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Department of Innovation, Industry, Science and Research

# Update on Australian Government Research Initiatives - DIISR

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[innovation.gov.au](http://innovation.gov.au)





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# ICT policy and DIISR

## DIISR

- Minister – Senator Kim Carr
- Secretary – Mr Mark Paterson
- DIISR policies and initiatives relevant to ICT
  - Research workforce strategy (current & future research skill needs)
  - eResearch Infrastructure (NCRIS & Super Science initiatives)
  - IT Industry Innovation Council





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# eResearch Infrastructure

## FACTS

- Since 2007, \$82 million has been invested in eResearch infrastructure under the National Collaborative Research Infrastructure Strategy (NCRIS)
- In the 2009 Budget a further \$312 million was invested in eResearch as part of the Super Science Initiative.
- Coordination support is provided by the Australian eResearch Infrastructure Council (AeRIC)

## EXAMPLES

- \$22.5m for Interoperation and Collaboration Infrastructure (NCRIS)
- \$48m for the Australian Research Data Commons (Super Science)
- \$37m for the National Research Network (Super Science)





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# IT Industry Innovation Council

## FACTS

- Established in 2009 as an advisory body to the Minister
- The IT Industry Innovation Council provides
  - Leadership in building linkages with the IT sector's stakeholders and the Government's innovation policies and programs.
  - An advocacy role for the IT industry, championing innovation
  - Links on cross-cutting issues with other Industry Innovation Councils

## OTHER ACTIVITIES

- Strategic Road Map for 2009-2014
- IT Supplier Advocate announced in April 2010 (Mr Don Easter)
- Contact: [itiic.secretariat@innovation.gov.au](mailto:itiic.secretariat@innovation.gov.au)





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# Research Workforce Strategy

## BACKGROUND

- Australian Government support for research and research training
  - \$1.342 billion in 2009/10 (e.g. for RTS, RIBG, APAs etc.)
- A number of 2008 reviews and inquiries identified research training and research workforce issues.
- The Research Workforce Strategy (RWS) aims to address concerns regarding:
  - Australia's capacity to deliver required levels of research workforce growth
  - The efficacy of the research training system in preparing students for varied career outcomes
- The RWS underpins wider efforts by the Australian Government to lift Australia's research and innovation performance and boost national productivity.





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# Research Workforce Strategy

## GOVERNANCE

- The development of the Strategy is being anchored by DIISR
- Reference Group established to support the Strategy's development
  - DIISR, DEEWR, UA, GO8, ATN, IRUA, unaligned unis, NTEU, CAPA, FASTS, CHASS, NAF, BCA, AIG, Skills Australia, Professions Australia

## 3 Subgroups:

- Employer demand for researchers
- Research training experience
- Research career pathways





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# IT-related insights (from the RWS)

## CONSULTATIONS

- IT Industry Innovation Council members (May 2010)
  - Australian eResearch Infrastructure Council (AeRIC) (June 2010)
  - RWS Consultation Paper Submissions (August 2010)
- Generic issues raised in consultations
    - better communication between university training providers and employers of current and future training needs,
    - look to overseas suppliers of maths-trained students





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## IT-related insights (2)

### IT-specific issues raised in consultations

- Need for more IT and eResearch related skills
- IT research candidates limited by immigration restrictions
- IT researchers require dual specialisation
- There is a shortage of women in IT
- Communication skills are required to bridge client/technical gap
- Need short university-based training modules to help IT researchers become industry ready
- Lack of interest in high school maths will impact of IT pipeline
- NICTA is a reservoir of IT expertise
- Australia's strength is in software (not hardware) development
- Human uptake of technology is a limiting factor
- Better systems integration required
- Industry accreditation standards currently being developed
- Expected future growth in health, telecommunications, environment and high performance computing,





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# IT-related insights (3)

