



ERC - European Research Council

Platform Wiskunde Nederland
17 September 2012, Delft



Ideas – upcoming calls

- WHO: expected profiles of laureates
- WHAT: rules and expectations for projects
- WHEN: planned deadlines
- Statistics and tips

My background

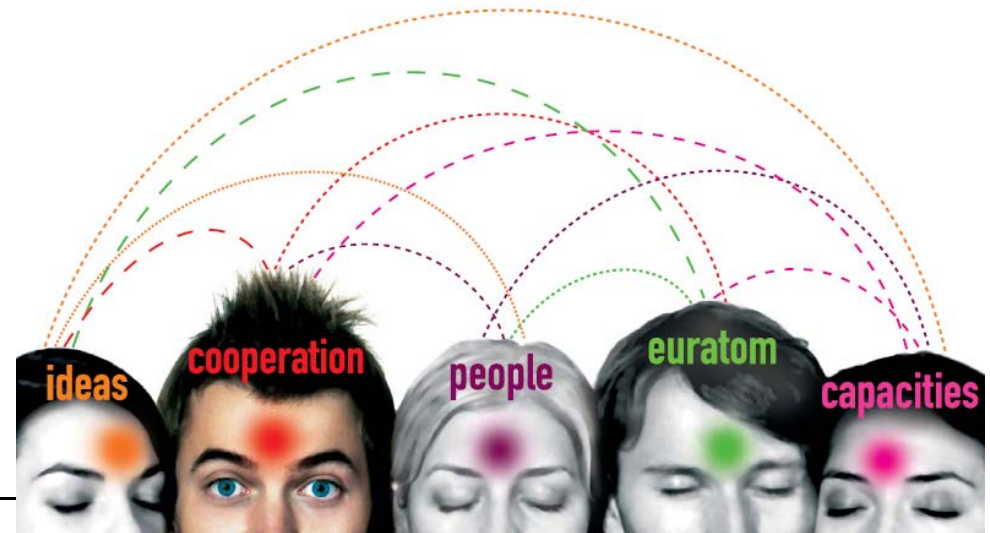
- Translation Studies UvA
- 1994 – 2008: worked for the Italian National Contact Point for EU Framework programmes.
 - From 1998 Marie Curie National Contact Point (Italy)
 - From 2007 Marie Curie & ERC National Contact Point (Italy)
- 2008-July 2012 Marie Curie & ERC National Contact Point (Netherlands)
- Aug 2012 Valorisation Centre TU Delft: European research funding with main focus ERC and Marie Curie

The Seventh Framework Programme

- European Community Framework Programme for Research, Technological Development and Demonstration Activities
- 2007-2013
- 50,5 billion euro

Follow-up:

- Horizon2020
- 2014-2020
- 80 (?) billion euro

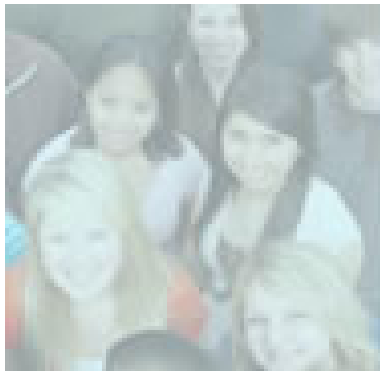


FP7



Cooperation

Ideas



People

Capacities



Ideas - European Research Council

- frontier research
- centered around a Principal Investigator
- no need for transnational partners
- investigator-driven
- flexible
- focus on research



Ideas- Frontier research

- Any field of research*
- Interdisciplinary, crossing boundaries between different fields
- Pioneering
- New and emerging fields
- Unconventional, innovative approaches and scientific inventions
- High risk – high gain
- Opening new horizons of knowledge
- Impact on SCIENCE

