

# Survey results of HINGE (High Innovation/Gain/Expectation) Programmes Worldwide

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<http://www.nest-promise.net/>

1. Nest Promise (Promoting Research on Optimal Methodology and Impacts Promoted by Experience) is a FP6 project.
2. The aim is to promote High Innovation/Gain/Expectation (HINGE) multidisciplinary research throughout Europe.
3. Develop and validate different strategies for examining longer-term future social and environmental impacts of such research



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### 3. List of Participants

Partic. Role*	Partic. No.	Participant name	Participant short name	Country	Date enter project	Date exit project
<b>CO</b>	1	Focal Initiatives in Research in Science and Technology Programme Israel Science Foundation	FIRST	Israel	1	24
	2	The Fraunhofer Institute for Systems and Innovation Research	ISI	Germany	1	24
	3	Trinity College Dublin	TCD	Ireland	1	24
	4	Institute Fundamental Technological Research (NEST-NCP) Polish Academy of Sciences	IFTR	Poland	1	24
	5	Consorzio Pisa Recherche - Information Technology and Telecommunications Division	CPR	Italy	1	24

\*CO = Coordinator



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1. Methodology
  - a) International survey
  - b) in depth analysis of certain programmes
2. Regional Workshops
  - a) Pisa
  - b) Dublin
  - c) Warsaw
3. Brokerage event
  - a) Brussels, July 2007

# High Innovation/Gain/Expectation Program Survey - Background

- To conduct a comprehensive, pan-European survey of HINGE programmes, NEST-concept promoters and other interested parties
- *Survey conducted using partner contacts, European NEST contacts, ERA-NET contacts, seed list from Workpackage 1*

# High Innovation/Gain/Expectation Program Survey - Aims

- To provide map of such activity
  - a) To analyze the data collected
  - b) To write a survey and Euro-map of HINGE Programmes, their characteristics and distribution
- *Data analyzed: parameters established and evaluated as a whole and according to geographic area (W. Europe, E. Europe & N. America) to determine if any common characteristics emerging*

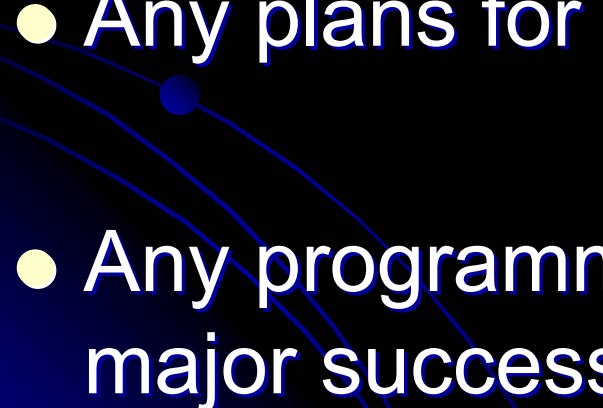
# The Survey

- Compiled with much assistance from Dr. Thomas Heinze, Fraunhofer Institute
- 2-page Survey (send by hardcopy and by email) to 315 organizations
- Program details requested
  - Target group
  - Program goals
  - Thematic areas
  - Program duration
  - Total funding/annual spend
  - Brief program description

# The Survey

- Numbers applied for/funded by programme
  - Individuals
  - ❖ Groups
  - ❖ Collaborative projects
- Criteria important for allocating funds
  - Indispensable/Important/Not Important
    - ❖ Originality of proposal
    - ❖ Speculative nature of project
    - ❖ Potential payback to society
    - ❖ Collaboration with other institutions
    - ❖ Addressing perceived need of society
    - ❖ Track record of proposer
    - ❖ Multi-disciplinarity of research

