Healthcare Support through Information Technology Enhancements (hSITE)

Industry and Healthcare Partners

TELUS health solutions

RIM

IBM

Alberta Health Services

HInext

Centre universitaire de sante McGill
McGill University Health Centre
Les meilleurs soins pour la vie
The best care for life

Canada Health Infoway
Inforoute Santé du Canada

Leading with Innovation
Serving with Compassion
ST. MICHAEL'S HOSPITAL
A teaching hospital affiliated with the University of Toronto

saint ELIZABETH HEALTH CARE
CARE TO BE AMAZED

PARAMED
Home Health Care • Soins de Santé à Domicile

North Simcoe Muskoka
Community Care Access Centre CCAC

Sunnybrook
HEALTH SCIENCES CENTRE

SERVICE DE SANTÉ
SCO
HEALTH SERVICE
Centre de santé Élisabeth-Bruyère Health Centre
Hôpital Saint-Vincent Hospital
Résidence Saint-Louis
Villa Marguerite

MOUNT SINAI HOSPITAL

hSITE Vision

Using advanced communication solutions, provide the right information to the right decision-maker at the right time, in the right format.
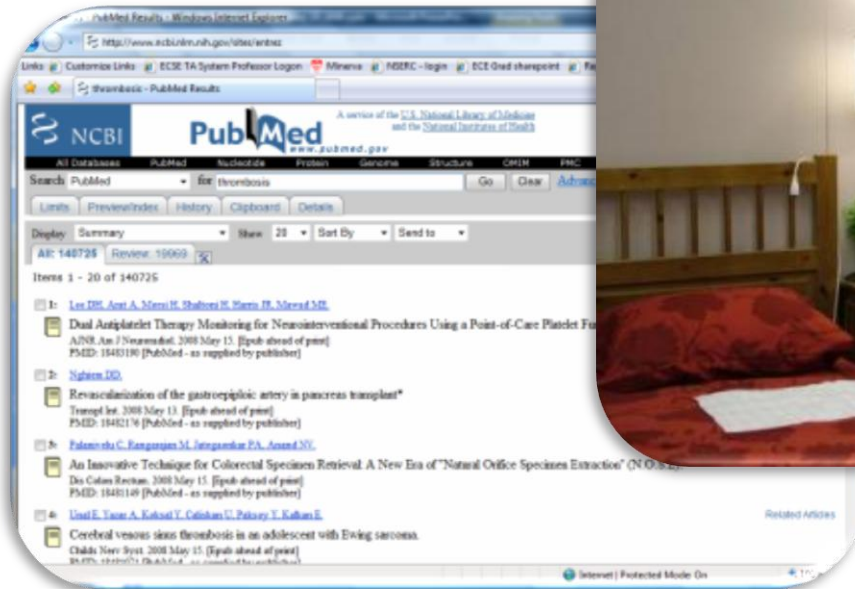
Measures of Success

- *Impact* healthcare through:
  - Better workflows
  - Improved quality of care
  - Increased patient safety/reduced errors
  - Enhanced sustainability
- *Create* a competitive edge for our Canadian industry and healthcare partners, including training students with exceptional cross-disciplinary expertise.

