Technology Assessment

The State of / at Play

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I will argue that:

Technology Assessment:

- First was about technology, innovation, and science
- Then also was about participation by users and citizens
- Now needs to be about reinventing the State and about experimenting with democracy too

The State of Play:
Europe – TA – S&T in Society

- Grand, societal challenges:
  - Secure, clean and efficient **energy**
  - Smart, green and integrated **transport**
  - **Climate** action, resource efficiency and raw materials
  - Inclusive, innovative and secure **societies**
  - **Health**, demographic change and well-being
  - **Food** security, sustainable agriculture, bio-economy

- EU-broad attention to pTA*
  - STOA, national pTA-s
  - PACITA

* Ganzevles, J. & Van Est, R. (2012)***. TA Practices in Europe*** (PACITA 2.2). Den Haag: Rathenau Institute

The State of Play:
Europe – **TA** – S&T in Society

- 1970-s: reactive early warning
- 1980-s: strategic policy-supporting
- 1990-s: ELSA (or ELSI or E^3LSA)
- 1990-s: CTA

The TA world in acronyms

- **TA:** technology assessment
- **ELSI:** ethical, legal and social issues
- **ELSA:** ethical, legal and social aspects
- **E³LSA:** economic, environmental, ethical, legal and social aspects
- **CTA:** constructive technology assessment
- **STOA:** Scientific and Technological Options Assessment (at the European Parliament)
- **IPTS:** Institute for Prospective Technology Studies (EC, Sevilla)
- **EPTA:** European parliamentary TA network

The State of Play:
Europe – **TA** – S&T in Society

- 1970-s: reactive early warning
- 1980-s: strategic policy-supporting
- 1990-s: ELSA (or ELSI or E^3LSA)
- 1990-s: CTA
- 2000-s: public participation

- 2010-s: reflexive TA + responsible innovation
- 2010-s: reinventing the state

* Rip, A. & Van Lente, H. (forthcoming in 2013). Bridging the gap between innovation and ELSA: the TA program in the Dutch nano-R&D program NanoNed. *NanoEthics*

PACITA

The State of Play:
Europe – TA – **S&T in Society**

1. Technology is socially constructed
2. Society is technologically built

Or:

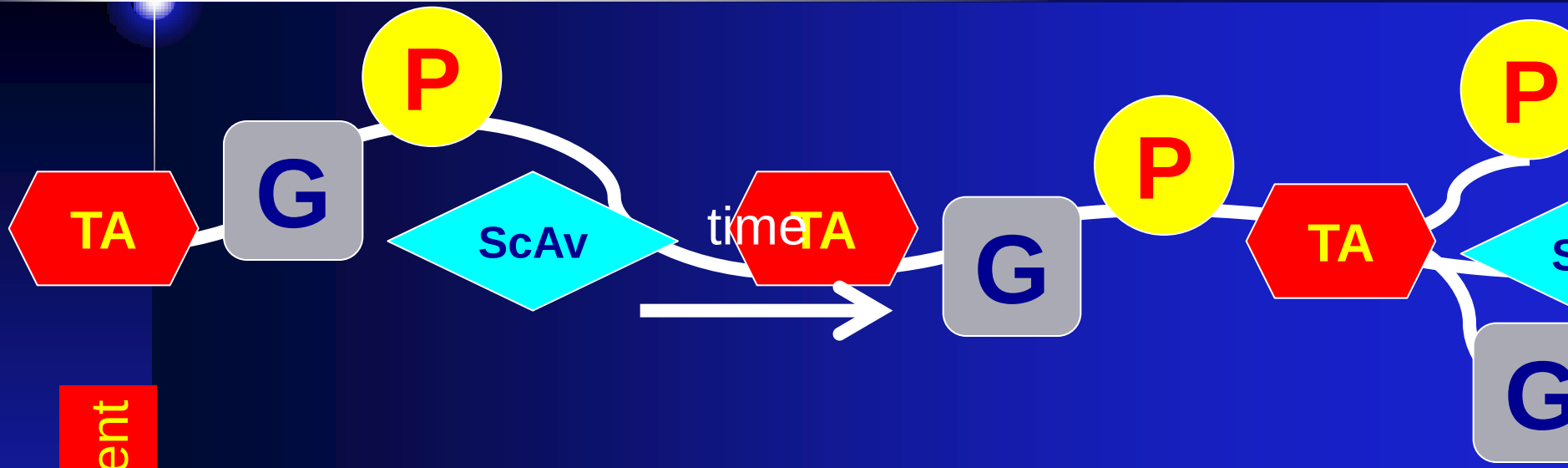
We live in a technological culture

“We live in a Technological Culture”

The State at Play again !