** Except nuclear energy and unacceptable ethical issues*



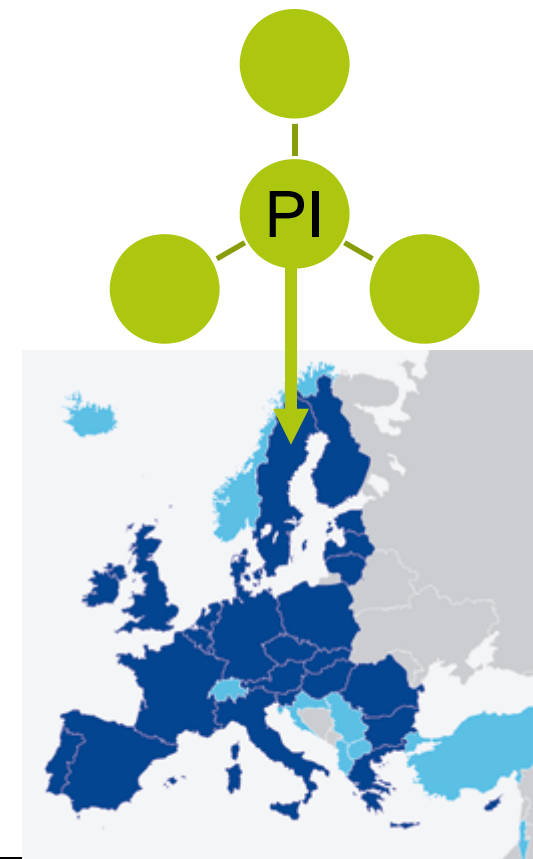
“Individual Research Team” concept

Individual research teams:

- Principal Investigator (PI) - team leader
- any nationality or age
- additional team members

PI's host institution:

- EU Member State or Associated Country



ERC - 3 main types of grants

		Maximum budget / 5 year project
ERC Starting grants	2-7 years of experience after PhD*	1,5 million Euro (+ 0,5)
ERC Consolidator grants	7-12 years of experience after PhD*	2 million Euro (+0,75)
ERC Advanced grants	Internationally recognised research leaders	2,5 million Euro (+ 1)

- + ERC Synergy: 2-4 PI's, 15 million Euro / 6 years
- + ERC Proof of Concept

Eligibility window

- For StG and CoG only
- Measured at publication date of call

Extensions to eligibility window:

- Maternity leave: 18 months per child;
- Paternity leave: accumulation of actual time taken off
- Long-term illness, clinical qualification, obligatory national service

} before/
after PhD

} after PhD

Extensions possible only up to 4.5 yrs

StG / CoG - Profile of PI

- Promising track record of early achievements, including:

Significant publications as main author in:

- *major international peer-reviewed multidisciplinary journals*

or

- *the leading international peer-reviewed journals of their respective field*

- Important publications without PhD supervisor

StG: at least 1; **CoG:** several

- Invited presentations, awards, granted patents



AdG – Profile of PI

- Active researcher
- Track-record of significant achievements in the last 10* years
 - *Contribution to research field*
 - *Abundant evidence of creative independent thinking*
 - *International recognition*
 - *Inspire younger researchers*
 - *Leadership in industrial innovation*

* *Same extensions to period for which track record is presented as for StG-CoG*

AdG – 10-year track-record

Normally at least:

- **10 publications** as senior author in major international peer-reviewed multidisciplinary journals and/or in the leading international peer-reviewed journals of their respective field.

and/or, according to the field

- **3 major research monographs**, of which at least 1 translated into another language

AdG – 10-year track-record

Alternative benchmarks – if relevant for the field

- **5 patents**
- **10 invited presentations** in well-established internationally organised conferences and advanced schools
- **3 research expeditions** led by the applicant
- **3 well-established international conferences:** involved in organisation as a member of the steering/organising committee
- International recognition through **scientific prizes/awards** or membership in well-regarded Academies
- **Major contribution** to launching careers of outstanding researchers

What is allowed?

	Project size <i>up to</i>	- Research equipment - Access to facilities - PI coming from outside Europe	Call budget	Min % of time dedicated to project
ERC Starting grants	1,5 M€	+ up to 0,5 M€	398 M€	50%
ERC Consolidator grants	2 M€	+ up to 0,75 M€	523 M€	50%
ERC Advanced grants	2,5 M€	+ up to 1 M€	662 M€	30%

Expected to fund ~270 proposals for each scheme

Expected success rate for each scheme **~10%**

Ideas - deadlines

	Call open	Deadline (17.00 h!!)
ERC Starting grants	10 July 2012	17 October 2012
ERC Consolidator grants	7 November 2012	21 February 2013
ERC Advanced grants	10 July 2012	22 November 2012