hSITE Healthcare Contexts

- Critical Care

- Homecare

- Knowledge Translation

hSITE Context/Theme Matrix

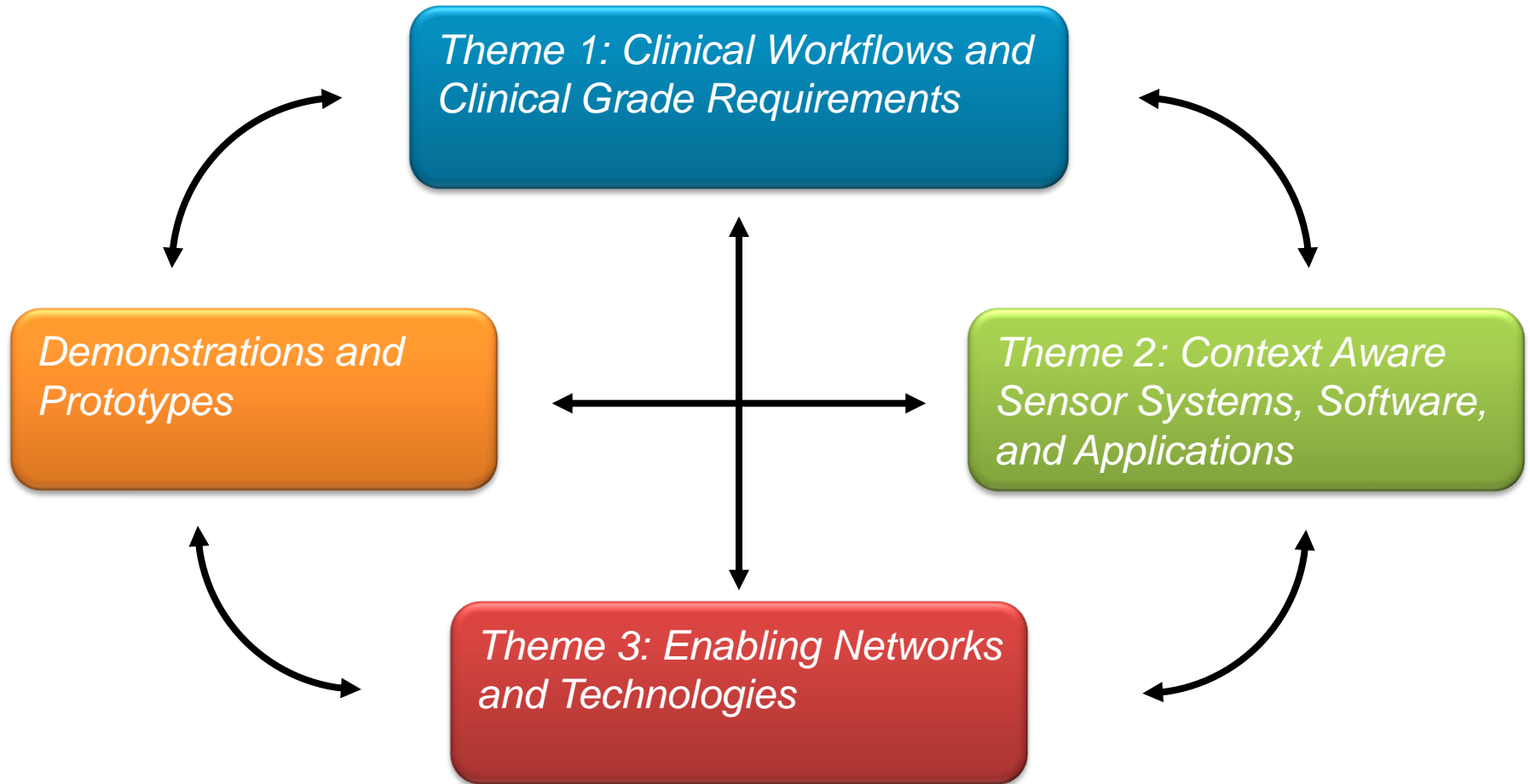|	Theme 1: Clinical Workflows & Clinical Grade Requirements	Theme 2: Context Aware Sensor Systems, Software, & Applications	Theme 3: Enabling Networks &Technologies
Critical care	Clinical workflows, modeling, user and application interfaces	Contest aware software architecture, system reliability and availability, sensor systems	Interference management in hospital environments, precise location identification
Homecare	Home care workflows modeling	End-user devices, multi-sensor fusion, fidelity/rate modeling, voice controlled interfaces	Network architecture, monitoring and cognitive communications
Knowledge Transfer	Knowledge translation of clinical workflows	Middleware and supporting software, multi-modal information fusion, feature extraction, pattern recognition	Seamless network handover

