

# European Practices in Technology Assessment

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"Connecting Science and Policy"

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# PACITA

# The Challenge

- Science and technology are to the forefront of the most intense and complex forces of change in society today.
- Society looks to science and technology when confronted with challenges such as terrorism, climate change, ageing society, and sustainable consumption.
- But some changes and the role of science and technology in instigating them are negative.
- How can we best connect politics, science, and society in making well informed decisions on what scientific and technological pathways to follow?



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# The Challenge

- Such decisions affect the social, moral and ecological fabric of society both today and into the future.
- As the number of interest groups grows, policy makers urgently need unbiased and balanced advice on the scientific and technological challenges.
- Responsible and innovative policies on science and technology must rest on well informed decisions and structures based on understanding how science, technology, and society interact.



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# What is Parliamentary Technology Assessment?

- What is Technology Assessment (TA)?
  - It is a scientific, interactive and communicative process which aims to contribute to the formation of public and political opinion on societal aspects of science and technology (Decker & Ladikas, 2004)
- It may take the form of early warning TA, parliamentary TA, constructive TA, discursive or argumentative TA
- Parliamentary TA is where parliament is the main client of the TA activity
- It may focus on diverse themes such as ... energy, health, aging, etc.
- It may involve ... experts, stakeholders, and possibly citizens  
...



# The PACITA Initiative



- The aim is to strengthen the institutional foundation of European technology assessment by helping countries establish and improve their (P)TA activities.
- PACITA is a four year pan-European project, funded by the EU Commission, commenced in 2011.
- Parliamentary Technological Assessment (PTA) institutions are (generally) national entities that provide analysis and impartial advice to policy makers about issues related to the interplay of science and society.
- PTAs are already established in the United Kingdom, Netherlands, France, Germany, Denmark, Norway, Sweden, Finland, Switzerland, Austria and Italy (and in the regions of Flanders and Catalonia).
- Ireland is viewed as a 'laggard' when it comes to (P)TA



# The PACITA Consortium

- Danish Board of Technology (Denmark)
- Karlsruhe Institute of Technology (Germany)
- The Rathenau Institute (Netherlands)
- Norwegian Board of Technology (Norway)
- The Institute of Technology Assessment (Austria)
- Applied Research and Communications Fund (Bulgaria)
- Institute of Technology of Biology and Chemistry (Portugal)
- Institute Society and Technology (Flanders, Belgium)
- Catalan Institution Foundation for Research Support (Catalonia, Spain)
- Swiss Centre for Technology Assessment (Switzerland)
- Knowledge Economy Forum (Lithuania)
- Technology Centre ASCR (Czech Republic)
- University of Liège, SPIRAL Research Centre (Wallonia, Belgium)
- University College Cork (Ireland)
- Hungarian Academy of Sciences (Hungary).



# The PACITA Objectives

- Enhancing and expanding the European capacity for evidence-based policy-making on issues of science and technology.
- Promoting public engagement in science and technology.
- Improving the two-way communication between scientists and other stakeholders, such as politicians, policy makers, policy advisers, journalists, citizens, etc.
- Promoting the highest ethical standards in science and technology.