The proposal

PART A
web forms
A1-A3
forms

ANNEXES –as
.pdf

Letter of support by
host institution

**For StG –
CoG: PhD
certificate**

(supporting
documents –
extension

PART B1 – as .pdf

Section 1 PI & Synopsis

- CV (including “funding ID”) *2p.*
- Early achievements track record *2p.*
- Extended synopsis *5p.*

PART B2 – as .pdf

Section 2

Scientific proposal *15p.*

- State of the art & objectives
- Methodology
- Resources
- Ethical issues table and description
(*outside page limit*)

Eligibility check

step 1

step 2 (interview)



3 domains - 25 panels

Physical Sciences and Engineering	44%
Life Sciences	39%
Social Sciences and Humanities	17%

Budget division over panels based on nr. of applications received per panel within domain



Panel PE1 Mathematics

Logic and foundations

Algebra

Number theory

Algebraic and complex geometry

Geometry

Topology

Lie groups, Lie algebras

Analysis

Operator algebras and functional analysis

ODE and dynamical systems

Theoretical aspects of partial differential equations

Mathematical physics

Probability

Statistics

Discrete mathematics and combinatorics

Mathematical aspects of computer science

Numerical analysis

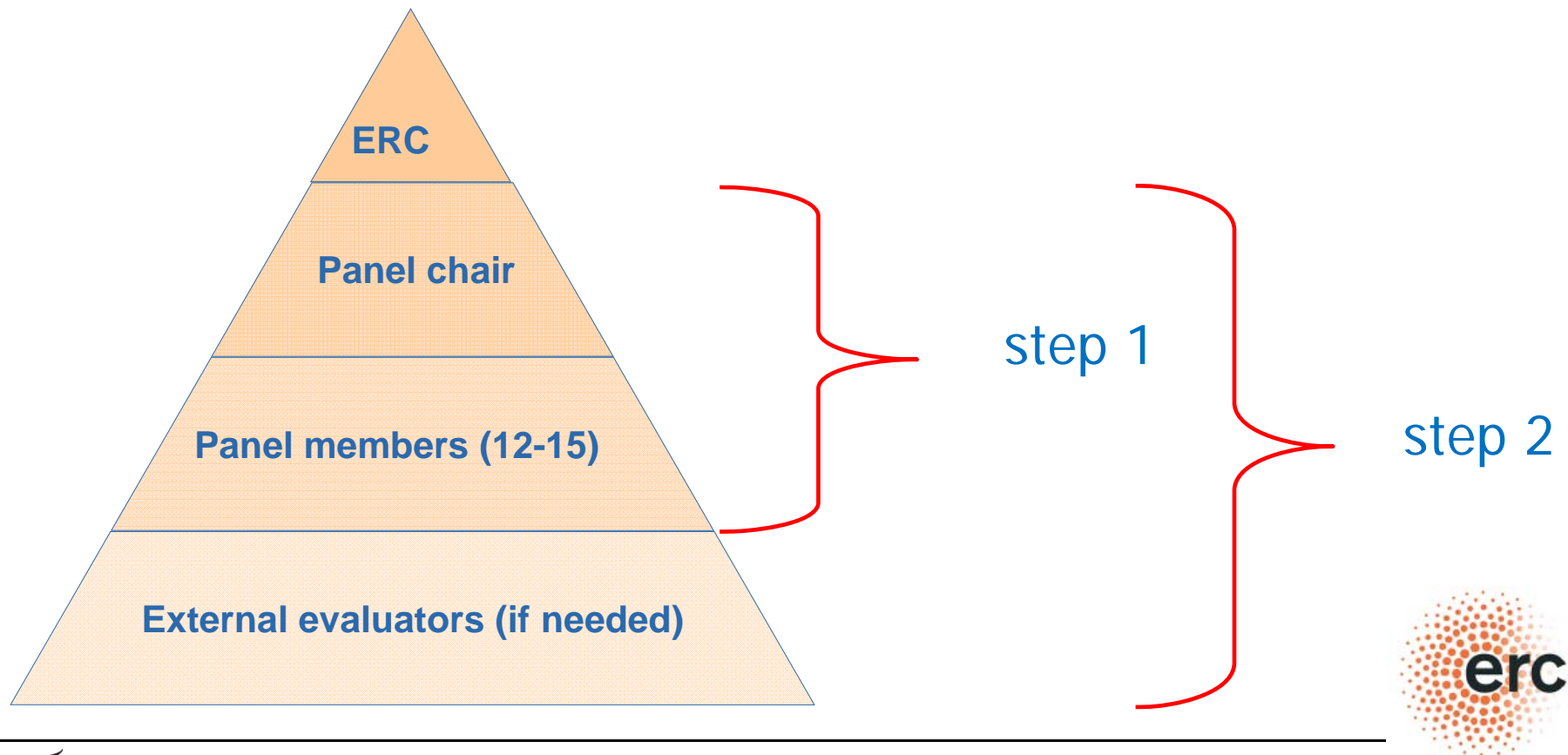
Scientific computing and data processing

