
The EU Pharmaceutical Reform and the radiopharmaceuticals

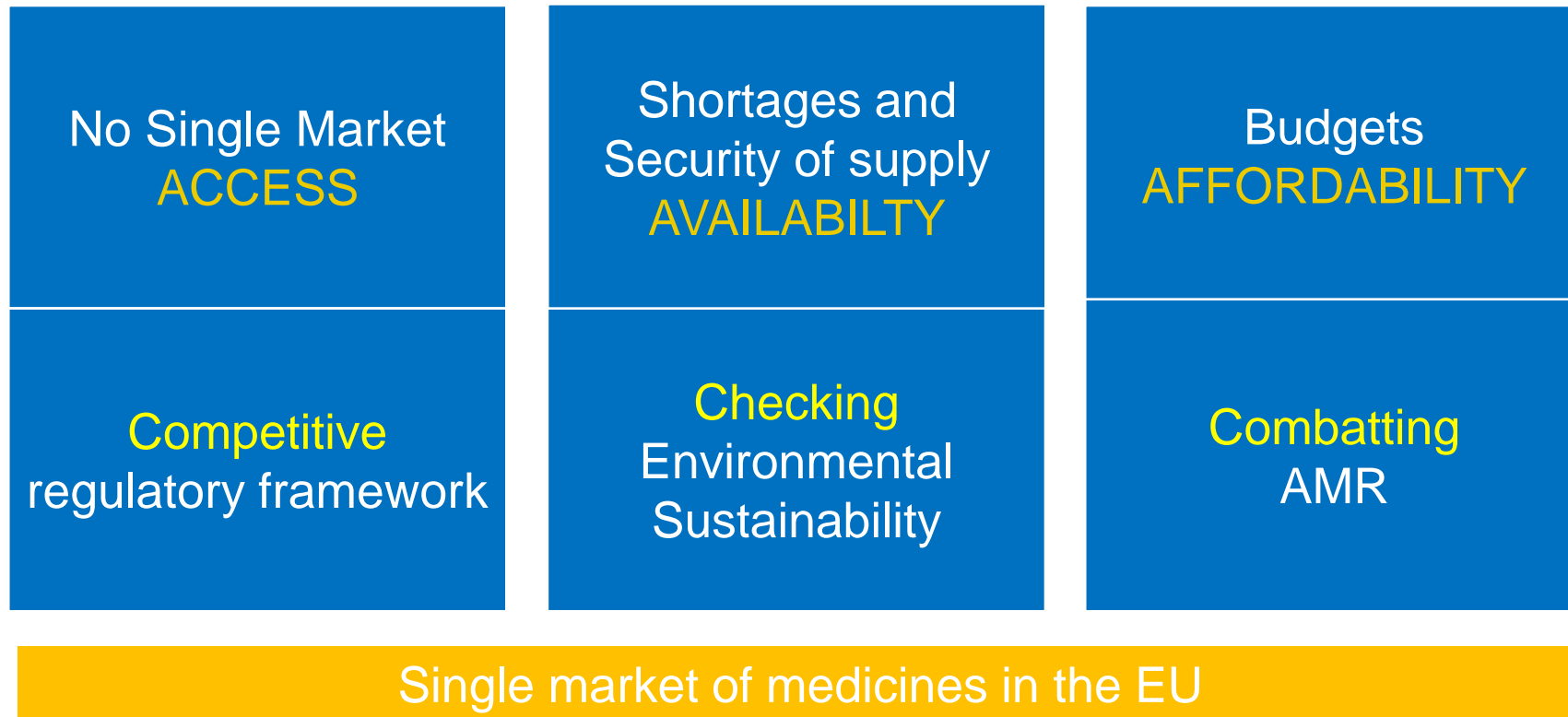
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6 Key political objectives



How will the proposal foster innovation?