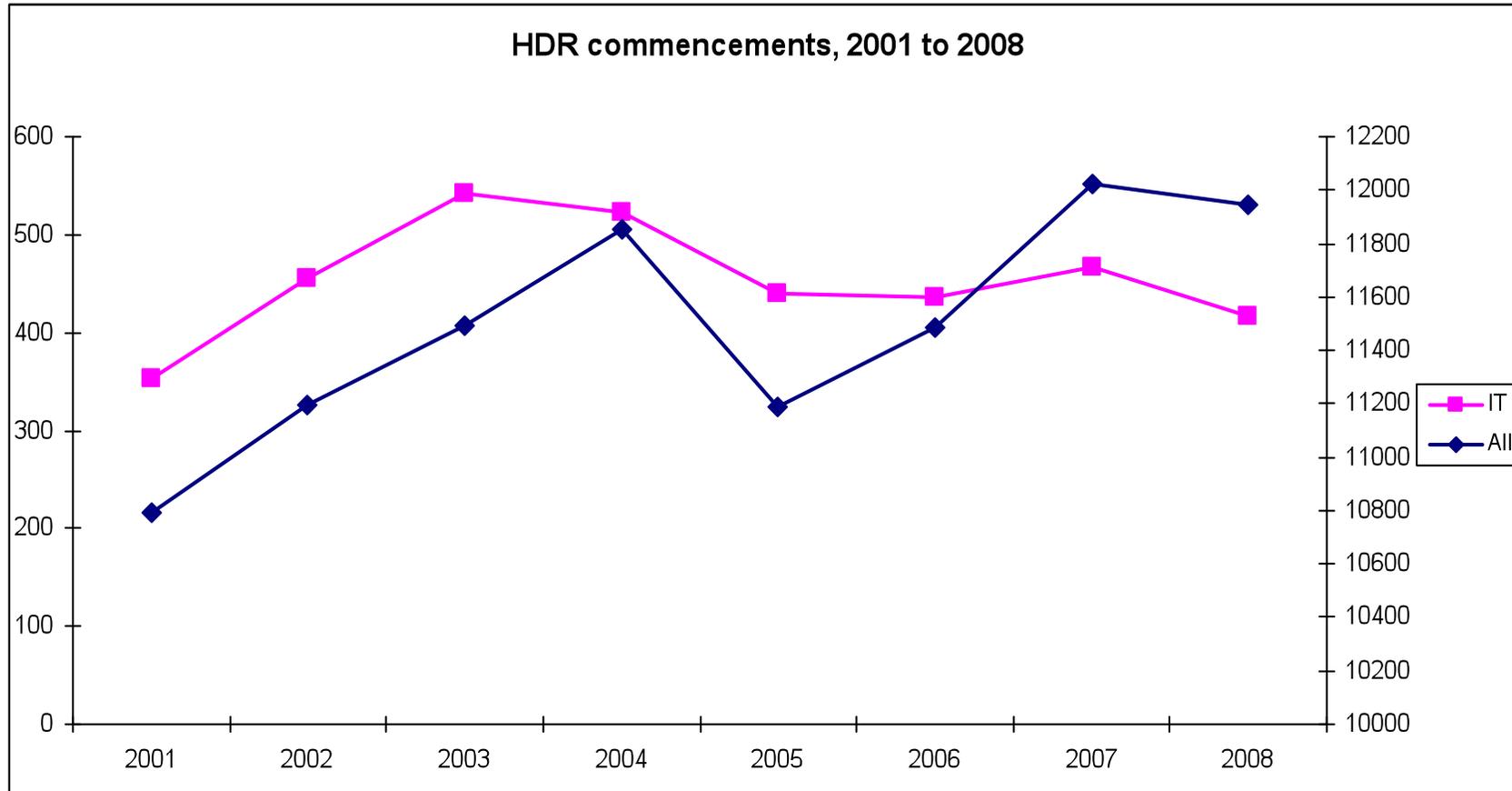
## IN-HOUSE IT-related ANALYSIS

- ACER study – *Supply, demand and characteristics of the HDR population in Australia*
- HDR completions/commencements data (HESC)
- ABS 2006 Census demographic information