# The Survey

- Decision process for allocation of funds in the programme; importance of external scientific peer review
  - Any plans for evaluation of the programme
  - Any programme outcomes considered as major successes
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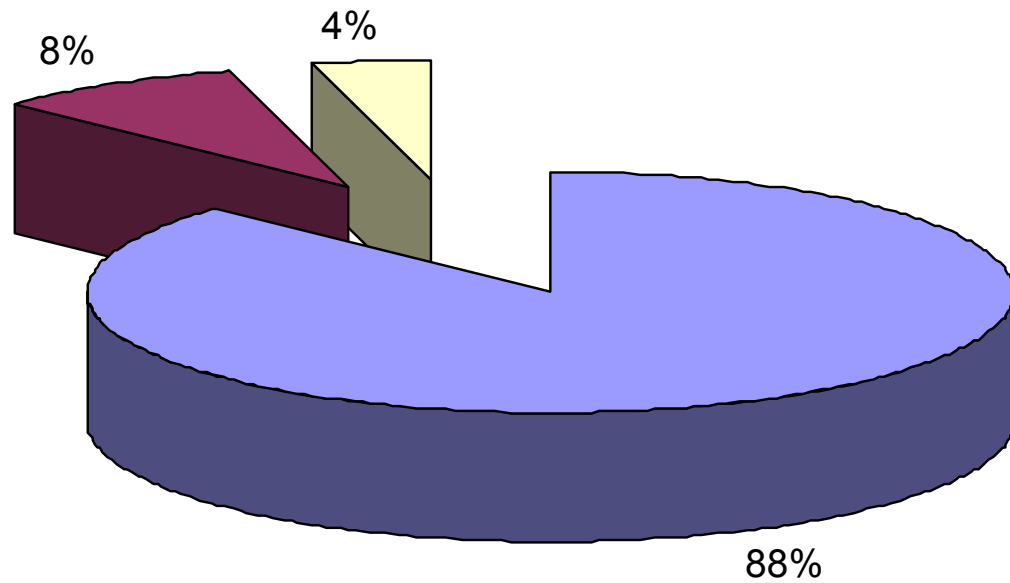
# Survey parameters

HINGE Responses:	
Austria	1
Canada	1
France	4
Germany	9
Hungary	1
Ireland	6
Israel	5
Italy	1
Netherlands	3
Spain	1
Sweden	2
Switzerland	1
UK	3
USA	2
	40

Non-HINGE Responses:	
Czech Republic	1
Denmark	1
Finland	1
Germany	2
Ireland	8
Israel	1
Italy	3
Lithuania	1
Luxembourg	1
Malta	1
Netherlands	2
Poland	3
Spain	3
Sweden	1
UK	1
	30

70 responses of completed surveys. 22% response rate  
40 of these funding schemes for high-risk research (self assessment)

# Regional Analysis

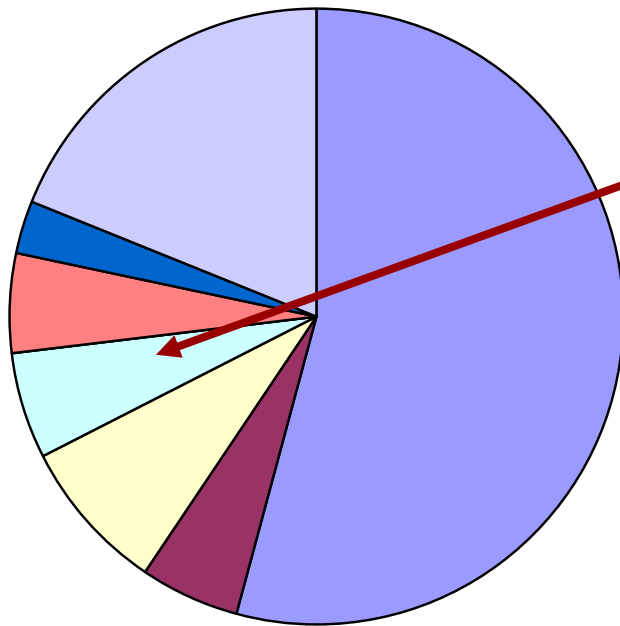


- W Europe [252 sent; 62 replied]
- E Europe [59 sent; 6 replied]
- N America [4 sent; 3 replied]

# 5 examples from 40 programs

- France Agence Nationale de la Recherche
  - 'Blanc' *"aims to increase ambitious projects...which present original objectives and rupture well-marked out routes of research"*
- Spanish Ministry of Education
  - Explora – Ingenio 2010 *"Funding for research that has a very high chance of not being successful, but with a very high potential impact"*
- UK Wellcome Trust
  - Sir Henry Wellcome Commemorative Awards for Innovative Research *"Initiated in 1996....it was perceived that traditional peer-review mechanisms tended to favour 'safe science' over novel and risky projects"*
- USA National Institutes of Health
  - NIH Director's Pioneer Award Program *"Research must be highly innovative, possibly high-risk, ...500k p.a. for 5 years. Purpose is to change perception that NIH funds only 'safe science'"*
- Hungary KPI Agency for research fund management
  - Janos Irinyi programme 'Idea' *"widening the possibilities for exploitation of innovative ideas and developing transfer towards industrial partners"*