Control theory and optimization

Application of mathematics in sciences

Application of mathematics in industry and society

Evaluation panel structure



On which criteria are you evaluated?

Excellence of the PI

- Intellectual capacity and creativity (are achievements & publications groundbreaking and show capacity to go significantly beyond the state of the art?)
- Commitment, willingness to devote at least 50% of time

Excellence of the project

- Ground-breaking nature and potential impact
- Methodology (step 1: feasible / step 2: appropriate)
- High risk/High gain balance
- If relevant: justification of team members at other organisations



How are you evaluated?

Step 1

a: of sufficient quality to pass to step 2

b: of high quality but not sufficient for step 2

c: not of sufficient quality for step 2, submission restrictions (may) apply



Step 2

a: excellent, will be fundable if sufficient funds are available

b: meets some but not all of the excellence criteria



Ideas- two new types of grants

ERC Synergy grants	<ul style="list-style-type: none">• 2-4 Principal Investigators• Bring together complementary expertise in new ways – intense collaboration• Up to 6 years, up to 15 million• Attn: very limited call budget! (150 mEuro)	Call open 10 October 2012 Deadline 10 January 2013
ERC Proof of Concept grants	<ul style="list-style-type: none">• For Principal Investigators in running ERC projects• For assessment of commercialisation of research results	Deadlines: 3 October 2012 24 April 2013 3 October 2013

(Re) submission

Single submission – two-step evaluation

- Electronic submission only
- Strictly enforced deadlines, 17.00 of the day the call closes
- <http://ec.europa.eu/research/participants/portal/page/ideas>

Resubmission rules (retroactive)

