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Industrial Research Assistance Program

NRC's Industrial Research Assistance Program (IRAP)

BC EIA

Mar 20th 2007

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National Research Council Canada

- **Scientific and industrial research of importance to Canada**
- **Reports through Industry Canada**
- **20 research institutes, 4 technology centres, 1 national programme**
  - Biotechnology (health, plant, marine, medical devices (6 institutes)
  - Manufacturing (4 institutes, 1 tech centre)
  - Fundamental Sciences (3 institutes)
  - Engineering + construction (3 institutes, 3 tech centres)
  - ICT (2 institutes)
  - Aerospace (1 institute, 1 tech centre)
  - Industry support (1 institute – CISTI and 1 programme – IRAP)

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Facts

- **NRC:**
  - Budget for 2002/3: $775 million with revenue of $78 million
  - employees: 4,000 plus 1,200 guest workers

- **Institutes:**
  - 100 – 400 researchers per institute
  - Business Development Officer in each institute
  - Space for spin-off and start-up companies
  - Pilot plant/start up company areas

- **IRAP:**
  - $140 million (approx. in 2006/7)
  - employees: 350 (approx.), including 270 (approx.) Industrial Technology Advisors (ITAs)

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IRAP – mandate, mission, purpose, objectives, etc.

- **Support wealth creation for Canada through technological innovation**
- **Increase innovation capabilities of Canadian SMEs (small and medium enterprises)**
- **Accelerate the growth of SMEs through technology**
- **Create jobs**
- **Cause some incrementality in the SME**
- **Make a (positive) difference**

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NRC-IRAP Across The Country

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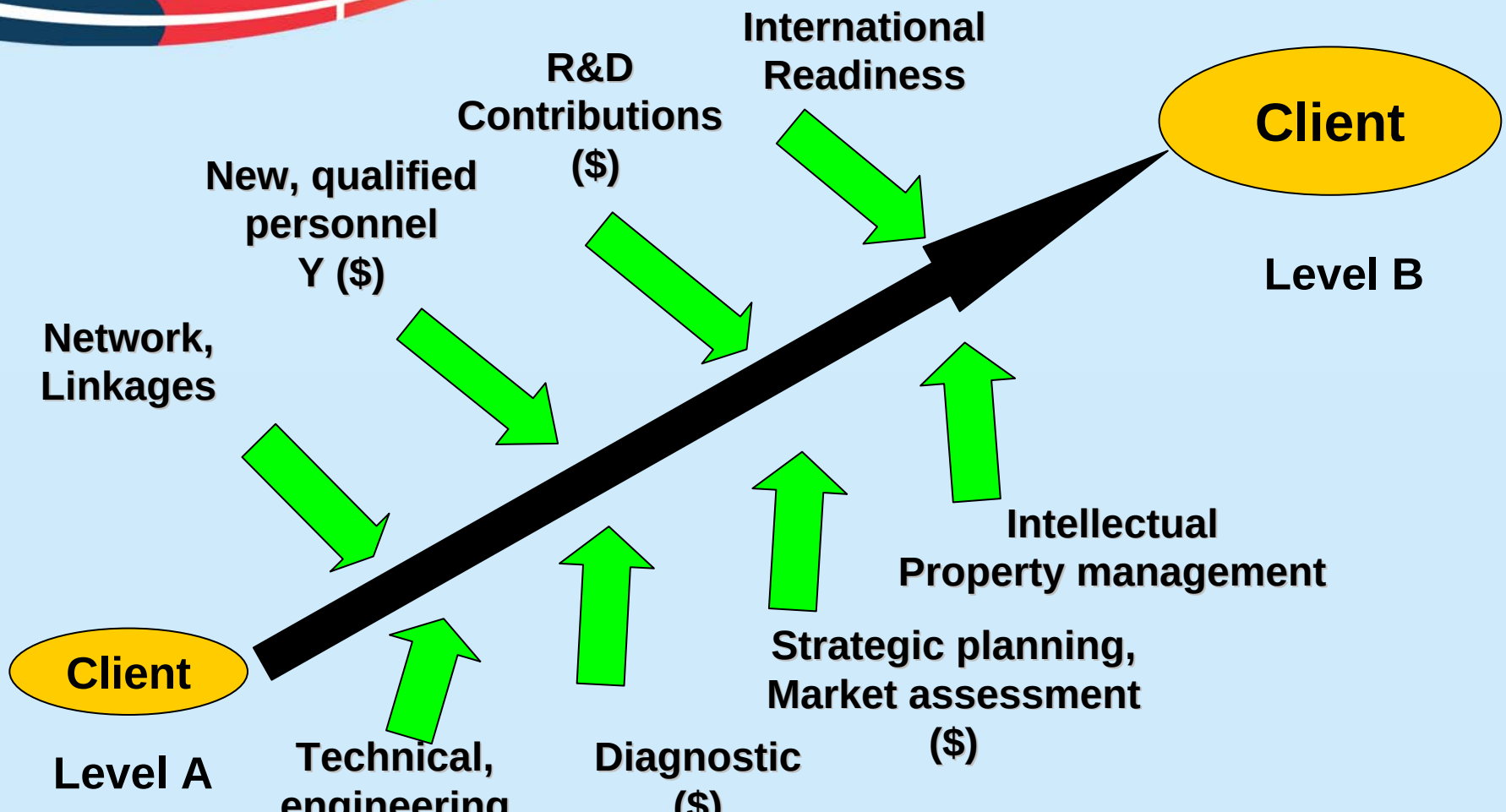
IRAP Business Model



etcetera, etcetera

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INDUSTRIAL TECHNOLOGY ADVISORS

