



How politics affects research and innovation in the life sciences

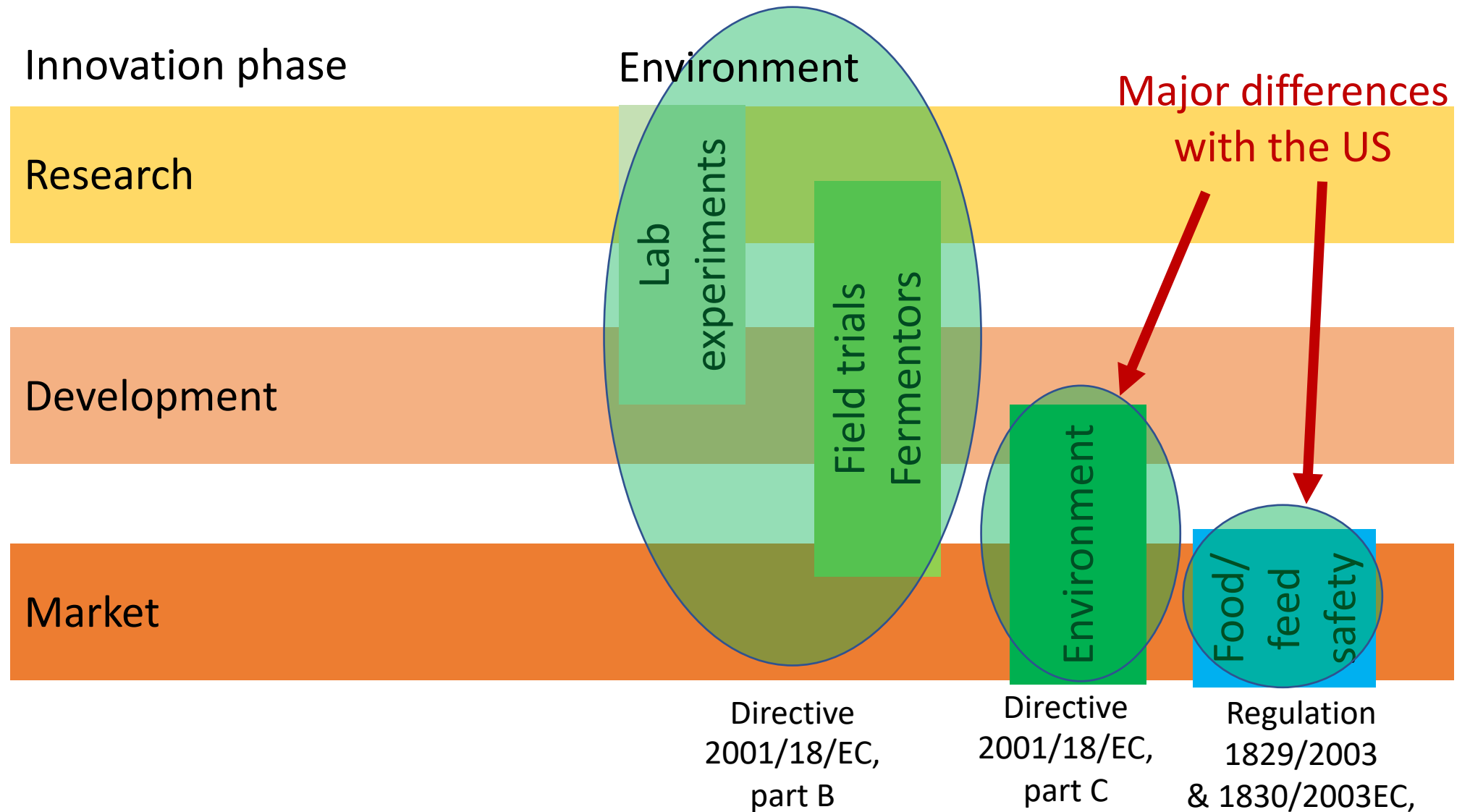
THE CASE OF GENE EDITING

Huib de Vriend, LIS Consult

How politics affects research and innovation in the life sciences

1. The R&D and regulatory ecosystem
2. Differences between EU and US
3. Consequences
4. Causes
5. Values

The R&D and regulatory ecosystem



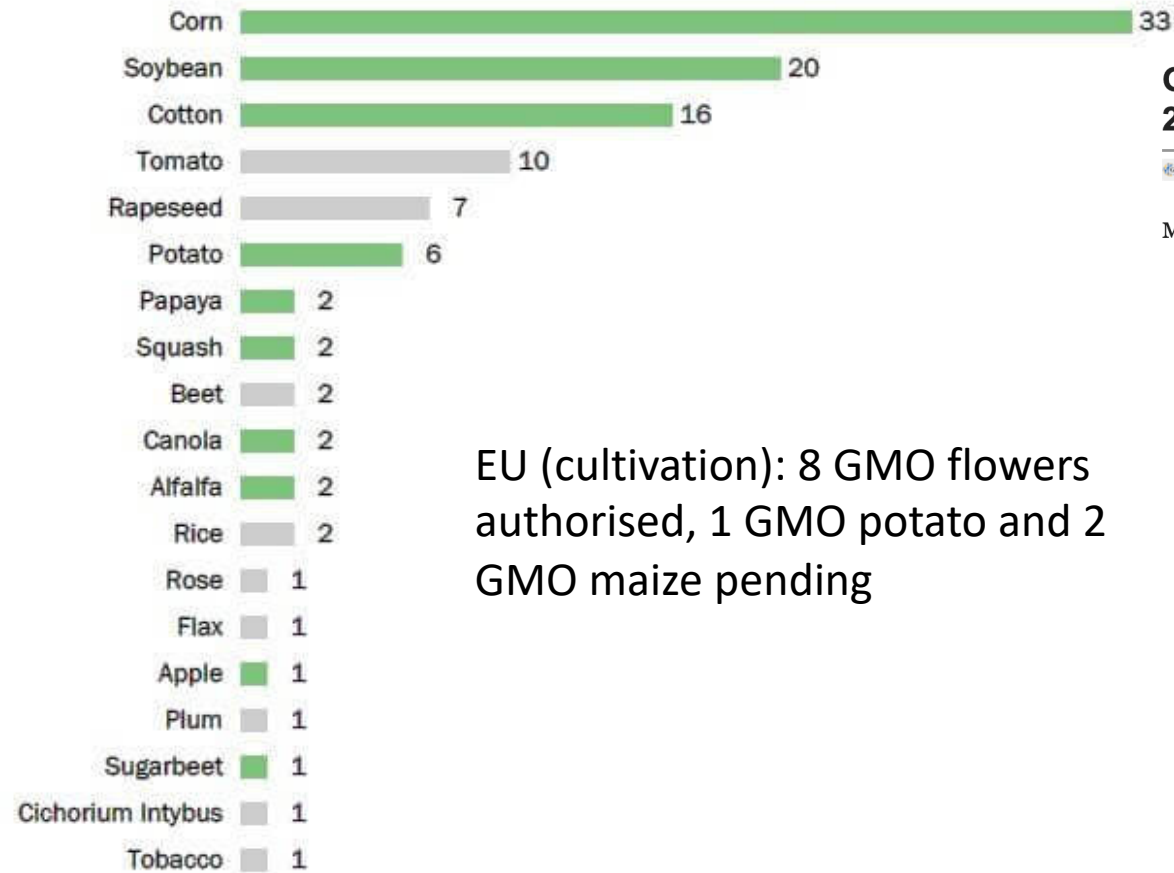
Differences EU-US

- Scope: Each GMO has to go through authorisation process in EU, in the US 'deregulated genes' can be used without authorisation
- US regulated genes for plant pests as pesticides (more lengthy EPA procedures), in the EU like any other GMO
- Speed: The Regulatory process can take 4 years or even longer
- Uncertainty about outcome of regulatory process, especially regarding GMO cultivation in the EU

