



Satellite-based solutions to strengthen humanitarian action

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The Humanitarian Context

- **Increasing frequency and intensity** of disasters demand faster, smarter responses.
- **Access** constraints often limit the ability to assess needs and monitor crises.
- **Data-driven approaches** can improve coordination, accuracy, and safety for responders.



From Field Challenges to Innovation

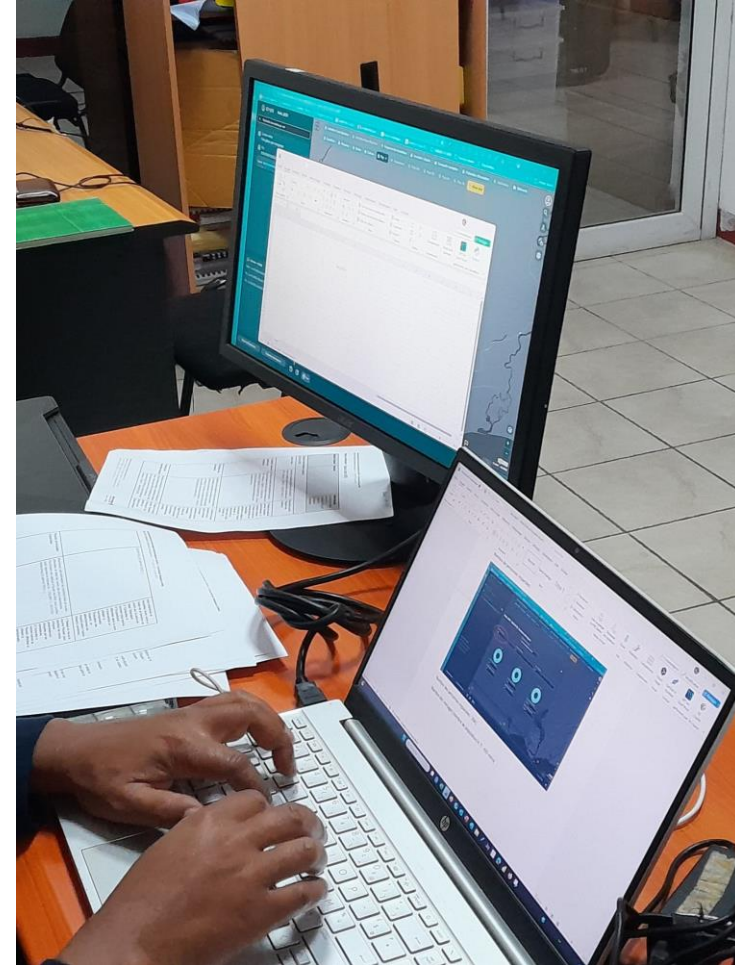
- **Field operations** face recurrent disasters and complex logistics.
- These challenges have driven the International Department of the Luxembourg Red Cross to **invest in innovation, research, and partnerships**.
- **The Innovation and Reference Unit** connects operational realities with science and technology to deliver practical, scalable solutions.



Innovation is not a luxury for humanitarians — it's a necessity for impact.

Remote Imaging Support for Emergencies Introducing RISE

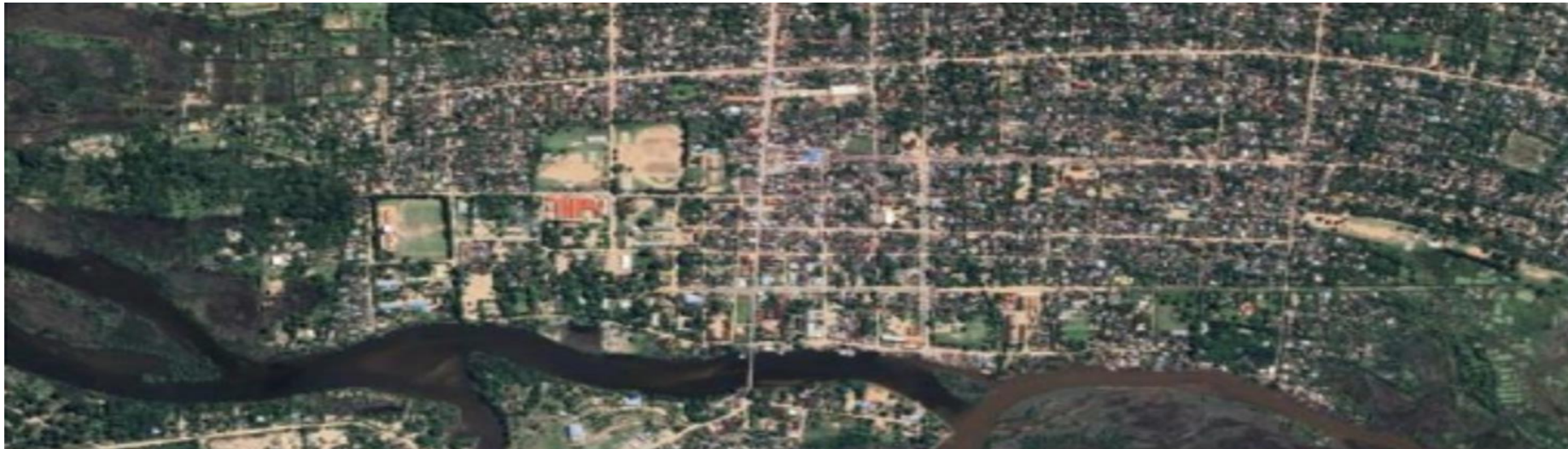
- Developed with **WASDI** and funded by **WFP**, RISE uses **Earth Observation data** to support needs assessment and crisis monitoring in real time.
- **Designed and tested** with the **AICRL** to **validate** its usefulness in operational contexts.
- Provides **faster, safer and more accurate** analysis for disaster response and recovery.