- Last 2 decades: *State* on retreat
- Grand, Societal Challenges: implies the *State* taking up its responsibilities again
- However: what is that *State*?
  - What is the new policy making?
  - What is the new politics?
  - What is the new citizenry?

A hybrid and pluriform governance process



Technology Assesment

Government

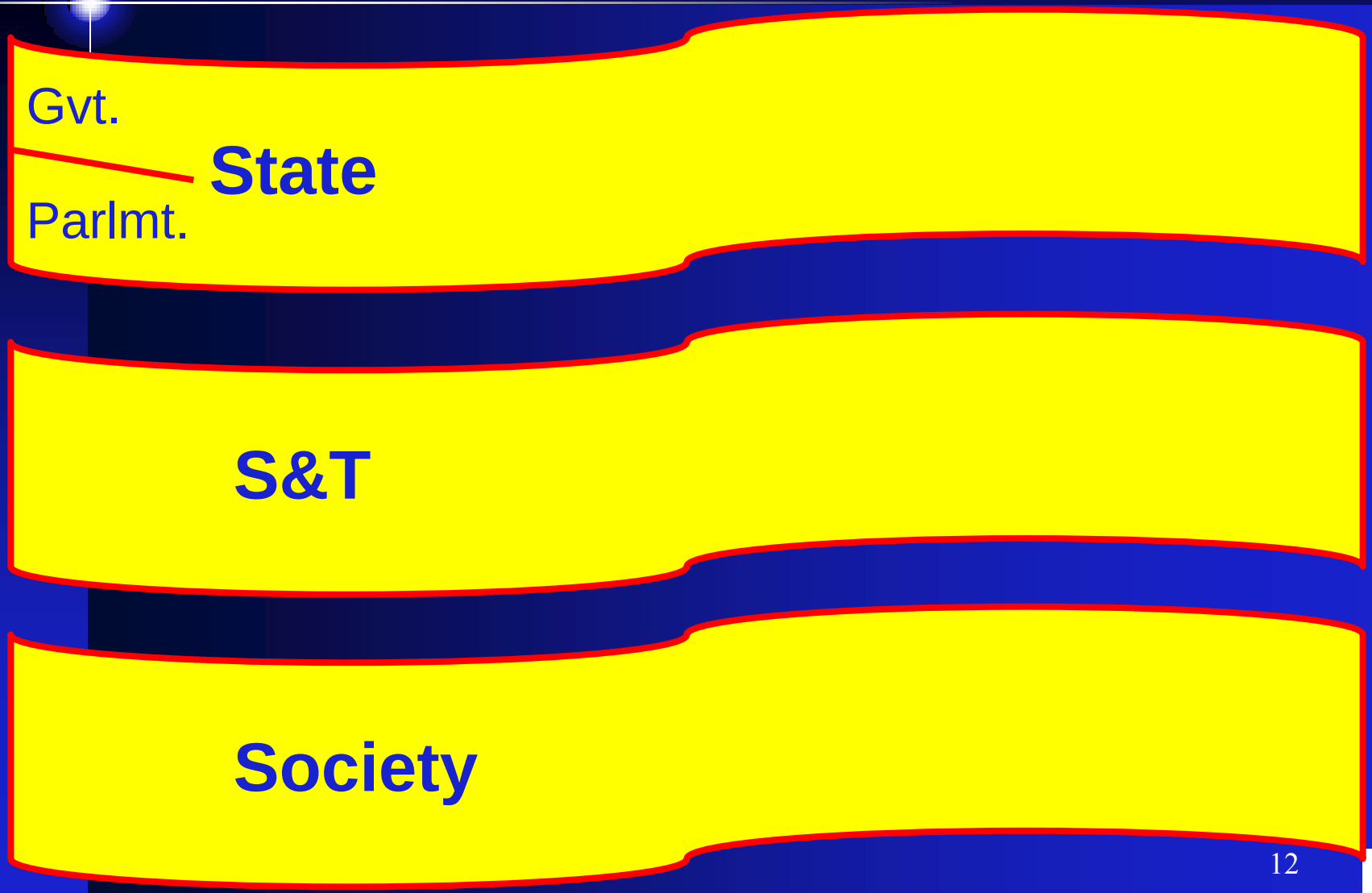
Parliament

Scientific Advice

…but State cannot do it alone!

