between the two Parties under this Memorandum of Understanding.

2.6. Subject to invitation ZhLab will send a delegate to the meetings of the Science Committee (SC), Executive Committee (EC) and the Governing Council (GC) meetings of DDE to present reports and contribute to discussions on agenda items that are mutually agreed upon by the Parties.

2.7. Where appropriate and beneficial, and to the extent allowed by the organization's respective rules and regulations, the Parties may establish and support joint Interest/Working/Task Groups in areas of shared activity.

2.8 Either party may cooperate with other entities delivering similar products. These activities should be mutually beneficial or at least not harmful to the collaboration between the parties.

## **3. FINANCIAL**

3.1 This MoU does not imply or require any financial responsibility for either party. For any activity that implies financial contributions from either of the two Parties separate contracts or agreements will be established as appropriate.

#### **4. DURATION OF THE MEMORANDUM**

This MoU will enter into force upon signature by the Parties and will remain in effect and serve as a framework for mutual understanding and cooperation, until either of the Parties records its expressed wish to terminate it.

#### **5. LANGUAGE OF MEMORANDUM AND CORRESPONDENCE**

5.1. The present MoU is drawn up in English.

5.2. All correspondence regarding this MoU will be in English.

5.3. In case of any discrepancies or inconsistencies in the semantic content of the terms prepared in other languages, the English language version will prevail over any other language.

#### **6. INTELLECTUAL PROPERTY RIGHTS**

6.1 Both parties have independent rights to the copyright of their respective results. The intellectual property rights of the results produced by the parties during the cooperation will be owned according to agreement between the parties.

6.2 The Parties will consult with each other regarding the intellectual property rights as appropriate relating to any project or benefits derived thereof in respect of activities carried out under a separate legal instrument pursuant to this Memorandum. Any new intellectual property will be managed in a manner consistent with the Parties' policies on intellectual property.

#### **7. SETTLEMENT OF DISPUTES AND CONFLICTS**

7.1. The Parties will endeavor to resolve by negotiation all disputes that may arise from this MoU.

#### **8. TERMINATION**

8.1 Each Party may terminate this MoU with a 90-day written notice to the other Party.

#### **9. ADDRESSES OF PARTIES**

##### **9.1. DDE**

Full Name: DDE, the Deep-time Digital Earth (DDE)

Address: Suzhou Deep-time Digital Earth (DDE) Research Centre, Yangcheng Lake Science and Industrial Park, Kunshan County, China.

Tel: +86 0512 55132000

Email: secretariat@ddeworld.org

##### **9.2. ZhLab**

Full Name: Zhejiang Lab

Address: Kechuang Avenue, Zhongtai Sub-District, Yuhang District

Hangzhou, Zhejiang Province, 311121, P.R. China

Tel: +86 (0)571-56390515

Email: yejieping@zhejianglab.org

#### 10. COORDINATION

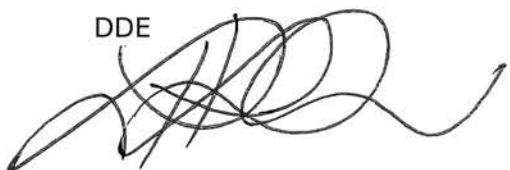
Responsible for the coordination of any activities are:

From DDE: Natarajan Ishwaran

From Zhejiang Lab : Jieping Ye

#### 11. SIGNATURES

DDE



Name: HARVEY THORLEIFSON

Title: CHAIR OF THE DDE GOVERNING Council

Date: 7 March 2025

ZhLab



Name: WANG JIAN

Title: Director of the Zhejiang Lab

Date: 2025. 3. 8