



FEAST Conference 2006

Research without borders

Session 7

Dr. Gustav Kalbe

FET Open Domain

EC DG Information Society and Media

**Seeding Emerging Technologies: the
FET Approach**

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Seeding Emerging Technologies

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The FET Approach

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Outline



1. What is FET?
2. Success stories
3. R&D Cooperation with Australia
4. FET's new cooperation policy



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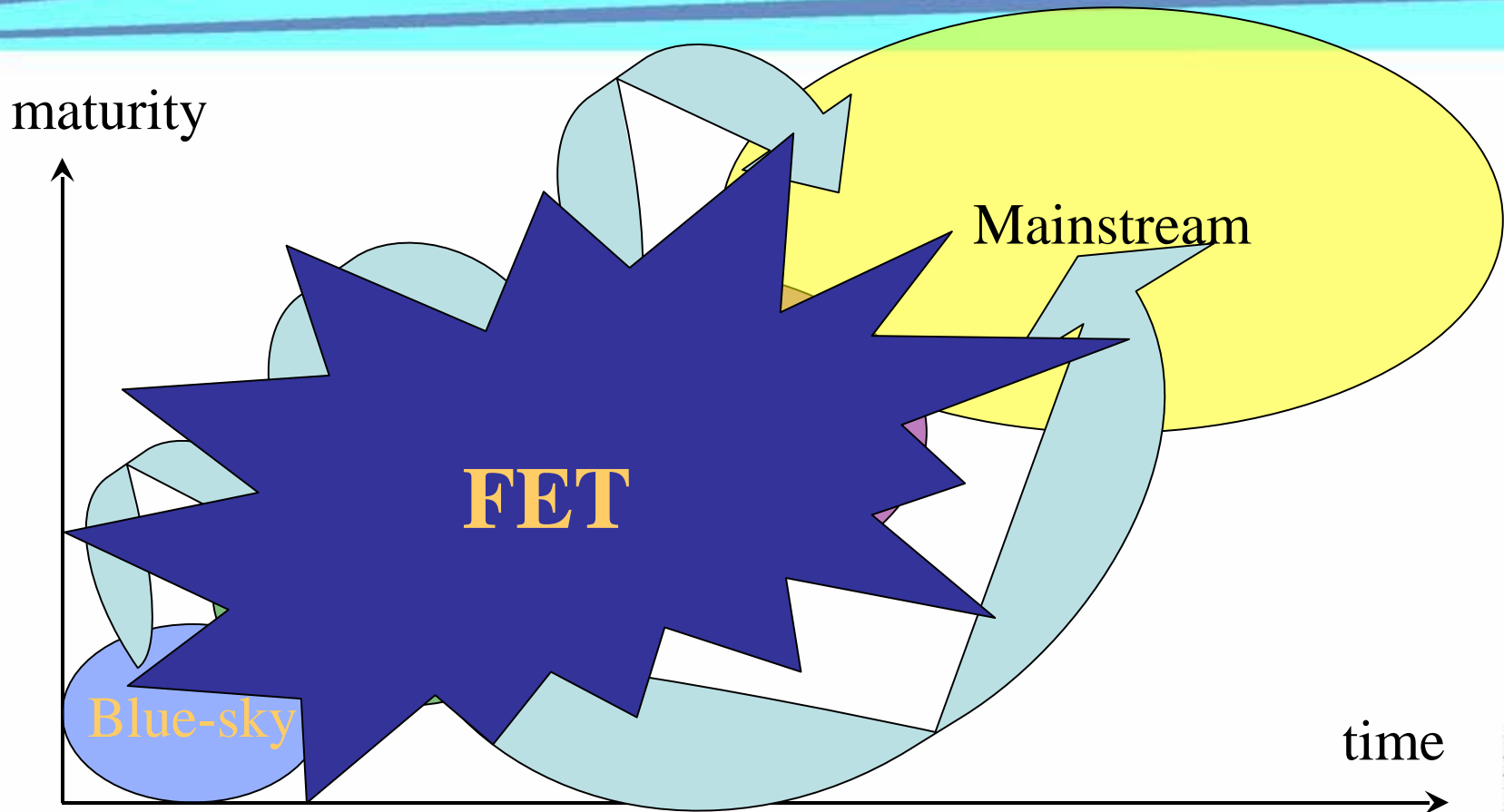
Future & Emerging Technologies (FET)