- (State)
- Science & Technology:
  - Demand-driven
  - Early engagement by users & publics
  - CTA
- Society:
  - New publics
  - New politics

TA: interplay between 4 realms



New risk-handli

- There are n… …its that nee…
- Th… …ential …scientific proof …ent regulations is

Example: governance of nanotechnologies

Challenge for democracy:

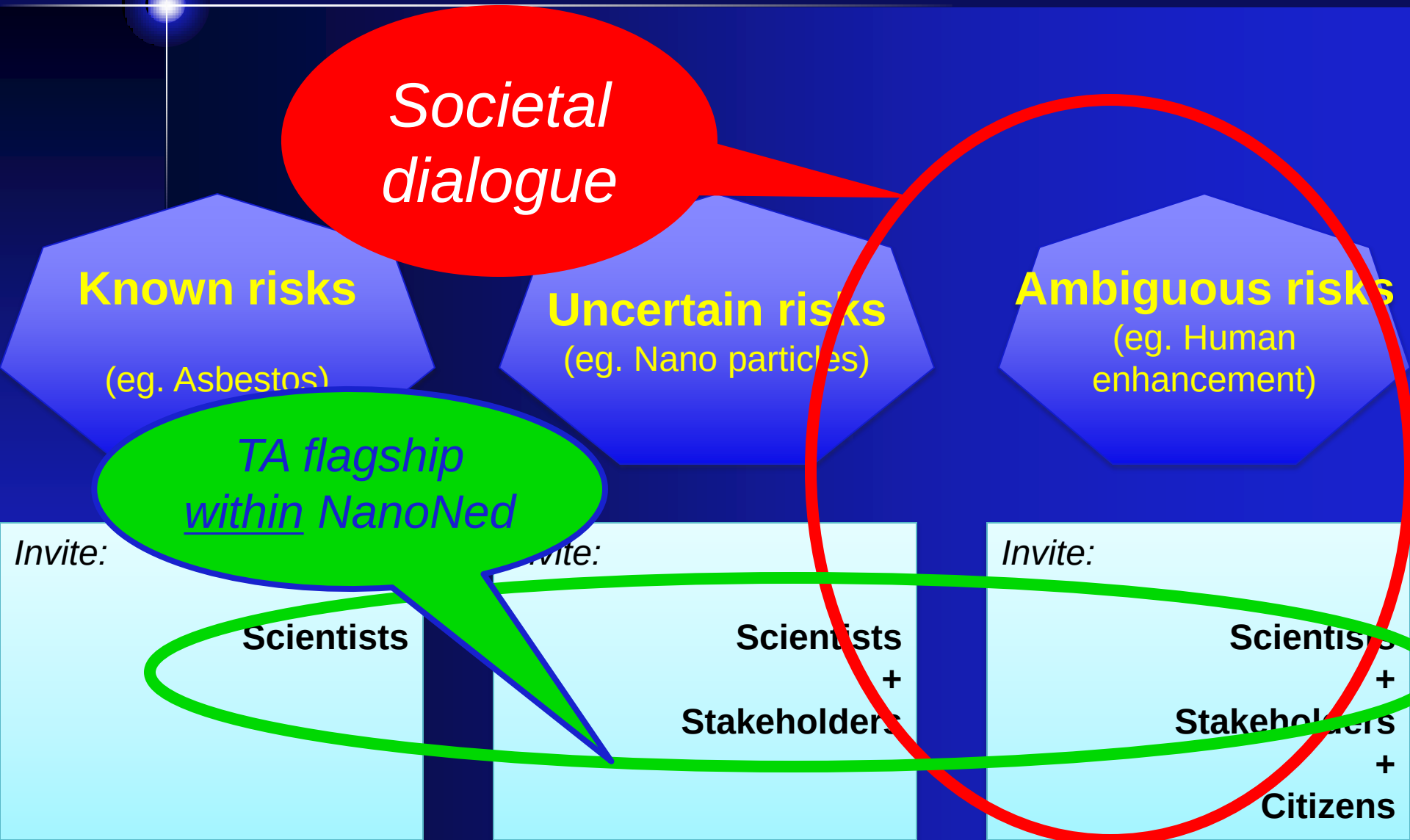
How to democratically govern something that we do not (yet) fully understand?