Turning satellite data into humanitarian action.

Field Validation – Madagascar 2025

- **Context** – Test site: Maroantsetra, cyclone-prone area, recurrent floods and hard-to-reach locations.
- **Methodology** – Two teams: one using standard methods, another using RISE for rapid needs assessment.
- **Key results** – faster data collection, reduced costs, improved safety and access.

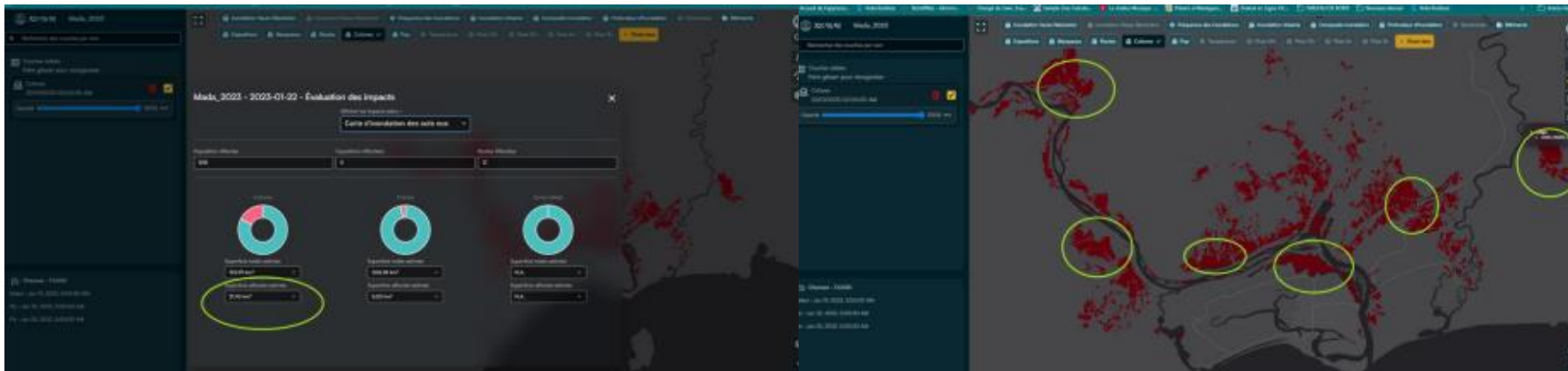


Field data validated that RISE can make humanitarian assessments faster, safer, and more cost-effective.

SATELLITE-BASED SOLUTIONS TO STRENGTHEN HUMANITARIAN ACTION

Key Results and Findings

- Operational Impact – RISE reduced reliance on in-person data collection and enabled faster coordination.
- User Experience – Red Cross teams found the platform intuitive and adaptable to field realities.
- Strategic Takeaways – Satellite-based tools can complement, not replace, field expertise.



Technology alone doesn't change humanitarian action — collaboration does.

From Data to Action

The Role of Field Validation

- **Bridging Innovation and Reality** – Field validation gives technological solutions a tangible scale, transforming prototypes into operational tools.
- **Testing in Real Contexts** – The AICRL ensures digital solutions respond to real humanitarian challenges, not theoretical assumptions.
- **Driving Measurable Impact** – Grounding innovation in field realities generates evidence, optimizes workflows, and delivers quantifiable impact.



Field validation is where technology becomes humanitarian impact.

Opportunities

Turning Opportunities into Operational Impact

- From Pilots to Practice • Scaling What Works • Commitment



*Bridging innovation and field reality is the key to
making technology truly work for humanity.*



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