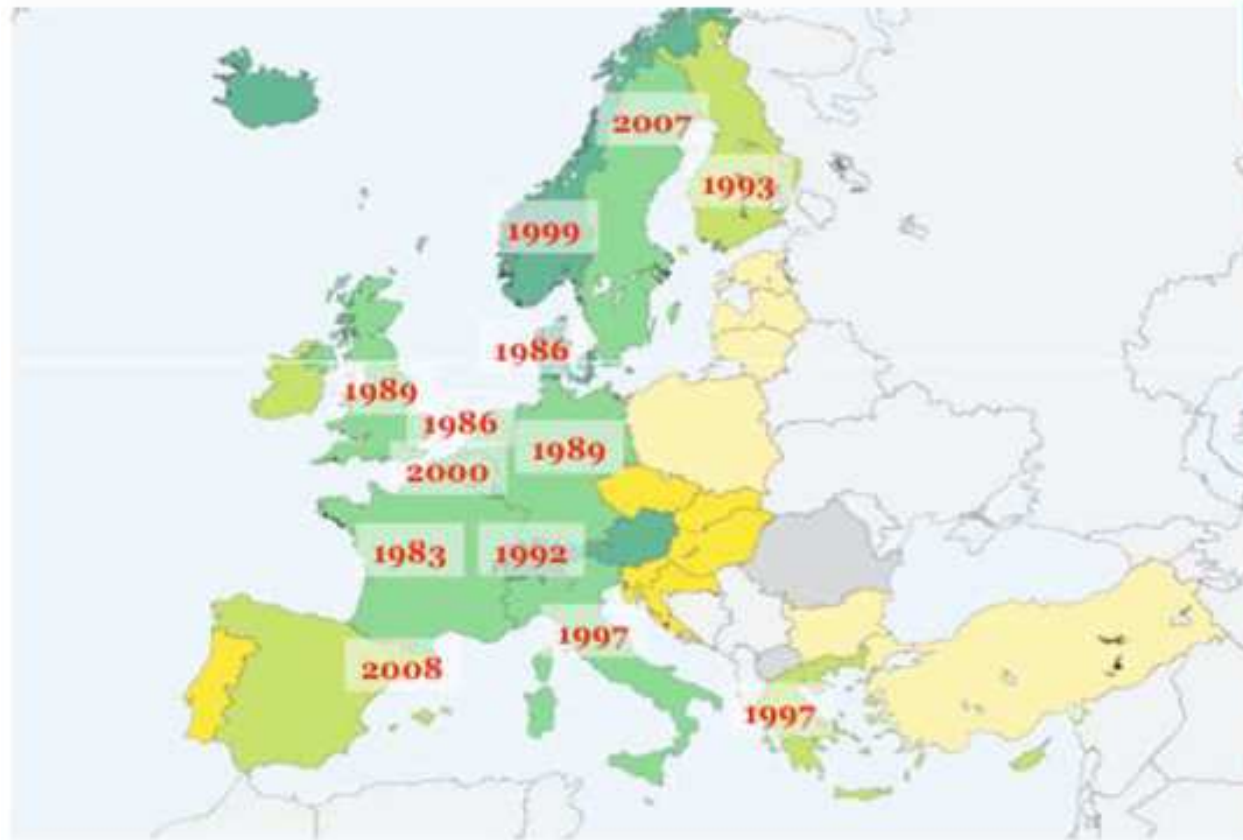
# The European PTA Deficit ...



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# The Existing European PTA Landscape



Source: Eurostat

## EPTA-members

- Catalonia (Spain)
- Denmark ?
- Flanders (Belgium) ?
- Finland
- France
- Germany
- Greece
- Italy
- Netherlands
- Norway
- Sweden
- Switzerland
- United Kingdom



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# Facts about the relationship between Europe and Science ...

- Among European citizens there is a widespread agreement that science and technology make our lives healthier, easier and more comfortable.
- But since 2005 the share of Europeans experiencing a general trust in science has declined from 78% to 66%.
- European citizens feel that decisions about science and technology should involve dialogue with them.
- An important minority (29%) wants a more participatory approach in which the public is consulted and taken into account when decisions about science and technology are needed. The third minority of citizens by size (14%) consider public opinion's approval as a necessary condition for any decisions on science and technology.

