

Project Overview: E-Index



Presentation To:
CA Net 4 / MRnet
Advanced Networking
Symposium
Winnipeg
May 26th, 2005

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Presentation Team:
Melody Myers, Industry Canada
Robert Annis, Brandon University
Rene de Moissac, CEDEM

Project Goals

- Ultimate goal
 - Create a National e-Index for Canada that has the granularity to represent individual communities
- Relationship to other projects
 - UN e-Index
- High-level timing goals
 - Pilot completed in SW Manitoba - Q1 2005
 - National e-Index 3-year study (optional 5 year)

Description

- Develop an index to guide strategic investments at provincial, regional, and local levels
 - Infrastructure
 - Skills
 - Utilization
 - Affordability
- For more information:
 - Function Four, “E-Index Report”, March 2005.

Fit with Canada's Innovation Strategy

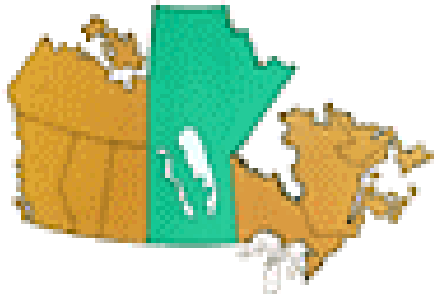
1. Improving Research, Development and Commercialization
2. Enhancing the Innovation Environment
3. Strengthening Our Learning Culture
4. Building an Inclusive and Skilled Work Force
5. Strengthening Communities
 - *“Canada's greatest economic advantage is Canadians themselves” (Manitoba's Action Strategy for Economic Growth, March 2005)*

Project Innovation

- Develop new community e-Index:
E-Index = UN DAI + E-readiness + KBE
- Program:
 - Infrastructure, skills, utilization, affordability
- Applications:
 - CED Index
 - Micro International Trade Agreements
 - Climate Change