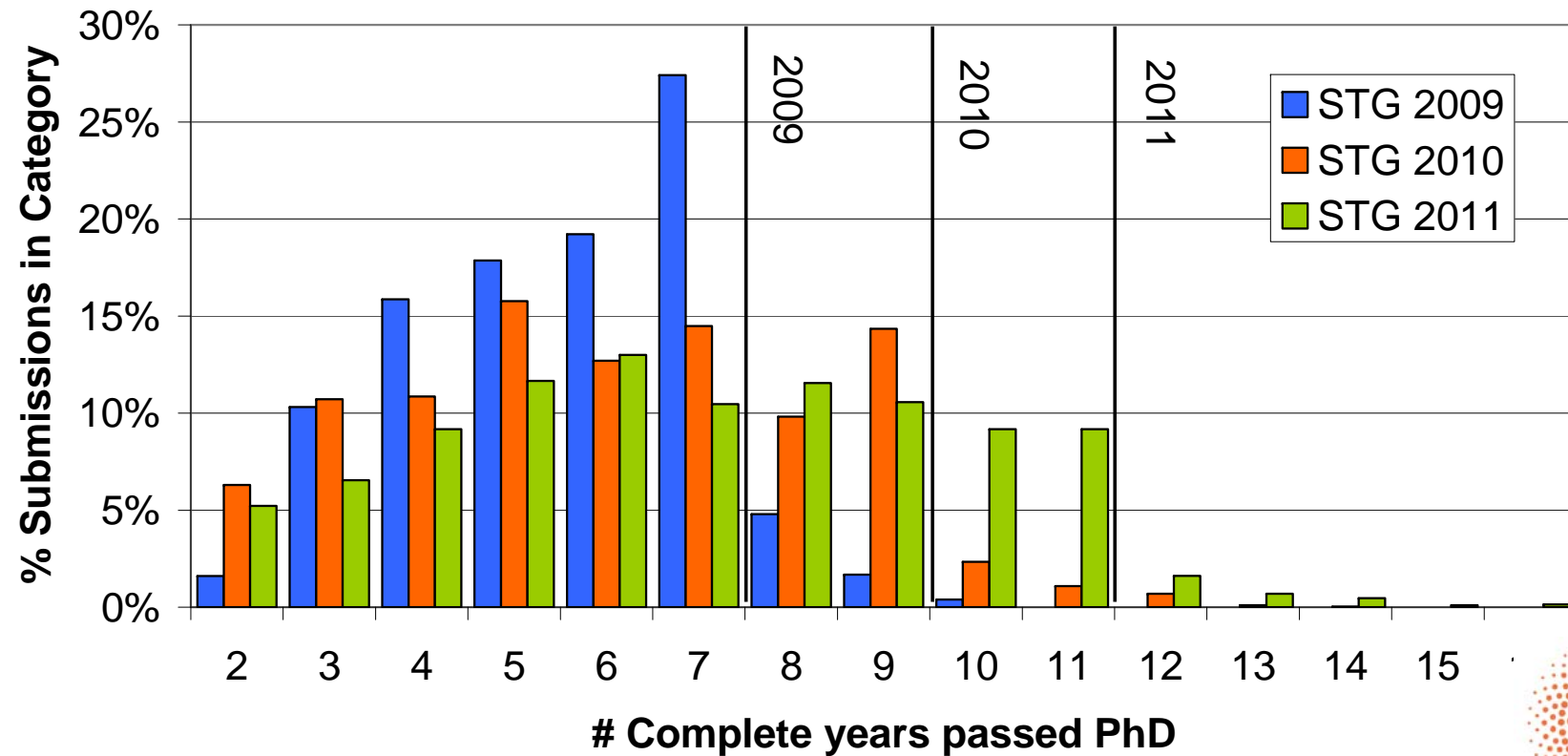
- Resubmit previous proposal if it met the quality threshold (a or b) at step 1 of evaluation
- **Only one proposal to *any* call of the 2013 work programme**
- Only one project at any time (except Proof of Concept)