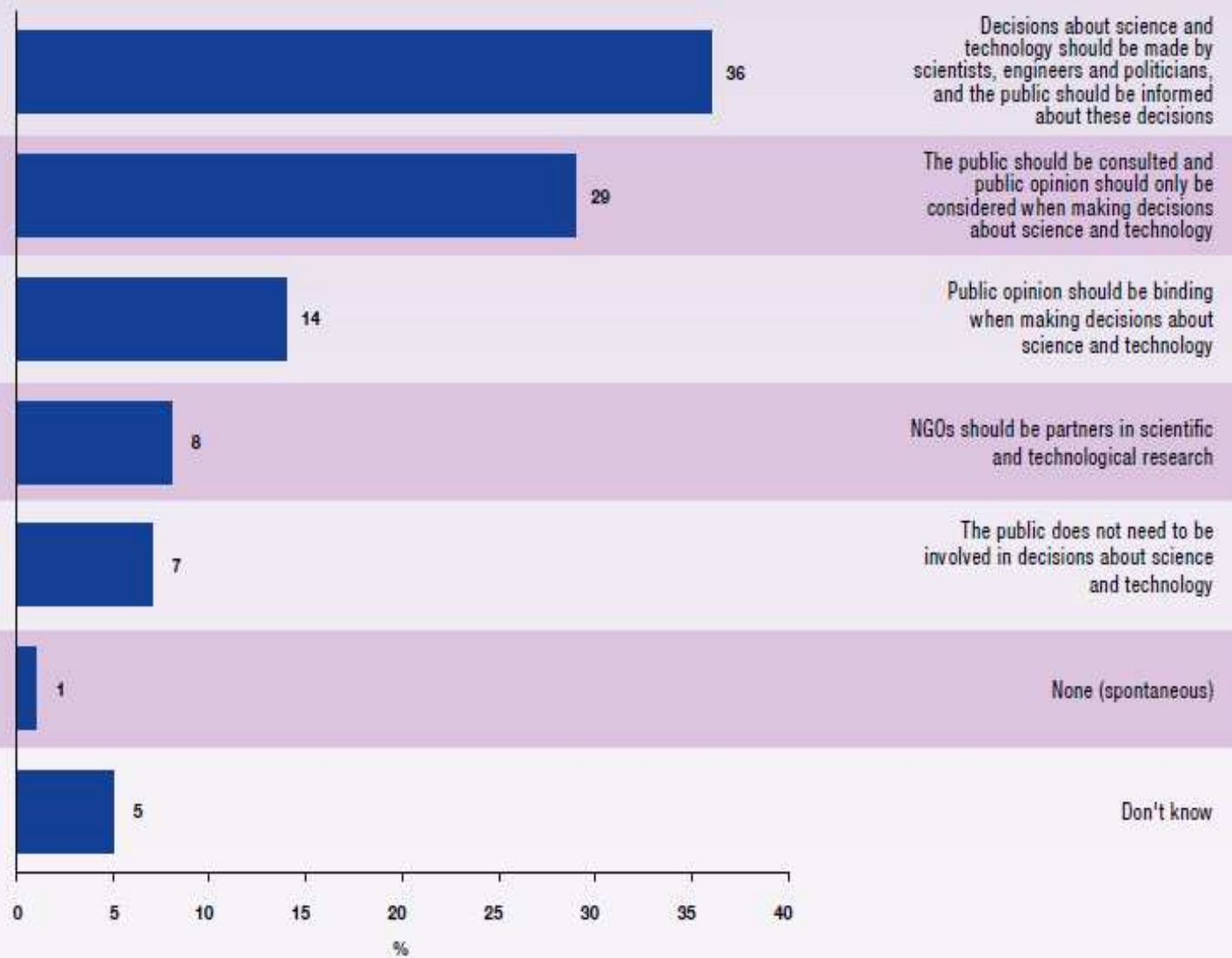
Source : DG Research and Innovation

Data : Special Eurobarometer 340 "European, Science and Technology" (2010)



# EU citizens wish to be involved in decisions about science and technology....

QC4. Which of the following public involvement do you think is appropriate when it comes to decisions about science and technology?




































Source: DG Research and Innovation  
Data: Special Eurobarometer 340 "Europeans and Science and Technology" (2010)



This desire varies by country

QC4. Which of the following public involvement do you think is appropriate when it comes to decisions about science and technology?

