



CROSS-COUNTRY COLLABORATIONS to improve access to medicines and

vaccines in the WHO European Region



REGIONAL OFFICE FOR Europe

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ABSTRACT

This report assesses five government-led, voluntary cross-country collaborations in the WHO European Region that aim to improve access to essential medicines through joint activities: the Baltic Procurement Initiative, Beneluxa Initiative, Fair and Affordable Pricing, Nordic Pharmaceutical Forum and Valletta Declaration. These cover activities including information sharing, health technology assessment, horizon scanning, joint pricing/reimbursement negotiations and joint procurement of medicines. The research shows that tangible results are only seen after months or years of cooperation. Challenges include the resources required, different languages of participants, dissimilar organizational and legal frameworks, the reluctance of industry to engage in negotiations with a collaboration and pressure to produce results. Nevertheless, interviewees considered the collaborations beneficial. Facilitating factors identified include political support, trust within the collaboration, commitment of the technical experts involved, similarities between health care systems and leadership of a dedicated person. The report concludes with a checklist of prerequisites for successful cross-country collaborations.

Keywords

PHARMACEUTICAL POLICY, INTERNATIONAL COLLABORATION, HEALTH, ACCESS TO MEDICINES, PHARMACEUTICALS, PRICING, REIMBURSEMENT, PROCUREMENT, EUROPE

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Abbreviations

BCG	bacille Calmette–Guerin [vaccine]
EEA	European Economic Area
EU	European Union
FAAP	Fair and Affordable Pricing [initiative]
HTA	health technology assessment
IHSI	International Horizon Scanning Initiative
MoU	memorandum of understanding
PPRI	Pharmaceutical Pricing and Reimbursement Information [network]

Executive summary

Aims and methods

In recent years, an increasing number of countries in the WHO European Region have decided to work more closely together in technical areas such as health technology assessment (HTA), procurement, pricing and reimbursement negotiations, with the aim of improving access to medicines. As little is known about these so-called voluntary collaborations, this study aimed to identify those in the WHO European Region and to describe and assess a selected few.

Of 35 cross-country collaborations identified worldwide, five in the Region were selected that were country-led, formal government cooperation initiatives in the areas of pricing, procurement or funding/ reimbursement of medicines.

- The **Baltic Procurement Initiative** was established in May 2012, comprising the three Baltic countries Estonia, Latvia and Lithuania. It performs joint procurement of vaccines, and countries lend medicines to each other when shortages occur.
- The Beneluxa Initiative was established by Belgium and the Netherlands in 2015 and extended when Luxembourg (2015), Austria (2016) and Ireland (2018) joined. This initiative on pharmaceutical policy collaborates in the areas of horizon scanning, HTA, pricing and reimbursement (negotiations) and information sharing. As part of the Initiative, Belgium and the Netherlands successfully concluded a negotiation on the reimbursement of Spinraza[®] (nusinersen). Along with further countries, the Beneluxa Initiative also established the International Horizon Scanning Initiative.
- The Fair and Affordable Pricing (FAAP) initiative was based on a memorandum of understanding signed in 2017 and in 2019. It comprises countries in central and eastern Europe (Czechia, Hungary, Poland and Slovakia) and aims to perform joint HTA reports and price negotiations.
- The Nordic Pharmaceutical Forum comprises the Nordic countries Denmark, Norway, Sweden and Iceland, with Finland as an observer. It was initiated from the bottom up by technical experts of the Danish public procurement agency Amgros in 2015. It aims to increase purchasing power to perform joint procurement for older and new (primarily hospital) medicines and successfully concluded the first Nordic tender in 2019.
- The Valletta Declaration consists of 10 countries in southern and eastern Europe that aim to work together on horizon scanning, HTA and price negotiations. It is exploring ways to share information among member countries to increase transparency of information on medicine prices.

These five collaborations were studied in further detail based on published information and, in particular, through interviews with representatives.

Findings

All five cross-country collaborations practise information sharing; further key areas that are currently worked on jointly or that are intended to become joint activities include price and reimbursement negotiations (three of the collaborations), horizon scanning (three), HTA (three) and procurement of medicines or vaccines (two).

The Nordic Pharmaceutical Forum was launched as a bottom-up initiative of technical experts, while the other four collaborations were established by political leaders and have been driven by strong political support. All collaborations established appropriate governance and working structures – for example, by setting up a coordination committee to have oversight and report to ministers of health and by installing working groups of technical experts who collaborate in the areas of joint procurement, reimbursement

negotiations, horizon scanning, HTA and information sharing. Responsibilities and principles of working together (such as transparency, confidentiality and solidarity) are usually laid down in writing – in a memorandum of understanding, for example.

Starting work together was usually a major challenge, since differences in processes (including different deadlines) between countries had to be identified and addressed appropriately. Alignment of procedures was usually required, even if joint activities were based on national legislation. Legal changes were undertaken in a few cases.

Members of the collaborations communicate on a regular basis, including via telephone conferences and face-to-face meetings. To inform the public of their activities, they use a variety of different communication tools, such as websites and press releases as well as national stakeholder events and international conferences.

A key target group in this respect is the pharmaceutical industry, as the collaborations aim to motivate the sector to become involved. In particular, interviewees reported that large multinational companies were difficult to engage with, possibly due to limitations in understanding the purpose of the collaboration and the requirement for different approaches to internal collaboration within the company. Those companies that had successfully completed the process of a negotiation with a cross-country collaboration, however, reported positive experiences. Reactions of other stakeholders are often not known.

Lessons learned

Key factors for successful collaborations include strong support and commitment of political leaders; a functioning governance and working structure; and provision of adequate resources, because collaborative action is time- and resource-intensive. Differences in national pharmaceutical systems constitute a barrier, and processes and legal provisions may need to be aligned and even changed in some cases. The aim is to convince pharmaceutical companies that engaging with a cross-country collaboration can be a win–win solution for all.

Despite several challenges and the novelty of some collaborations, initial achievements were reported, such as the successful conclusion of joint tenders of the Baltic Procurement Initiative and the Nordic Pharmaceutical Forum, the production of several joint HTA reports and the establishment of the International Horizon Scanning Initiative initiated by the Beneluxa Initiative. In addition, the value of information sharing was highly appreciated by all involved in a collaboration. Performance evaluations may also offer lessons for the future.

The achievements in improving access to medicines may encourage further countries to start working together or to join ongoing collaborations. To that end, this report provides an action plan for establishing successful cross-country collaborations.

Introduction

1.1 Background

Access to safe, effective, high-quality and affordable essential medicines is one of the major challenges for health systems in achieving universal health coverage (1-4), to which countries have committed as part of the 2030 Agenda for Sustainable Development (target 3.8). In recent years, even governments of high-income countries have struggled to ensure affordable and equitable access to essential medicines while not jeopardizing the long-term financial sustainability of solidarity-based health care systems (5-9).

This challenge has mainly been caused by an increasing number of new and innovative high-priced medicines entering the markets of high-income countries, predominantly in the fields of oncology and orphan medicines (10–18). While some of these medicines have been proved to yield better results, others have not been able to provide evidence of their additional therapeutic benefit to patients, or the available evidence may not justify the premium price tag compared to existing alternatives (5, 19–21). In many countries a small number of medicines account for large shares of public pharmaceutical budgets (22). A study comparing 2015 ex-factory prices for sofosbuvir and ledispasvir/sofosbuvir revealed that the cost of treating all patients infected with hepatitis C in 30 countries around the world ranged from 10.5% of annual total pharmaceutical expenditure in the Netherlands to 190.5% in Poland (23). An increase in the development and marketing of orphan medicines for very small patient groups has been observed in recent years. A special incentive framework and high prices granted for such medicines have contributed to their increasing share of the industry's revenues (24) and led to a pattern of "orphanization" (25). Forecasts estimate that around 120 new orphan medicines will receive approval from the European Medicines Agency by 2025, amounting to a total budget impact of approximately $\in 22$ billion (9).