- Mission:
 - Provide a ‘playground’ for unproven & bold ideas, to be brought to maturity if successfully validated
 - Support topics unconstrained by policy, commercial, industrial interests & roadmaps
 - Provide alternative answers to problems currently identified as ‘hard’
- Objectives
 - Support collaborative, high quality, long-term research of a foundational nature
 - Promote truly visionary high-risk / high-return research
 - Provide a persistent and long-term commitment to emerging research communities
 - Focus on new areas of research not covered by other programs
 - Complement & support the main body of the FP (initially IST only)



FET's Positioning



Implementing FET: Open Scheme



- Continuously open
- Open to any relevant FET topic (i.e. receivable topics not predefined)
- 1st proof of scientific principle or further maturing this principle
- ‘Indicator’ of a need for a larger initiative
- Complements other programs (e.g. Proactive’s)
- Support of research as well as emerging communities



Implementing FET: Proactive Initiative



- More mature FET communities
- Critical mass of scientific community and/or strategic needs justify a dedicated initiative
- Cluster projects around a common long term strategic objective
- Long-term commitment to a community and/or research area
- ‘One-shot’ fixed deadline calls
- Where pooling of funding will create visible impact
- Establish ‘corporate’ identity



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"Fast Track": THz Laser



- FET-Open
 - IST-1999-29062 WANTED
 - 1st October 2000 – 30th September 2003
 - STREP, 6 partners, 1.08 M€ funding
- IST - Photonic Components:
 - FP6-511415 TERANOVA
 - 26th August 2004 – 25th August 2008
 - 16 partners, 5 M€ funding,



"Gradual": QIPC



- FP3 (1990-1994): ≈ 2 M€
 - 2 STREPs
 - Quantum Optics
- FP4 (1994 - 1998): ≈ 5 M€
 - 3 STREPs & Working group defining Proactive Initiative
 - Quantum Information Processing
- FP5 (1999 – 2002): ≈ 50 M€
 - Proactive Initiative “QIPC”
 - 2 calls \Rightarrow 24 STREP + 1 CA
 - Complemented by 8 STREP from FET-Open

"Gradual": QIPC



- FP6 (2003 – 2006): ≈ 38 M€
 - Proactive Initiative “QIPC”
 - 1 call \Rightarrow 3 IP
 - Complemented by 7 STREP, 1 CA from FET-Open + 1 ERA-Pilot
 - 1 IP **Quantum Cryptography** handed over to mainstream IST (11 M€)
- FP7 (2007 – 2013):
 - Long-term commitment but focus / objective of calls evolve

