

# 3D SOFTWARE

## FOR DYNAMICAL SAGITTAL BALANCE PREDICTION

---

The size of the rehabilitation facility	
specialist clinics	50 - 100
number of beds	500 - 1000

### Description

Pain in the lumbar region of the back is one of the most common reasons patients seek medical care.

After surgical treatment, several difficulties may arise, such as conditions affecting adjacent segments of the spine. Surgical procedure planning, considering sagittal balance, clearly contributes to long-term reduction in postoperative complications.

Currently, the challenge provider primarily uses dynamic X-ray or CT data for surgery planning. A new device that creates a reconstruction model is newly in operation ([EOS 3D Surgical Planning Tools](#)).

While this is already a standard solution in spondylosurgery, understanding sagittal imbalance requires adding a dynamic component to this examination. For surgical planning, it is crucial **to obtain information about the patient's movement**; while all existing examination methods only track the patient in a static posture.

We are looking for an innovative solution that captures and provides information about patient movement for surgical planning based on dynamic movement analysis while walking.

Current methods only track the patient in a static position, which is inadequate.

## Opportunity

DEX IC is initiating an open call to enable the dialogue between the Challenge provider and the potential problem solvers for this Challenge.

If you are interested in participating, please submit a pitch presentation of your proposed or existing solution for the challenge.

Your pitch should be confined to either 10 slides or 7 pages.

### Mandatory Components of the Proposal

**Understanding of the Requested Solution:** The proposal should contain a clear and detailed explanation of how you understand the requested solution. Describe its key features and functions.

**Solution Proposal:** Explain the solution you are proposing and how it should be implemented.

**References:** If you have previously worked on similar projects or have experience in healthcare innovation, provide references. Include information about past successful implementations and projects that could support your ability to address this challenge.

**Technology Readiness Level Specification:** Specify the current level of your proposed solution.

**The submission deadline is 11.11.2023.**

The authors of the top pitches will be selected and invited by DEX to join an Open Market Consultation Session with the healthcare providers.

In this session, participants will gain further insights into the challenge, understanding the provider's requirements in more depth. They will also discuss viable solutions, potential obstacles in development, and the prospects of pilot programs.

After these consultation sessions, the healthcare providers will refine the challenge description based on the discussions and feedback.

Then, the selected innovative suppliers/solvers will be invited to participate in a public tender, pilot or other form of cooperation based on the TLR stage of their solution.