## KEY MESSAGES

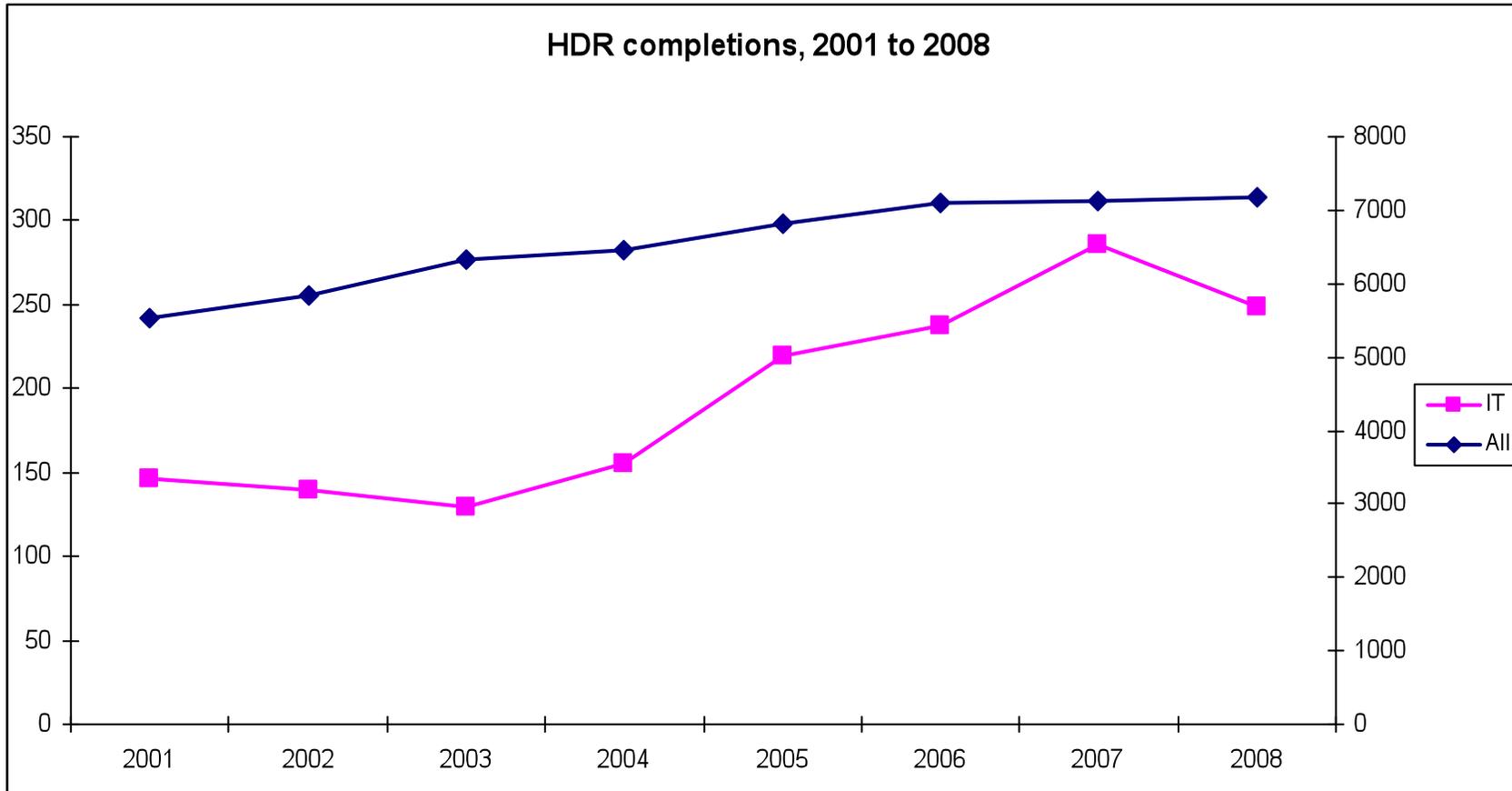
- Growth in future demand for IT researchers
- HDR commencement and completion data for IT matches general trends
- Positive trends in age profile of IT doctorate holders may assist in meeting future demand