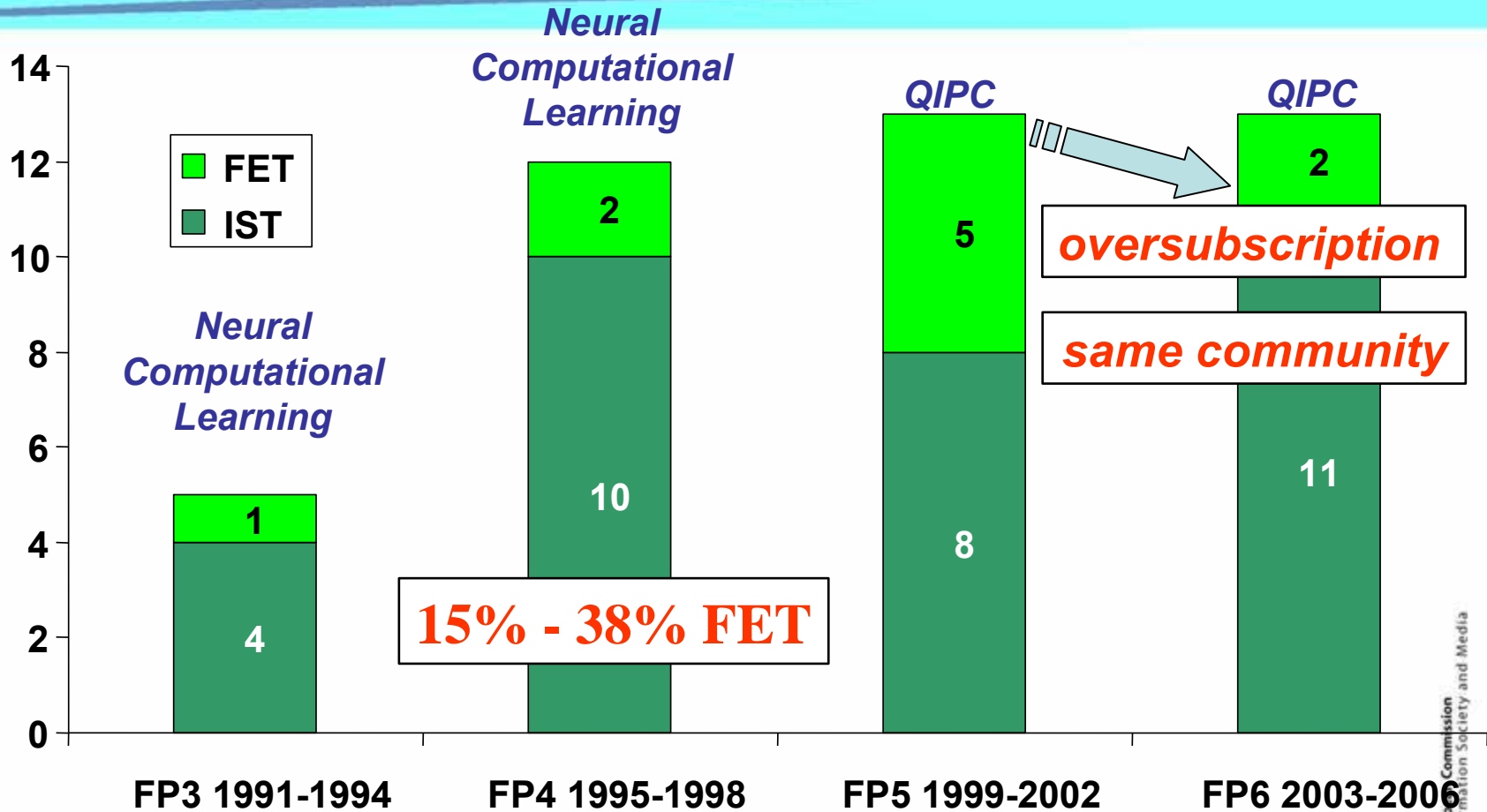
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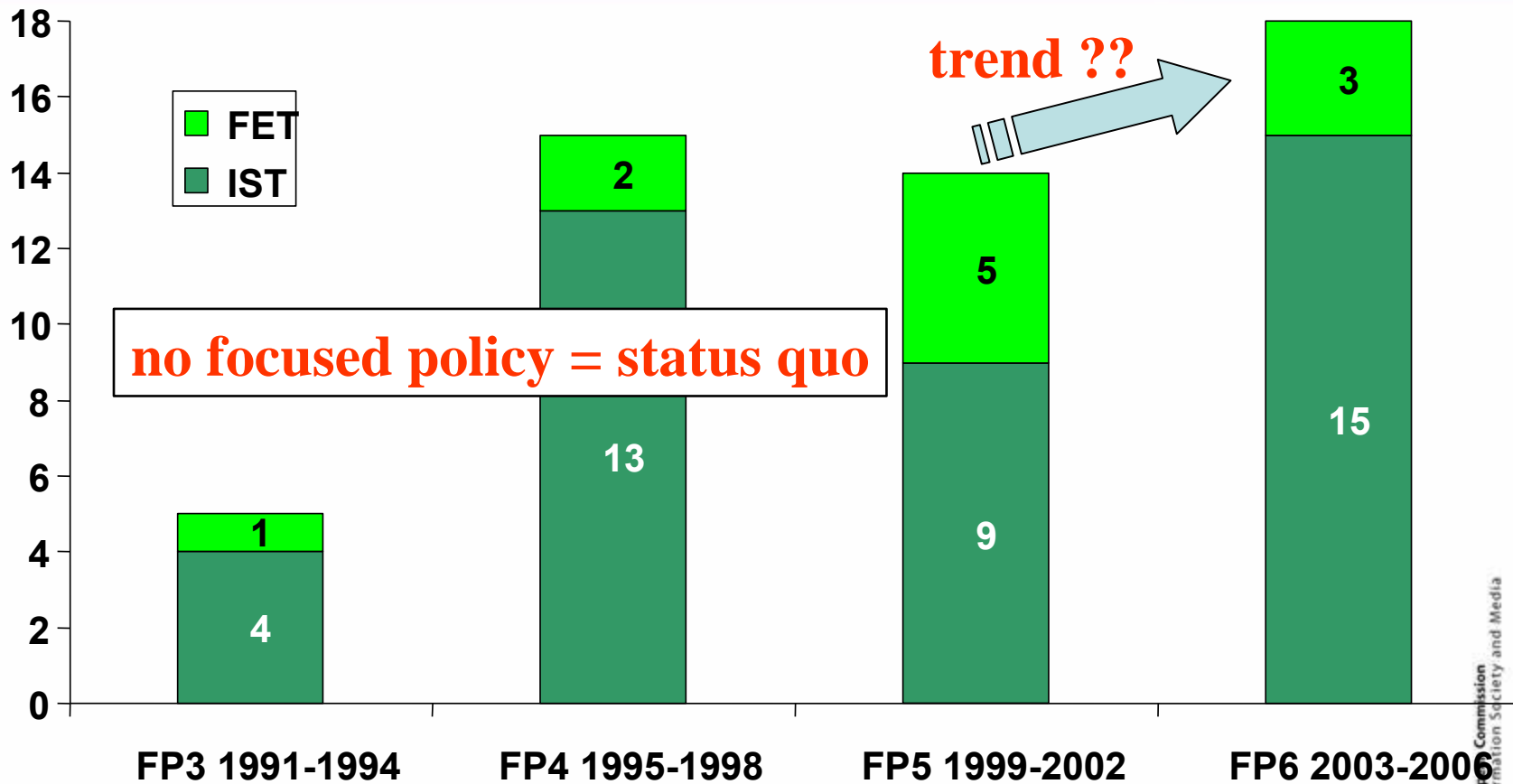
Australia in FET/IST: Number of projects



