



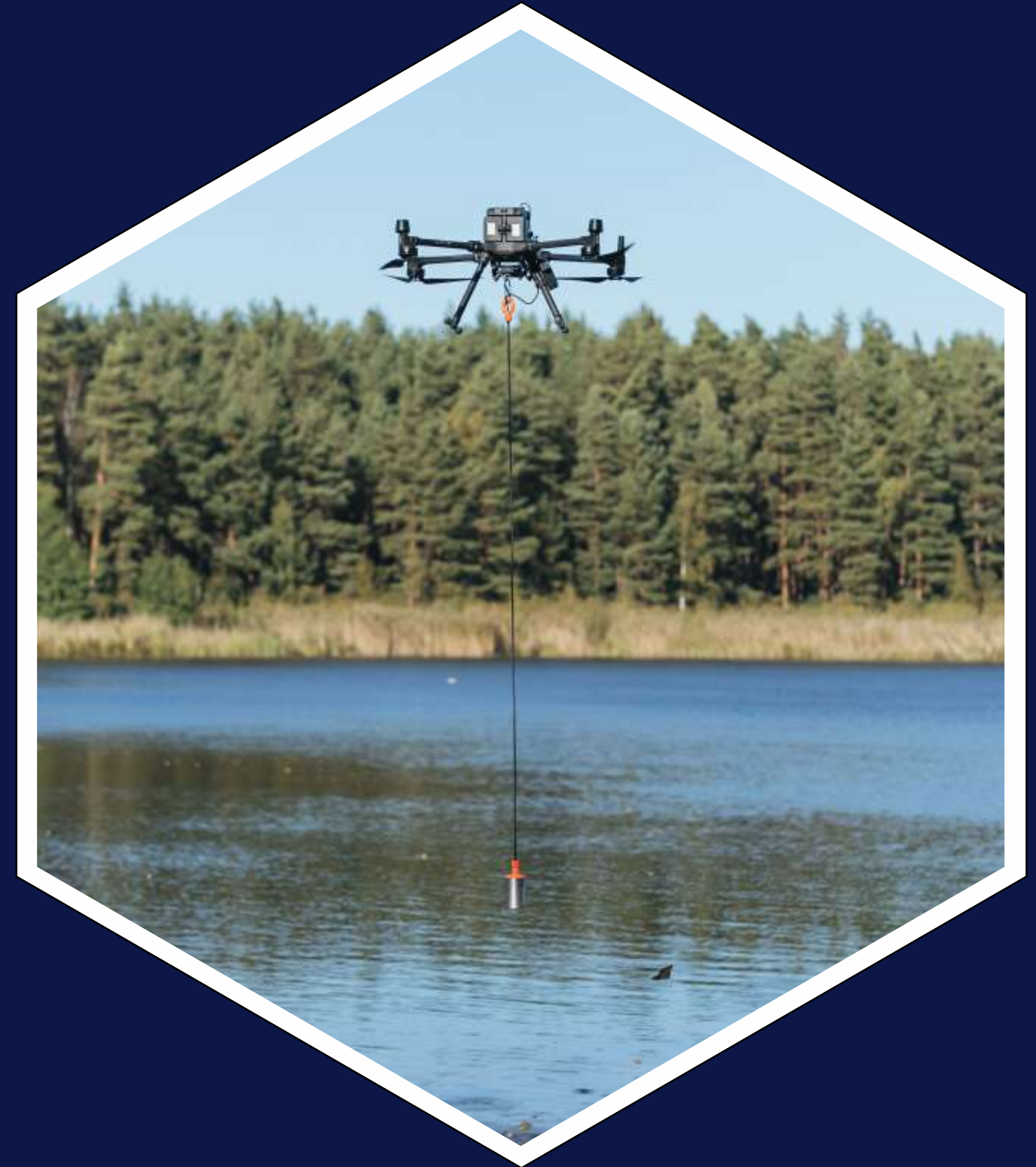
ENHANCING SAFETY AND SUSTAINABILITY: InSAR-based Monitoring for Tailings Storage Facilities and Water Dams

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GISTM

- 2019, Brumadinho
- Stricter regulations & safer practices
- 2020, UNEP&ICMM create GISTM
- GISTM comprehensive guidelines
- InSAR, drones & real-time data systems
- 2022 Jagersfontein