Dutch participation

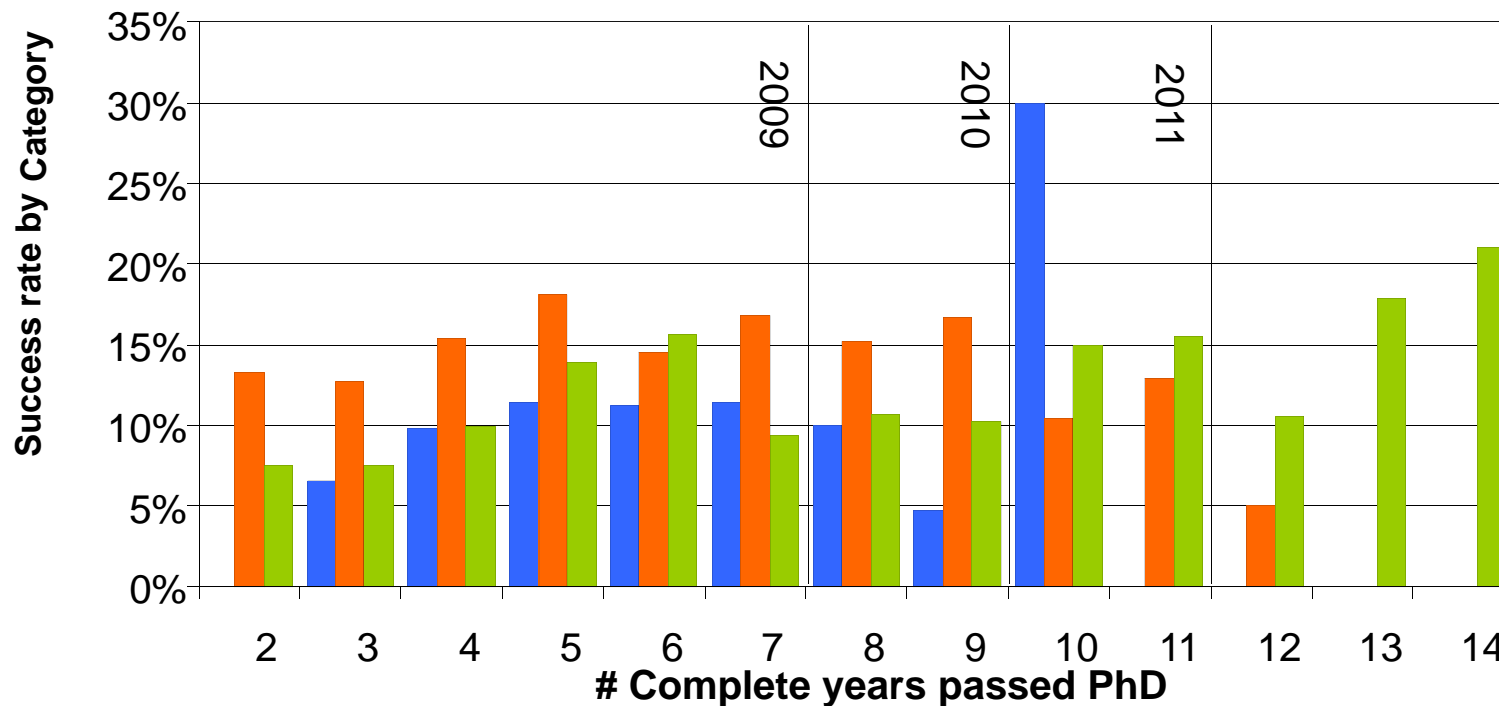
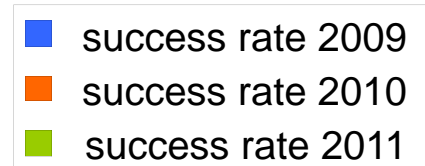
- results Starting Grants 2010-2011
- results Advanced Grants 2010-2011
- Lessons learned from evaluation summary reports