# Thematic analysis



- Sciences, Engineering & Mathematics
- Life Sciences
- Energy & Environment
- Sciences, Humanities & Social Sciences
- Biotechnology & Information & Communications Technology
- Agriculture & Food
- Space
- Open

# Close-up of one program funding in Humanities & Social Sciences

- Note: looking at HINGE programs they mostly use peer-review, either by a national council, by remote reviewers, or by assembling a panel

## UK EPSRC

- 'Ideas Factory': Open to all disciplines on "focused topics that need a new dimension in thinking – not just the overlap between disciplines."
  - E.g. 1: How, when, and why the whole is greater than the sum of the parts
  - E.g. 2: Taking care to the patient, new dimensions in healthcare delivery
- Innovative review procedure of a "Sandpit" of stakeholders and international experts meeting (invited after an open call for participation) at a residential 5 day workshop. Not all attendees come away with money, and review conducted 'in real time' at the sandpit. Free thinking encouraged. Participants delve deep into the problem to uncover innovative solutions
- Collaborative projects only, track record of proposer not important, started in 2005 and no projects complete yet.

# Analysis of funding levels

## (Examples of annual funding budgets)

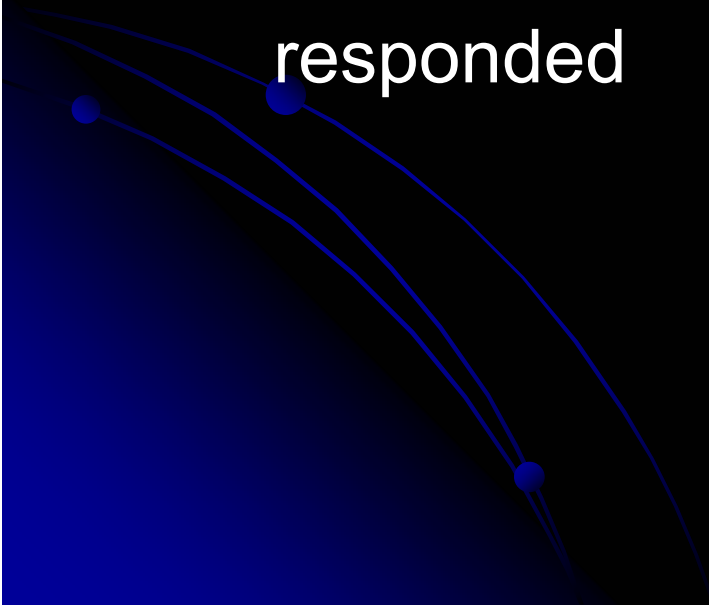
Country	Funding Body	Programme Title	Annual Funding
Germany	Projektraeger Jülich	"Networks of basic research into renewable energy and energy conservation"	€10M
Hungary	KPI Agency for Research Fund Management and Exploitation	"Janos Irinyi programme 'Idea'"	€6.9M
Canada	Natural Sciences and Engineering Research Council of Canada	"Special Research Opportunity (SRO) grants"	~€10M
Israel	Israel Science Foundation	"FIRST (Focal Initiatives in Research in Science & Technology) - Track 1 - Special individual research grants"	€1.5M
Spain	CSIC	"Explora-Ingenio 2010"	€1M

# Criteria for funding

Criteria	Indispensable	Important	Not Important
Originality of proposal	26	5	2
Speculative nature of project	9	18	7
Potential payback to society	9	10	13
Collaboration with other institutions	6	14	12
Addressing perceived need of society	3	17	12
Track record of proposer	15	15	3
Multidisciplinarity of research	8	17	7

# Discussion Points 1

- Limitations:
  - Hinge vs. non-HINGE is a moderated self-assessment, and classification cannot be precise
  - Some HINGE programs may not have responded



# Discussion Points 2

- **Some conclusions can be drawn**
  - 40 HINGE (High-Risk High-Impact) programs. This high number indicates the importance governments place on funding risky, novel research.
  - Many HINGE programmes are relatively new so....continuous search for new and better ways of motivating the research community
  - Some funding bodies perceive the need to encourage research to 'get off the beaten track'
  - Funding levels are relatively low
  - Not an even distribution of programmes - reflects general state of grant availability

# Acknowledgements



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NEST Promise partners, particularly Dr Thomas Heinze, Fraunhofer Institute, for help with Survey design.