

Local Area Monitoring Perimeter

Actionable Intelligence for First Responders

Highlights

- Real-time street-level awareness via edge-based spatiotemporal fusion
- Early alerts on injury severity and critical victims
- Aims to reduce time-to-treatment and improve survival outcomes in urban crashes

Configuration

LAMP Brings a Wide Area Situational Awareness to the Street Level

Local Area Monitoring Perimeter (LAMP)

LAMP is an edge-based system delivering street-level situational awareness through spatiotemporal fusion of multi-sensor data (e.g., EO cameras, LiDAR). Unlike cloud-only solutions, LAMP processes data locally for faster insights and lower latency. Its mission is to transform post-crash response by reducing the time from incident detection to lifesaving action.

The Problem We Are Solving

Background Context

- 25% of U.S. traffic fatalities occur at intersections
- A 5-minute EMS delay increases fatality risk by 46%
- “The calls are never right.” — Officer Derrick Carroll
- ER teams often lack crash context or injury mechanism
- Current solutions are reactive, fragmented, and late

The Future We are Building

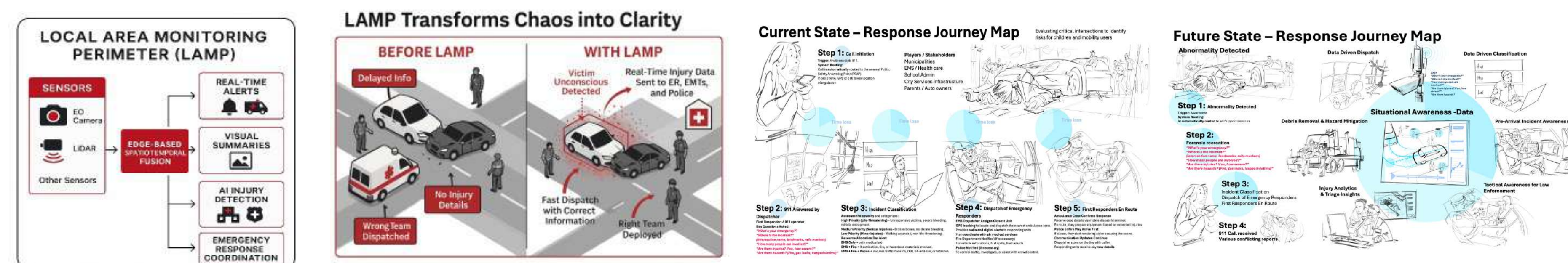
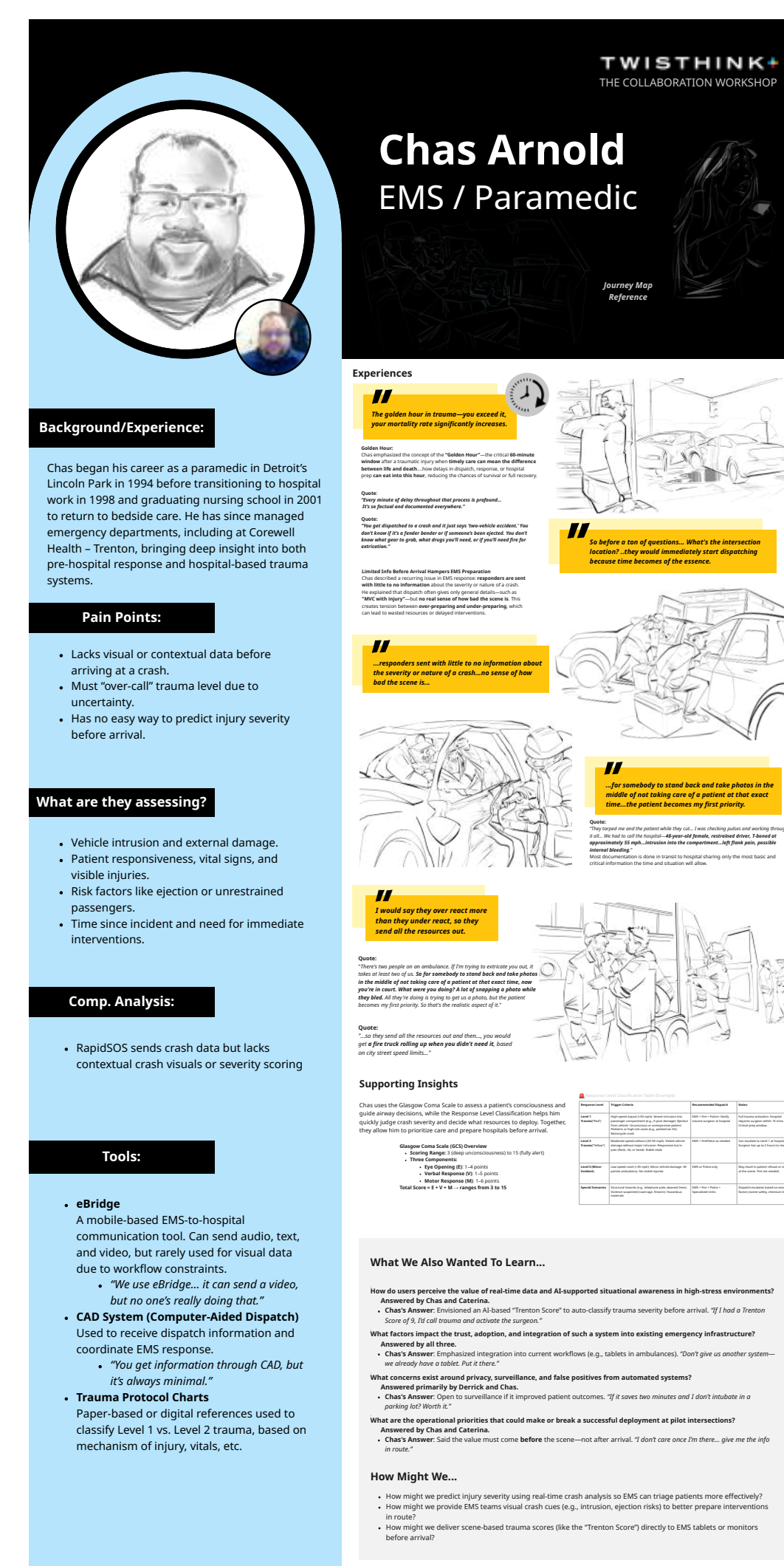
- Urban crashes demand faster, more precise awareness of injuries and hazards.
- Today's systems lack real-time, on-scene intelligence for emergency response.
- LAMP seeks to close this gap and reduce time-to-treatment.

What LAMP Delivers

- Real-time street-level awareness through edge-based spatiotemporal fusion
- AI-driven detection of critical indicators (e.g. unconscious victims, bleeding, multiple casualties)
- Rapid delivery of incident snapshots and summaries before EMS dispatch
- Integration with existing emergency workflows to support — not replace — responders
- The goal: faster time-to-treatment and improved survival rates in urban crashes

Voices from the Field

- “If I know there’s blood loss or loss of consciousness beforehand, I can prep the trauma room and blood products earlier.” — Caterina, ER Doctor
- “A reliable score would let me escalate to Level 1 trauma before arrival.” — Chas, EMS Coordinator/ER Nurse
- “If I could see what really happened, I’d send the right response team every time.” — Derrick, Police Lieutenant



Result

- Developing edge-based spatiotemporal fusion for urban awareness
- Training AI to detect critical injuries and scene severity
- Targeting faster response times and better crash outcomes