These developments are of concern to policy-makers and public payers, and this has brought the issue of access to medicines onto the political agenda globally (for example, through the United Nations Secretary-General's High-Level Panel on Access to Medicines (26), the launch of WHO's Fair Pricing Forum (27) and the resolution on price transparency for medicines at the Seventy-second World Health Assembly in 2019 (28)) and at national and regional levels. In the European Union (EU), several councils during recent presidencies have addressed the challenge of high-priced medicines. Among others, council conclusions adopted under the Dutch and Maltese Presidencies (in June 2016 and June 2017) called for an exploration of voluntary collaboration in different areas, including pricing and reimbursement of medicines (29, 30). Such collaborations are usually referred to as "voluntary" because in the current policy framework marketing authorization of medicines has been harmonized in the EU, whereas pricing and reimbursement decisions remain the responsibility of Member States, on condition that certain procedural rules (such as timelines for decisions) stipulated in the EU Transparency Directive (31) are respected.

Various new voluntary cross-country collaborations in the area of pricing and reimbursement (that may work together in public procurement and/or in other areas such as joint price negotiations) have been established in Europe recently (21). The best-known examples include the Beneluxa Initiative (32) and the Valletta Declaration (33). These add to:

- existing informal collaborations, such as the Pharmaceutical Pricing and Reimbursement Information (PPRI) network of technical experts working in public authorities responsible for pharmaceutical pricing and reimbursement (34) and the Piperska group, which combines researchers and experts from public authorities (35);
- collaborative approaches of national institutions, such as the European Social Insurance Platform and the Medicine Evaluation Committee (*36*);
- collaborations in technical areas with the involvement of stakeholders and/or the European Commission, such as the European Network for Health Technology Assessment, which is related to health technology assessment (HTA) currently organized as a Joint Action of HTA agencies and Member States supported by European Commission funding (37).

In addition, the European Commission introduced a mechanism to allow Member States, on a voluntary basis, to procure jointly any medicines, medical devices and other goods or services that are aimed at combating serious cross-border threats to health (38). High-priced medicines that are not intended for

use in medical counter-measures are considered beyond the scope of the Joint Procurement Agreement, however, according to the unpublished minutes of the meeting of the Joint Procurement Agreement Steering Committee held in Luxembourg on 9–10 July 2015 (quoted in 39).

Little is known about recent cross-country collaborations in the WHO European Region to improve access to medicines through joint activities in areas such as procurement, pricing and reimbursement. Available information mainly relates to press releases and stakeholder position papers (33, 40–43). The latter are, in several cases, characterized by concerns of the pharmaceutical industry about the emergence of new government collaborations (44).

Thus far, the most comprehensive publications in this field for the Region have been a policy brief of the European Observatory on Health Systems and Policies (21) in support of the Maltese Presidency of the Council of the EU, which describes and analyses existing evidence of voluntary collaborations in EU Member States at that time and a WHO report on procurement of medicines, which also looked into initiatives to increase collaboration between countries (45). As both reports were published in 2016, however, they do not include more recent developments, such as the establishment of the Valletta Declaration collaboration. The policy brief concluded by stressing the importance of careful and continuous evaluation of "young" initiatives to obtain robust evidence on best practices in order to improve sustainable access to new medicines and to contribute to health system strengthening (21). A more recent but briefer document is a summary provided by the European Commission on collaborations in the area of HTA; this briefly outlines activities of four cross-country collaborations in Europe and the European Network for Health Technology Assessment (46).

1.2 Aim of the study

Against this background, this study identified and assessed selected cross-country collaboration initiatives for improving access to medicines. Based on the findings, this report identifies good practice elements that could be considered in the establishment of such collaborations. In particular, the report describes five selected cross-country collaborations in the WHO European Region, including their objectives, key characteristics and outcomes, and identifies facilitating and hindering factors for progress in a collaboration. Based on the information collected and analysed, it provides an action plan for countries considering collaborating on pharmaceutical policy.

Methodology

This report results from a comprehensive endeavour to identify collaborations globally. A study protocol was submitted to and approved by the WHO Ethics Review Committee on 27 June 2018 and the Ethical Review Committee of Utrecht University, the Netherlands, on 11 July 2018. This was followed by selection and analysis of cross-country collaborations in the WHO European Region.¹

2.1 Selection of cross-country collaborations

Based on a literature search, which also considered grey literature such as websites and media articles, and on the knowledge of those involved in the global survey (staff of WHO, the Pan American Health Organization and WHO collaborating centres), cross-country collaborations were sought globally. The scope of the search was not limited to those engaging solely in joint procurement of medicines; all those that aim to improve patient access to medicines were considered.

A total of 35 collaborations, of which 11 were in the WHO European Region, were identified between February and April 2018. Key features were collected, including name, countries involved, area of collaboration, products, purpose, principles and structure, year of inception and possible outcomes, where available.

The following inclusion criteria were applied to selection of the collaborations to be subject to further investigation and analysis:

- Initiative to collaborate set up by countries (not supranational institutions)
- Official/formal government collaboration involved
- Initiative's aim to improve access to affordable medicines, through collaboration in procurement, pricing/reimbursement negotiations and HTA
- Involvement of Member States in the WHO European Region

Based on these, the following five cross-country collaborations were selected:

- Baltic Procurement Initiative
- Beneluxa Initiative
- Fair and Affordable Pricing (FAAP)
- Nordic Pharmaceutical Forum
- Valletta Declaration.

Another cross-country collaboration eligible for the study is the FINOSE initiative, comprising Finland, Norway and Sweden, which aims to collaborate in the area of HTA. At the time of collaboration selection, however, FINOSE was just getting started, having been established in March 2018 (46). Further shortlisted candidates for further analysis were the European Network for Health Technology Assessment, the Nordic Pricing and Reimbursement Group and the PPRI network. The first of these was excluded because its establishment and maintenance was supported by the European Commission, a supranational institution (*37*). The latter two were not considered because of the informal character of both collaborations.

¹ The WHO European Region comprises 53 countries: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, the Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, the Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, the United Kingdom and Uzbekistan.

2.2 Survey of cross-country collaborations

The survey of the five selected cross-country collaborations was based on published information and semistructured interviews. Publicly available information, including grey literature and media articles related to the collaborations, was first sought in July 2018. During the interviews, collaboration representatives were asked to provide documents and materials of interest. A second search was conducted in October 2019 to consider more recent developments.

The authors held 19 interviews with 26 collaboration representatives (Table 2.1). Since the WHO Collaboration Centre for Pharmaceutical Pricing and Reimbursement Policies in Vienna, Austria, was involved in some activities of the Beneluxa Initiative, it was ensured that those authors based at the Centre did not conduct any interviews with Beneluxa Initiative representatives.

All interviewees provided informed consent in writing and verbally. Interviews were based on an interview guide (see Annex 1). Members of the collaborations were assured of anonymity and confidentiality. Of all those invited, one representative did not agree to be available for an interview, and one interview could not be scheduled within the study period. One person provided a written response.

