



Results & Lessons Learned from the **NEST** Programme in **FP6**

Gianpietro van de Goor

European Commission
Research DG

NEST-PROMISE, Final Dissemination & Brokerage Event, Brussels, 10 July 2007





FP6 - Where does NEST fit in?

Focusing and Integrating Community research

Thematic priorities						
Genomics	IST	Nanotechnologies.	Aeronautics	Food	Sustainable dev.	Citizens

“Wider field of Research”
Support to policies
NEST
SMEs
International co-operation
JRC

Structuring the ERA

Strengthening the foundations of the ERA





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NEST objectives

- Stimulate **visionary and pioneering** long term research at the frontiers of knowledge and at the interface between disciplines
- Give researchers **freedom to develop and prove their ideas** within the broadest possible limits
- **Respond rapidly** to new opportunities as well as to new problems



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NEST two modes

Open domain:

- ADVENTURE
- INSIGHT
- NEST SUPPORT

Focused actions:

PATHFINDER

235 M €

Overall

Budget



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ADVENTURE: Mandate

“support research in emerging areas of knowledge and on future technologies, in particular in trans-disciplinary fields, which is highly innovative and involves correspondingly high (technical) risks.”



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The Spirit of ADVENTURE

- Exciting, **pioneering research** with the aim of opening up new avenues for progress in science and technology
- **Freedom for researchers** to define new challenges and pursue new ideas
- **Across a wide scope of science and technology**, but lying outside or cutting across the FP6 Thematic Priorities
- With a special interest in novel **multi-disciplinarity**
- **High risk / high gain**, with challenging and tangible objectives



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INSIGHT: Mandate

*“support research to **assess rapidly new discoveries or newly-observed phenomena, which may indicate emerging risks or problems of high importance to European society, and identify appropriate responses to them.**”*



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The spirit of INSIGHT

- Should have an **anticipatory function**
- Should address possible risks associated with **new phenomena**; high **potential risk**; significant **scientific uncertainties**
- Project outputs should be **aimed at decision making**. Analysis of the uncertainty should allow the concerned actors to frame strategic choices about future action
- May need to challenge orthodoxy and/or address complex or inter-disciplinary questions



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PATHFINDER: Mandate

“support research on specific topics that are identified during the course of implementation of FP6 on the basis of their urgency and potential for future societal, industrial or economic relevance.”



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PATHFINDER: Implementation

- Build and consolidate European capabilities in promising emerging (interdisciplinary) areas with high future potential for Europe in the long term.
- Provide “early stage funding”: as ideas mature they should be translated into more conventional funding modes
- Up to 10 Mio. EUR or more per topic (for several STREPS + one or more CAs)
- Annual calls for proposals; several topics per call