Dilemma:

Early dialogue with little knowledge

Later policy-making when more is known

Who should be involved?



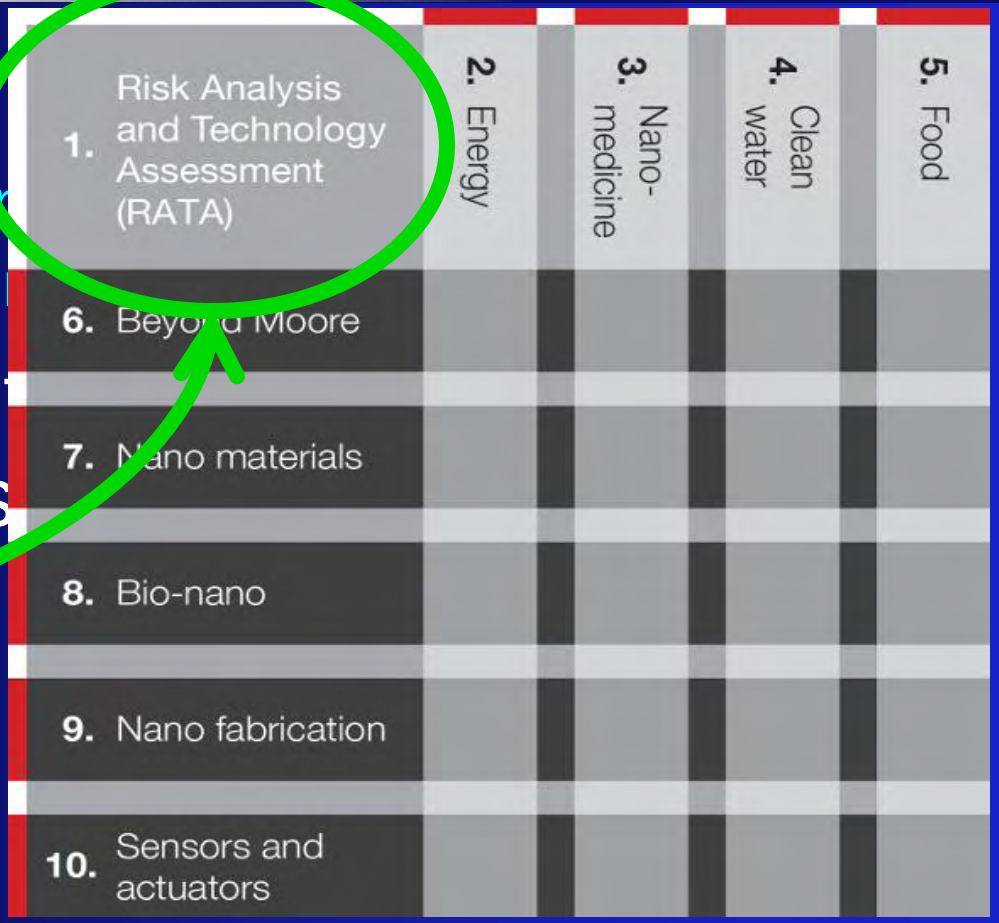
TA and S&T

TA in NanoNed *

•CTA (i.e. "close atte
than studying ELSA fro

•However: difficul of
nano-researchers

•Now
(in NanoNext):