Collaboration	Number of interviews	Number of interviewees	Time period ^a
Baltic Procurement Initiative	3	3	August-October 2018
Beneluxa Initiative	5	9	July–November 2018
FAAP	1	1	July 2018
Nordic Pharmaceutical Forum	5	7	August-September 2018
Valletta Declaration	5	6	July–October 2018
Total	19	26	July–November 2018

Table 2.1. Number of interviews and interviewees

^a In September and October 2019 some interviewees were contacted again to survey updates and possible new experience.

After the interviews, summary notes or transcripts were shared with the interviewees for their review and approval. For analysis of the interviews, a comprehensive survey matrix, including relevant categories and subcategories, was developed and completed with the validated answers. All non-referenced information about the case studies included in this report was collected through interviews with collaboration representatives.

2.3 Analysis and validation

Based on information collected through the interviews and literature, as well as on the authors' own experiences from working in this area, facilitating and hindering factors and necessary actions for establishing cross-country collaborations were identified.

In April 2019 the interviewees were invited to comment and provide corrections and/or updates to a working paper summarizing the key findings. A final draft of this report was also shared with the interviewees in December 2019 to ensure correctness of the content.

Survey of selected cross-country collaborations

3.1 Inception and member countries

The five cross-country collaborations surveyed were formally established between 2012 and 2017 (Fig. 3.1). Some had fewer countries in the starting phase, with others joining later. As of November 2019, the number of member countries per collaboration ranged from three (Baltic Procurement Initiative) to 10 (Valletta Declaration).

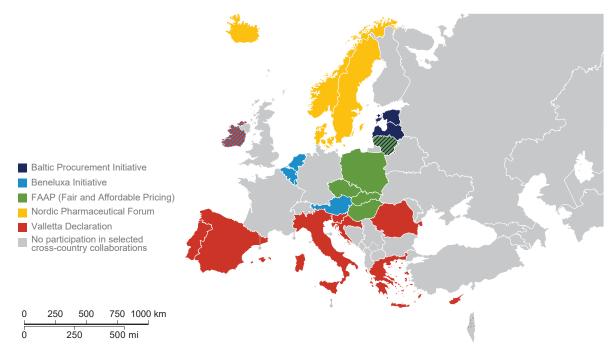
Fig. 3.1. **Timeline of collaboration inceptions**

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Ireland and Lithuania joined more than one collaboration. Croatia and Slovenia moved from one collaboration (FAAP) to another (Valletta Declaration). Of the 24 countries participating in the collaborations, 22 are EU Member States, with the remaining two (Iceland and Norway) in the European Economic Area (EEA) (Fig. 3.2). Countries in collaborations tend to be either in the same geographical region (as with the Baltic Procurement Initiative) and/or of similar socioeconomic backgrounds (as with FAAP and the Beneluxa Initiative, which consist of high-income countries of medium size).

Fig. 3.2. | Member countries of the collaborations surveyed





The overall objective of the five cross-country collaborations surveyed was to improve affordable and sustainable patient access to essential and effective medicines and therapies. Aims included:

- benefiting from cross-country learning and improving transparency through information sharing;
- strengthening the bargaining power of payers in joint negotiations and achieving economies of scale by joining forces and pooling resources and capacities;
- facilitating rational and efficient procurement and reducing the time and administrative resources required;
- ensuring availability of (older and less expensive) medicines;
- developing methods and modalities to facilitate cooperation and joint activities.

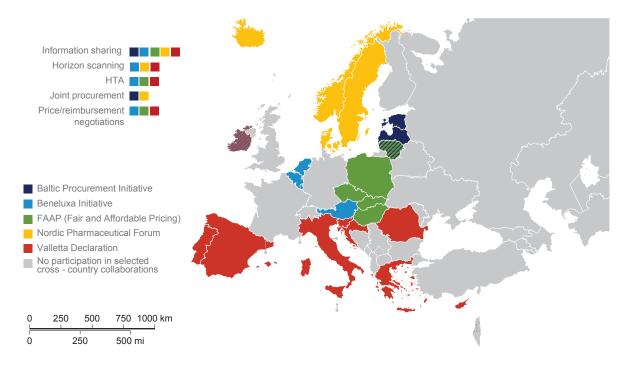
Cross-country collaborations engaged in a variety of different activities (Fig. 3.3). All those surveyed practised information sharing among partner countries. Other key activities included joint price and reimbursement negotiations (three collaborations), joint horizon scanning (three), joint HTA (three) and joint procurement of medicines and vaccines (two). Since some of the collaborations were quite new, not all had yet started to work on (all) envisaged activities. In general, collaborating countries were not obliged always to act together or collaborate across all areas of collaboration at all times (see section 3.4.2).

The five collaborations surveyed were similar in scope. Most had a focus on new and innovative medicines (Beneluxa Initiative, FAAP and Valletta Declaration) but one also worked on older medicines (Nordic Pharmaceutical Forum). Although the Baltic Procurement Initiative included medical devices in the scope of its partnership agreement, joint procurement activities had thus far been limited to vaccines.

3.3 Descriptions of the cross-country collaborations

Table 3.1 presents an overview of key characteristics of the five collaborations surveyed. Individual profiles of each are set out in the following subsections.

Fig.3.3. Activities performed by cross-country collaborations



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Outcomes/developments	 Call for tender to procure jointly: 1. rotavirus vaccine 2. pneumooccal conjugate vaccine 3. hexavalent vaccine (see section 3.5.3) Lending agreement for centrally procured medicines, used many times 	 International Horizon Scanning Initiative established (see section 3.5.5) Several HTA reports (joint writing and reuse of HTA reports) Two pilots on joint reimbursement negotiations, of which one successfully concluded (see section 3.5.4) Information-sharing activities (e.g. webinar on biosimilar medicines, joint meeting to explore initiation of cross-border registries) 	 Signing of a second memorandum of understanding in 2019 Assessment of how countries can work together on HTA Technical consultation on specific disease areas (e.g. breast cancer) 	 Collaborative actions in all activity areas listed First joint procurement, with four tenders for a total of 10 items (see section 3.5.2) 	 Identification of products for joint price negotiation Joint assessments for products initiated, although companies did not participate and submitted reimbursement application/s in individual countries Joint negotiation under consideration Efforts to support initiatives that enable increased transparency of prices between member countries
Joint key activities	 Joint procurement of vaccines Lending of medicines 	 Horizon scanning HTA Pricing and reimbursement (joint negotiations but no joint procurement) Information sharing 	 Information sharing (participation in expert meetings) Pricing and reimbursement (organizing joint pilot negotiations) HTA (joint assessments) 	 Horizon scanning Joint procurement and negotiations Manufacturing Logistics Security of supply 	 Identifying areas of cooperation, objectives and scope of work Horizon scanning Information sharing HTA (joint assessment) Joint negotiation for selected medicines
Main objective(s)	 To reduce public procurement expenditure in the three Baltic states To prevent or address supply shortages and thus ensure continuity of access to medicines 	 To ensure sustainable and timely access to, and appropriate use of, high-quality and affordable medicines in the participating countries 	 To improve and facilitate access to effective and affordable medicines for citizens of the participating countries To develop common methods and modalities of cooperation and negotiation for pricing and reimbursement 	 To provide an informal platform for Nordic collaboration to identify new opportunities, benefit from information exchange and work on joint solutions with a focus on hospital medicines 	 To improve patient access to new and innovative high-cost medicines and therapies To support the sustainability of national health systems To achieve collaboration, leading to synergies between Member States
Scope	Medicines and medical devices (lending) and vaccines (joint procurement)	Mainly new and expensive medicines	High-priced medicines	Old and new hospital medicines	Mainly new and innovative medicines and therapies
Countries	Estonia, Latvia, Lithuania	Belgium, Luxembourg, Netherlands, Austria (since 2018) (since 2018)	Hungary, Lithuania, Poland, Slovakia, Czechia (since 2019; previously an observer)	Denmark, Iceland, Norway, Sweden, Finland (as observer)	Greece, Ireland, Italy, Malta, Portugal, Romania, Spain, Cyprus (since 2017), Slovenia and Croatia (since 2018)
Start date	2010: task force set up: 2012: partnership agreement	2015	2017	2015	2017
Name	Baltic Procurement Initiative	Beneluxa Initiative	FAAP	Nordic Pharmaceutical Forum	Valletta Declaration