ERC StG Submissions by years past PhD

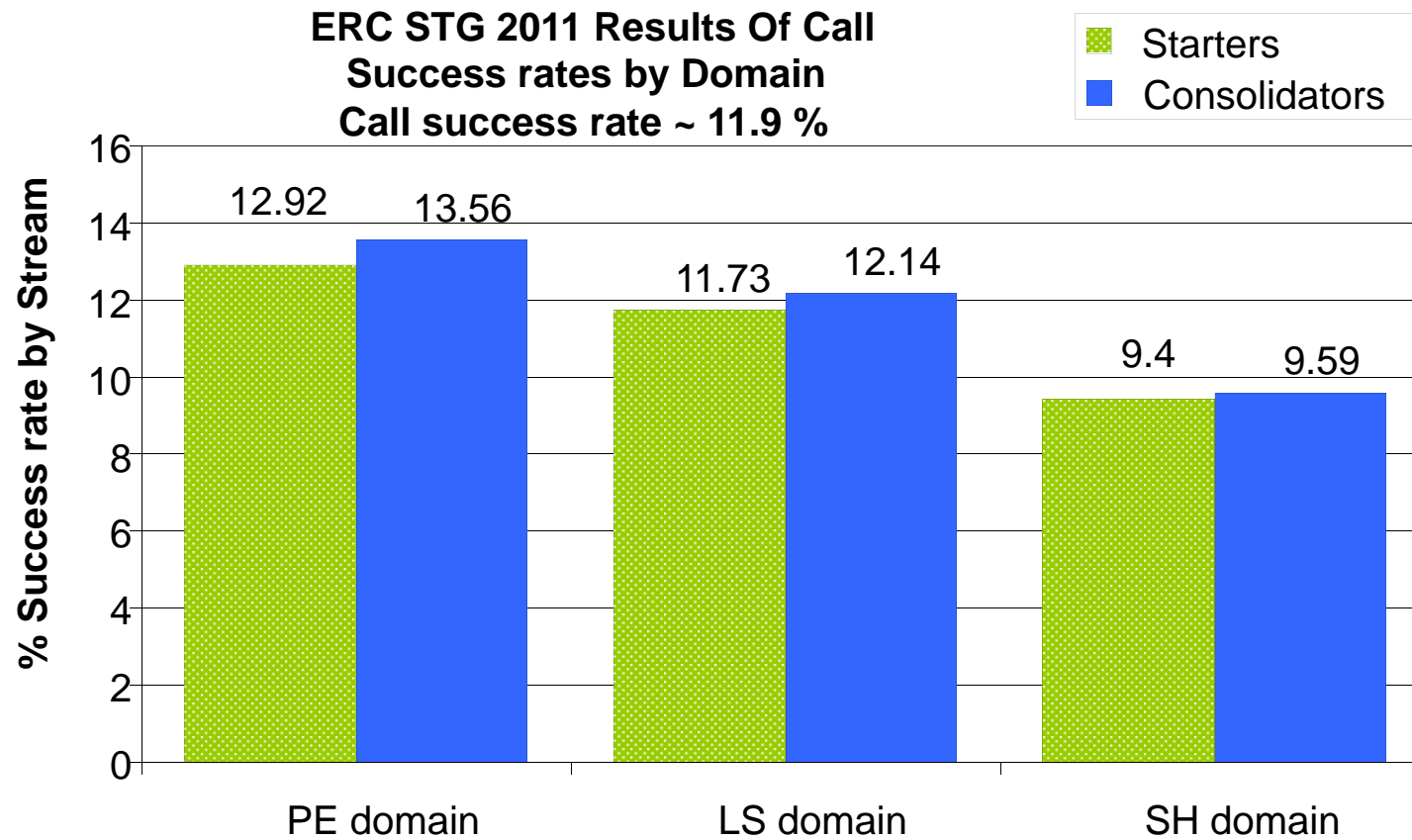


ERC StG Success rate by years past PhD

ERC STG 2009-2011 Success rates by Years passed PhD with eligibility limits



Starters vs Consolidators (2011)



Starters vs Consolidators (2011)

	Starters		Consolidators	
	EU	NL	EU	NL
Physical Sciences and Engineering	13%	12%	14%	28%
Life Sciences	12%	11%	12%	16%
Social Sciences and Humanities	9%	16%	10%	20%

Consolidators higher success rates compared to Starters!!