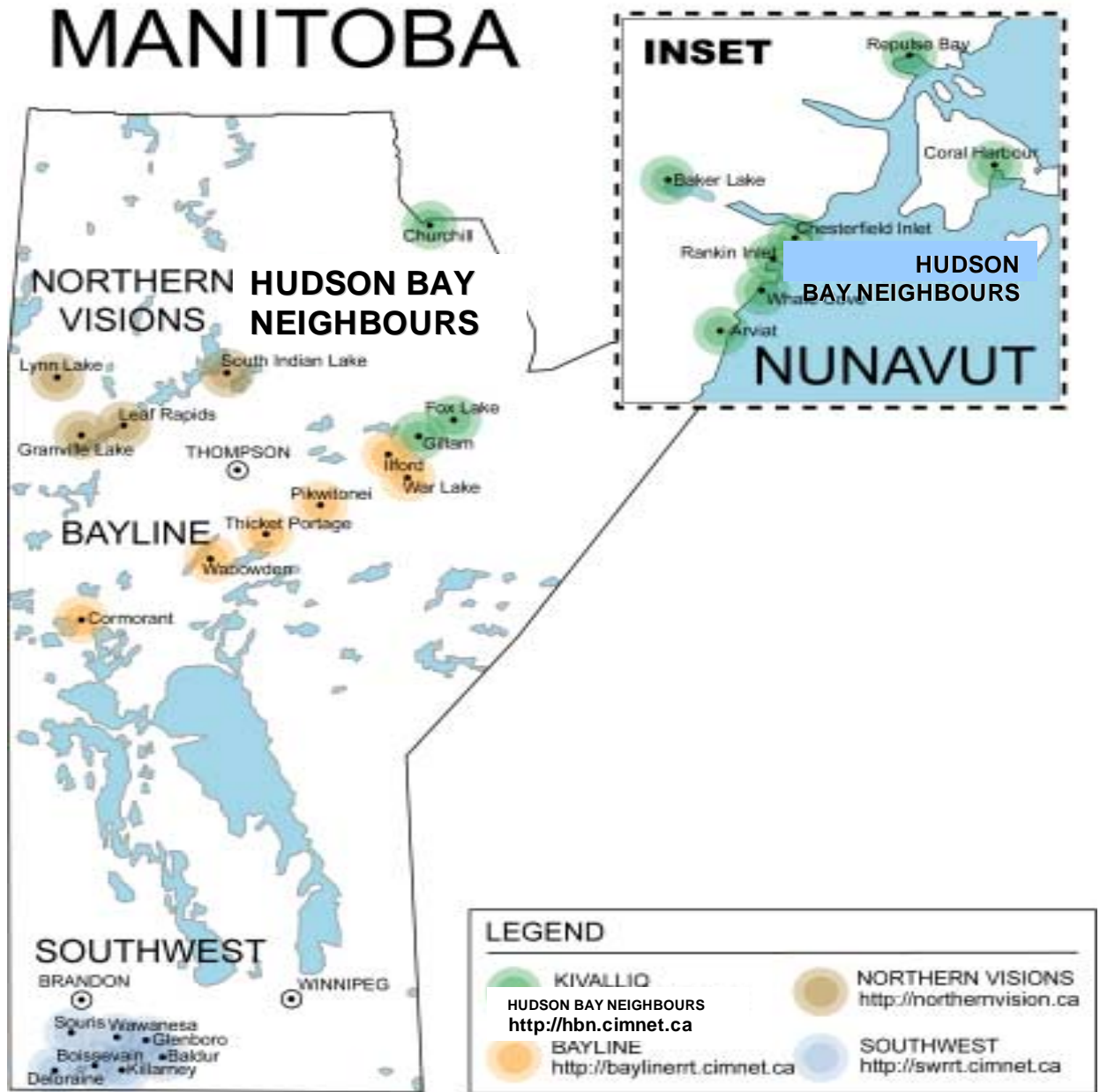
Pilot

- Study supported by Industry Canada's Prairie and Northern Region and Manitoba Energy Science & Technology
 - Challenged our definition of the digital divide
 - E-Index is a comprehensive assessment of infrastructure, skills, capacity, and affordability within communities
 - Result support policy and program development



2005 Project Area

- Northern Vision (UN DAI)
- Southwest UN DAI, Expanded DAI and ERI
- Bayline (UN DAI)
- Hudson Bay Neighbours (UN DAI)



E-INDEX GOVERNANCE MODEL

PROJECT SPONSORS:

Manitoba Energy, Science and Technology
Energy, Science and Technology Manitoba

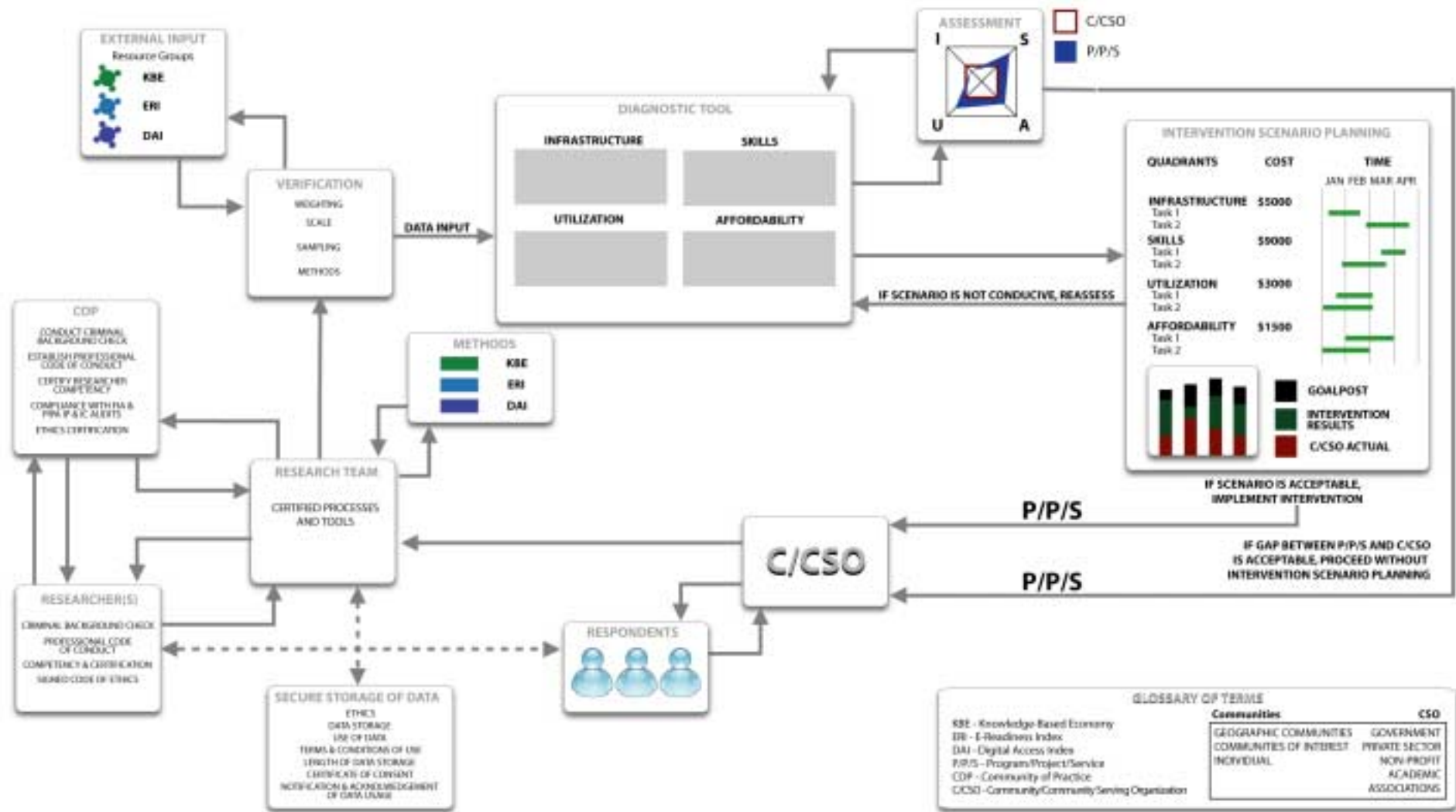


Industry Canada

Canada



CIMnet



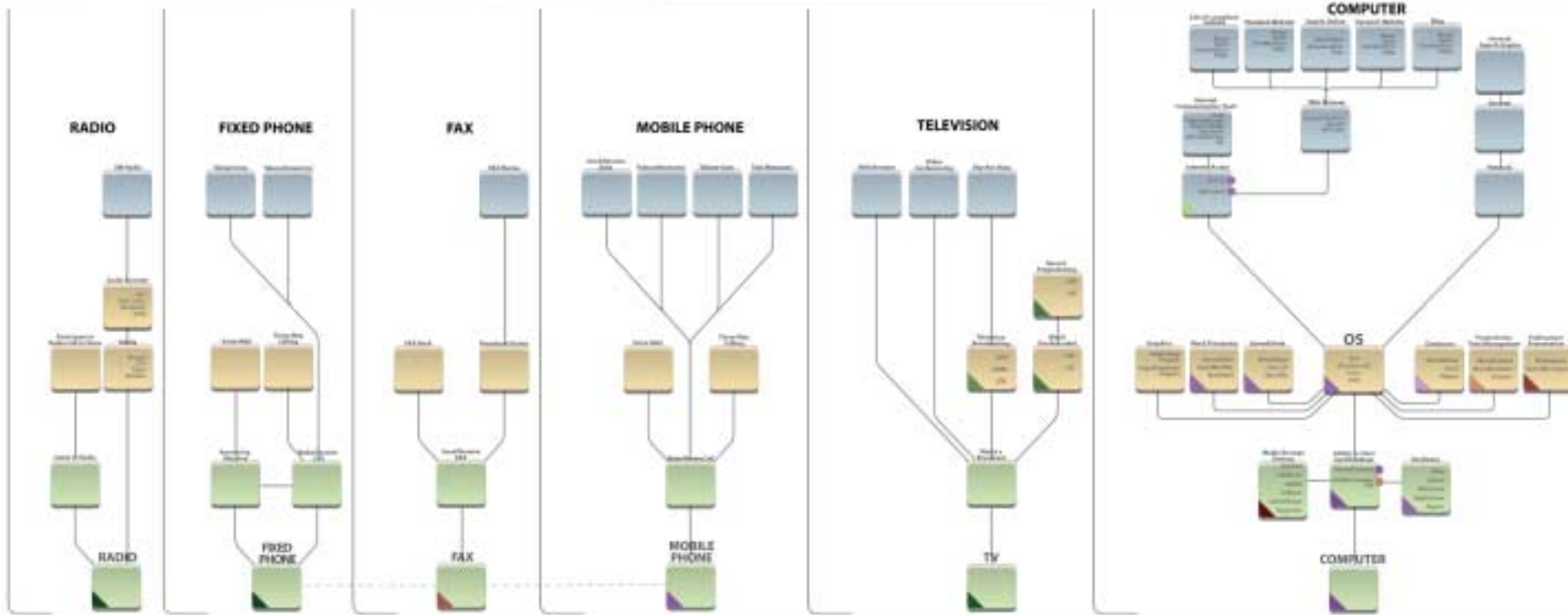
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INFRASTRUCTURE

PROJECT SPONSORS:

Manitoba Energy, Science and Technology
Energy, Science et Technologie Manitoba

Industry Canada



LEGEND



Numbers are based on the presence or absence of infrastructure based on a per/100 scale.

