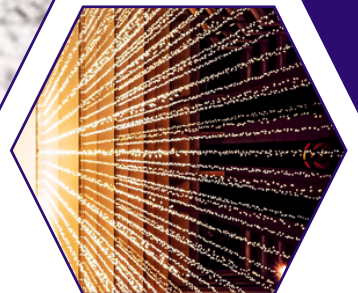


# Introduction & Summary

## European Union Review of Pharmaceutical Incentives: *Suggestions for Change*



Medicines Law & Policy  
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# EU Review of Pharmaceutical Incentives: *Suggestions for Change*

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## Pharmaceutical incentives and patients: A lost balance

Patents and other forms of exclusive rights, such as data exclusivity and market exclusivity, are meant to stimulate innovation by rewarding innovators with temporary monopolies over their innovations. These monopolies enable them to reap commercial rewards if they are successful and encourage yet more innovation. But when exclusive rights are granted over medical innovations, the consequences of monopoly pricing can be catastrophic if a high price means that access to the treatment is not provided to patients or is postponed until lower-priced versions of the product are available. In pharmaceuticals, the importance of striking the right balance between rewarding innovation and ensuring that medicines are available and affordable is particularly critical: Access to medicinal products can be a matter of life and death, of wellbeing and illness.

Unfortunately, this balance has been tipped hugely in favour of private firms and away from maximising the public benefit. Market exclusivities granted through the patent system and the medicines regulatory system are stacked atop each other, and never rolled back. They are adopted based on assumptions, rather than data that provides evidence for their need. The pharmaceutical industry now benefits from a web of protections in the European Union (EU) that together delay market competition for long periods of time and allow companies to set profit-maximising prices that are unaffordable for many. Companies obtain those rights without needing to demonstrate that their turnover is insufficient to recoup investments and make new ones. The rulemaking for exclusive rights in the EU seems to be driven by a blind belief that exclusivity is good and more exclusivity is better.

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*"The system is broken.... Patent and intellectual property exclusivities are the only cornerstone of the current model. Companies can ask the price they like. This will no longer do. We need to develop alternative business models..."*

*Netherlands Ministers E. Schippers (Health) and L. Ploumen (Foreign Trade and Development Cooperation) in the Lancet<sup>1</sup>*

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<sup>1</sup>Lilianne Ploumen, 'Better life through medicine—let's leave no one behind' (The Lancet, 7 November 2016) <[www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)31905-5/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)31905-5/fulltext)>.

## **Review of Pharmaceutical Incentives: A chance to begin restoring the balance**

The Council of the European Union decided in 2016 to find ways to “strengthen the balance in the pharmaceutical system in the EU and its Member States.”<sup>2</sup> This process offers the EU and its members the possibility to introduce changes to pharmaceutical regulations to ensure innovation is sufficiently incentivised without sacrificing EU citizens’ access to affordable medical treatments.

This series of briefing papers focuses on three areas of legislation that warrant particular re-adjustment, and offers recommendations to strike a better balance between private sector incentives and public health needs:

### ***Supplementary Protection Certificates:***

A supplementary protection certificate (SPC) provides up to 5 years of additional patent-like protection of a registered medicine upon expiration of the 20-year patent term. The SPC was designed to make up for years in which a patent could not be commercially exploited due to required regulatory procedures. The SPC system is meant to ensure the patent holder can enjoy a 15-year monopoly.

### ***Data Exclusivity:***

Data exclusivity means that clinical test data submitted by the original company cannot be used for the registration of a generic product or biosimilar product for a certain period of time. The EU has the world’s longest data exclusivity period – namely, 8 years – complemented with up to 3 additional years of market exclusivity when the generic or biosimilar product may be registered but may not yet be marketed.

### ***Orphan Medicinal Product Legislation:***

Orphan medicinal product (orphan drug) incentives are meant to promote the development of medicines to treat rare diseases. Rare diseases affect small numbers of patients and therefore lack market pull to entice commercial drug developers to invest in R&D. The EU orphan medicinal product incentives include regulatory assistance, fee waivers from the European Medicines Agency, funding for research, and 10 years of market exclusivity which can be extended for 2 more years for the development of a paediatric indication. In recent years, however, concern that this system is being abused to make unjustifiable profits has arisen.<sup>3</sup>

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<sup>2</sup> Council conclusions on strengthening the balance in the pharmaceutical systems in the EU and its Member States [2016] C269/31. <<https://www.consilium.europa.eu/en/press/press-releases/2016/06/17/epsco-conclusions-balance-pharmaceutical-system/>>.