Consequences of these differences

USDA Approved Genetically Modified Crops

■ Produced in US ■ Not currently produced



EU (cultivation): 8 GMO flowers authorised, 1 GMO potato and 2 GMO maize pending

Gene-edited crops approved by USDA jumps from 7 to 70 between 2019 and 2020

geneticliteracyproject.org/2020/10/19/gene-edited-crops-approved-by-usda-jumps-from-7-to-70-between-2019-and-2020/

Melody Bomgardner | Chemical and Engineering News | October 19, 2020



What causes these differences?

J Agric Environ Ethics (2011) 24:575–599
DOI 10.1007/s10806-010-9287-x

ARTICLES

The “Revolving Door” between Regulatory Agencies and Industry: A Problem That Requires Reconceptualizing Objectivity

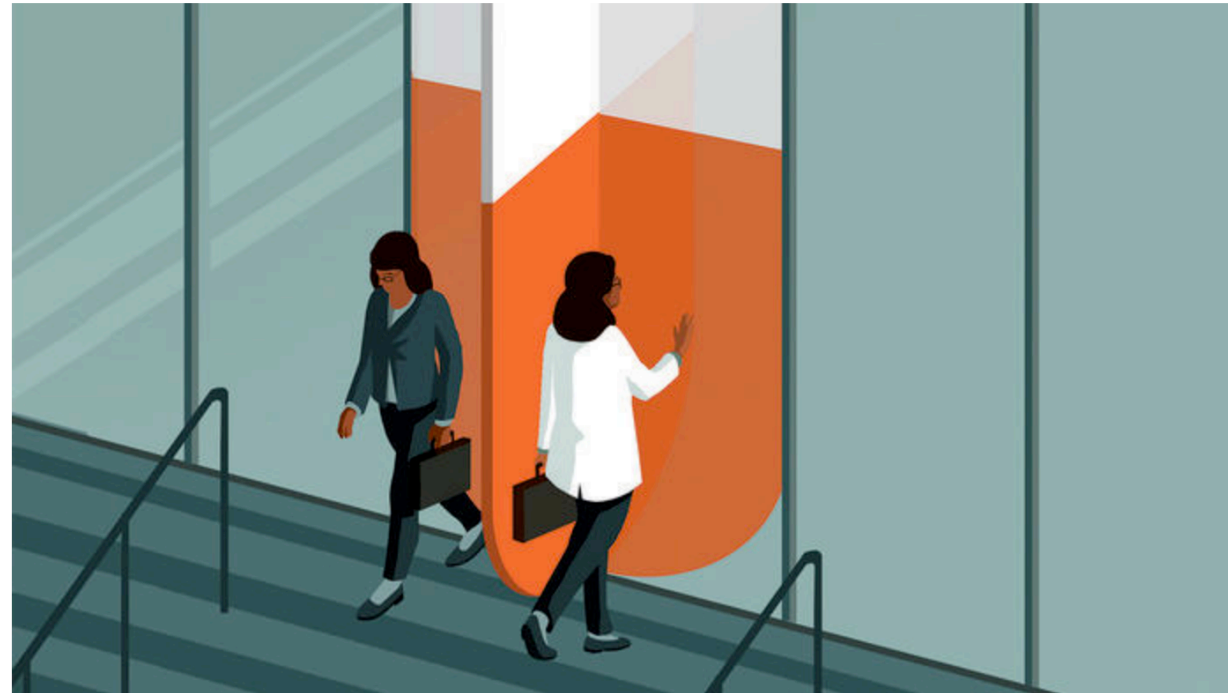
Zahra Meghani · Jennifer Kuzma

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Abstract There is a “revolving door” between federal agencies and the industries regulated by them. Often, at the end of their industry tenure, key industry personnel seek employment in government regulatory entities and vice versa. The flow of workers between the two sectors could bring about good. Industry veterans might have specialized knowledge that could be useful to regulatory bodies and former