Demonstrations and Prototypes

hSITE Structure

Theme 1: Clinical Workflows and Clinical Grade Requirements

Demonstrations and Prototypes

Theme 2: Context Aware Sensor Systems, Software, and Applications

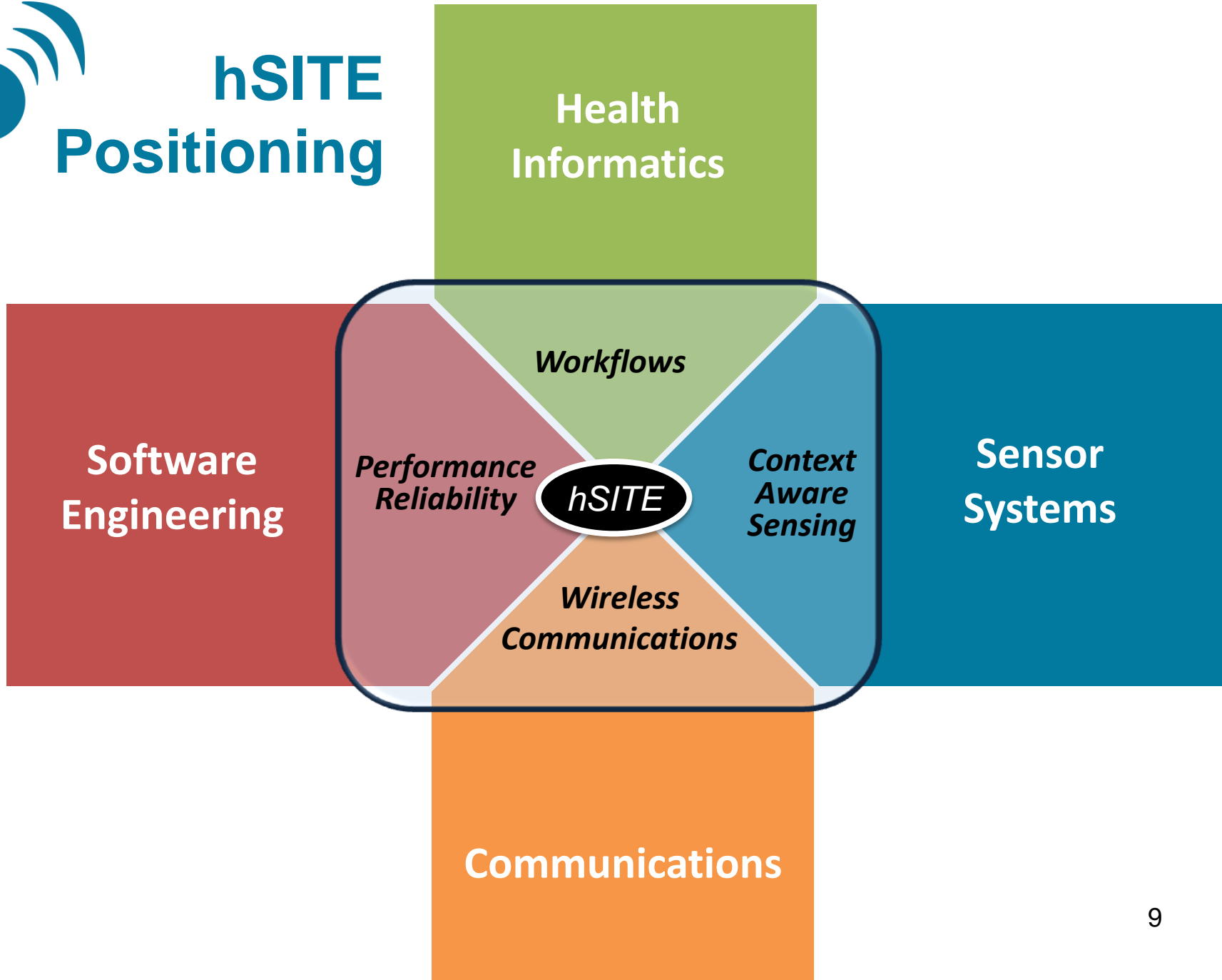Theme 3: Enabling Networks and Technologies

Mission

- *Create* a new healthcare delivery paradigm based on hSITE IT solutions.

- *Integrate* IT research and healthcare needs.

- *Improve* healthcare outcomes through enhanced delivery and quality of care.

- *Transfer* knowledge and people to the Canadian industry and healthcare sectors.

- *Advance* Canada's leadership position in IT literate healthcare delivery.

hSITE Positioning

Health Informatics

Software Engineering

Sensor Systems

Communications

Workflows

Context Aware Sensing

Performance Reliability

hSITE

Wireless Communications

hSITE Value Proposition

- *Focused, integrated and cross-disciplinary* research team with a shared long-term vision.

- *Research agenda* driven by stakeholders that will deliver both long-term results that are transformative as well as pre-competitive research tailored to partner needs.

- *Targeted initiative* that accelerates research and addresses multi-disciplinary problems.

- *Collaborative research* in a field that is consistent with Canada's innovation agenda.

10

Milestones and Deliverables

- *Develop* context aware clinical grade communications and decision support systems applicable to the three chosen contexts.

- *Deliver* design specifications and performance evaluations of networks, software, and technologies for targeted healthcare needs.

- *Craft* demonstrations and prototypes (simulation and experimental) of key IT solutions for healthcare.

hSITE Team

12