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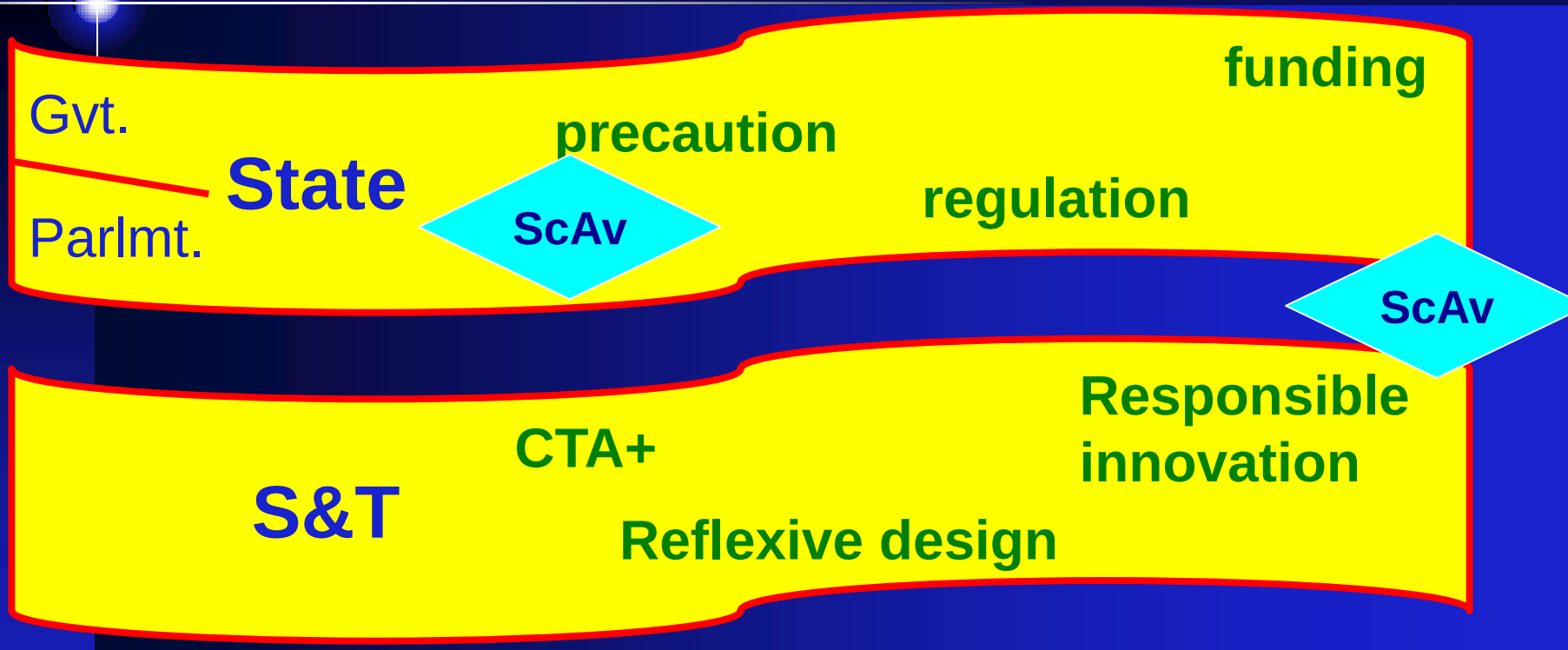
TA in State + S&T



TA and Society

Societal dialogue on nanotechnologies in The Netherlands (2009-2011)

Dutch experiment:

- On democracy
- On handling new science and technology

We tried to make clear choices:

