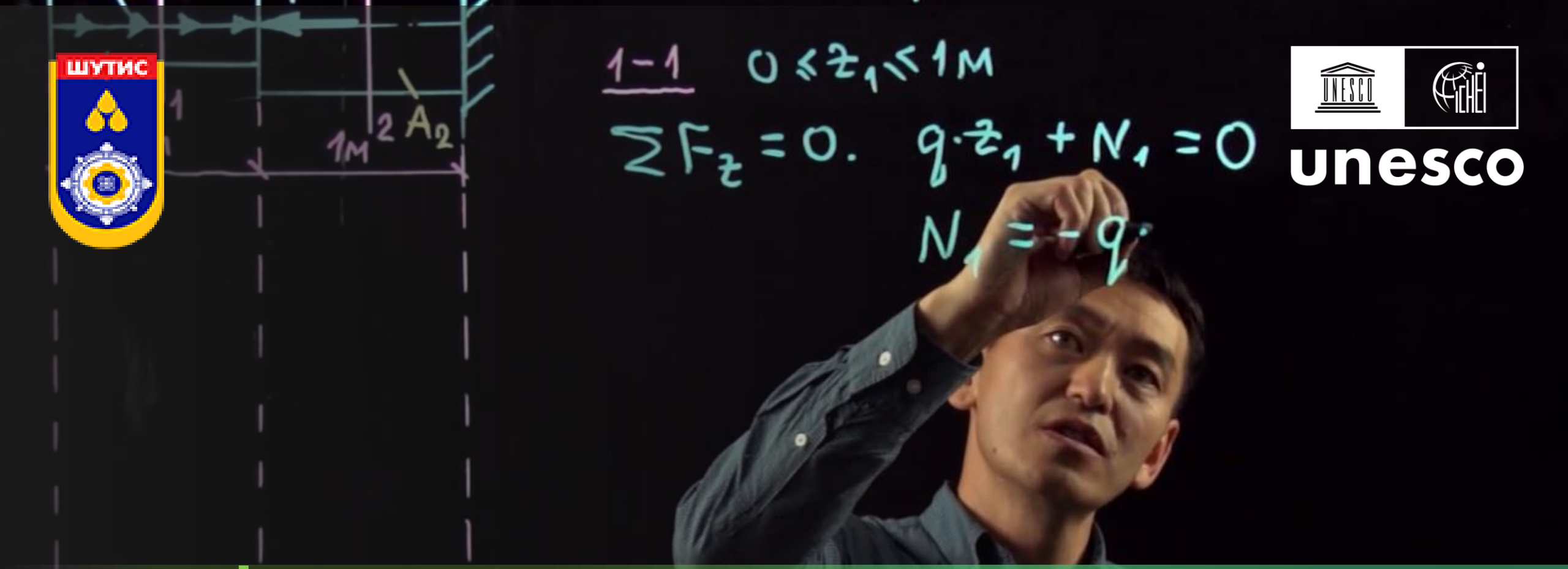


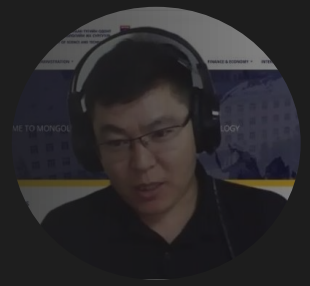
IIOE Pilot Project in Mongolia

Blended Learning Capacity Building for STEM Teachers

1. Background

- Mongolia's long-term development policy ***Vision 2050*** - embeds **digitalization** in its all chapters. It attaches great importance in enhancing an **open and flexible** lifelong education system.
- *The* ***Education sector mid-term development plan (2021-2030)*** emphasizes the necessity of promoting flexible learning pathways, open education and learning modalities such as **blended learning**.
- **Lack of qualified STEM teachers** is one of key constraints in promoting digital transformation of higher education in Mongolia.

Challenges identified from front-line teachers in blended learning





- Lack of benchmarks and guidelines on blended learning;
- Lack of systematic training on blended learning, especially pedagogy;
- Lack of effective support for teachers in content development;
- Lack of exemplary blended learning courses as references, especially course evaluation.

Potential solutions

The pilot project will focus on capacity building for university teachers

- Supporting Mongolian HEIs to develop and adopt **benchmarks and guidelines** to encourage blended learning;
- Conducting systematic **teacher trainings and practices**, serving as **training resources** for national Teacher Professional Development, including **exemplary courses** in STEM;
- Facilitating a **community for teachers** engaged in blended learning;
- Developing a **blended learning assessment tool** and formulating guidelines for **blended learning course development**.

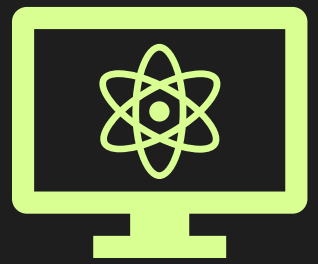
2. Objectives

2.1 Overall objective

To **empower university teachers** with competency and skills in blended learning, and support **implementation** of related policies for digital transformation of higher education.

2.2 Specific objectives

- Carry out training programme on blended learning for master teachers



- Conduct university-wide blended learning practices

- Develop a blended learning assessment tool & guidelines for blended learning course development

3. Monitoring & Evaluation (M&E)

- Mongolian University of Science and Technology (MUST) will lead the evaluation of the project, including the full cycle of initiating, planning, executing, and closing;
- MUST will submit progress and final reports based on agreed timeline;
- UNESCO-ICHEI will act as an external observer.