EU existing system vs other regulators

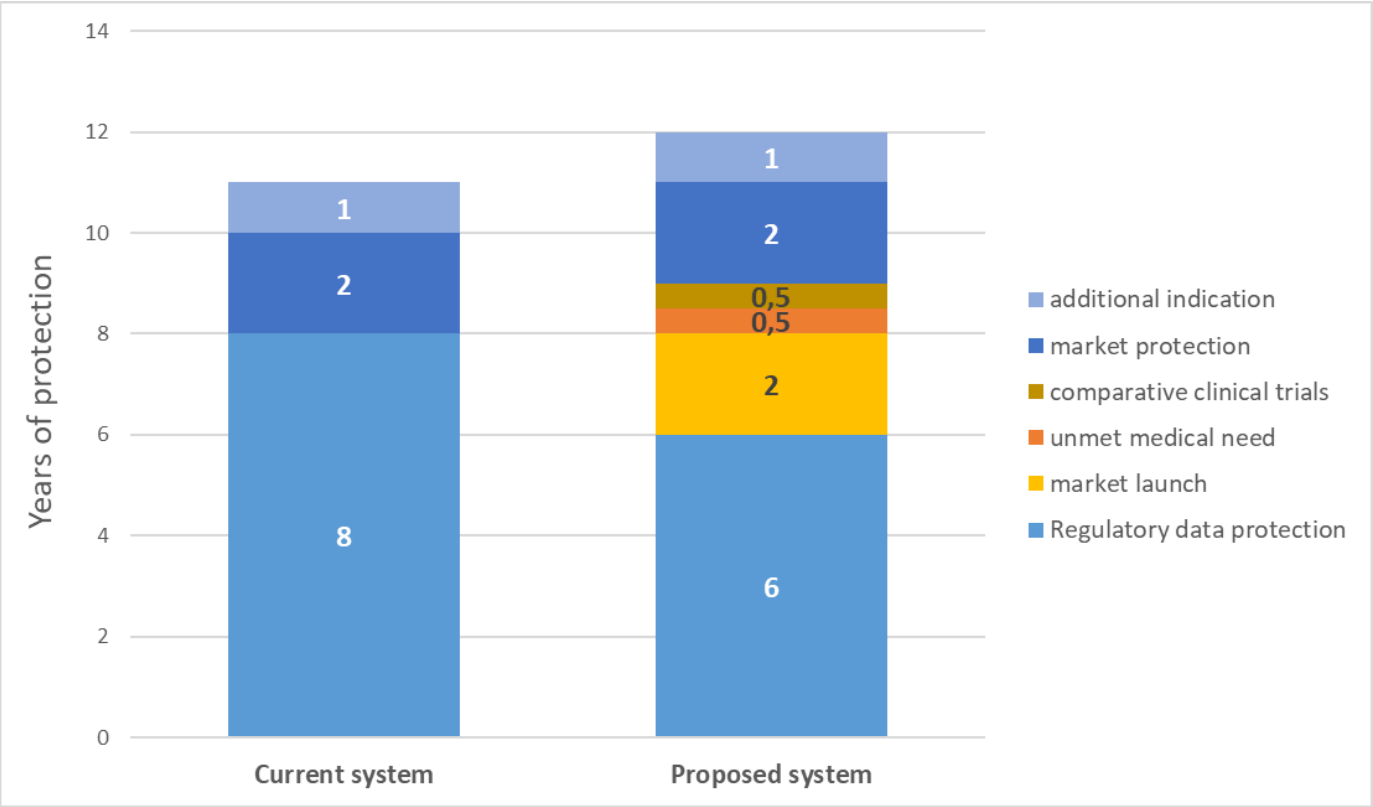
Country	Protection	Duration
Canada	New Chemical Entity	6 (data protection) +2 years (market protection)
EU (current system)	Chemical and biological active substances	8 data protection +2 market protection +1 year data protection
Switzerland	New Chemical Entity	10 years data protection
USA	New Chemical Entity (small molecule)	5 years data protection (90% of number of all medicines authorised)
USA	Biosimilar Application Approval Exclusivity (biologic)	12 years market protection
Israel	New Chemical Entity	6.5 years market exclusivity
China	New Chemical Entity	6 years data protection
Japan	New Chemical Entity	8 years data protection

Terminology

- **New chemical entity** is used in the context of innovative medicines where the active substance is a novel chemical molecule (e.g. a small molecule inhibitor), while the term **new biological entity** is used where the active substance is novel biological (e.g. a monoclonal antibody).
- **Regulatory data protection:** the period during which the data from pre-clinical tests and clinical trials of an innovative medicine are protected from off-patent competitors. During this period a generic or biosimilar medicine cannot refer to that data for the purpose of their own authorisation.
- **Market protection:** period during which generic and biosimilar marketing authorisation applications can already be filed and assessed and the respective marketing authorisations be granted. However, the generic or biosimilar product can only be placed on the market after the expiry of that period.
- **Market exclusivity** (not to be confused with market protection above) is the period after authorisation of an innovative medicine during which any similar medicines for the same indication cannot be placed on the market.