Results Starting Grants

Success rates

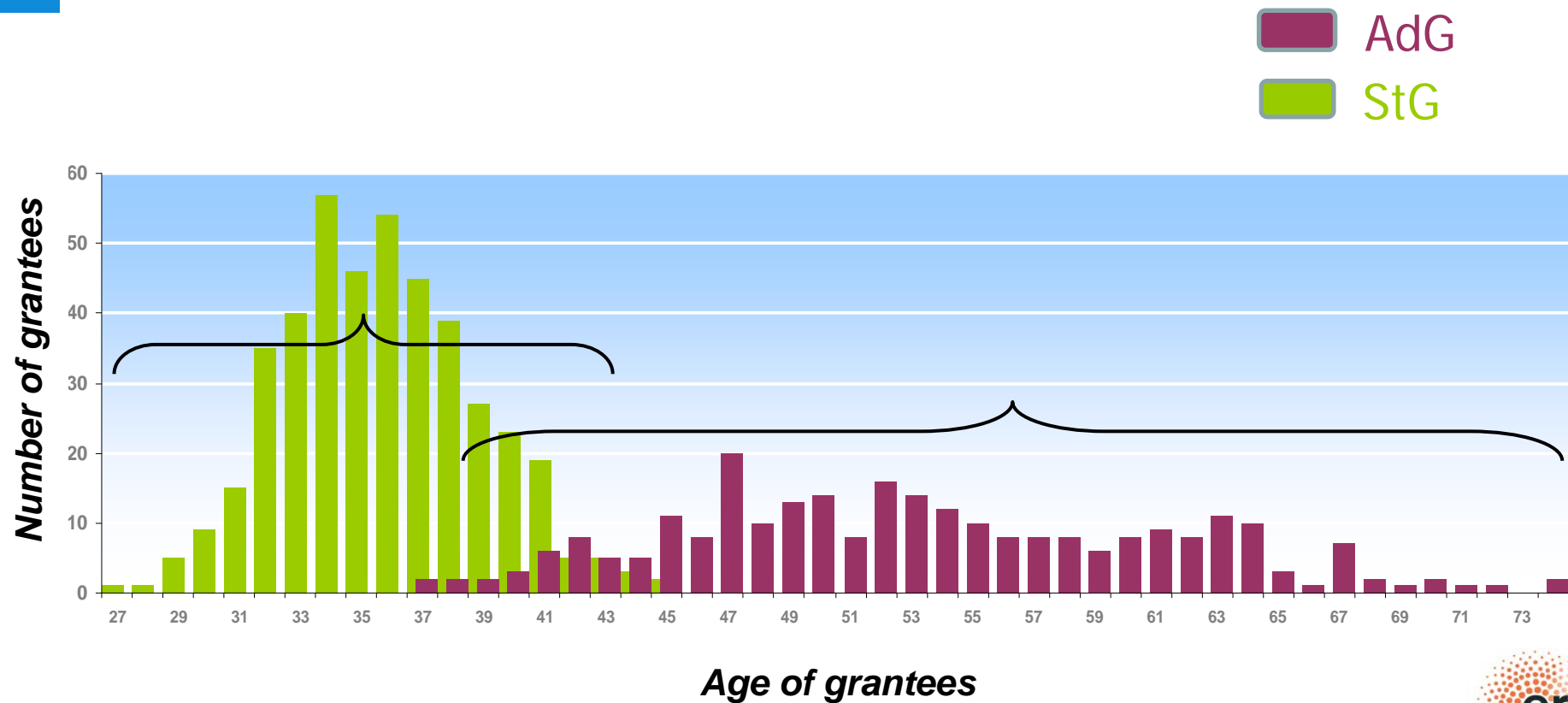
	Life Sciences		Physical sciences and engineering		Social Sciences and Humanities	
	EU	NL	EU	NL	EU	NL
StG 2010	14%	8%	15%	25%	12%	20%
StG 2011	12%	14%	12%	21%	9%	18%



Lessons learned (StG)

- Show your impact on research field
- Show your independence
- Show high risk-high gain element
- Provide information on experimental approach/methodology, also in B1!
- Interview very important

Age statistics Advanced Grants



Results Advanced Grants

Success rates

	Life Sciences		Physical sciences and engineering		Social Sciences and Humanities	
	EU	NL	EU	NL	EU	NL
AdG 2010	15%	14%	13%	29%	9%	8%
AdG 2011	13%	17%	14%	31%	9%	10%



Lessons learned (AdG)

PE frequent comments of evaluation panel

- Scientific criticism
- Absence of project planning
- Not enough information on used methodology



Tips

- show the high risk
- show the feasibility (detailed methodology, pilot data, proof of concept)
- show the high gain
- show added value (not 'more money for the same', show a stand-alone project that goes beyond regular work)
- write a project proposal, not a scientific article

More information

The screenshot shows the homepage of the European Research Council (ERC). At the top left is the ERC logo with '50 years' and the text 'European Research Council Supporting top researchers from anywhere in the world'. A search bar and navigation menu are at the top right. The main content area features a featured article 'Castles in the desert - Satellites reveal lost cities of Libya', a 'Funding Opportunities' section with 'Open Calls' and 'Ongoing Evaluations', and an 'ERC News' section with a list of recent events. A footer contains links for 'Funding and Grants', 'Projects and Results', 'Media and Events', and 'About ERC', along with social media and legal notices.

<http://erc.europa.eu>

- Calls
- Panels
- News alerts
- Funded projects



Other opportunities

- Marie Curie fellowships -> focus on skills diversification and knowledge transfer
 - Individual transnational post-doc fellowships (in/out)
 - Marie Curie Career Integration Grant
 - Initial Training Networks (including European Industrial Doctorates and Innovative Doctoral Schools)
 - Industry-Academia Partnerships
 - International Research Staff Exchange

Need support?

- Your local EU support office

e.g. TU Delft Valorisation Centre:

Daphne van de Sande (advice & support)

Veronique van der Varst (procedures & workshops)

- ERC National Contact Point NL: kp7.erc@agentschapnl.nl
Esther Verhoeven 088 602 5648