AREA OF STUDY



RESEARCH METHODS

Data collected for the existence of infrastructure in an area is taken from an E-index survey. Respondents were asked to indicate the types of ICT they had access to and how many of each was available to them. Accumulated data is averaged to represent the number of individual technology available per 100 people.

United Nations Digital Access Index (Number of Fixed Phone subscribers per 100 / 40 + (Number of Mobile Phone subscribers per 100) / 100)



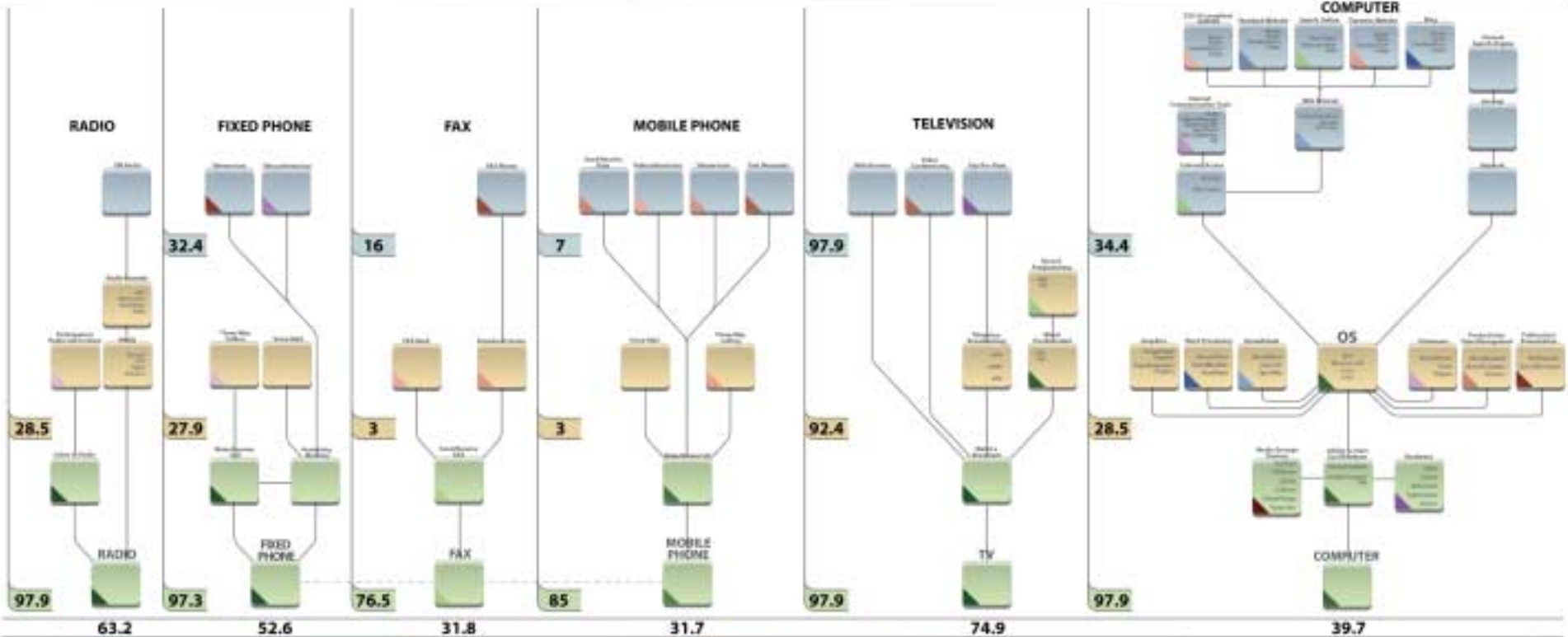
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SKILLS

PROJECT SPONSORS:

Manitoba Energy, Science and Technology
Energy, Science and Technology Manitoba

Industry Canada



RESEARCH METHODS

Data collected for the existence of skills in an area is taken from an E-index survey. Respondents were asked to indicate whether they had used the skills listed in the technology trees. If they responded positively to a skill use they were asked to indicate their proficiency in it. Accumulated data is averaged to represent the number of people with a skill per 100.