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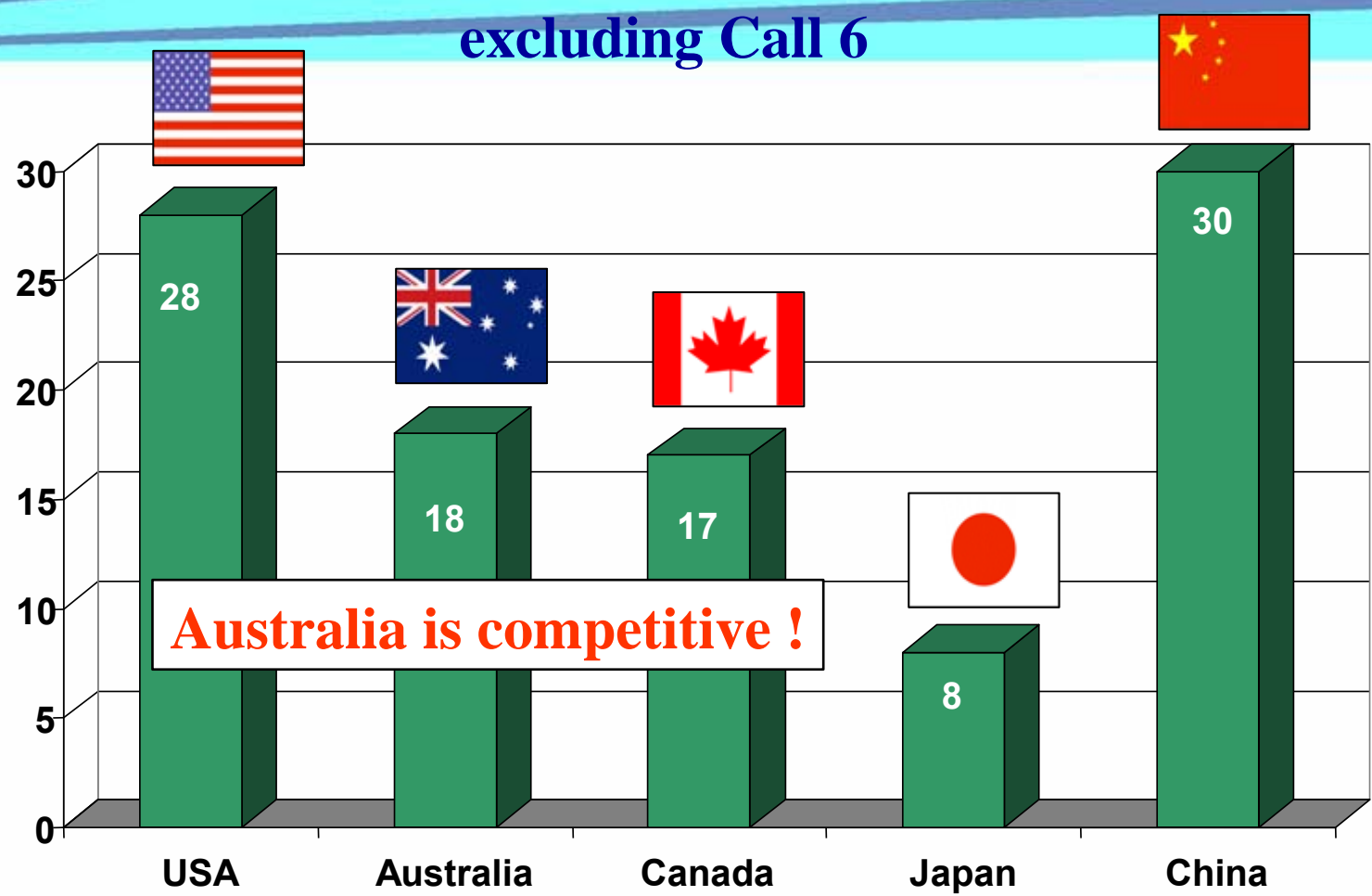
Australia in FET/IST: Number of participations



