

**In regulatory policy-making,  
how do, and should, science and  
politics interact?**

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I will outline the 3-stage evolution of our understanding of the function of scientific advice in public policy-making since the 1960s.

The first 2 models have been influential but wrong. The 3<sup>rd</sup> is realistic but rarely acknowledged or implemented.

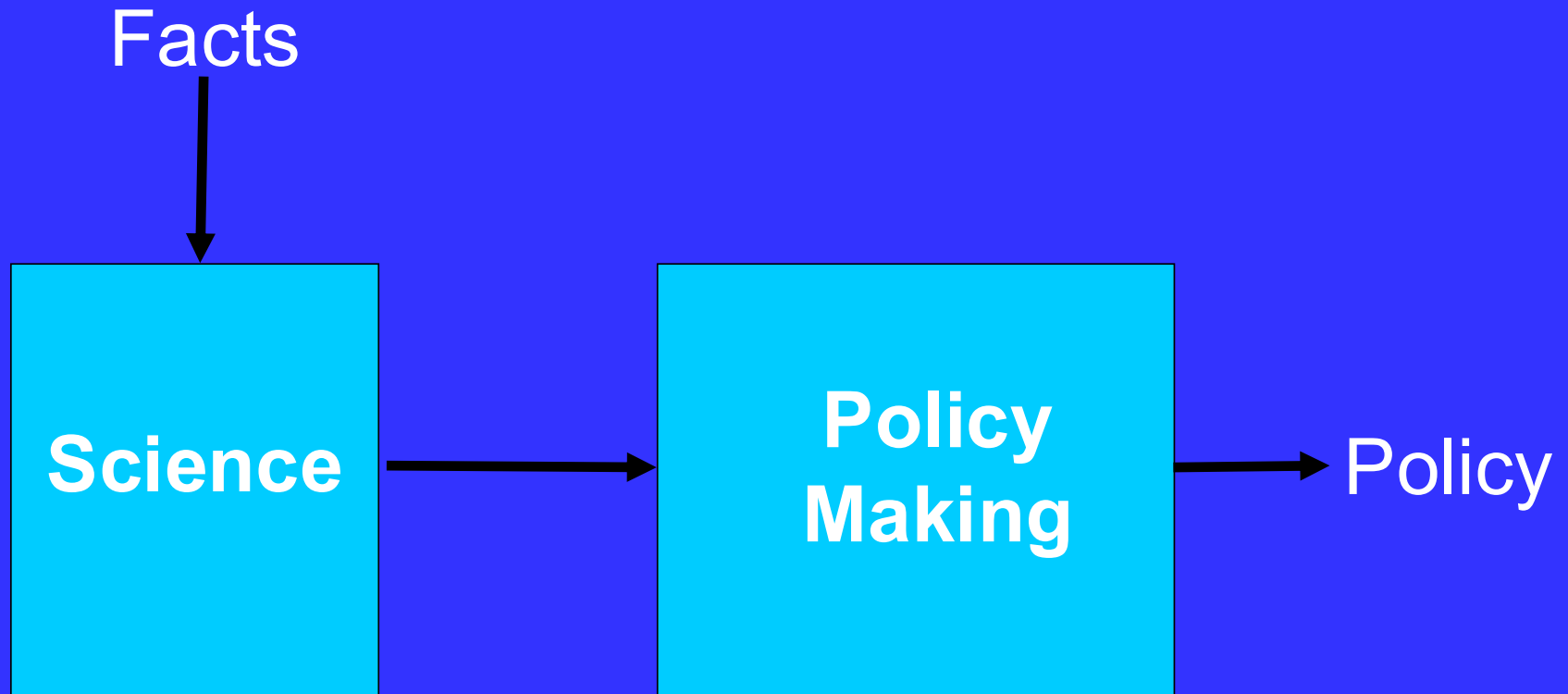
Scientific advisors to regulatory policy-makers have different tasks from academic scientists. Acad. science opens-up far more than it closes-down.

***But*** official scientific advisors are expected to settle questions and close down debate so that ...

***more questions are not asked.***

# Model 1: Technocratic Model

policy is based only on 'sound science'



***But*** the phrase '***sound science***' was invented by a public relations team working for US tobacco companies, to imply that, before regulations are imposed, or the companies judged culpable, evidence to prove that the product was harmful would be required.

Nothing less should be sufficient.

**That model was misleading.  
Scientific evidence is often  
incomplete, equivocal and  
uncertain, although frequently the  
uncertainties were concealed as  
*'commercially confidential'*.**

**With FoI legislation (USA-1974, EU-2001)  
uncertainties could no longer be  
concealed.**

Even if *per impossibile* all scientific uncertainties were eliminated; scientific facts alone can never decide policy choices.