3.1 M&E Indicators

Indicator 1：Training

1.1 Training of Trainers: 8-10 key staff from OEC, MUST;

1.2 Training：30 master teachers from MUST (no fewer than 15 teachers in STEM subjects, no fewer than 10 female teachers)；

1.3 Scaling up training：60 master teachers from 6 state-owned HEIs in Mongolia (no fewer than 10 subjects, and no fewer than 20 female teachers).

Indicator 2：Practices

2.1 Deliver 5-8 blended learning courses;

2.2 Facilitate 1 **teacher community** on blended learning (no fewer than 50 teachers in Mongolia)；

2.3 Track changes in teachers' blended learning behaviors (i.e. teaching methods, educational resources and activity forms).

Indicator 3：Tools

3.1 Develop 1 set of **blended learning assessment tool** pertinent to Mongolian context**;**

3.2 Develop 1 set of **guidelines for blended learning course development** pertinent to Mongolian context**.**

3.2 Project stages and deliverables

UNESCO-ICHEI Intervention stage

(July 2022 – Jan 2023)

Main deliverables to be present at IIOE annual meeting 2022

- Training programme package (IIOE/ICHEI provided + IIOENC in Mongolia self-developed)
- Two exemplary blended learning courses (*Engineering Mechanics* + *Pattern design of Knitwear*)
- Blended learning STEM course proposals (15-20 proposals)
- Blended learning seminar at national level
- A teacher community at MUST/institutional level

A progress report of the pilot project

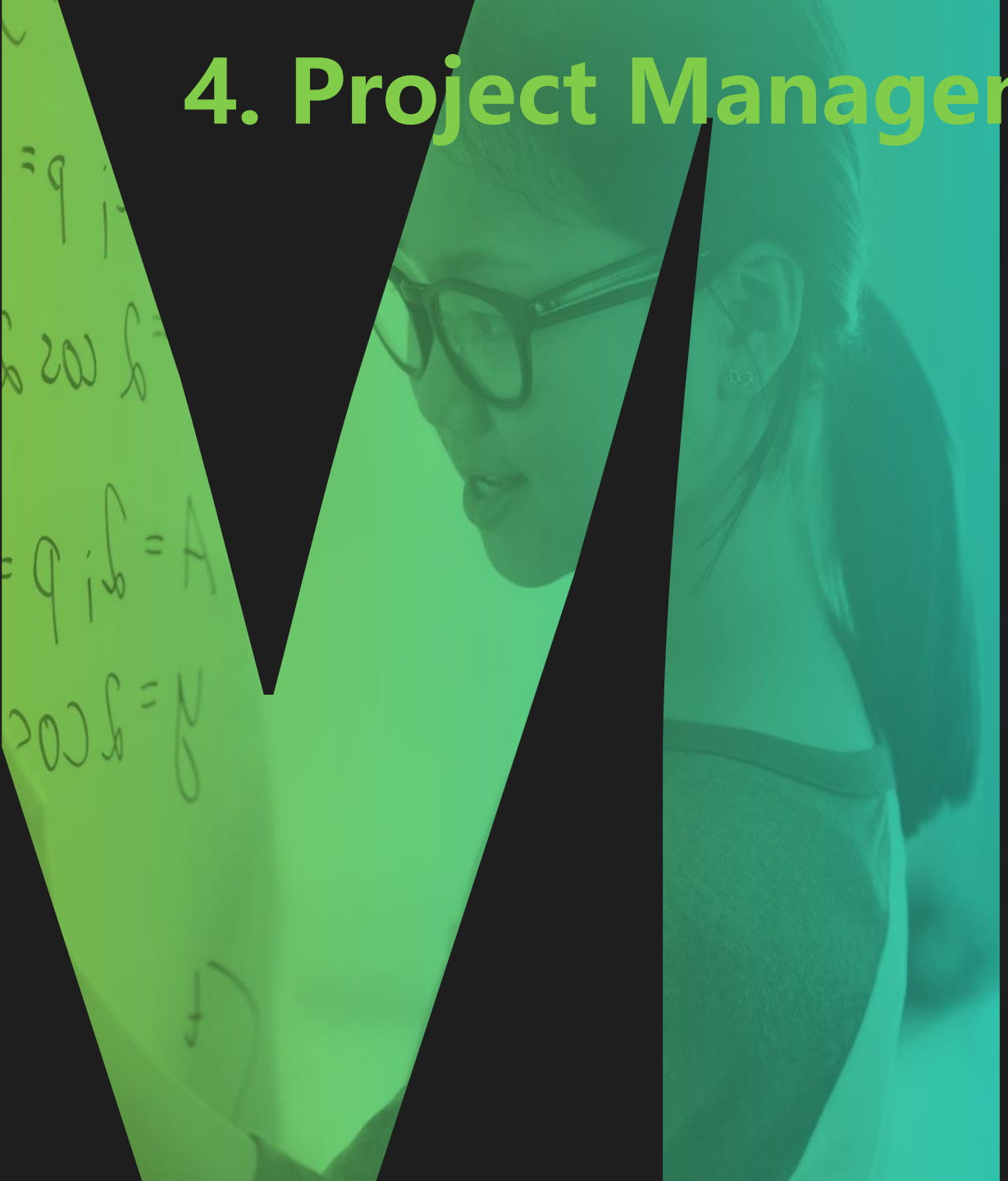
Minimal Intervention stage

(Feb 2023 – July 2023)

- 5-8 exemplary blended learning courses in STEM and other subjects by master teachers from MUST and other state-owned HEIs
- Blended learning assessment tool & guidelines for blended learning course development
- A teacher community at national level

Final report of the pilot project

4. Project Management



4.1 Organization

Thank you!