<sup>3</sup> See, for example: Marc-André Gagnon, ‘New Drug Pricing: Does it Make Any Sense?’ (2015) 24 *Prescrire International* 192; Sarah Jane Tribble and Sydney Lupkin, ‘Drugmakers Manipulate Orphan Drug Rules To Create Prized Monopolies’

## Principles for rebalancing pharmaceutical incentives in the EU

The briefing papers suggest policy recommendations to improve legislation on SPCs, data exclusivity and orphan medicinal products based on the following principles:

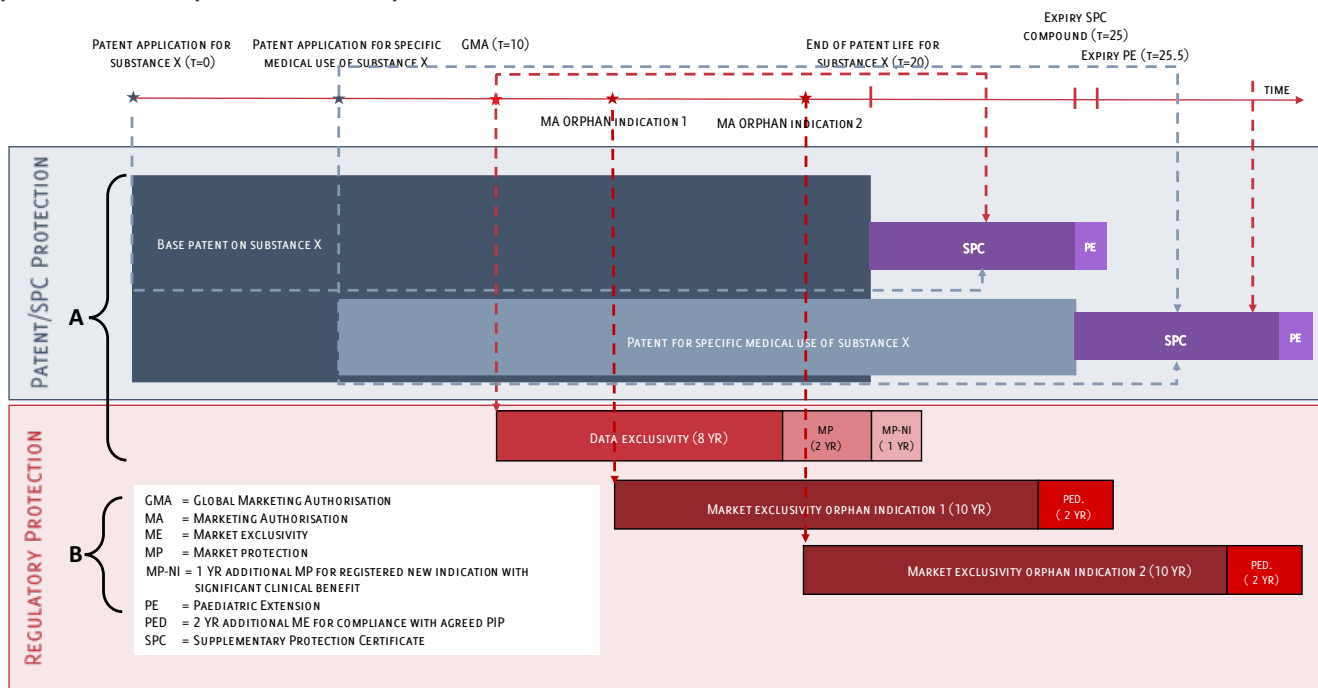
- ***There needs to be a clearer link between risk and reward.*** Pharmaceutical research and development is expensive, complex, and risky. But risks and cost vary depending on many factors, such as the type of disease, stage of development of the product, and size of the clinical trials. The pharmaceutical industry relies on inflated impressions of the cost of drug development to overstate the exclusive marketing time needed to recoup investment and become profitable.
- ***Historical reasons underpinning the EU's generous data and market exclusivity system are no longer valid.*** The array of market exclusivity rights developed over time, in part to re-enforce what were once weak patent rights and a diversity in protection regimes in the EU, were based on the assumption that market exclusivity is the best incentive to innovation and that “longer is always better.” But a growing body of evidence puts the reliance on exclusive rights in question. Therefore, additional protections can be scaled back and tailored to fit a more rational approach.
- ***The idea of 'sufficient' profit should guide policy makers, with 'sufficiency' estimates driven by transparency of cost and pricing.*** Transparency on the actual cost of research and development, including clinical trials, as well as pricing information will be essential to determine rates for 'sufficient' profit that must be recouped so originator companies receive a fair award. The EU and its member states should be encouraged to take measures requiring transparency as a condition of obtaining supplementary protection.