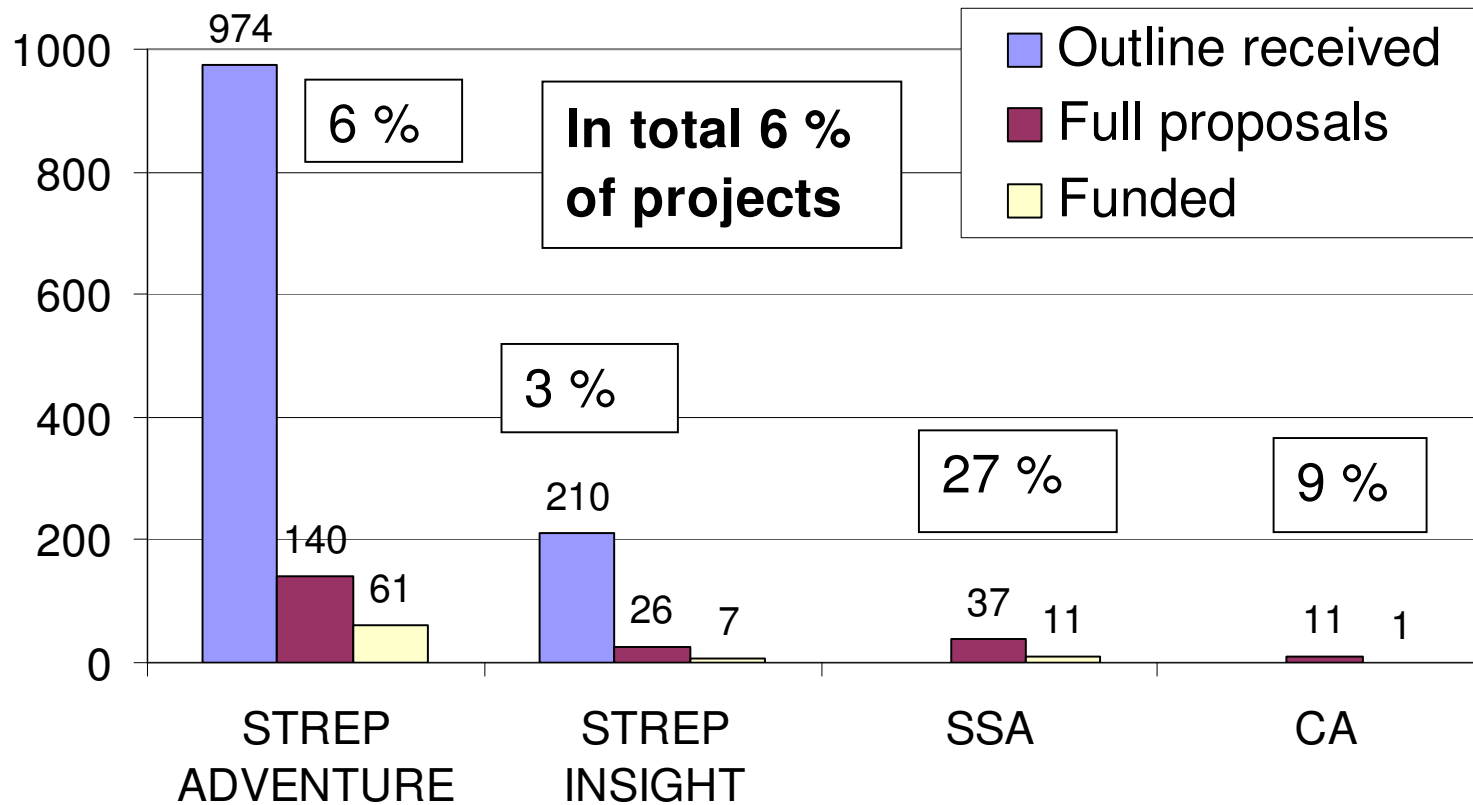


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NEST Open

All proposals for Open NEST Call





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Pathfinder topics 2003-2006

- Tackling complexity in science
 - Explore inter-disciplinary approaches and techniques to deal with complex problems in diverse areas of science
- Synthetic biology
 - Develop engineering, device-oriented approaches to working with sub-cellular building blocks
- What it means to be human
 - Towards an integrated understanding of the human mind, by uniting diverse but relevant disciplines
- Cultural Dynamics
- What it means to be human