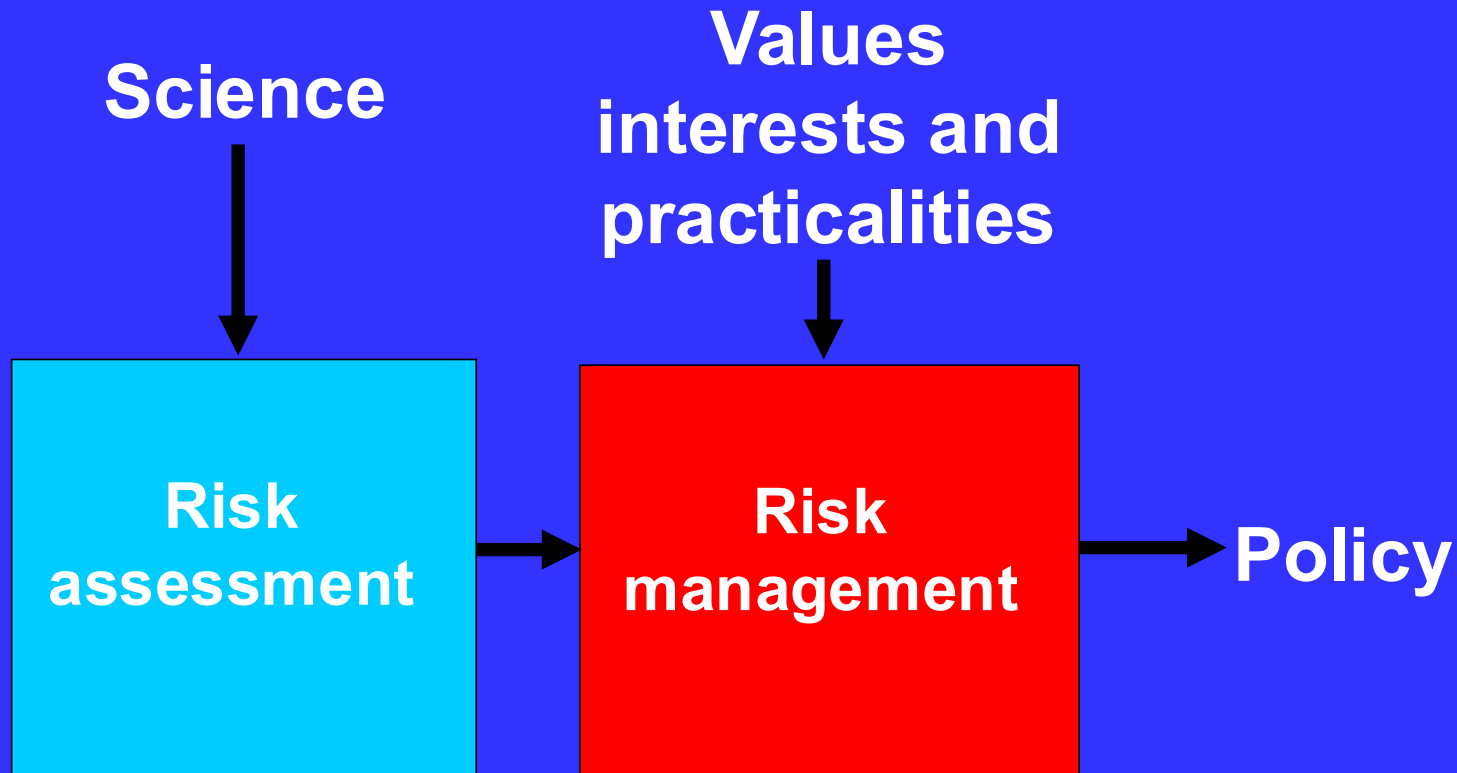
You can derive an 'ought' from an 'is'.

Policy can never just 'follow the science'.

Science can only indicate what is known, and not known, about the consequences of following, or failing to follow possible courses of action.

So, a better model was needed.

# Model 2 – The *Red Book* Model



This is a 2<sup>nd</sup> linear unidirectional model.

But that model is also misleading because official scientific assessments of risks are always framed by prior policy-laden assumptions, that are called 'risk assessment policy' assumptions or **RAPs**.

RAPs are often implicit and unacknowledged, and misrepresented as if they were scientific rather than policy judgements.