3.3.1 Baltic Procurement Initiative

3.3.1.1 How it started

In September 2010 the prime ministers of the three Baltic states (Estonia, Latvia and Lithuania) decided to facilitate more efficient provision of health care services and to establish a joint task force on health issues. In May 2012 the Ministry of Social Affairs of Estonia, the Ministry of Health of Latvia and the Ministry of Health of Lithuania signed a partnership agreement on joint procurement and a lending agreement for medicines and medical devices. An expert working group set up to implement the partnership agreement first met in October 2012. It was tasked with identifying a specific product for joint procurement and agreeing on the lead partner to perform the procurement procedure in accordance with its national laws and regulations (47). The first meeting of the procurement commission was held in September 2014.

3.3.1.2 Objectives and scope

The partnership agreement aims to facilitate joint procurement of medicines (currently with a focus on vaccines) to reduce public procurement expenditure. In addition, the collaboration facilitates lending of medicines and medical devices to prevent or cover shortages and to ensure continuous access to these products (47). The three countries also use the collaboration for information exchange.

3.3.1.3 Key activities/developments

The first joint procurement for the bacille Calmette–Guerin (BCG) vaccine against tuberculosis in 2015, with Latvia as the lead partner, was declared unsuccessful owing to supply problems with the only BCG vaccine that was registered in all three Baltic states. Thereafter, the Baltic Procurement Initiative undertook three successful joint procurements of vaccines (rotavirus, pneumococcal conjugate and hexavalent vaccines; see section 3.5.3). For any joint procurement, a framework agreement for a period of three years was signed. As immunization schedules for these vaccines were not identical across the three member countries, only two of the three participated in each joint procurement.

Lead partner responsibility for the procurement process from announcement to the signing of the framework agreement rotates among the countries. The lead partner is mandated by the others to procure on their behalf, in line with its national legislation.

Since 2012 the lending agreement for centrally procured medicines and medical devices signed by the three countries has prevented or reduced several shortages of medicines (21). The procedure is initiated and organized by the country in need of a product. The country lending the product does not charge any fees for this service. The delivery of requested products usually arrives within one week. Once the beneficiary country receives its original (delayed) product order, it returns the borrowed products. The biggest wholesalers have usually representatives in all three countries; thus, the transportation structure is already in place.

In the future, the collaboration may extend its focus beyond procurement of vaccines and consider joint procurement of medicines. This is currently considered a difficult task, however, because of the different systems in place in the three countries.

3.3.2 Beneluxa Initiative

3.3.2.1 How it started

An initiative to explore possible collaboration in pharmaceutical policy was first discussed by the health ministers of Belgium and the Netherlands in December 2014. A declaration was signed by these ministers during the Informal Meeting of European Ministers of Employment, Social Policy, Health and Consumer Affairs in Latvia in April 2015 (*32*). Luxembourg joined the project in September 2015, followed by Austria in June 2016, giving the Initiative its name "BeNeLuxA". Ireland joined in June 2018, and since then this cross-country collaboration has been called the Beneluxa Initiative. It comprises five high-income, middle-sized countries, mainly in western Europe. The current member countries have a total of 43 million inhabitants, and further countries have expressed interest in joining the collaboration (*48*).

3.3.2.2 Objectives and scope

The Beneluxa Initiative aims to join forces to ensure sustainable and timely access to, and appropriate use of, high-quality and affordable medicines in the participating countries (49). Initially the planned focus was on joint negotiations for orphan medicinal products, but at the time of the interviews further high-priced medicines were also included in its scope.

3.3.2.3 Key activities/developments

The Initiative cooperates in the fields of:

- horizon scanning
- HTA
- information sharing
- pricing and reimbursement (joint negotiations).

For each of these defined working areas, a technical domain task force was established, reporting to a steering committee consisting of representatives of each country that oversees the collaboration and reporting to ministers.

The Beneluxa Initiative has developed a negotiation framework. Manufacturers are encouraged to inform the collaboration about their interest in a joint negotiation at least six months before they submit an application for reimbursement, to allow sufficient time for planning. Although submission of a dossier is voluntary (the dossier has to be submitted to all countries simultaneously), the Initiative only enters into negotiations after it has received and jointly assessed a submission dossier (50). All Beneluxa Initiative member countries may be present, but only one country is in charge during negotiations (48). Reimbursement procedures and decisions are made separately by each country according to national legislation, as shown by the different reimbursement conditions for Spinraza® (nusinersen) established by Belgium and the Netherlands after their successful joint negotiation with the company Biogen in July 2018 (see also section 3.5.4). An earlier pilot joint negotiation by Belgium and the Netherlands with the pharmaceutical company Vertex on Orkambi[®] was stopped in May 2017 (50), for further information also see the case study 3 on the joint negotiation of the Beneluxa Initiative in section 3.5.4.

The Beneluxa Initiative has produced around a dozen HTA reports, usually either as joint writing or reuse (for further details and an overview see the Beneluxa website (51)). In 2018 reuse of an existing report for Spinraza[®] (nusinersen) was carried out by Belgium and the Netherlands and shared with the HTA organizations of the other Beneluxa Initiative member countries after publication of the final report. Following the reuse of the report, Belgium and the Netherlands conducted the above-mentioned joint negotiation.

In October 2019 the collaboration launched the International Horizon Scanning Initiative, which goes beyond the current coalition of countries. Its goal is to build a permanent horizon-scanning system that can support countries and institutions in policy planning and in their decision-making on reimbursement of new medicines (see section 3.5.5).

3.3.3 FAAP

3.3.3.1 How it started

Poland presented a proposal for collaboration at the technical level, which was brought to ministers' attention at an informal meeting of the health ministers of the Visegrad 4 countries (comprising Czechia, Hungary, Poland and Slovakia) as well as Lithuania and Croatia in March 2017. A first memorandum of understanding (MoU) on cooperation in the area of fair and affordable pricing of medicines was signed, and a coordination committee comprising a maximum of five designated pricing and reimbursement experts from each participating country was established, with the ministers of health as the governing body.

Cooperation under FAAP has continued through successive presidencies held each year by one of the Visegrad countries. After the expiry of the first MoU in March 2019, the ministers of health of Czechia, Hungary, Lithuania, Poland and Slovakia signed a second MoU in Warsaw in May 2019 to continue cooperation based on lessons learned in the previous two years (*52*).

The FAAP collaboration comprises countries in central and eastern Europe of somewhat lower income than those in the Beneluxa Initiative: Czechia, Hungary, Lithuania, Poland and Slovakia, with Latvia participating as an invited guest. Czechia used to be an observer but joined as a full member with the second MoU in 2019; Ukraine has expressed interest in joining. Croatia and Slovenia used to be members, but decided independently (with regard to reasons and timing) to move from FAAP to the Valletta Declaration.

FAAP considers similar socioeconomic and health-related needs and geographical proximity as supporting factors for close collaboration. As of November 2019, the collaboration covers 69 million citizens (46).