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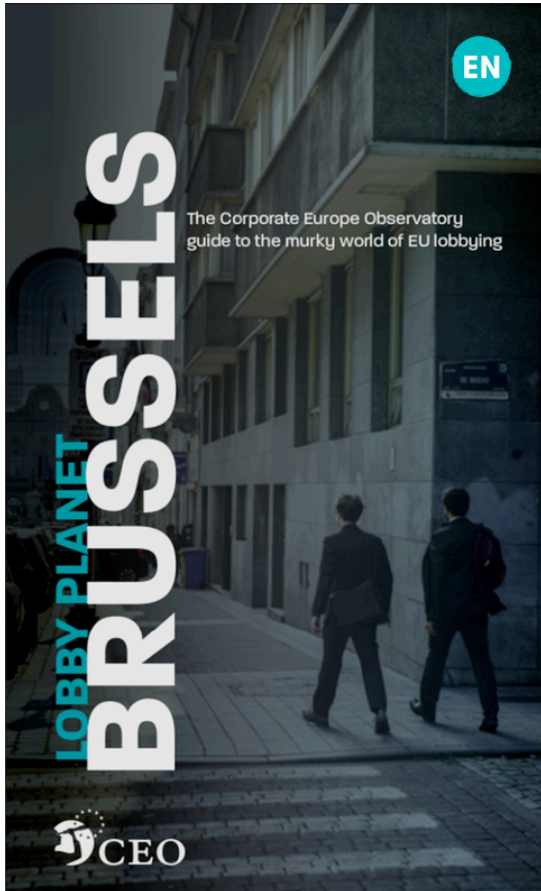
STEPHAN SCHMITZ

FDA's revolving door: Companies often hire agency staffers who managed their successful drug reviews

By [Charles Pillar](#) | Jul. 5, 2018 , 2:00 PM

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What causes these differences?



Lobby Planet: Our guide to the murky world of corporate EU lobbying

Lobby Planet, our new guide to corporate lobbying in Brussels, is out now!

... et ce petit guide des lobbies est aussi disponible en français!

There are an estimated 25,000 lobbyists working in Brussels; most of whom are representing the interests of corporations and their lobby groups. Lobby Planet takes you on a tour of the EU Quarter to explain the many – and often shady – methods of corporate lobbying used to influence decision making in the European Union.

Is it politics?



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EU nations vote against GM crops