Australia & 3rd Countries



excluding Call 6



Australia is competitive !



International Cooperation & FET



Why does **international cooperation** work well in FET despite no specific policy?

⇒ **FET addresses basic science:**

- No direct commercial interests / competition
- Mainly universities & research centres participate
- Small & dynamic communities
- Knowhow scarce and localized
- Scientists “naturally” cooperate cross-border

⇒ **Implementation of FET:**

- define R&D priorities in close collaboration with constituencies
- Complementary ‘bottom-up program’: Open scheme
- Low entry-barrier for new ideas and/or R&D communities



Australia & FET



- Australia well represented in FET, in absolute & relative terms
- FET-Open efficient entry point for newcomers (e.g. EUR10)
- QIPC = success story of AUS/EU cooperation
- Australia's participation limited to single community
- Partial funding of AUS partners (e.g. EQUIND)
- No focused INCO strategy from FET => collaboration dependent on scientist's relations
- Personal ties make the difference, not policy

=> Collaboration is possible but room for improvement exists



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IST & INCO in FP7



- “Treaty” gives mandate for INCO in IST
- Change of policy decided at highest level
- From passive to active approach
- Constant monitoring of progress
- Specific INCO Objective & commitment of each FP7 Challenge



FET's Approach



- Scientific competence is a ‘global’ market
- Get the best expertise wherever available
- Subjects where a mutual benefit can be identified
- Go beyond networking activities & workshops
- Implemented through R&D projects (STREP & IP)
- Address funding agencies & scientific communities
- Added value even without cross-funding





Next Steps & Possible actions

- Identify R&D priorities of mutual benefit
- Simplify approval of complementary funding of INCO partner
- Set aside budget 'dedicated' for INCO activity
- Synchronise calls?
- Align content of calls?
- The 'Swiss' FP funding model?
- Organize joint call?
- Raise awareness of funding programs
- Highlight added value to participate in INCO project



Where to find more



- **FET**

<http://cordis.europa.eu/ist/fet/home.html>

- **Delegation of the EU in Australia**

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- **Further questions ?**

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