	Decisions about science and technology should be made by scientists, engineers and politicians, and the public should be informed about these decisions	The public should be consulted and public opinion should only be considered when making decisions about science and technology	Public opinion should be binding when making decisions about science and technology	NGOs should be partners in scientific and technological research	The public does not need to be involved in decisions about science and technology	None (spontaneous)	Don't know
 EU	36%	29%	14%	8%	7%	1%	5%
 Belgium	35%	31%	11%	7%	11%	4%	1%
 Bulgaria	44%	23%	16%	3%	7%		7%
 Czech Republic	47%	19%	14%	9%	6%	1%	2%
 Denmark	36%	45%	7%	6%	4%		2%
 Germany	29%	43%	10%	9%	5%	1%	3%
 Estonia	43%	20%	16%	6%	7%	1%	5%
 Ireland	43%	29%	9%	2%	7%	1%	9%
 Greece	53%	23%	16%	3%	4%		1%
 Spain	40%	19%	17%	9%	6%	2%	7%
 France	27%	36%	16%	9%	6%	1%	5%
 Italy	41%	19%	17%	6%	7%	3%	5%
 Cyprus	57%	23%	10%	2%	3%		5%
 Latvia	45%	25%	12%	4%	6%	2%	4%
 Lithuania	39%	20%	21%	5%	7%	2%	6%
 Luxembourg	37%	36%	12%	5%	7%	1%	2%
 Hungary	43%	25%	18%	4%	7%	1%	29%
 Malta	42%	32%	8%	4%	6%		6%
 Netherlands	47%	35%	5%	6%	4%	1%	2%
 Austria	31%	34%	13%	12%	6%	1%	3%
 Poland	29%	24%	15%	9%	11%	1%	11%
 Portugal	33%	20%	14%	9%	12%	2%	10%
 Romania	43%	19%	9%	3%	8%	2%	15%
 Slovenia	39%	24%	15%	9%	6%	2%	3%
 Slovakia	50%	14%	14%	11%	6%		3%
 Finland	32%	47%	6%	6%	6%		1%
 Sweden	48%	31%	3%	10%	4%	1%	3%
 United Kingdom	32%	32%	15%	7%	6%	1%	7%
 Croatia	46%	23%	13%	5%	6%	1%	6%
 Turkey	42%	23%	8%	4%	11%	2%	10%
 Iceland	43%	27%	3%	15%	7%	3%	2%
 Norway	54%	26%	5%	7%	4%	1%	3%
 Switzerland	28%	39%	13%	6%	6%	3%	3%