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(Kaiser Health News, 17 January 2017) <<https://khn.org/news/drugmakers-manipulate-orphan-drug-rules-to-create-prized-monopolies/>>; and Ellen 't Hoen, 'Inside Views: Time To Put a Stop to the Abuse of Orphan Drug Regulation – The Latest Scandal' (*Intellectual Property Watch*, 10 January 2019) <<https://www.ip-watch.org/2019/01/10/time-put-stop-abuse-orphan-drug-regulation-latest-scandal/>>.

- Flexibilities inherent in patent law should not be rendered ineffective by exclusive rights granted through the medicines regulatory system.** In cases of public health need, the patent system has an in-built flexibility in the form of compulsory or government use licences. These can be used when a patent impedes access to a needed medicine and are an essential part of EU members' duty to protect the health of their citizens. Equivalent provisions need to be available in the regulation of data and market exclusivities.
- Trade and investment agreements should not be used to demand third countries implement more stringent intellectual property (IP) protection than they are required to have under the rules of the World Trade Organization.** Flexibilities inherent in the IP system provide important safeguards for public health, and the EU should protect rather than harm those safeguards.

Figure 1: Relation between the different patent/SPC and regulatory protections for pharmaceutical products



Blue represents patent protection; Red represents regulatory protection. The purple colour for the SPCs indicates the combination of features of patent and regulatory systems. Dotted lines show the relationships between patent application and marketing authorisation dates and how they relate to certain protection mechanisms. The width of the boxes (and the positioning of the two boxes exemplifying the patents) represents the scope of protection provided by the respective instruments. Note that the above depiction is a simplification: the situation could become more complex when considering, for example, the possibility to apply for different SPCs invoking the same basic patent. **Figure extracted from Technopolis Group report "Effects of supplementary protection mechanisms for pharmaceutical products," May 2018.**

## Policy recommendations for a better balanced pharmaceutical system in the EU and its member states

### *For supplementary protection certificates:*

- 1. Make granting of SPCs conditional on applicants providing evidence that “the period of effective protection under the patent [is] insufficient to cover the investment put into the research.”** Upon application for an SPC, applicants would be required to provide patent offices with data on all past and future development costs, excluding public funding, and expected revenues.<sup>4</sup> Such data could be made public to increase transparency and trust in the system. If an SPC is granted, patent owners would be required to submit return on investment data either on a yearly basis, or at the latest, six months before the entry into force of the SPC, so that the need of the SPC could be confirmed based on actual reported profits. If the period of effective patent protection was sufficient to cover the investments put into the research programme that launched the medicine, the SPC would be cancelled.
- 2. Alternatively, make the entry into force of an SPC subject to review six months before the expiration of the basic patent.** Patent owners would be required to provide patent offices with full data of development costs of the related programme, excluding public funding, and of reported profits during the effective period of patent protection.<sup>4</sup> Review of such data six months before the expiration of the patent would confirm whether the period of effective protection under the patent needs to be supplemented by the SPC or not.
- 3. Give third parties an opportunity to submit “observations” to the patent office to pre-empt the entry into force of an SPC** based on evidence, from actual reported profits, that the period of effective protection under the patent was sufficient to cover the investment put into research.
- 4. Make procedures to revoke a granted SPC, modelled on opposition procedures against patents, available in all EU countries.** Such procedures, which are currently lacking in many countries, could include an extra ground of sufficient return on investments to challenge the SPC.
- 5. Tie the entry into force of an SPC to a requirement on pricing.** For example, a company could benefit from extra years of protection if it both demonstrated that extra protection is necessary to cover R&D investment and that the product is affordable during the protection period.

