

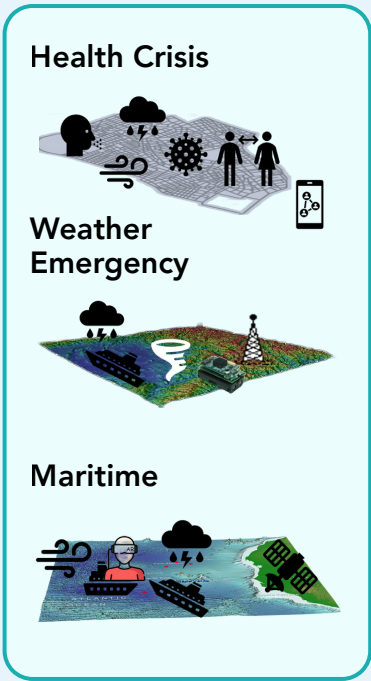


CREXDATA

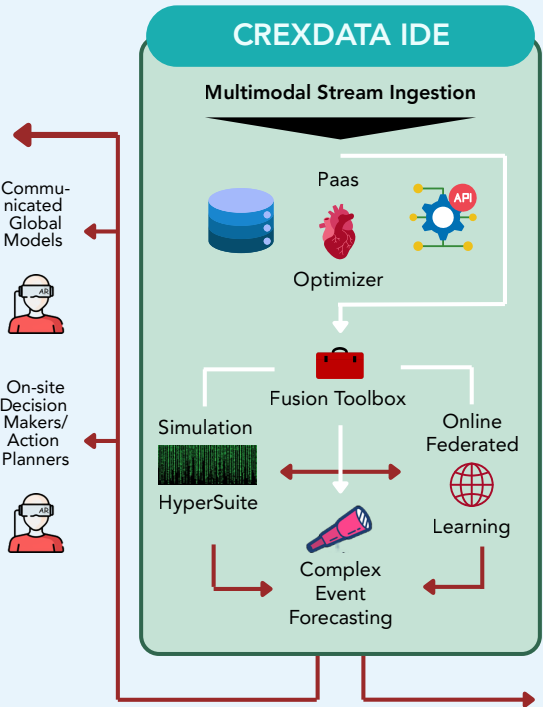
REAL-TIME CRITICAL MANAGEMENT OF
EXTREME SCALE COMPLEX DATA

Use Cases

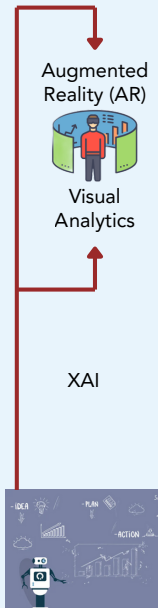
Local Models @ Edge



Extreme scale (raw & derived) data streams
(video, image, geometries, multilingual text, time,...)



Remote Decision
Makers/
Action Planners



Multiresolution Forecasts

DATA INGESTION

Massive volumes of diverse data types are streamed in real-time from countless sources, creating a comprehensive and accurate picture of any given situation

INTEGRATED DEVELOPMENT ENVIRONMENT

A powerful suite of tools work together to process, analyze, and make sense of the incoming data. Each component is designed to be robust, scalable, and adaptable to different needs

OUTPUT: ACTIONABLE INSIGHTS AND DECISION SUPPORT

Clear, concise, and actionable information is delivered to those who need it most, tailored to support decision-making at every level, from strategic planning to on-the-ground operations

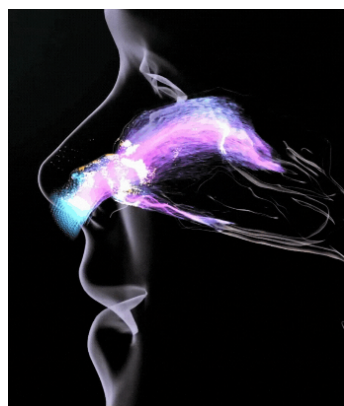
THE USE CASES



WEATHER EMERGENCIES

Improving situational awareness and decision-making during weather-induced emergencies such as floods and forest fires. By integrating satellite data, sensor networks, social media and more, it is possible to enable real-time monitoring, prediction and response.

Success story: Advanced data processing and AI models to support civil protection for evaluating risks, planning actions and mitigating disaster impacts. Validated through test beds and field trials.



HEALTH CRISIS

Leveraging advanced computation biology to improve preparedness and response for current and future pandemics. By integrating large-scale epidemiological and multiscale simulation models, digital twins of populations and patients are created to predict infection spread and optimize treatments.

Success story: Three pilots showcase how epidemic simulation, AI and visual analytics deliver smarter, faster and more adaptive solutions for future health crises.



MARITIME PLANNING

Next-generation maritime safety by combining real-time IoT data, global tracking systems, and AI-powered analytics. By creating a dynamic digital twin of vessels, it is possible to enable early forecasting of hazardous events, optimized routing and improved situational awareness.

Success story: Validated through sea trials and simulations, this innovative solution supports safer, smarter and more sustainable navigation across global fleets through predictive insights and adaptive decision support.