Source: DG Research and Innovation

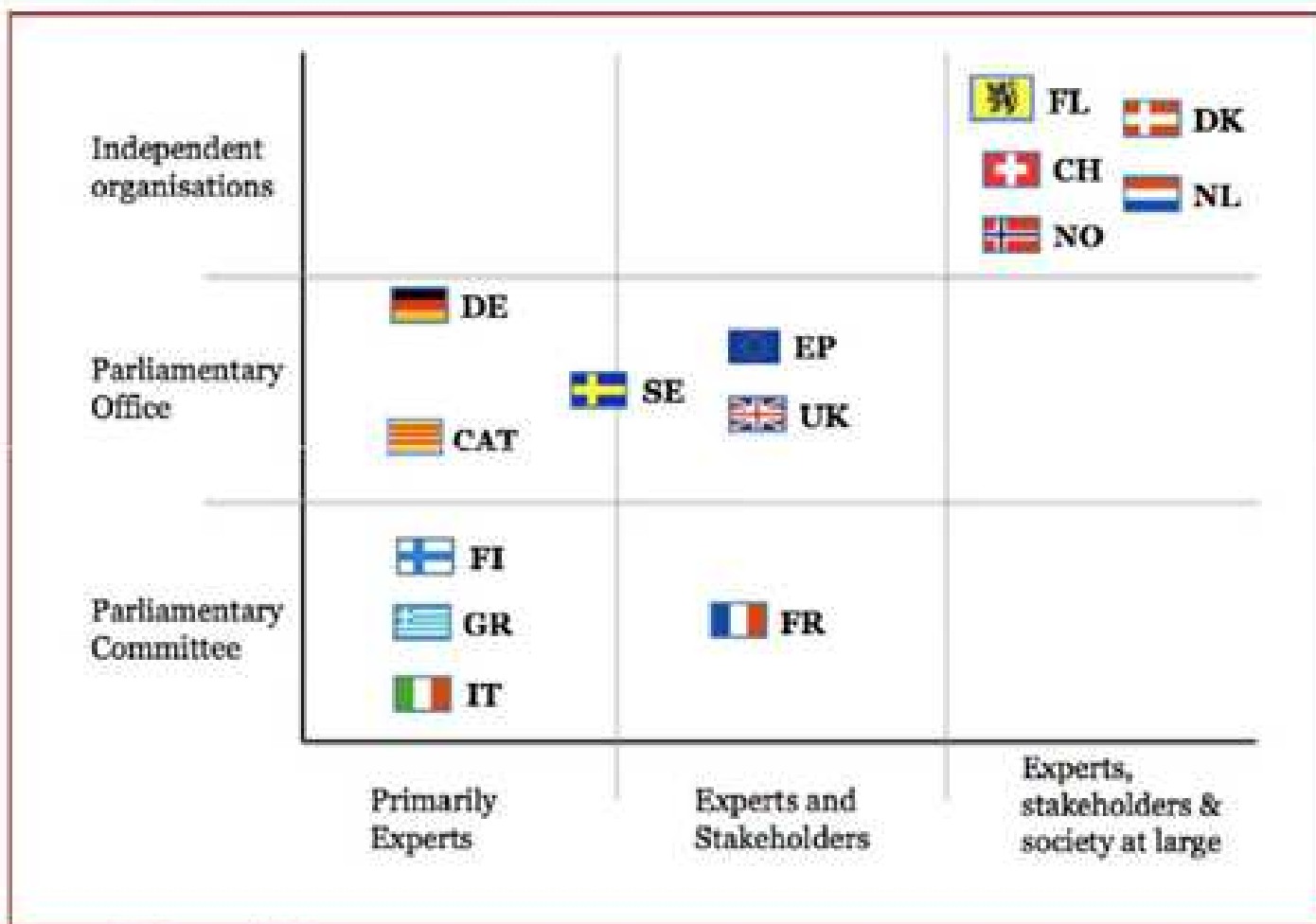
Data: Special Eurobarometer 340 "European and Science and Technology" (2010)

Note: In bold, the highest results per country; in italics the lowest results per country; the gray rectangle shows the highest results per value; the rectangle with black borders shows the lowest results per value

Innovation Union Competitiveness Report 2011

# Three Models of PTA in Europe

Figure 5 Involvement of actors in PTA-activities



Source: Technopolis Group

# The Differences in PTA Models

	<b>Parliamentary Committee Model</b>	<b>Parliamentary Office/Unit Model</b>	<b>Independent Institution Model</b>
<b>Examples</b>	France, Italy, Greece, Finland, Sweden	UK, Germany, Flanders, EU	Netherlands, Switzerland, Denmark, Norway, Flanders
<b>Position</b>	Internal to parliament	Closely linked to parliament	Independent or at a distance from parliament
<b>Aim</b>	Support political decision making	Support political decision making	Support political decision making and stimulate political and public debate
<b>Participants</b>	MPs involved on a permanent basis	MPs and experts involved on a permanent basis	Broader set of audiences and addresses (including government and public)
<b>Size</b>	1-3 FTEs	6-10 FTEs	8-25 FTEs
<b>Budget</b>	<100k euro pa	1.5 – 2m euro pa	1-3m euro pa
<b>Governance</b>	Simple with no board	Board that includes non-MPs	Strong with separate Board
<b>Independence</b>	Little	Some	Large

# An Irish Deficit? ...



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## Emerging View of the Irish Landscape

- Ireland lacks a strong formal structure and instead research institutions are being relied upon to police themselves.
- Ireland focuses on institutionalizing the relationship between *science and economy* while largely ignoring the relationship between *science and society*.
- Ireland needs to address an impoverished engagement model through increasing the capacity of policy-makers, industrialists, scientists and citizens for engaging on questions of science.
- Recent decisions, including the closure of the Irish Council for Bioethics in 2010 and the failure to re-appoint a Chief Scientific Advisor in 2012, questions Ireland's appetite for improving its position.