3.3.3.2 Objectives and scope

FAAP aims to improve and facilitate access to effective and affordable medicines and to develop methods and modalities of cooperation and negotiations. As a tactical goal, the collaboration plans to apply the experience gained from pilot negotiations to achieve a common position of certain confidential modalities of pricing of medicines. FAAP's interim objective is to harmonize the initiative and its values and decision-making processes, and to share information and maximize resources within participating countries. At the same time, member countries are asked to view FAAP as a complementary element that enables national reimbursement systems to be better prepared for innovations (53).

3.3.3.3 Key activities/developments

Three working areas were identified:

- exchanging information on pricing and reimbursement (through participation in expert meetings);
- organizing joint pilot negotiations in the areas of pricing and reimbursement with manufacturers of orphan medicines, expensive medicines and/or products with high budgets;
- HTA.

FAAP's operations are based on periodic meetings of the countries' representatives at all levels (prime ministers, heads of states, ministers, experts and so on). The official prime ministerial summits take place on an annual basis.

By mid-2019, eight regional meetings and technical consultations on specific disease areas (such as breast cancer) had been held (53). At first the coordination committee focused on identifying common platforms and how the different systems could work together. It deemed HTA to be a suitable activity to start with, and Poland took the lead in this stream.

Pilot negotiations are intended to be used to develop effective negotiation procedures and to identify elements that can be used in the development of an international agreement for fair pricing. Two working groups (analytical and legal) have been created to facilitate this (53).

3.3.4 Nordic Pharmaceutical Forum

3.3.4.1 How it started

In 2015 technical experts of the Danish procurement agency Amgros (which is responsible for pharmaceutical procurement in all public hospitals in Denmark) initiated the Nordic Pharmaceutical Forum (Nordisk Laegemiddel Forum). Policy-makers were not consulted during the set-up phase of the initiative. Its member countries are Denmark, Iceland, Norway and Sweden, with Finland as an observer.

3.3.4.2 Objectives and scope

The collaboration aims to join forces and increase purchasing power to ensure better security of supply through a larger market, and to provide an informal platform for information exchange. It also plans to work on joint solutions with a focus on joint procurement for hospital medicines and horizon scanning. Its scope includes new and expensive medicines as well as older medicines.

3.3.4.3 Key activities/developments

The work is performed by a steering group consisting of a facilitator and two representatives from each country, as well as by working groups on joint procurement and price negotiations for new high-priced medicines, horizon scanning, security of supply and registration of branded medicines. Information sharing within the working groups depends on their specific needs: it may be both informal or ad hoc and take place at predefined meetings – for instance, every month or a few times each year.

The Nordic Pharmaceutical Forum facilitated a dialogue between the purchasing organizations in Denmark and in Norway. In September 2018 the ministers of health of Denmark and Norway signed an intention agreement on joint price negotiations and procurement for selected medicines, with the aim of improving supply security for older medicines and of ensuring the financing of new expensive medicines (54).

The collaboration has concluded its first joint procurement, comprising four tenders including a total of 10 items (for details and lessons learned see section 3.5.2). The working group for registration of on-patent medicines has only been established recently. As Amgros is licensed to register branded medicines, the plan is to register new medicines as well as older medicines that are no longer supplied through the Nordic market.

Alongside the Nordic Pharmaceutical Forum, further collaborations related to medicines exist in the Nordic countries. These include the FINOSE initiative working on HTA established in 2018 (see section 1.1) and the Nordic Pricing and Reimbursement Group, which is an informal alliance between national pricing and reimbursement authorities. The Nordic Pharmaceutical Forum and the Nordic Pricing and Reimbursement Group meet annually to exchange knowledge and coordinate common topics, and exchange also takes place with members of the FINOSE initiative (55).

3.3.5 Valletta Declaration

3.3.5.1 How it started

On 8 May 2017 Malta and Italy hosted a meeting in Valletta, Malta, with the ministers of health of a number of European countries to discuss potential initiatives to improve sustainable access to effective and affordable medicines. The ministers of Cyprus, Greece, Italy, Malta, Portugal and Spain decided to form a collaboration and signed the Valletta Declaration on the same day. On the following day, the ministers of Ireland and Romania signed up to the Declaration. Slovenia and Croatia joined the Valletta Declaration in January and May 2018, respectively, bringing the total to 10 countries, mostly in southern Europe (40).

In 2019 the Valletta Declaration covered a market of over 160 million citizens, representing more than 30% of the total population of the EU. The cooperation would welcome other ministers of health of EU Member States that may wish to join (*56*).

3.3.5.2 Objectives and scope

The initiative aims for the ministers of health of the participating countries to collaborate to improve patient access to mostly new and innovative medicines and therapies, and to support the sustainability of their national health systems (56).

3.3.5.3 Key activities/developments

The Valletta Technical Committee is composed of technical experts from all participating countries. It was created to carry out the work agreed to by the Valletta Declaration. Intended activities include:

- performing horizon scanning (mainly innovative medicines without marketing authorization or in the early phase of marketing authorization);
- identifying and prioritizing activities for joint collaboration related to HTA (joint assessment) and joint negotiation;
- gathering and sharing information (such as on specific medicines, policies, legislative proposals and procedures adopted in different participating countries);
- identifying good practices on pricing and reimbursement of medicines (56, 57).

By July 2019 eight meetings of the Committee had taken place (58) and the collaboration had identified treatments to be prioritized for joint activities (59). The Valletta Declaration has difficulty accepting a dossier for joint negotiation if the pharmaceutical company has already submitted the reimbursement application in any of the participating countries. The Committee has also yet to define certain procedures, such as which prices are to be negotiated (for example, a fixed price or a range), national implementation of joint outcomes and confidentiality concerns during the process (58).

Price transparency is also a major topic of the Valletta Declaration. The collaboration is exploring ways to develop a formal framework that will enable countries not to accept non-disclosure agreements with the pharmaceutical industry and to share price information among member countries (60). With these efforts, the countries are working together on concrete steps to implement the ambitious World Health Assembly resolution on improving medicines price transparency approved in May 2019 (61).

3.4 Key features of the cross-country collaborations

3.4.1 Initiation

In most instances, one or two countries took the initiative to form a collaboration, which was commonly based on a political decision made by the different countries. Cross-country collaborations were seldom developed with a bottom-up approach driven by technical experts from one country. Collaborating countries usually signed official documents establishing the collaboration, such as an MoU or a partnership agreement (see, for example, a summary of the terms of reference of the Beneluxa Initiative (62) in Annex 2). Some countries were members of other technical collaborations or informal networks that were in place earlier and continued to be members of those.

The starting phase was considered a motivating launch with high expectations but, at the same time, alignment of national processes and introduction of an effective working structure between countries proved to be a challenge. While politically driven collaborations were able to establish the formal collaboration quite quickly after the initial idea to cooperate, it took some time from establishment to starting work. Joining an existing collaboration with defined processes was, unsurprisingly, easier than establishing a new collaboration.

Some changes occurred in the starting phase: new member countries joined, areas of activity were extended and the working structure was adapted, based on lessons learnt. Given their novelty, establishment of a cross-country collaboration and its further development was, to some extent, based on a step-wise learning-by-doing approach.

3.4.2 Working structure and decision-making

As shown in section 3.3, the cross-country collaborations surveyed identified several areas of activity for joint work. Usually, collaboration was organized through technical working groups – for example, related to HTA or joint procurement. This work was reported to be guided by a workplan (possibly an

annual plan). In addition to specific working groups (with or without subgroups), the majority of the collaborations appointed a governing body (such as a steering committee or executive board) as an approving and decision-making entity. Some collaborations have strong ministerial and head of state participation (Table 3.2). As seen in certain examples, more than one public institution of a country can be involved in the collaboration. Broader representation can, in particular, be found in the working groups (for example, involvement of national HTA bodies in the HTA working groups).