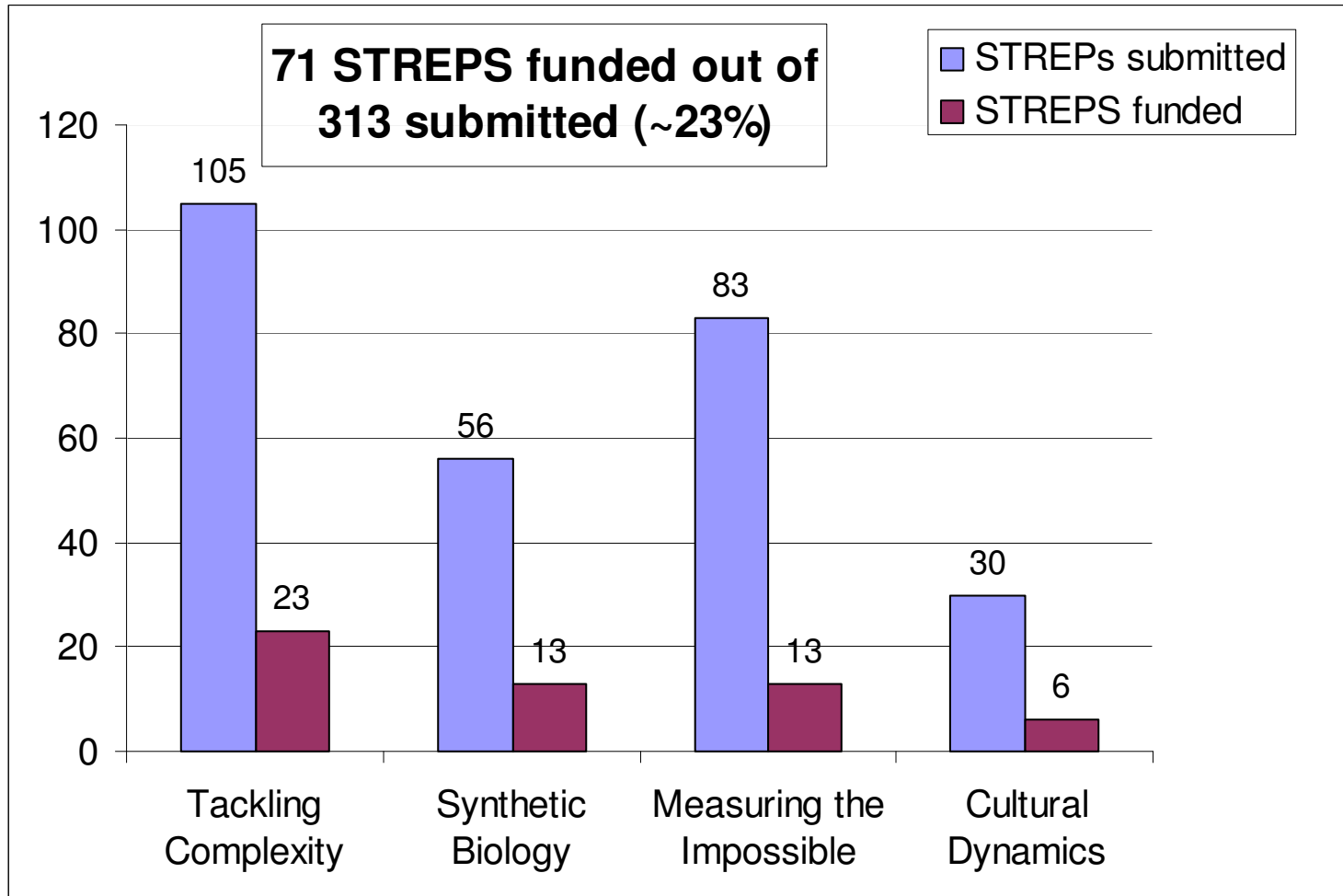


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STREPs submitted/funded



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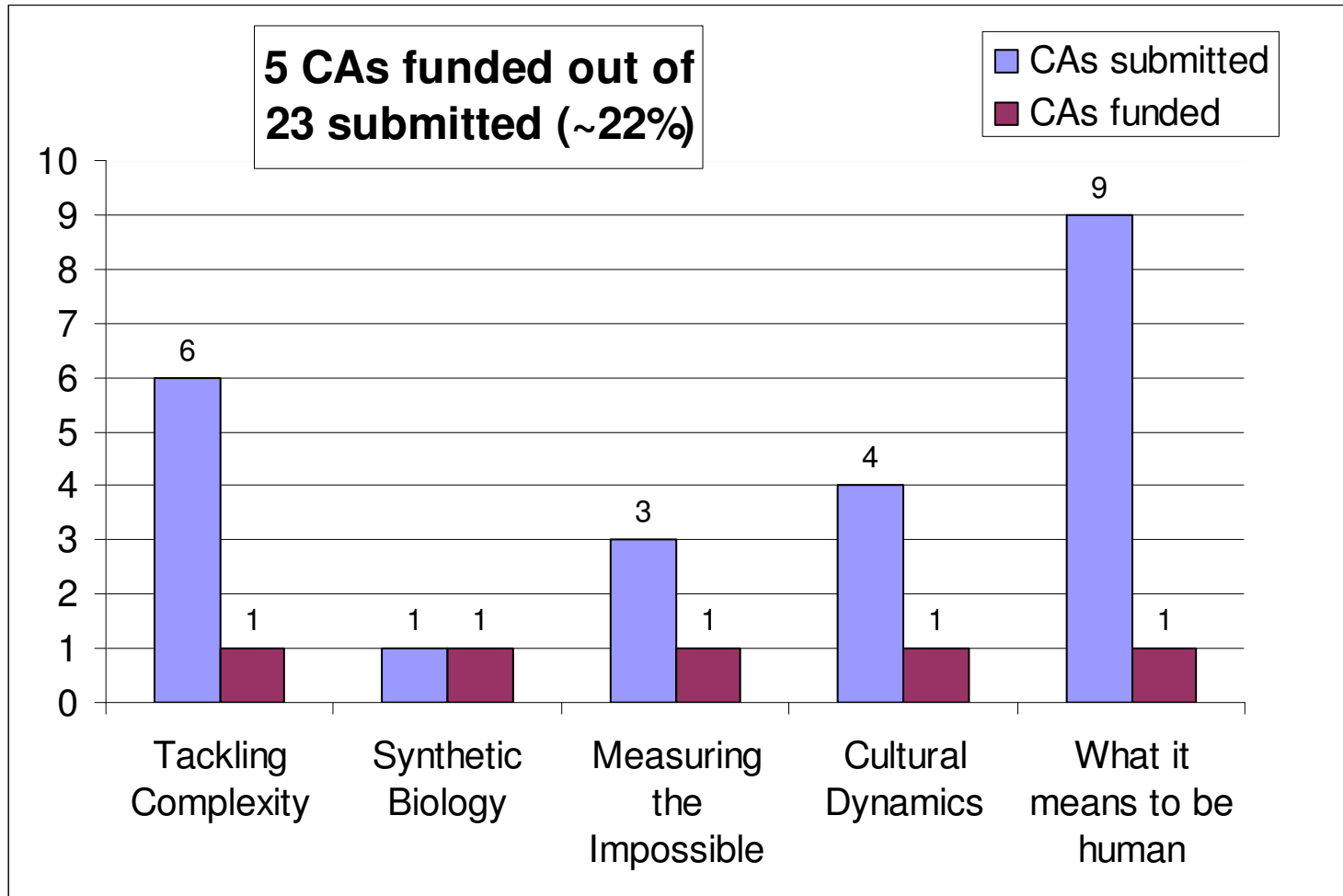


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CAs submitted/funded



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FP innovations pioneered by NEST

- Providing **“open space”** to stimulate creative, visionary and anticipatory research (complementary to Thematic Priorities)
- Rewarding **“high risk / high impact”** science proposed by scientific inventors
- Vigorously promoting **multi-disciplinarity**
- Pioneering **panel-based “peer-review”** style process (as used by many national agencies)
 - Remote Evaluation
 - 2 stage process
 - Full Feedback to applicants
- Nurturing **new communities of knowledge**



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The continuation of NEST-like funding in FP7

- Funding of “**Emerging Needs**” in the nine **FP7 Thematic Research Areas**
 - Emerging needs research in FP6 (NEST / FET) recognised as a success: scope of emerging needs research has been widened in FP7 and ADVENTURE, INSIGHT, PATHFINDER actions are included in the Themes
 - FP7 Specific Programme COOPERATION
- Funding of Investigator-driven **Frontier Research** through the **European Research Council/ERC**
 - FP7 Specific Programme IDEAS: NEST experience has served partly as inspiration



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Key Messages from NEST

- **Respecting scientific freedom:** Offer an open space for investigator-driven projects, which allows creative opportunity-seeking and interdisciplinary ideas in any field of science and technology;
- **Rewarding scientific inventors:** Support pioneering projects with visionary, scientifically sound objectives where considerable pay-off for science, economy or society may be achieved even if there is a risk of failure;
- **Allowing for smaller projects:** Pursue an approach which favours appropriate and flexible methods which also will allow for research projects of moderate size;
- **Promoting social responsibility:** Anticipatory research can help to understand potential threats to society emerging from new discoveries or new opportunities in science and technology;
- **Risk-tolerant scientific peer review:** Define evaluation criteria and peer review methods to select proposals with the best scientific opportunities, rather than to avoid failures;
- **Applying user-friendly procedures:** Minimise resource investment by proposers and reviewers, e.g., by using remote refereeing and two-stage-submission and selection procedures;
- **Building trust through transparency:** Put emphasize on trust, e.g., by providing applicants with complete and transparent feedback on their peer-reviewed proposals.



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Thank you !

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