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<sup>4</sup> In the context of orphan medicinal product protection, a European Commission notice indicates that ‘sufficient return’ will be assessed “...on the basis of all past and future development costs and expected revenues”: Commission notice on the application of Articles 3, 5 and 7 of Regulation (EC) No 141/2000 on orphan medicinal products [2016] C 424/03.



**For data exclusivity:**

- 1. Replace the data exclusivity regime with a data compensation regime.** Replace the EU data exclusivity regime with a data protection regime that acknowledges the investment needed to generate the data, but does not allow the investor to exclude others from using the data: a *data compensation regime*. Under a *data compensation regime*, the registration of a generic medicine or biosimilar medicine is considered fair commercial use and thus not hampered by the data protection. The originator company that made the investment that was needed to generate the data receives adequate remuneration for the use of that data, but cannot prevent its necessary use for the medicines agency to perform its public health duties, for example using it to register generic versions.<sup>5</sup>
- 2. Introduce waivers to data and market exclusivity to facilitate effective use by governments of patents in the public interest,** compulsory licensing or other measures needed for the advancement of public health and access to medicines for all within the European Union. This would bring coherence to EU law and assist member states that are seeking ways to ensure the availability of new medicines without undue burden on their health budgets. Legal coherence can be achieved by inserting the following provision into the EU legal framework governing medicinal products for human use:

*‘The protection periods set out in article 14 (11) of Regulation 726/2004 shall not apply in cases where it is necessary to allow access to and the use of pharmaceutical test data to register a generic of a reference medicinal product, which is or has been authorised under article 6 of Directive 2001/83/EC, for reasons of public interest including public health, in case of compulsory licensing of patents, including for public non-commercial use, and in situations of national emergency or extreme urgency.’*

A payment of an adequate remuneration for the use of or reliance on test data to the holder of the marketing authorisation of the reference medicinal product may be required; for example, in the absence of patents and thus absence of remuneration normally payable in case of a compulsory licence or government use licence.
- 3. Remove the requirement to implement data exclusivity from trade negotiations with other nations** and instead focus on agreements with other nations that address medical R&D needs and mechanisms for burden and benefit sharing of medical R&D.<sup>6</sup>

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<sup>5</sup> Such a provision would further advance the objective to reach greater transparency on R&D expenditure.

<sup>6</sup> For a discussion of how such new R&D models could be shaped see: ‘Delinkage’ <[www.delinkage.org](http://www.delinkage.org)>.

### ***For orphan medicinal products:***

- 1. Fully operationalise Article 8 (2) of Regulation 141 / 2000 by defining the line between 'sufficient' and 'excessive' profitability and therefore between 'sufficient' and 'insufficient' Return on Investment (ROI).** The ROI approach (stipulated in implementing Regulation 847 / 2000, Commission guideline 2008/C and Commission notice 2016/C) should aim for the minimum return necessary to achieve the goals of the Regulation in encouraging the development of orphan medicinal products (and the 'how much can the market bear' approach to pricing should be rejected). This will introduce some much-needed transparency into the European institutions on the subject of pharmaceutical firms' business models (and questions about their efficiency and continuing viability). **Although there is concern about discouraging pharmaceutical firms' engagement with this field, 'sufficient' profitability should surely be, by definition, just that.**
- 2. The prevalence threshold of not more than five per ten thousand people in Article 3 (1)(a), equivalent to a maximum current EU patient population of circa 250,000, should be re-examined in the light of experience gained since 2000.** This threshold defines the line between those orphan disease markets which are assumed to be insufficiently profitable (permitting the 'prevalence' route for orphan designation to be used) and those which have to be shown to be insufficiently profitable (requiring the use of the 'ROI' route for orphan designation). The unprecedentedly high prices charged for orphan medicinal products by some pharmaceutical firms have meant, however, that orphan disease markets with < 10,000 patients can be made to produce 'blockbuster' profits. **It is therefore clear that it does not make sense to set a prevalence threshold based on an assumption about profitability, without considering pricing behaviour.** As it stands, the threshold has been overly generous in letting sponsors access the incentives provided under the Regulation without having to show any evidence to support a case of insufficient profitability: only 1 out of the 2,302 applications for orphan medicinal product designation between 2000 and 2015 made use of the ROI route and was required to do so.<sup>7</sup>