**There are at least 3 main types of RAPS:**

**substantive** (eg mobile phones and emulsifiers)

**procedural and**

**interpretative**

**and they are inter-dependent.**

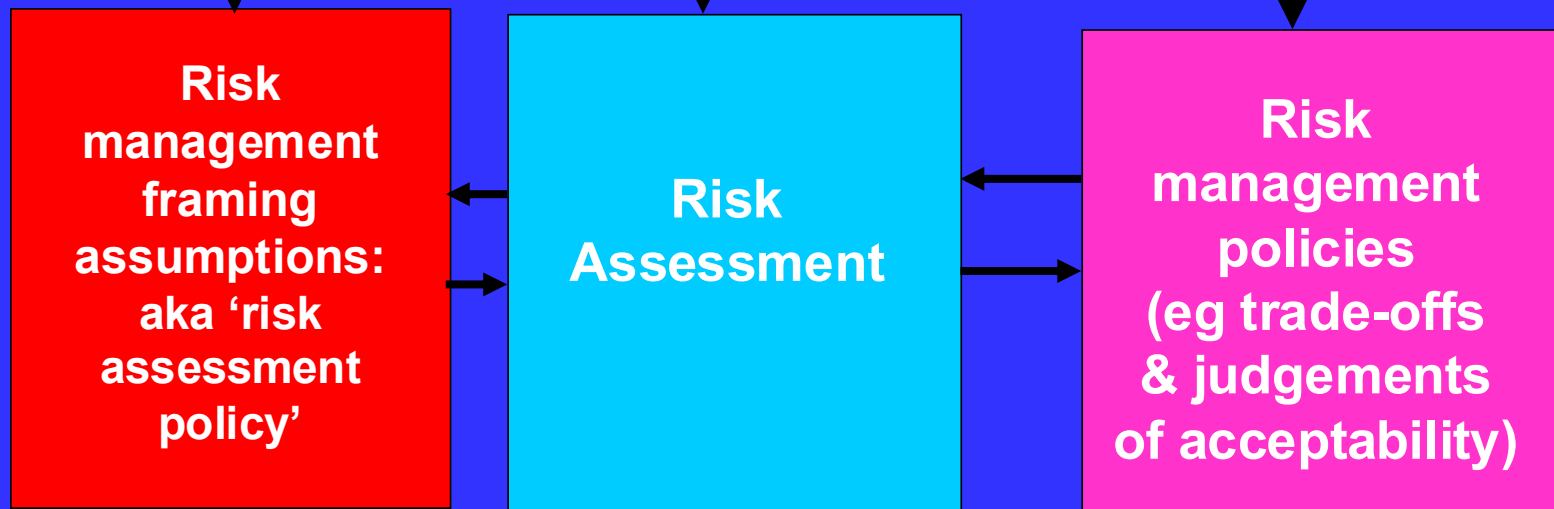
# Model 3 - the Co-Dynamic Model:

*bidirectional* links between science and policy

**Socio-economic  
and political  
factors**

**Scientific  
factors**

**Technical,  
economic, social  
and political factors**



At a July 2007 Codex Alimentarius Commission meeting all member jurisdictions, including the EU, unanimously agreed that risk managers in all competent authorities would provide their national risk assessment bodies with **RAP guidance in advance** of risk assessment and in consultation with other parties.

The Codex Alimentarius Commission text on **Risk Assessment Policy** says:

**“Risk assessment policy should be established by risk managers in advance of risk assessment, in consultation with risk assessors and all other interested parties.”** (emphases added)

(Codex Alimentarius Commission, Procedural Manual, 14th Edition, 2004, Appendix IV, Working Principles for Risk Analysis for Application in the Framework of the Codex Alimentarius, paras 13-14, p. 103)

But, the risk managers in the Commission and in EU Member State governments (+ eg USA and UK) are failing to provide explicit RAP framing guidance to their scientific advisors.

RAP framings are very rarely set explicitly and accountably by policy-makers; they are often decided by scientists (with CoIs) who have neither competence or legitimacy.

For example: issued 18 March 2026



Draft guidance on default values and uncertainty factors to be used by the EFSA Scientific Committee, Scientific Panels and Units in the absence of actual measured data

EFSA Scientific Committee

Too often, those scientific advisors are paid consultants to the companies whose products they are evaluating, and their RAPs give the benefit of acknowledged uncertainties to those companies and their products.

It is ***REGULATORY CAPTURE!***

EFSA's 2013 interpretation of the reliability of **Aspartame** toxicity studies for those that had, and had not, indicated possible harm, by number of studies

	<b>Number of studies reviewed</b>	<b>Number treated as reliable</b>	<b>Number treated as unreliable</b>
<b>Studies not indicating possible harm</b>	<b>81</b>	<b>62</b>	<b>19</b>
<b>Studies indicating possible harm</b>	<b>73</b>	<b>0</b>	<b>73</b>

Scientific advisors, and/or those who select the advisors, are covertly making key RAP policy judgements, which masquerade as if they were scientific.

But scientists have neither the competence or legitimacy to make those policy judgements. Only policy-makers have the legitimate mandate for that task.

So currently, science-based regulatory policies have neither scientific nor democratic legitimacy.

They will only be legitimate if RAP framing assumptions are set by risk management policy-makers in open and accountable ways.