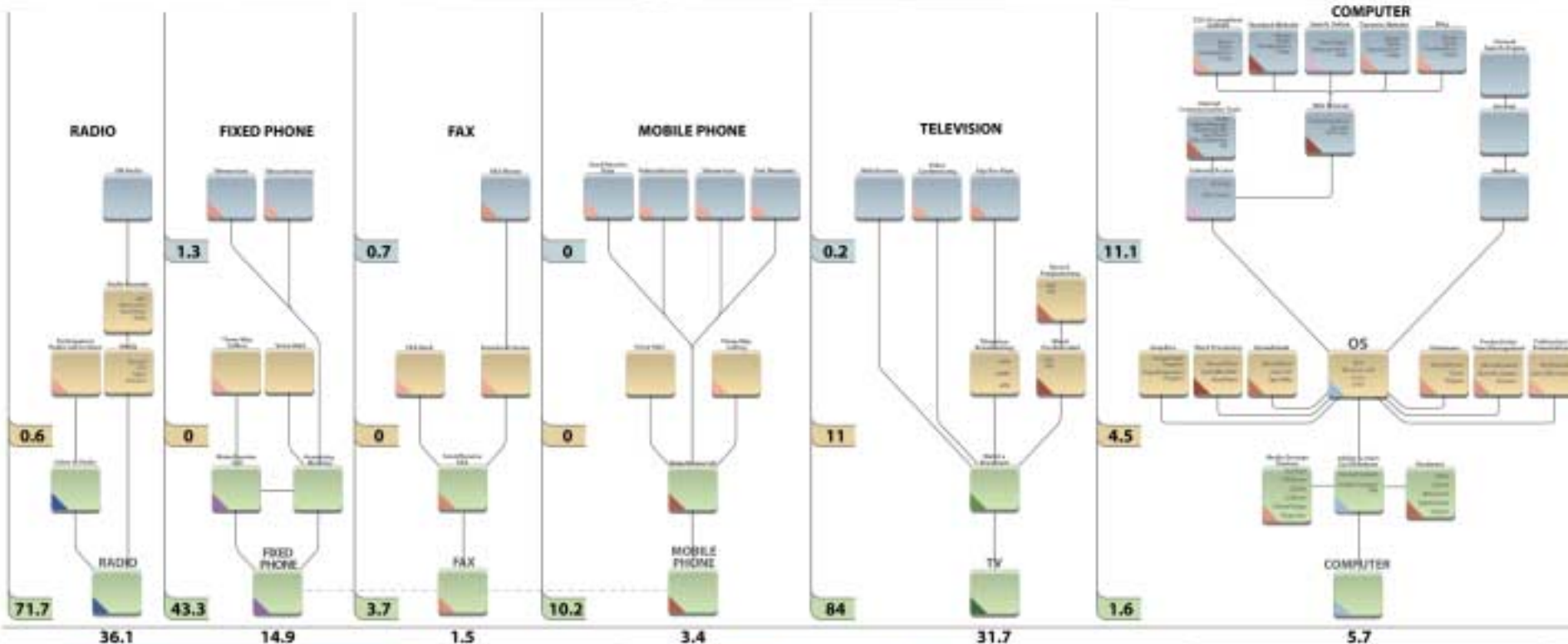
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UTILIZATION

PROJECT SPONSORS:

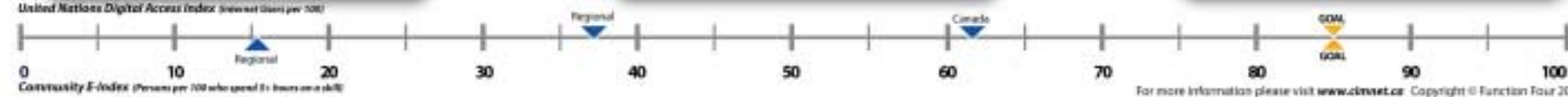
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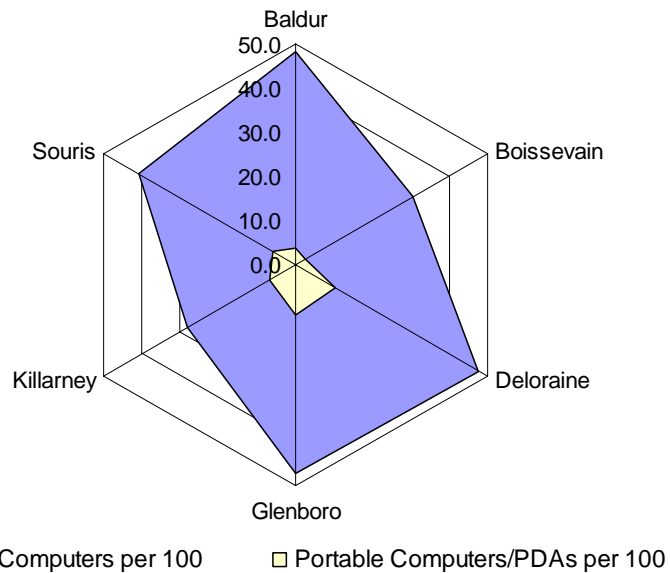
RESEARCH METHODS

Data collected for utilization uses is taken from the E-Index survey. Respondents were asked to estimate the amount of hours they spent per week using a skill. Accumulated data was averaged to represent the number of hours spent on a skill per person.