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# Can PTA Play an increasing role in Ireland?

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before Council meeting

Published: **Wednesday, 21st September, 2011 5:30pm**

## Company maintains fracking under properties "unavoidable" public meeting hears

Tamboran accept that it is "unavoidable" they will drill deep under residents' properties and they proceed with their gas extraction plan in West Cavan. The admission was made by the company's CEO Richard Moorman during

follow  
n the  
unday's



of the crowd listening to a panel of Tamboran reps at a public meeting in the Slieve Russell last year.

16 News CLARE COUNTY COUNCIL ClarePeople

### Councillors vote unanimously to 'frack off'

drilling process. Speak at the proposal. Clr. Annette Hanrahan said the fracking was MORE than 20 West Clare residents...

the benefit of "grandchildren" in the petroleum industry. "I say this as a land owner but inevitably we don't own the land, we hold it in trust for the next generation. It is a sad thought that we have managed to backslide the most progressive council in the county (sic) to this point as well," he said.

Meanwhile, in a separate motion, Clr. Brian Mooney (DUP) criticised what he described as a lack of support from the executive of Clare County Council to change the County Development Plan to include specific ban on fracking.

"We need to get into the spotlight of the petroleum industry's attempts to secure the bottom of the barrel. Clr. Brian Mooney (DUP) criticised from the executive of Clare County Council regarding the change of the County Development Plan. I repeat this out of love," said...

"The serious thing, Clr. into the spotlight of the petroleum industry's attempts to secure the bottom of the barrel. Clr. Brian Mooney (DUP) criticised from the executive of Clare County Council regarding the change of the County Development Plan. I repeat this out of love," said...

A spokesperson from Clare County Development Plan said that because Clare County Council does not have a role in granting planning permission for fracking, developers that it would be meaningless to change the 2011 to 2017 plan to include a ban on fracking.

Despite these objections, councillors voted unanimously to amend the county development plan.

Left: Clr. Annette Hanrahan (DUP) and Clr. Brian Mooney (DUP) at the Clare County Council Offices, September 2011.

## Leitrim Observer

News Sport Lifestyle Community

Sunday 24 June 2012

You are here: News

Fracking is "not without risk" - EPA report calls for more research and monitoring



# Moving Forward...



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## PACITA Aims for Ireland

- To help stakeholders strengthen the institutional foundation of Irish technology assessment by providing European wide insights into best practices and by stimulating local debate.
- Over the next 2+ years to hold various events (e.g. workshops, summer school, public participation initiative, etc.) in Ireland and supported by experts from leading European TA institutions.
- To support the formation of an Irish entity consistent with the objectives of the PACITA project and to link this entity into the wider European and global TA community.

## Some Flagship PACITA Activities involving Ireland and Irish Stakeholders

- Summer school (June 2014) - An Irish summer school will be a mobilization instrument to introduce European stakeholders from non-PTA countries to the ways in which PTA can contribute to the public and political discourse about science and technology in society.
- Practitioner training sessions (2012+) - The workshop series is designed along the guiding questions of a TA projects (what, why, when, how, and who) in order to exchange knowledge of good practices and transfer expertise.
- Citizen consultations on Sustainable Consumption (2014) - A public consultation with European citizens coordinated across national/regional levels on Sustainable Consumption. Citizen meetings will be held in 9 of the partner countries and input given to parliaments about policies on Sustainable Consumption.



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Stay in touch . . .