The collaborations surveyed defined governing principles to follow (some indicated these in their documents, as in terms of reference or an MoU). Such principles include accountability, full trust, solidarity, no conflict with national regulations (see section 3.4.3) and a balance between transparency and confidentiality. The Beneluxa Initiative's terms of reference (62) phrase it as follows:

The Initiative is committed to ensuring that there is external transparency, unless specific aspects of the collaboration require confidentiality. However, participants will ensure that they exhibit discretion regarding ongoing projects and dialogues in so far as (country-)specific transparency requirements allow.

3.4.3 Alignment of processes and legal changes

Pharmaceutical policies in the areas of procurement, pricing and reimbursement are a country's competences, defined in national legislation and procedures. One major preliminary task for the collaborations was to understand the national procedures in the countries involved and, based on this analysis, to identify solutions to align different procedures to allow collaboration.

One challenge in this respect, for instance, is different timelines used in countries. For example, EU Member States have to adhere to the provisions of the EU Transparency Directive (*31*), which requires pricing and reimbursement decisions to be taken within 90 days (within 180 days in the case of joint pricing and reimbursement decisions). In addition, internal deadlines for specific steps in the pricing and reimbursement procedures (such as when information has to be submitted to a reimbursement committee) come into play; these may differ between the countries of the collaboration.

In some cases, procedures and even legislation had to be changed to allow collaborations to begin work. In Belgium, for instance, marketing authorization holders were only permitted to submit their dossiers in the official country languages: a legal change was required to allow submission of dossiers in English, which is the working language of the Beneluxa Initiative. In addition, Iceland changed legislation to be able to participate in Nordic Pharmaceutical Forum tenders in the future (see section 3.5.2).

Despite the legal challenges frequently mentioned during interviews, these were the only two legal changes reported from the collaborations. In the case of joint procurement, a lead country has to be defined whose legislative framework is applied. In the Baltic Procurement Initiative, for instance, the lead country acts on behalf of the other countries to procure the selected medicines. The mandate to do so is given by an official delegation letter signed by the heads of the institutions responsible for procurement at the national level (see section 3.5.3).

With joint negotiations for reimbursement, the final decision is taken individually by the countries involved based on their national legislation. This may result in different reimbursement conditions in the countries of a collaboration, as was the case for the reimbursement negotiation on Spinraza[®] (nusinersen) negotiated by Belgium and the Netherlands in the Beneluxa Initiative (see section 3.5.4).

3.4.4 Internal communication

Members of the cross-country collaborations communicate on a regular basis via writing (mainly emails), telephone conferences and meetings. In addition to face-to-face meetings, virtual meetings (such as electronic meetings and telephone conferences) are very common.

Internal contacts may be bilateral or limited to those members that collaborate on a joint activity (such as writing a joint HTA report). Due to the organization in working groups of most of the collaborations surveyed (see section 3.4.2), regular exchange of information and coordination of activities through virtual (and sometimes face-to-face) meetings takes place in these groups. Frequency of face-to-face meetings varies from quarterly to annually.

At the higher, more coordinating levels, face-to-face meetings appear to follow defined frequencies (for example, one or two steering committee meetings per year). Steering committee or executive board meetings are accompanied in at least one collaboration by meetings of politicians, who hold their face-to-face meetings at the same place and time, as fringe meetings, to facilitate exchange and joint sessions with technical experts; see Table 3.2). Further information on staff involvement into the meetings is provided in section 3.4.7.

The exchange of information through various forms of communication is considered a major asset of the collaborations. In the initial phase, face-to-face meetings appeared to be important, particularly in those cases where collaboration representatives did not know each other and had not worked together (in some cases collaborations were built on previous experience; see section 3.4.1). One collaboration reported that it refrained from organizing face-to-face meetings as it considered them too time-intensive. During preparation of a specific joint activity, however, monthly meetings were held via telephone conference between collaboration representatives involved in the action.

Factor	Procedures
Decision-making	 The collaborations surveyed stressed the principle of reaching agreement based on consensus. The importance of solidarity was also stressed; this requires some countries to make compromises.
Formal or informal engagement	 Some cross-country collaborations were found to decide on a case-by-case basis whether all member countries or only a selected number would participate in a specific activity (for example, with negotiations or HTA on a specific concern). The collaborations have no legal basis for decision-making, so decisions are not binding. If countries have agreed to participate in an activity, however, their commitment to engage and deliver is expected. One collaboration reported that in the case of joint procurement, countries are expected to join: once the signed delegation letter is sent out, it is mandatory and countries take legal responsibility for participating in the purchasing process.
Involvement of political actors	 The majority of collaborations are politically driven, with strong political commitment and involvement to achieve the defined objectives. Ministers are well informed of achievements and potential challenges. In some cases (such as decisions on prices), ministers must approve the final decision. Close collaboration between politicians of participating countries is facilitated through regular joint face-to-face meetings of ministers of health (or heads of state). In some cases, meetings also take place in parallel with the technical experts involved. A minority of cross-country collaborations did not involve the political level at inception; however, a shift to stronger backing by politicians was observed.

Table 3.2. Procedures of involvement and decision-making among the collaborations

3.4.5 External communication and information dissemination

Communication to the "outside world" has different purposes, depending on the stakeholder group targeted, including:

- general information about the collaborattion for the public (for example, patients or the media), for the purposes of transparency and/or to correct the spread of incorrect information, for instance in the media;
- more specific information for other authorities and purchasers of medicines in the same country, with the aim of keeping them informed and involving them further, if appropriate;
- targeted information for the pharmaceutical industry and specifically for individual pharmaceutical companies in response to requests – to encourage the industry to enter into business relations with the collaboration (for example, so that companies submit a tender to a joint procurement call or agree to negotiate with a cross-country collaboration).

For these purposes, the collaborations use a mix of different communication tools, such as press releases or statements on a website and/or social media and, as well as participation at national stakeholder events and international conferences to disseminate inform about their collaboration (see Annex 3).

Overall, external communication is considered very important but also time-intensive. Representatives of the collaborations acknowledged that there was room to extend dissemination of their work (for example, to the general public).

3.4.6 Stakeholder reactions

Despite the efforts of the cross-country collaborations to inform and engage with stakeholders (mainly the pharmaceutical industry), there is not necessarily a positive relationship between the extent of stakeholder management and the willingness of a stakeholder to engage. A key stakeholder for the collaborations is the pharmaceutical industry – in particular, the individual companies the collaborations aim to procure from. The pharmaceutical industry is probably the best informed stakeholder group outside the collaboration and is targeted by several information activities. At the same time, many questions remain, since the procedure of negotiating with a collaboration instead of an authority in a single country is also new for the industry.

Overall, the pharmaceutical industry shows some reluctance to work with the collaborations. This is particularly the case with large multinational companies, whereas representatives of medium-sized more local companies expressed interest and willingness to engage. Reluctance was attributed to the limited understanding of the complexity of the collaboration and to the local structure of a company. Those companies, however, that have successfully completed the process of a negotiation with a cross-country collaboration reported positive experiences. After the successful negotiation with Belgium and the Netherlands, the Head of Market Access Europe of Biogen stated: "These types of initiatives always come with opportunities and challenges. I think this is a pioneering endeavour both on our part and on the part of the HTA agencies. [...] We believe partnerships with health care systems will pay off in the long term" (63). (See also section 3.5.4.)