Modulation for the majority of innovative medicines

Regulatory data and market protection today and as proposed



Radiopharmaceuticals

Recital 19 and Article 1(4)

Rec (19) **This Directive should be without prejudice to the provisions of Council Directive 2013/59/Euratom**, including with respect to justification and optimisation of protection of patients and other individuals subject to medical exposure to ionising radiation. **In the case of radiopharmaceuticals used for therapy**, marketing authorisations, posology and administration rules **have to notably respect that Directive's requirements that exposures of target volumes are to be individually planned**, and their delivery appropriately verified taking into account that doses to non-target volumes and tissues are to be as low as reasonably achievable and consistent with the intended therapeutic purpose of the exposure.

Art. 4. In cases where, taking into account all its characteristics, a product falls within the definition of a 'medicinal product' and within the definition of a product covered by other Union law and **there is a conflict between this Directive and other Union law, the provisions of this Directive shall prevail.**

Definitions – Article 4

(18) ‘radiopharmaceutical’ means any medicinal product that, when ready for use, contains one or more radionuclides (radioactive isotopes) included for a medicinal purpose;

(19) ‘radionuclide generator’ means any system incorporating a fixed parent radionuclide from which is produced a daughter radionuclide which is to be obtained by elution or by any other method and used in a radiopharmaceutical;

(20) ‘kit’ means any preparation to be reconstituted or combined with radionuclides in the final radiopharmaceutical, usually prior to its administration;

(21) ‘radionuclide precursor’ means any other radionuclide produced for the radio-labelling of another substance prior to administration;

Article 16 - Radiopharmaceuticals

- 1. **A marketing authorisation shall be required for radionuclide generators, kits, and radionuclide precursors**, unless they are used as starting material, active substance or intermediate of radiopharmaceuticals covered by a marketing authorisation under Article 5(1).
- 2. A marketing authorisation shall not be required for a radiopharmaceutical prepared at the time of use by a person or by an establishment authorised, according to national legislation, to use such radiopharmaceutical in an approved healthcare establishment exclusively from authorised radionuclide generators, kits or radionuclide precursors in accordance with the manufacturer's instructions.

Article 5 - Marketing authorisation

1. A medicinal product shall be placed on the market of a Member State only when a marketing authorisation has been granted by the competent authorities of a Member State in accordance with Chapter III ('national marketing authorisation') or a marketing authorisation has been granted in accordance with [revised Regulation (EC) No 726/2004] ('centralised marketing authorisation').

Special requirements

Annex I - INFORMATION REFERRED TO IN THE APPLICATION

(22) Where an application concerns the marketing authorisation to market a **radionuclide generator**, in addition to the requirements set out in Articles 6 and 9, it shall also contain:

(a) **a general description of the system** together with a detailed description of the components of the system that may affect the composition or quality of the daughter nucleid preparation; and

(b) **qualitative and quantitative particulars of the eluate or the sublimate.**

Annex II - ANALYTICAL, PHARMACOTOXICOLOGICAL AND CLINICAL STANDARDS AND PROTOCOLS IN RESPECT OF THE TESTING OF MEDICINAL PRODUCTS

Part III: Particular medicinal products

1. Biological medicinal products

1.1. Plasma-derived medicinal product

1.2. Vaccines

2. Radio-pharmaceuticals and precursors

2.1. Radio-pharmaceuticals

2.2. Radio-pharmaceutical precursors for radio-labelling purposes

3. Homeopathic medicinal products

4. Herbal medicinal products

5. Orphan Medicinal Products

Art. 68 - Labelling and instruction leaflet of radionuclides and radiopharmaceuticals

1 [...] medicinal products containing radionuclides shall be labelled in accordance with the regulations for the safe transport of radioactive materials laid down by the **International Atomic Energy Agency**. [...]

2. The label on the shielding shall include the particulars laid down in Article 65. **In addition**, the label on the shielding shall explain in full, the **codings** used on the vial and shall indicate, where necessary, for a given time and date, the **amount of radioactivity per dose or per vial** and the number of capsules, or, for liquids, the number of millilitres in the container.

Art. 68 - Labelling and instruction leaflet of radionuclides and radiopharmaceuticals

3. The vial shall be labelled with the **following information**:

- (a) the name or code of the medicinal product, including the name or chemical symbol of the radionuclide;
- (b) the batch identification and expiry date;
- (c) the international symbol for radioactivity;
- (d) the name and address of the manufacturer;
- (e) the amount of radioactivity as specified in paragraph 2.

4. The competent authority shall ensure that a detailed instruction leaflet is enclosed with the packaging of radiopharmaceuticals, radionuclide generators, radionuclide kits or radionuclide precursors. The text of this leaflet shall be established in accordance with Article 64(1). **In addition**, the leaflet shall include **any precautions** to be taken by the user and the patient during the preparation and administration of the medicinal product and special precautions for the disposal of the packaging and its unused contents.

Thank you



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