- **Typically an industry-experienced person:**
  - Science
  - Engineering
  - R&D management
  - (Business management)

- **Works on-site with the SME to coordinate and facilitate inputs from fellow ITAs + outside sources:**
  - Ensures a “fit” between IRAP’s goals and those of the SME
  - Biotech, ICT, energy, forestry, pulp and paper, agriculture, food, aerospace, chemical processing, (most) engineering,….
  - Networks with: IP protection, financing , NRC institutes, universities, colleges, economic development groups and agencies, industry associations, etc.
  - Competitive intelligence/literature search
  - Project funding (up to $500k per project with team review)

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Over the last seven years across Canada, NRC-IRAP has:

- **Served 10,000 to 12,000 SMEs each year**
- **Assisted in the development, risk-taking and cost sharing of over 30,000 technology projects**
- **Facilitated 3,800 linkages per year between SMEs, universities and other organizations**
- **Invested over $570M in innovation efforts by Canadian SMEs**
- **Been emulated as an SME assistance program by countries around the world e.g. Thailand, Argentina, etc**

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IRAP Pacific Profile

- **30 ITAs located at NRC Institute (IFCI); universities (SFU); colleges (UCFV), technical institutions (BCIT); research organizations (Forintek); Vancouver downtown office.**

- **Located in the Lower Mainland and regions: Okanagan, Kootenays, Vancouver Island; Fraser Valley; Prince George; Whitehorse, Yukon**

- **Budget: FY 04/05 - $19M committed = 600 projects:**

  IRAP: 411; Network Member: 60; Youth: 100; TPC: 24 projects.

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Funding Programs

- **Research and Development Activity (IRAP)**
  - non-repayable financial assistance on a cost-shared basis in research to overcome technological uncertainties.

- **Transformative Technologies Program - TTP (IC)**
  - share the costs of technology demonstration and adoption projects
  - bridge over the “valley of death”
  - previously Technology Partnerships Canada (TPC) –repayable loans
  - **ON HOLD**

- **Youth Employment Strategy Program (HRDC)**
  - non-repayable financial assistance allowing clients to bring a specific technical expertise into the firm in the form of a new/recent graduate

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IRAP non-refundable contributions

- **Delivered through contribution agreements (CAs):**
  - For progress against a defined work plan/deliverables (not a grant)
- **Maximum $500,000 per project (used to be $350,000)**
- **Relatively short turnaround from application to approval**
- **Project development and management through a “lead ITA”**
- **Project assessment and recommendation by team of 1 – 4 ITAs (plus external assessor when required for larger projects)**
  - Management
  - Market
  - Money
  - Technology
  - (risk and need)
- **Terms and Conditions**

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Reimbursable project costs

- **Up to 80% of internal salaries**
  - time of technical people working on the project
  - regular salary only – not bonuses, overtime etc.
  - annual vacation and statutory holidays not covered
- **Up to 50% of contractor labour (but watch this space)**
  - contractor must be arms-length in order to charge fees as opposed to salary
  - lobbyist rules
  - fixed price contracts and up-front payments possible, but can cause problems
  - proposal from contractor required up-front
- **Cash costs only – in-kind, shares, perks, etc. not covered**
- **Must be auditable – need to segregate IRAP project costs in internal accounting system**
  - need timecard system to differentiate time spent on different projects
- **Contribution allocated between federal government fiscal years (April 1 to March 31) – "rollovers" and decommitments must be identified by early December**

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Payments

- **Claims submitted for costs incurred and paid (but watch this space)**
  - Monthly claims preferred
- **Incurred costs/claims will be reviewed at SME premises at least once during project**
- **Subject to:**
  - Progress reports (with each claim) commensurate with $ claimed
  - Project review meeting(s) and final report on whole project
  - Special conditions, e.g:
    - Market assessment by month 3
    - Completed next financing by year 1
    - Commercialisation strategy to done in parallel
    - New technical employees
    - etc

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Types of projects:

- **Diagnostics, market assessments, strategic plans:**
  - Purpose is to guide R&D planning
  - Done by a consultant
  - 50% support to $15,000 maximum
- **Youth employment:**
  - Recent graduate of 2 or more year programme (any discipline)
  - Not restricted to technical positions
  - $15,000 per graduate over 6+ months
- **Technology inflow projects (TIP)**
  - To facilitate travel in order to assess and access new technology, or to initiate collaborative technology development
- **Research and Development**

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Research and Development Projects

Project development with a new client:

- **2 or more initial meetings with lead ITA**
- **If supportable project is possible – client prepares project outline and budget (templates provided)**
  - 2 to 4 pages, identifying business and technical objectives and work plan
- **Outline distributed to team (0 to 3 additional ITAs). Team meets with client. Team decides if project supportable.**
- **Full proposal, contractor proposal(s), budget prepared**
- **Distributed to team. Final meeting. Recommendation of $ support.**
- **External assessor involved if needed or adds value.**
- **Formal assessments entered into our database – technical, business and financial**
- **Local approval (or not)**

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Questions?

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Science at work for Canada

National Research Council Canada

Conseil national de recherches Canada

Canada