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<sup>7</sup> European Commission, 'Inventory of Union and Member State Incentives to Support Research Into, and the Development and Availability of, Orphan Medicinal Products – State of Play 2015" SWD(2015)13 final.

**3. A mechanism similar to the 'withdrawal clause' from the early drafts of the Regulation should be re-introduced to the present Art. 8 (2).** This could take various forms, for example:

- (i) The prevalence route mentioned in Recommendation (2) could be removed altogether. All applications for orphan medicinal product designation would use the ROI route. Orphan exclusivity could therefore be removed in any cases where an orphan medicinal product proved sufficiently profitable.
- (ii) Article 8 (2) could be amended in line with the text of the 'withdrawal clause' in the earlier drafts of Regulation 141 / 2000, such that orphan exclusivity could be removed irrespective of whether the prevalence or the ROI route had been used, in any cases where an orphan medicinal product proved sufficiently profitable or where the price charged for it was such that an unreasonable profit had been made, or where the price charged was unjustifiable.
- (iii) Article 8 could be amended such that a shorter period of orphan exclusivity is initially provided, with an extension of that period available if evidence shows that the necessary ROI has not yet been achieved.

The re-introduction of such a mechanism should provide a meaningful brake on the behaviour of pharmaceutical firms operating in the orphan disease field, certainly in those cases where orphan exclusivity extends beyond the life of their other intellectual property rights and where there are other firms able and willing to compete. Although the information necessary for the assessment of ROI would have to be provided in all cases, the commensurately improved transparency of the orphan medicinal product regime should improve confidence that the incentives provided under Regulation 141 / 2000 were not being improperly exploited.

**4. In particular cases where marketing authorisation (and orphan exclusivity) is granted for an orphan medicinal product which essentially 'formalises' the use of a product which has previously been used 'off label' or has been compounded by pharmacists,** such that the majority of the information required by the sponsor was already in the public domain, provision should be made to ensure that:

- (i) the prior users can continue to make the same use of the product that they have before; and
- (ii) the commercial reward accorded to the sponsor is matched to the relatively small development risk and cost.

# Further Reading

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This document is part of a series of briefing papers; the rest of the series is available at <https://medicineslawandpolicy.org/useful-resources/briefs/#EUReview>.

- Carlos Correa, 'Protection of Data Submitted for the Registration of Pharmaceuticals: Implementing the Standards of the Trips Agreement' (2002) South Centre <<http://apps.who.int/medicinedocs/en/d/Jh3009ae/>>.
- Ellen 't Hoen EFM, Pascale Boulet, and Brook K Baker, 'Data Exclusivity Exceptions and Compulsory Licensing to Promote Generic Medicines in the European Union: A Proposal for Greater Coherence in European Pharmaceutical Legislation' (2017) 10 JOPPP
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- Marc-André Gagnon, 'New Drug Pricing: Does it Make Any Sense?' (2015) 24 Prescrire International 192
- Max Planck Institute for Innovation and Competition, 'Study on the Legal Aspects of Supplementary Protection Certificates in the EU' (European Commission, 2018) <<https://ec.europa.eu/docsroom/documents/29524>>.
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- Sandra Adamini and others, 'Policy Making on Data Exclusivity in the European Union: From Industrial Interests to Legal Realities' (2009) 34 Journal of Health Politics, Policy and Law 979
- Thyra de Jongh and others, 'Effects of Supplementary Protection Mechanisms for Pharmaceutical Products' Final Report (Technopolis Group, May 2018) <<http://www.technopolis-group.com/wp-content/uploads/2018/06/2718-Technopolis-report-on-supplementary-protection-mechanisms.pdf>>.