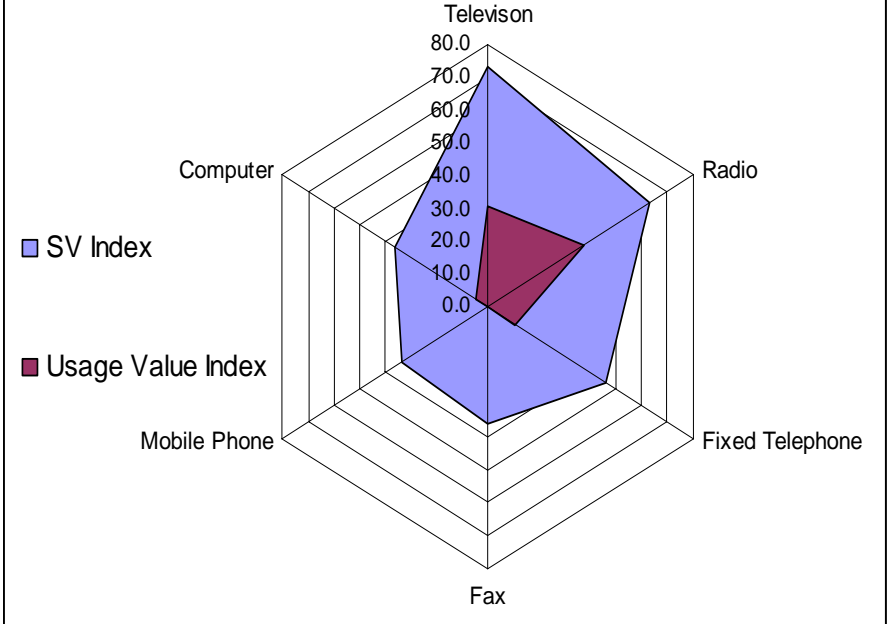


Digital Access Results (Hardy, Kelly and Moss, 2005)

Computer Infrastructure for Towns



Glenboro Skill and Use Indices



AFFORDABILITY

PROJECT SPONSORS:

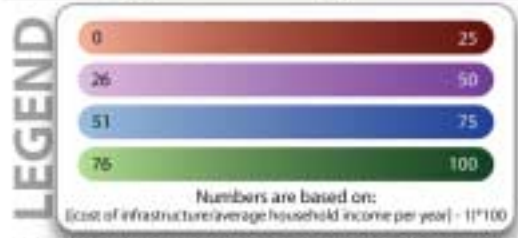
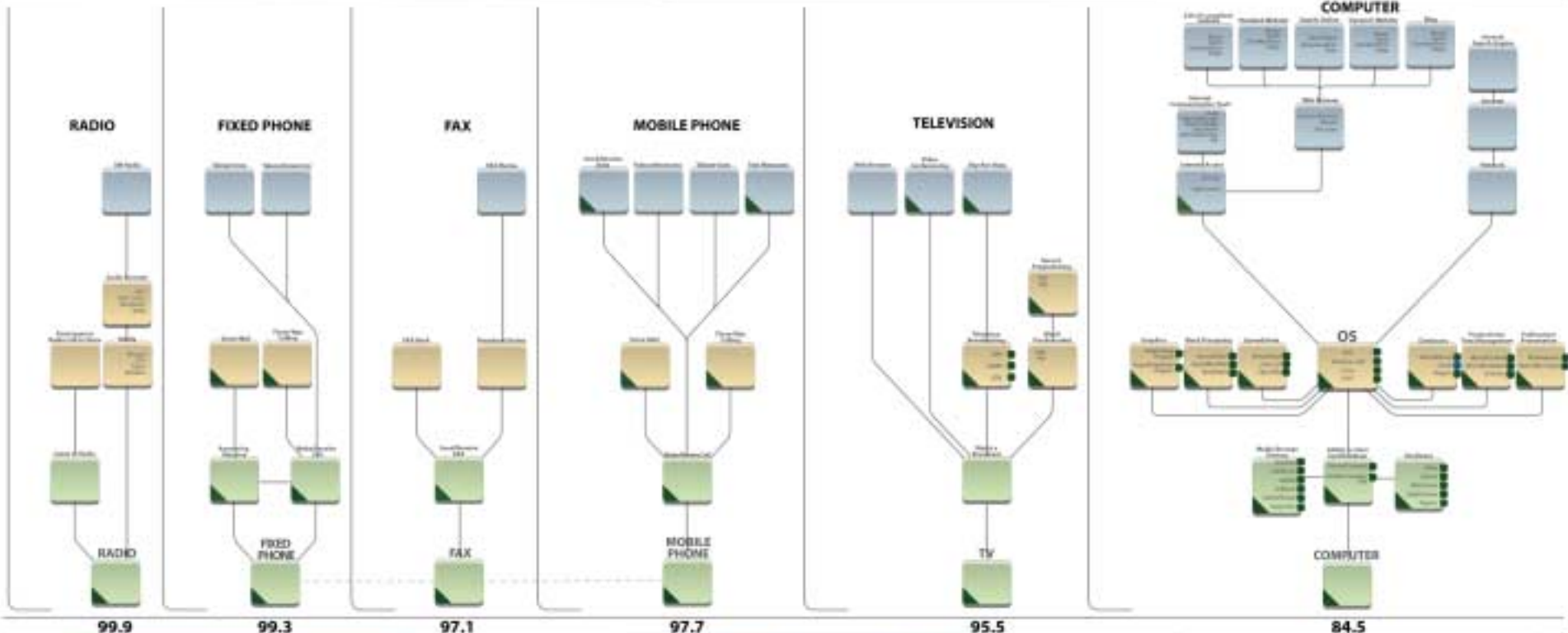
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RESEARCH METHODS