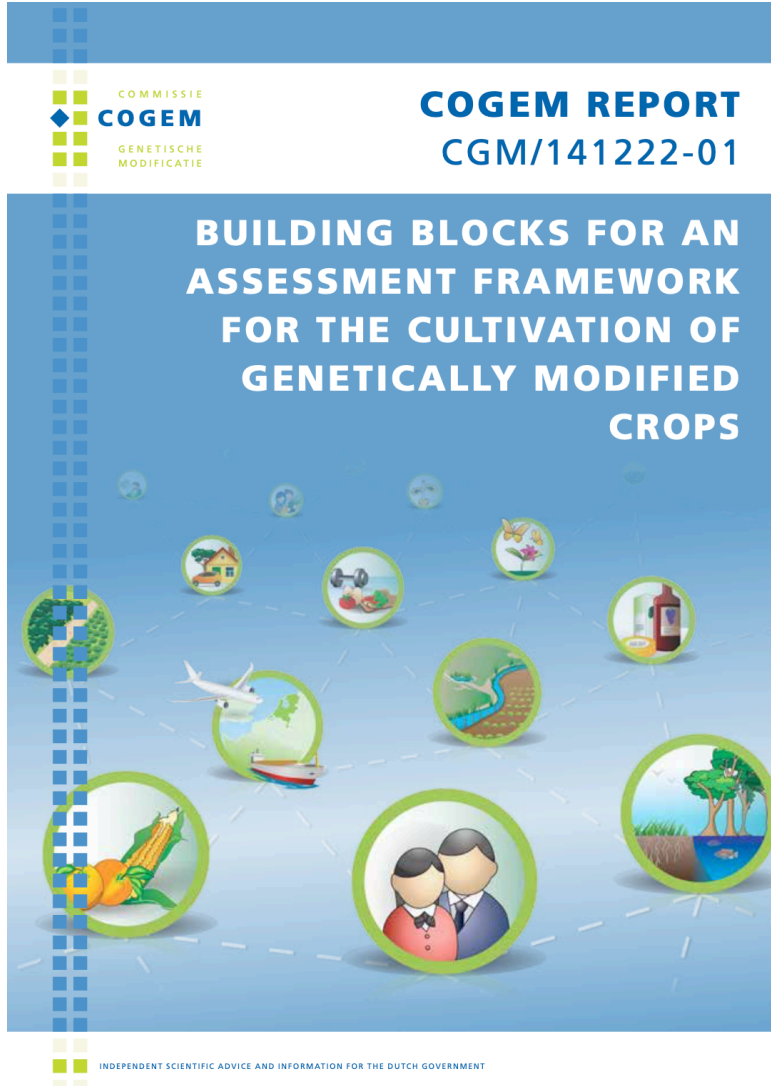
A majority of EU nations voted against genetically modified corn during a meeting of the EU appeals committee. However, that was not enough to stop GM cultivation. The decision now rests with the Commission.



EU's 'comitology procedure', which requires a qualified majority and allows a small number of member states to block decisions.

A blocking minority in the Council of Europe may be formed comprising at least four Member States.

Is it other values than safety?



1. Economy and prosperity
2. Health and welfare
3. Food supply and food security
4. Cultural heritage
5. Freedom of choice
6. Safety
7. Biodiversity
8. Environmental quality

Is it other values than safety?

Building blocks COGEM 2009	national cultivation proposal grounds	non-exhaustive list of components
1. Economy and prosperity	Socio-economic Agricultural policy objectives	<ul style="list-style-type: none">• employment• efficiency of production processes• productivity• income• competitive position• export (balance of trade)• damage to reputation• Intellectual Property Rights (IPR)
2. Health and welfare	Socio-economic	<ul style="list-style-type: none">• human rights• working conditions• employment terms
		<ul style="list-style-type: none">• recreation
		<ul style="list-style-type: none">• food quality

Is it other values than safety?

Building blocks COGEM 2009	national cultivation proposal grounds	non-exhaustive list of components
3. Food supply & food security	Agricultural policy objectives	<ul style="list-style-type: none">• ecological footprint
4. Cultural heritage	Spatial (town and country) planning land use	<ul style="list-style-type: none">• landscape changes• changes in land use
5. Freedom of choice & co-existence	Preventing cross-breeding Agricultural policy objectives	<ul style="list-style-type: none">• consumer freedom of choice: labelling• manufacturers' freedom of choice: co-existence• damage to reputation/conflicts• regional food production

Is it other values than safety?

Building blocks COGEM 2009	national cultivation proposal grounds	non-exhaustive list of components
6. Safety		<ul style="list-style-type: none">• food and environmental safety
7. Biodiversity	Environmental policy objectives Agricultural policy objectives	<ul style="list-style-type: none">• agrobiodiversity• protection of biodiversity
8. Environmental quality	Environmental policy objectives Agricultural policy objectives	<ul style="list-style-type: none">• energy consumption• emission of hazardous substances to soil, surface waters and atmosphere• soil fertility, and resilience• Integrated Pest Management (IPM)



HERE
WE GO!

THE
FLOOR
IS YOURS