Source: DEEWR unistats unpublished data



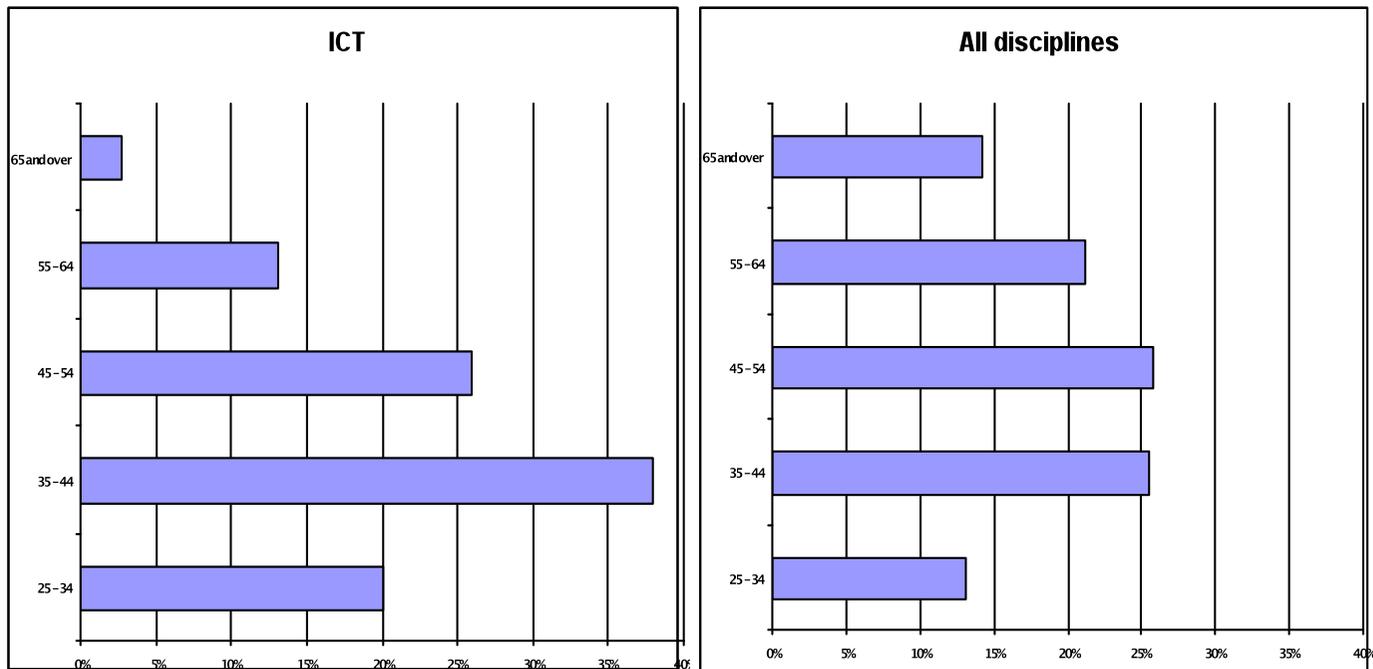


Source: DEEWR unistats unpublished data





## Age profile of ICT and all disciplines Doctorate holders, 2006



Source: ABS Census of population and housing, 2006





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## Discussion questions

- Do we have the right policy levers in place to support Australia's research workforce?
- What additional actions might be taken through the research workforce strategy?
- What are the key areas for IT that would benefit from future focus from your perspective?





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