Data collected for the affordability is taken from the average cost of individual technology in the area of interest as a percentage of the Gross National Income per person.



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Team/Resources

Project Advisors and Research Advisors

Dr. Robert Annis, Rural Development Institute, Brandon University

Dr. Ken Bessant, Department of Rural Development, Brandon University

Dr. Jose A. Rueda, STRAD Research Inc.

Project Director

Bruce Hardy, Function Four Ltd.

Researchers (Function Four Ltd.)

Wayne Kelly

Alison Moss

Leanne Anderson

Nicole Mardis

Universities (interest)

Winnipeg, Brandon, Manitoba, UBC, Saskatchewan, Calgary

Economy in Transition

PROJECTED ACTIVITY OF THE TRADITIONAL AND KNOWLEDGE-BASED ECONOMIES



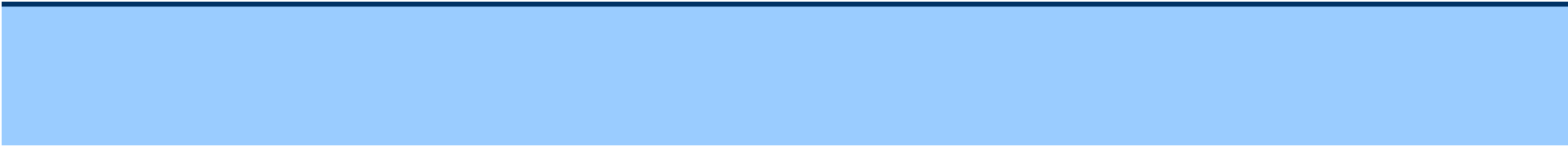
LEGEND:

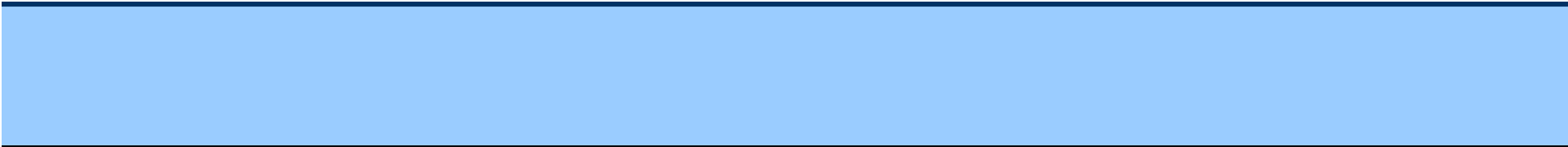
TE1 - Traditional Economy (No Intervention)

KBE1 - Knowledge-Based Economy (No Intervention)

Current Status

- Pilot completed
 - Reports available
 - Methodology developed
 - Governance model developed
- Looking for collaborative model with governmental organizations and universities
- Looking to establish funding for 3 years with possibility to extend to 5 years total





E-index Tool Development

- ERI and DAI

- Incorporate Lessons Learned
- Development of Tiers and Topology with Industry working groups
- Incorporate indices with academic integrity to support:
 - Innovation Indices
 - Knowledge Based Economy Index
 - Micro Economic Trade Agreement – Investment Readiness Index