Reactions of other stakeholders are often not known. According to a few collaboration representatives, patients expect better access to medicines as a result of the collaborative actions of the authorities, but it was also acknowledged that most patients are probably not aware of the collaborations. Unless specific dissemination activities were organized (see section 3.4.5), patients' knowledge about the collaborations mainly resulted from the media, which reported on collaborations in some but not all countries. Overall, media reports about the collaborations were perceived to be generally positive and supportive, but some also criticized the slow progress and lack of achievement.

3.4.7 Resources

Overall, representatives experienced major difficulties estimating the time and resources spent on tasks related to the cross-country collaboration. As most countries had not allocated any budget for staff involved in the collaboration, this work is done on top of their regular workload.

The resources required vary according to the time spent on technical work (such as preparation of calls for tenders and negotiations or writing HTA reports), communication activities (including face-to-face meetings and telephone conferences) and coordination and administrative tasks (Table 3.3). Some collaboration representatives considered the workload during the process of setting up the initiative to be more intense, since processes for ensuring smooth collaboration had yet to be defined.

Factor	Resources			
Number and allocation of staff	 In general, collaborations had not assigned any full-time employees working for the collaboration and usually no new staff had been hired. Some authorities made changes to the prioritization of tasks for their staff. In certain instances, staff were released from other tasks. Some institutions planned to increase allocated funding to engage more staff in activities. More than one institution per country is usually involved in a collaboration, and several experts are engaged within each. The background qualifications of staff involved included pharmacy, medicine, economy/ business administration, social sciences, legal training and communication. Experts involved included members/heads of pricing, procurement, reimbursement and HTA units, as well as general management and advisers to ministers of health. Members of communication and legal departments were also involved when needed. 			
Time spent on work for the cross-country collaboration	 Time spent on work for cross-country collaborations ranged from a few hours to a considerable number of hours per week. In particular, those staff members in a coordinating and leading function spent several hours per week working on it. Additional resources (work and travel time) were required for face-to-face meetings (up to four meetings per year were reported). Additional time was also needed by those preparing for and hosting meetings. 			
Other costs incurred	 For face-to-face meetings, travel and accommodation costs and costs to the hosting institution (such as catering) were incurred. Major other costs would be necessary if investments in new activities and commissioning of tasks were required. One example is the establishment of the International Horizon Scanning Initiative (see section 3.5.5). 			

Table 3.3. Estimate of resources spent on activities in cross-country collaborations

Given the additional work arising from the (new) tasks performed in the collaborations, resources were identified as a critical component. Collaborations have worked to ensure that sufficient resources will be invested (including releasing staff from other tasks and updating prioritization).

3.4.8 Monitoring and evaluation

The cross-country collaborations consider achievement of the defined objectives to be indicators of success (for example, concluding a joint procurement or a joint negotiation, creating a joint HTA report or setting up a horizon scanning system). No specific outcome indicators (such as a specified number of joint procurements conducted per year) have been defined, however. The definition of such performance indicators was perceived to be difficult by some representatives, since it was considered to be too early to be able to produce "tangible results". Furthermore, it would ignore other key benefits of the collaboration that are hard to measure (such as the value of information sharing and building mutual trust; see section 3.5.1). None of the collaborations surveyed had been subject to an externally commissioned evaluation.

Monitoring of progress through process indicators (such as a table of actions that is reviewed at each meeting) appears to be standard in most collaborations.

3.5 Lessons from the cross-country collaborations

3.5.1 General assessment

Despite slower achievements than originally expected, all collaborations surveyed were unanimous in perceiving the cooperation to be a success and a move in the right direction. As most had only recently been established, representatives considered it too early to showcase results. In addition, major perceived benefits are not necessarily tangible results that can be "sold" to the public, such as those presented in the following case studies (sections 3.5.2–5). In particular, the importance of information exchange was highlighted by all collaborations.

3.5.2 Case study 1: joint procurement of older hospital medicines (Nordic Pharmaceutical Forum)

Nordic countries often experience medicines shortages, as their markets are considered less attractive for suppliers due to smaller volumes. In order to improve security of supply, countries of the Nordic Pharmaceutical Forum launched the first joint tender.

In summer 2017 the Forum met to investigate options for a joint procurement pilot of medicines with the aim of pooling volumes. In the past, suppliers had responded that the volumes requested by national tender had been too low. Representatives from Demark, Iceland and Norway participated in the meeting; Sweden was present as an observer.

The countries performed a preliminary analysis to identify synergies and barriers, as well as specific requirements in the individual countries, and to propose potential medicines for joint tendering. The results of the analysis showed that joint procurement could be possible, despite some barriers that need to be addressed – in particular, legal challenges. Denmark had performed tenders under EU legislation, whereas Iceland and Norway had done so under EEA legislation. To find solutions to make joint procurement possible, the three countries worked in three parallel work streams:

- evaluating the legal framework in the three countries;
- evaluating the political framework in the three countries;
- identifying the products that would be eligible for the pilot tender.

The countries identified the six most undersupplied older hospital medicines that were suitable for the joint tender. Based on information received in a dialogue meeting with potential suppliers in September 2018, the Nordic Pharmaceutical Forum conducted a market survey to collect comments from potential suppliers on a preliminary list of products. By consulting many stakeholders, the countries intended to avoid a situation in which no bids would be received for the joint tender. As far as possible, the procurement documents were adjusted to take the inputs of possible suppliers into account.

Before publishing the call for this joint tender, the collaboration conducted six weeks of hearings with potential suppliers, with a view to receiving final comments to be considered in the tender call documents. After the hearing period, the collaboration published four calls for tenders that included a total of 10 items. The tender was based on national legislation of Denmark as the lead country. Due to its legal set-up and low volumes, Iceland was not able to attend, but the country has since initiated legal changes, and can attend future Nordic tenders.

Overall, a representative number of suppliers submitted bids so that the majority of joint tenders had sufficient competition. In total, nine contracts were signed. The international commercial terms differ from country to country owing to the different national set-ups. It is expected that delivery of the procured medicines will take place in February 2020. A political framework was also signed between the three countries to have a common foundation to build on in future tenders.

The Nordic Pharmaceutical Forum was satisfied with the results of this first pilot project. Key lessons learned include the following.

- The collaboration had an extensive dialogue with suppliers to understand and develop mutually beneficial and feasible options. This engagement with and listening to stakeholders is considered important in order to build robust insight into what is possible for potential suppliers, bidders and collaboration representatives.
- Similar health system and pharmaceutical structures among the countries facilitated the collaboration and increased the attractiveness for companies considering bidding.
- In particular, legal barriers may prevent participation and need to be addressed.
- Significant resources are required (a minimum of one full-time employee for small countries).
- Efficient and timely planning, including regular face-to-face meetings with the countries involved to share information, is considered crucial to the success of the joint procurement.
- When planning joint procurement, it is essential to include logistics aspects (such as delivery of products) in the early tender planning phase.

Despite the positive responses to the calls for tenders in the first pilot, the longer-term impact is yet to be seen in terms of whether joint procurements can make a sustainable contribution to improving supply shortages. In the short run, specific logistics challenges concerning how the hospitals in the countries involved receive the medicines need to be clarified. It is also yet to be seen whether the companies awarded will comply with supplying the three markets according to the terms of the contracts.

3.5.3 Case study 2: joint procurement of vaccines (Baltic Procurement Initiative)

After one unsuccessful attempt, the Baltic Procurement Initiative has now successfully concluded three joint procurement projects on vaccines. The focus on vaccines resulted from the similar immunization schedule of the three countries, combined with significantly different vaccine prices between the countries.

