ICT R&D Accelerator Launch
1. Most “demonstrator” research & development projects – develop one (or more) prototypes to explore ideas

2. Technology assessment – often develop several prototypes to assess possible technology, architecture options

3. Assessment – stress-testing, usability testing, metrics, process and tool assessment

4. Research - investigate possible technologies, competitor technologies, algorithms, new methods
1. Demonstrator

> Company developing software for consumer appliances needed to explore new human interfaces, specifically touch

> Didn’t have in-house capability nor resource

  – 2 students, one user interface and architecture expert academic, 3 company mentors worked on summer project

  – Developed 3 examplars exploring different issues: touch input, device interaction, new user interface component toolkit

  – Company adopted two technology solutions and funded follow-on Masters project
2. Technology Assessment

> Company developing embedded system solution wanted to develop set of web interfaces for new product

> But which web technology to use??

– Two student group + user interface expert academic worked on 10 week project developing several prototypes with several web toolkits

– Compared & contrasted use of toolkits to develop prototypes: usability of UIs, complexity, tool support, scalability, …

– Company chose one web toolkit for their next platform development. Company hired one of the students
3. Application Assessment

> A company developed a mobile e-commerce solution

> Had issues with scalability of their software architecture and usability of the mobile client and desktop interfaces.

- 2 student team, one user interface and one architecture academic experts, company mentor
- Project team undertook a usability evaluation of the interfaces and a proof-of-concept implementation of a revised service based architecture
- Recommendations from both the usability evaluation and the architecture investigation formed the basis for subsequent revisions of the company’s product
4. Research - Technology Roadmap

> Company providing software and hardware for specific consumer domain

> Needed to determine medium term technology roadmap and solutions

  – One student, one architecture expert academic, one company mentor

  – Investigated range of current and emerging technologies, likely feature demand from consumers, likely business drivers

  – Developed technology roadmap for company

  – Company adopted modified roadmap to inform hiring, resourcing, staff training, technology acquisition
Stakeholders:

- ICT R&D Accelerator Steering Committee
- Business Manager (C. Fay)
- Industry Mentor/Domain Expert
- Project Manager (A. Tang)
- University Mentor / Researcher
- Students
- Project Team
Project Management - Lightweight

> Forming and Teaming – (a) Matching Industry Expert & University Researcher & Students; (b) Formalise Projects

> Project Scoping & Execution

  > Goals, Stakeholders, Deliverables, Schedule, Communication, Success Criteria, Working Methods

> Weekly Updates

  > Frequent mentoring of students by industry & university mentors

  > Conduct meetings weekly to summarise progress and to plan for the following week

  > Students are required to write weekly progress report

> Project Deliverables

  > As defined by the project

  > The Industry Experts, the Researchers and the Students shall report their experience

  > Presentation of the Project Results
Win-win-win

> To the Industry
  – Leveraging the research capabilities of Victorian universities
  – Gain insights and solve difficult problems

> To the Students
  – Learn how to solve difficult industrial problems
  – Learn domain knowledge from industry experts and research techniques from researchers

> To University Researchers
  – Understand current ICT issues faced by the industry
  – Exploring new methods to solve difficult software and computer science problems
ICT ACCELERATOR LAUNCH
SUMMER TRIAL PROJECTS

www.swinburne.edu.au/ict
Overview

• A/Prof Chris Leckie
  – NICTA Victoria Research Laboratory
• Ms Kathy Coultas
  – Department of Business and Innovation
• Mr Marco Marcou
  – MobilityVic
• Prof Leon Sterling
  – Swinburne University of Technology
• Dr Antony Tang
  – Swinburne University of Technology
APPLICATION AND EVALUATION

ICT ACCELERATOR
SUMMER TRIAL PROJECTS
www.swinburne.edu.au/ict
Overview

• Two students and an academic mentor from Swinburne or NICTA per project
• Students from software engineering, software development and computer science
• Open to students from all Victorian Universities
Cost and Timeframe

• Commence Dec. 1\textsuperscript{st} (approx) to Feb 20\textsuperscript{th}
• Cost to client company $5,000
• Each student paid a $5,000 scholarship
• Swinburne/NICTA absorb cost above $5,000
• May locate at Swinburne or Client premises
• Regular project meetings will be scheduled
Application Form

• Form available here or at web site
• Fill out asterisked questions at least
• Submit on or before c.o.b. Friday Nov. 11th
• Open process: questions invited at any stage
• See web site for contacts
• Send to Antony Tang, atang@swin.edu.au
Evaluation

• Applications reviewed and ranked by Evaluation Committee
• 3 projects to be chosen
• Reviewed in order of receipt
  – first come first served
• Factors:
  – Availability of suitable resources (student & mentor)
  – Suitability of size and duration of project
  – Perceived merit as a tie breaker
Contract and Payment

• Invitations (with contract and invoice) sent progressively
• Contract execution and payment expected within 5 working days
• Continues until 3 projects established
• IP remains with the client though researcher may do ongoing research and publish results
• NDA signed if required by client
Further details

www.swinburne.edu.au/ict/

ICT R&D Accelerator Program