

## Challenge Brief

### **Objectives/Rationale:**

The innovation lab, a2i recognizes the fact that though significant improvement has been made throughout the health sector, but progress in the field of maternal and neonatal health is still lagging behind. More efforts have to be made here to achieve the SDG targets to be met by the year 2030. To address this issue, a2i, is pleased to announce its 2022 Call to improve maternal and neonatal health. The present call is to bring out innovations on a continuous pregnancy monitoring system that equips and supports pregnant women to receive pregnancy information as well as maternal and neonatal health care when they need it.

### **Problem Statement:**

Pregnancy is a natural process that results in a series of physiological and psychological changes in a pregnant woman. As a result, even a normal pregnancy may end in potentially life-threatening maternal and fetal complications. Most women do not experience emergencies during pregnancy, but any woman could. A large number of pregnant women do not have access to this service due to a shortage of health workforce, lack of knowledge, and some socio-cultural factors that hinder women's access to adequate health care services during pregnancy. All of these factors highlight the need for personalized and continuous monitoring of pregnant women for the safety and well-being of both the pregnant woman and neonates.

The aim of this challenge is to create a two-way communication system in which pregnant women of different demography and stages of pregnancy journey may obtain timely pregnancy information and receive health care services at times of their need to unlock everyday challenges.

This innovation has two separate components, which are as follows:

### **Component 1: Disseminate behavior change communication (BCC) messages and capture basic health-related parameters:**

To develop a holistic digital ecosystem that could disseminate behavior change communication messages quickly and easily to women about the importance of maternity and neonatal care. That could enhance a woman's self-management and improve knowledge and practices related to maternal & neonatal care. In addition, this innovation would daily collect the basic health-related data of pregnant women (such as pulse, blood pressure, temperature, sleep, movement, etc.) to detect pregnancy complications early.

### **Component 2: interactive systems to receive health care services**

There would be an interactive system (such as phone-based, internet-based, Interactive Voice Response (IVR), chatbot, wearable devices, etc.) that could provide emergency support and acts as a lifestyle guide platform providing authentic health care information, reliable suggestion, and relevant services at the fingertips of the pregnant women at times of their needs.



**Expected results:**

- Improve knowledge and behaviors related to maternal and newborn health (MNH) care.
- Increase antenatal care (ANC), postnatal care (PNC), and facility delivery
- Increase delivery by the skilled birth attendant

**Challenge name:**

Pregnancy Monitoring Challenge Competition 2022