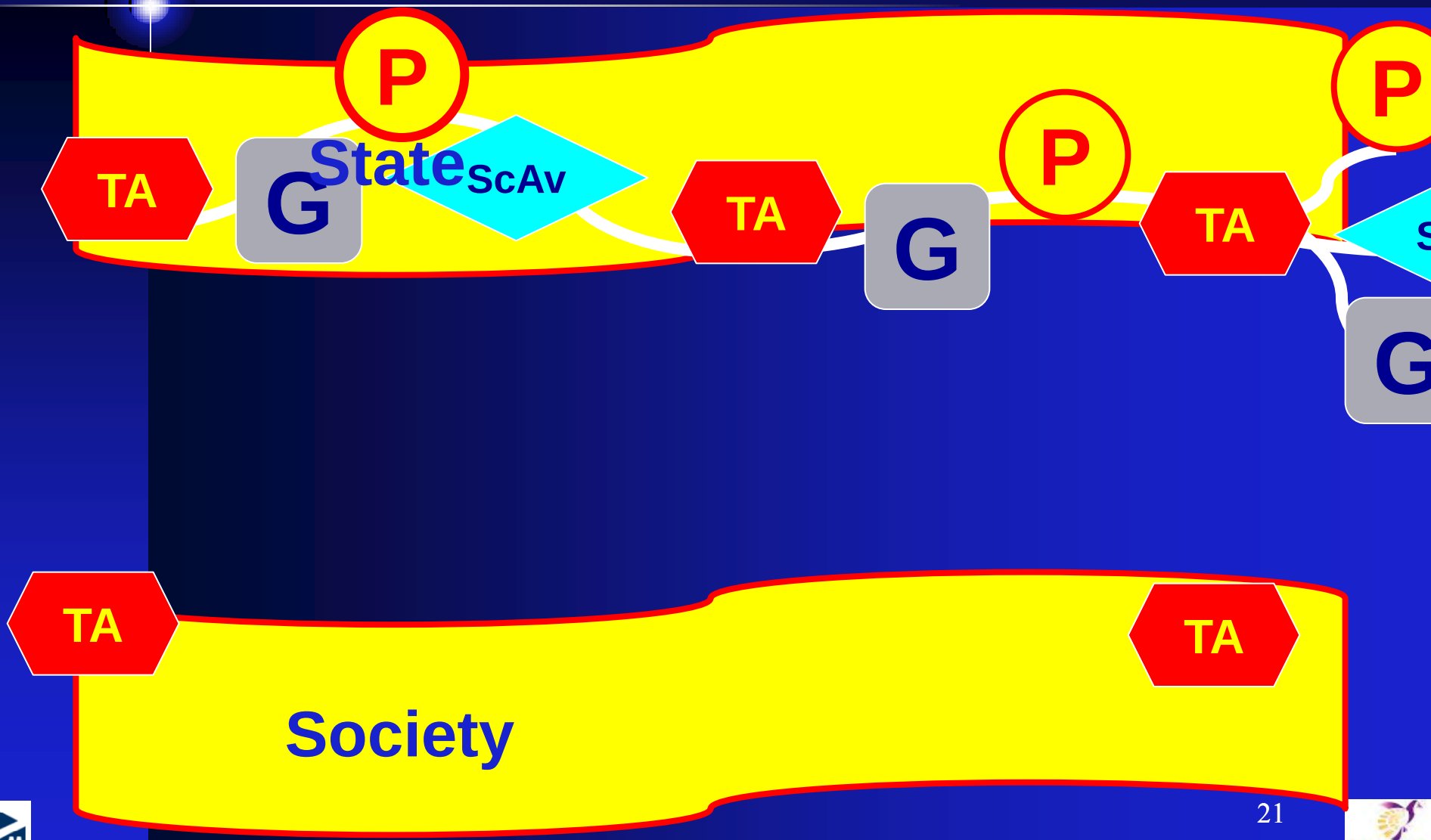
- **Independent organising committee**
  (but weak political mandate?)
- **Broad spectrum of participants**
  (but little attention to key actors?)
- **Externalisation of activities**
  (but lack of quality control?)
- **Broad spectrum of media and means**
  (but lack of focus?)
- **Information—Awareness—Dialogue**
  (but lack of politically relevant questions?)