**PACITA** Parliaments and Civil Society in Technology Assessment

Home About TA Objectives Action plan Deliverables Organisation Contact us Members' area

### Parliaments and civil society in Technology Assessment: Broadening the knowledge base in policy making

[www.pacitaproject.eu](http://www.pacitaproject.eu)

PACITA is a four-year EU financed project under FP7 aimed at increasing the capacity and enhancing the institutional foundation for knowledge-based policy-making on issues involving science, technology and innovation, mainly based upon the diversity of practices in Parliamentary Technology Assessment (PTA). Such practices involve a range of methods of cross-disciplinary expert studies, stakeholder involvement, citizen consultation and parliamentary discourse.

The key practices in focus are interactive in the sense that they engage science, civil society organizations, stakeholders, citizens, parliaments and/or governments directly in the activities in order to activate different kinds of knowledge, engage the actors, create common ownership to the results and enhance the communication between the societal actors.

PACITA has 15 European partners from national/regional parliamentary offices for science and technology, science academies, research institutions, universities and civil society organizations coordinated by a PTA institution, the Danish Board of Technology.



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**EVENTS**

- 20 Thu 1st Practitioners meeting: Selecting the issue @ Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa
- 13 Wed 10:00 Technology Assessment and Policy Areas of Great Transitions @ National Technical Library

[View Calendar →](#)

**LINKS OF INTEREST**

- EPTA Network
- pEPTA Conference (07/09 /2011)

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Logos at the bottom: PACITA, European Union flag, CAPACITIES, European Research Area, and FUNDACIÓ INSTITUCIÓ CATALANA DE SUPORT A LA RECERCA.



Many Thanks

Questions

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## Emerging View of the Irish Landscape

- Many elements of the STI system have emerged in the past 20 years and often through 'subterfuge', whereby the elements were justified under the umbrella of supporting jobs creation.
- Hence funding was sought for science by promoting it as an instrument for job creation rather than being of value to broader society.
- This may well explain why Ireland has focused almost exclusively on institutionalizing the relationship between *science and economy* while largely ignoring the relationship between *science and society*.
- Ireland has a weak engagement model whereby there are little formal structures for promoting open and transparent engagement between stakeholders on issues of science and technology.
- The result is that decisions continue to be justified solely in terms of economic impacts while inclusion of important inputs is rather haphazard.



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## Emerging View of the Irish Landscape

- Deputies are in general not well informed on issues of science and technology.
- There is no designated entity to provide them with unbiased independent advice and instead they depend on ad hoc networks.
- While some existing state entities may be performing ‘*TA-like*’ activities, they are not always perceived to be open, transparent, or independent.
- An added difficulty is that the entities are often charged with implementing policy and it is difficult to see how they can also be independent when assessing policy.
- The result is a *democratic deficit* whereby citizens feel they are not included in decisions and likewise politicians feel they don’t have control over the decisions being made. Mistrust is also an issue.
- Because of ‘*economic realities*’, recent years has witnessed the merging and closing of some entities, as well as rumours of further changes.



## The Opportunity for PTA in Ireland ...

- Ireland has a weak parliament and a relatively powerful civil service.
- PTA can be seen as a means for addressing this imbalance through returning more decision making to parliament and also in reconnecting citizens with parliament and with politics.
- Establishing PTA in Ireland could feed into the political reform agenda.
- PTA would give some control back to parliamentarians by providing them with the additional knowledge they may otherwise not have when attempting to make decisions on issues involving science and technology and also by giving them viable options when making such decisions.
- PTA is about rebuilding links and trust through encouraging richer dialogues between citizens, politicians, and institutions of the state.



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## The Opportunity for PTA in Ireland ...

- PTA in Ireland should also be about foresight and innovation through supporting the country in “looking out in front” and providing parliament with 'strategic intelligence'.
- In summary, the adoption of PTA in Ireland would assist in addressing an increasing democratic deficit while concurrently moving us towards a truly evidence-based approach that examines both the economic and societal aspects of policy options.



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