CHALLENGES OF MONITORING DAMS

01 Inaccessibility

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02 Large areas to cover

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03 Need for real-time data

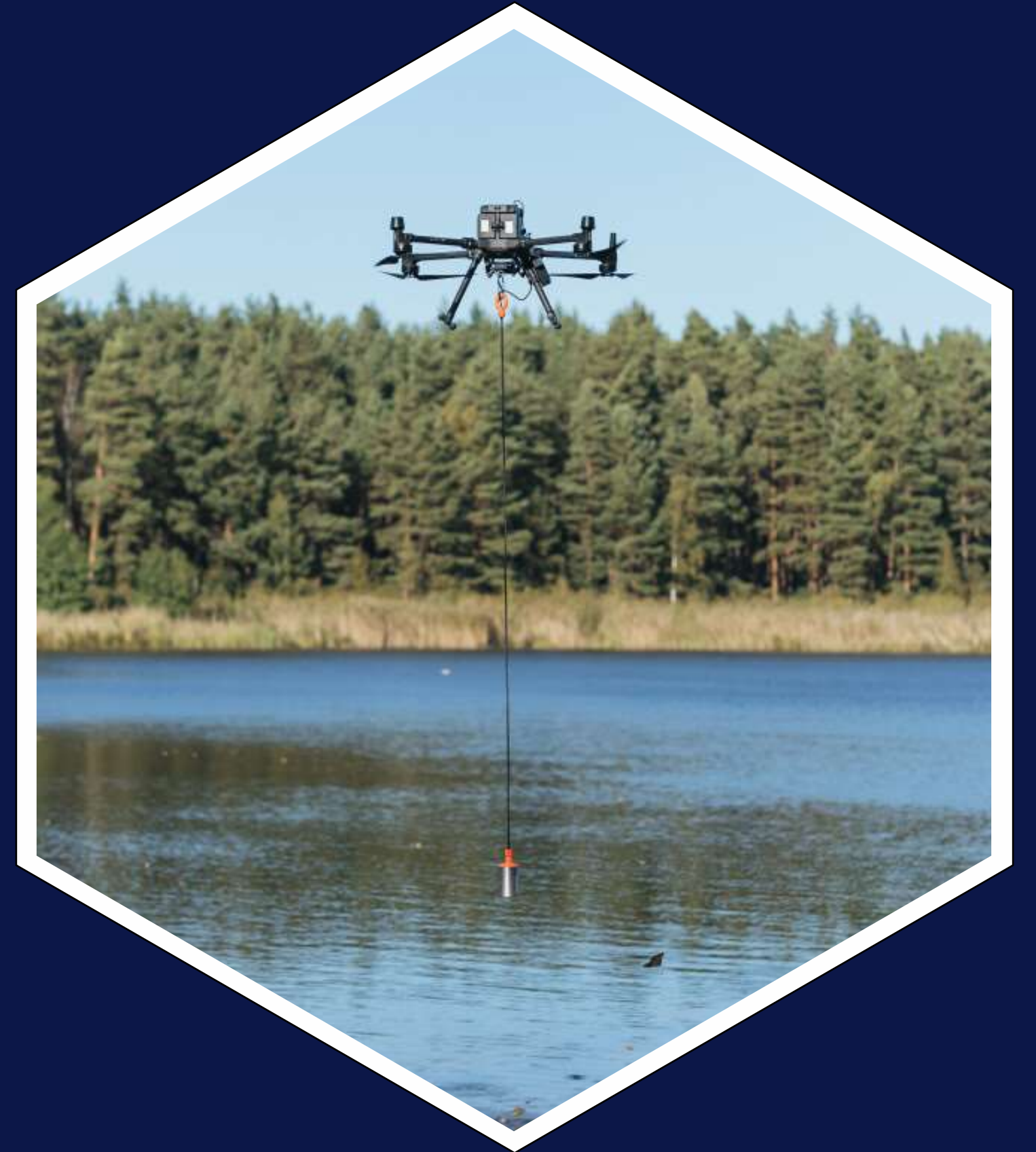
THE ROLE OF INSAR IN DAM MONITORING

- **Early warning signals**
- **Slope stability assessments**
- **TSF beach length monitoring**
- **Moisture mapping**

THE ROLE OF DRONES IN DAM MONITORING

- **Measure water levels**
- **Assess sediment distribution**
- **Close-up views**

THE IMPORTANCE OF
INTEGRATING DRONES WITH
SPACE INFRASTRUCTURE FOR
DAM MONITORING





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Thank You For Your Attention

Connect with me.

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