Time Line: June – December 2005

- Development of KBE Index

- Literature review and model development (Community and Organizational)
- Development of Tiers and Topology with Industry working groups
- Incorporate indices with academic integrity to support:
 - Innovation Indices
 - Regional Development Investment Readiness Index
 - Micro Economic Trade Agreement – Investment Readiness Index
- Development of KBE Trade and Investment Discovery Utility
- Development of KBE Guide

Time Line: July – January 2005

E-index Collaborative Pilots

- CEDEM
 - 15 Bilingual Francophone Municipalities
 - Pilot DAI and ERI model revisions
 - Pilot KBE
 - Further support and enhance research alliance with collaboration of St. Boniface Collage, U of M Merlin and CANARIE.
 - Create a collaborative policy, program and trade and investment committee to incorporate tools and data for strategic planning

Time Line: Jan – March 2006 (Pilot)

- Park Land (CFDC) - BRAND
 - 33 Rural Agricultural Communities – Establishing broadband
 - Pilot DAI and ERI model revisions
 - Pilot KBE
 - Further support and enhance research alliance with collaboration of Brandon University and the Establishment of a Mico Trade, KBE Investment and Innovation Center. Further make use of CANARIE infrastructure.
 - Create a collaborative policy, program and trade and investment committee to incorporate tools and data for strategic planning

Time Line 2006, 2007, 2008

Micro Trade – Global Economy

- Belgium –University of Leuven and University of Aberdeen , University Barcelona
 - Department of Rural Policy and Studies
 - Development of comparative study of Tiers and Topology within EU context
 - Comparative review of academic integrity in relation to EU policy, trade and investment
 - Comparative review of EU in the context of Innovation Indices
 - Comparative review of EU in the context of Knowledge Based Economy Index
 - Collaboration frame work for EU and Canada: Frame work for building Micro Economic Trade Agreements (Investment Readiness Index)

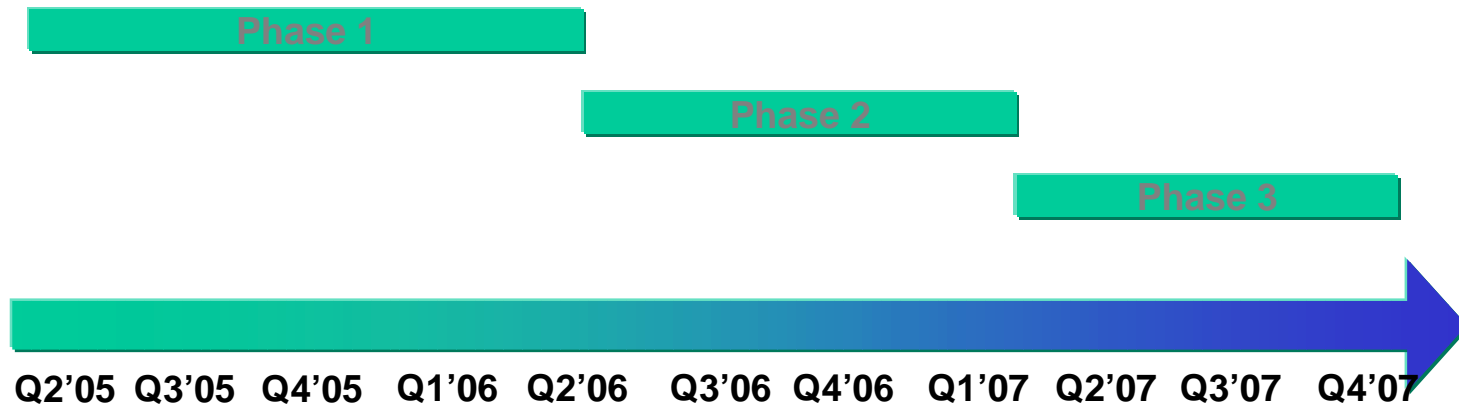
Time Line: July 2005, 2006, 2007

Schedule

- **Phase 1: Pilot; Western Canada research team; data collection; research methods; analysis; National e-Index web site**
- **Phase 2: Canadian research team; data collection; research methods; analysis; update National e-Index web site**
- **Phase 3: Focus on Northern and Remote communities; research methods; analysis; update National e-Index web site**

Extension:

- **Phase 4: Focus on Aboriginal communities; research team; data collection; research methods; analysis**
- **Phase 5: Analyze data; update National e-Index**



E-Readiness Results (Hardy, Kelly and Moss, 2005)