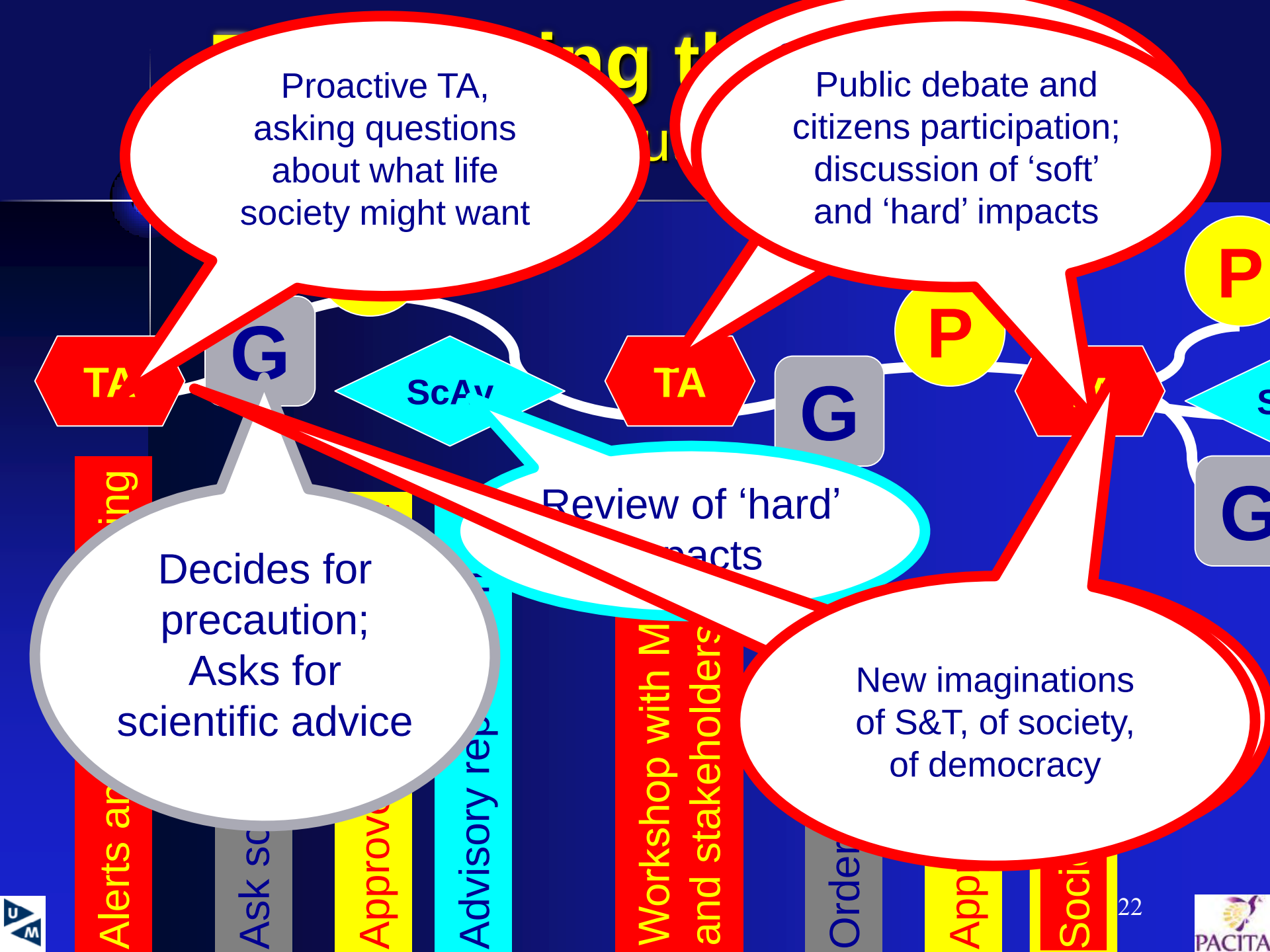
Results of Dialogue

Dutch citizens:

1. Show increased knowledge of nanotechnology
2. Better recognize the risks involved
3. Give more support to nanotechnology
   (as long as scientists and government continue to investigate risks too)

TA in State + Society




Proactive TA, asking questions about what life society might want
Public debate and citizens participation; discussion of 'soft' and 'hard' impacts
TA
G
TA
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P
P
G
Review of 'hard' impacts
Decides for precaution; Asks for scientific advice
New imaginations of S&T, of society, of democracy
Alerts ar
Ask sc
Approv
Advisory rep
Workshop with M
and stakeholders
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App
Soci

Conclusion

Technology Assessment:

- … works at the interplay between
  - State,
  - Science & Technology
  - Society
- … provides scientific **evidence to inform politics** and policies:
- ... **engages with science**, technology and innovation constructively and critically
- … **innovates democracy** by enrolling citizens into S&T dialogues in new ways

Conclusion

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