The first step was selection of the vaccine to be procured jointly; thereafter, it was decided which countries would participate in the procurement (those that had the vaccine in their immunization schedule) and which would be mandated to take the role of lead. The lead partner is responsible for the procurement process from announcement to the signing of the framework agreement (including the application of the procurement procedure, development of procurement documents, establishment of the procurement commission and coordination with other partners or members of the expert working group involved in the procedure). The lead partner is tasked by an official delegation letter (including the name of the vaccine, quantity and so on) signed by the heads of the institutions responsible for procurement at the national level. By signing the delegation letter, countries give their legal consent for the lead to procure the product on their behalf. Countries can, however, object if the terms of the proposed procurement are outside the scope of previously agreed terms – for example, if the proposed bids exceed the estimated price. The relevant legislation for carrying out the joint procurement process is that of the lead partner.

In spring 2015 the first joint procurement was announced for the BCG vaccine used against tuberculosis. As Latvia was the lead partner, the procedure was conducted in accordance with the country's Public Procurement Law. In June 2015, however, the procurement was declared unsuccessful as no bids had been received from a manufacturer able and willing to supply.

After further discussions in the working group, Estonia and Latvia identified a rotavirus vaccine as the next promising candidate for joint procurement. Lithuania did not participate as rotavirus vaccination was not part of its immunization schedule at that time. Initial preparations started at the end of 2015. In the first joint procurement for BCG vaccine, procurement documents were prepared simultaneously in the national languages of the two participating countries. From the second joint procurement on, all documents were in English, with the exception of some content in Estonian for information purposes (owing to the requirements of the Estonian e-procurement platform). The joint procurement was announced in October 2016 and tenders were opened in December 2016. After the tender was successfully concluded, a framework agreement for procurement was signed between Latvia and Estonia in early 2017. As the lead partner, Estonia was responsible for managing the entire procurement process.

The second successful joint procurement was a pneumococcal conjugate vaccine. Only Latvia and Lithuania participated, as Estonia does not have the vaccine in its immunization schedule.

The third successful joint procurement was for two vaccines – rotavirus and hexavalent vaccine – in collaboration with Latvia and Estonia. This time, Lithuania did not participate as hexavalent vaccine is not in its vaccination schedule.

Key lessons learned include the following.

- The collaboration made slow progress in the initial years as the work for experts was voluntary and not always treated as a priority. A high number of face-to-face meetings caused further delays. As a result, the majority of the work successfully shifted to communication primarily via email, without in-person meetings.
- Mutual understanding is considered a key success factor.
- Not all countries of the Initiative participated in all procurement initiatives, as participation is voluntary and depends on whether the selected product is included in the country's vaccination schedule.
- A major role and significant responsibility are given to the lead partner and its technical experts responsible for conducting the procurement.
- For lead partners, preparation and management of the procurement procedure becomes easier with experience, especially once the first procurement documents have been drafted.
- Rotation of the lead countries has proved to be successful.
- Before the first procurement could be successfully concluded, solutions had to be sought to address
 the differences in organizational and legal procedures between countries. As with the official language
 of the procurement procedure, it was decided to prepare the procurement documents in the language
 of the lead country and in English.
- Legal issues should be clarified prior to announcing the first joint tender (representation, processes in place for a potential court trial and so on). There is no need for legal changes since the procurement projects were based on the legal framework of the lead country.
- Clarity of all general provisions and technical procedures before conducting the first joint procurement is a prerequisite.
- Creating definitions of the procurement procedures that are as simple as possible was identified as supportive factor. Similarly, simple and short procurement documents (not longer than 10 pages) proved to be good practice.
- Performing a market feasibility analysis, including contacts to possible bidders, on their capacity to supply, is a prerequisite for a successful procurement.
- Political leaders asking the technical experts about their progress kept the collaboration going. This was important especially in the early years when no successful procurement had yet been performed.

3.5.4 Case study 3: joint negotiations (Beneluxa Initiative)

In July 2018, the Beneluxa Initiative announced the successful conclusion of a joint negotiation by Belgium and the Netherlands with the pharmaceutical company Biogen for the orphan medicine Spinraza[®] (nusinersen). It is the first medicine approved for the treatment of spinal muscular atrophy (64).

In preparation for the joint negotiation, a joint HTA was conducted. The negotiations lasted for months. The initial list price of €83 000 per injection (with six injections needed in the first year and three per subsequent year) was substantially reduced to an undisclosed figure. Belgium and the Netherlands temporarily reimbursed Spinraza[®] (nusinersen) for a specific patient population until at least December 2020. After this date, the Belgium Reimbursement Committee will re-evaluate, considering the additional real-world evidence collected at that stage (*50*). The eligible patient population differed in the two countries, as Belgium reimbursed the treatment for all age groups, whereas the Netherlands only reimbursed it for children of a certain age.

All parties involved expressed satisfaction with the outcome. The Belgian Minister of Health stated: "The more patients we represent, the more our voices will be heard when discussing high-cost medicines" (65). The Dutch Minister of Health, Welfare and Sports underlined the benefits of working together on price negotiations and pharmaceutical policy, not only for the participating countries but also for the pharmaceutical company, which gains "swift access in several markets at the same time" (63). The Head of Market Access Europe at Biogen considered the countries' flexibility in their cost–effectiveness assessment crucial in reaching an agreement and commended the collaborative and open approach (63). In a similar vein, the representative of the Beneluxa Initiative stressed that the collaboration aims to negotiate over the product's value rather than bargaining for the lowest price, with the goal to agree on a price perceived as fair by the countries and the manufacturer (50).

The agreement on Spinraza[®] (nusinersen) was the first successful joint negotiation that enabled the inclusion of a medicine in the reimbursement list of two different countries under similar financial conditions (*50*). In the Beneluxa Initiative, it followed an unsuccessful negotiation by Belgium and the Netherlands with the pharmaceutical company Vertex on Orkambi[®] in May 2017. The Dutch National Health Care Institute had assessed Orkambi[®] to be not cost-effective and had advised against its reimbursement at the given price, noting that further negotiation for a lower price would be required (*66*). As a consequence, the medicine was not eligible for reimbursement in either country. The Netherlands, however, continued negotiations with Vertex, eventually leading to reimbursement of Orkambi[®] in October 2017 (*50*).

Key lessons learned include the following.

- All parties to the negotiation (the two countries and the company) saw a value in the agreement, so its conclusion was a win–win situation for all.
- The successful conclusion of the negotiation for Spinraza[®] (nusinersen) might raise the interest of further companies to engage in negotiations.
- The principle that negotiations were based on the medicine's added value rather than bargaining for the lowest price could also motivate manufacturers to participate in such joint negotiations.
- Negotiations can take considerable time, in general and apparently particularly in the case of joint endeavours, so this should be factored in.
- The example highlights that a joint negotiation does not necessarily lead to a single price or the same reimbursement conditions for all countries involved. The outcomes of the price (not known in this case) and reimbursement may differ between countries involved.
- Collaborative activities can follow a value chain approach, starting with identifying medicines through horizon scanning, followed by a joint HTA and a joint negotiation (or procurement) based on that evidence.
- Collaborations will also experience failures; the first successful joint negotiation is likely to follow unsuccessful pilots that, however, result in lessons learned for all involved.

3.5.5 Case study 4: the International Horizon Scanning Initiative (crosscollaboration cooperation)

While only a few countries perform horizon scanning activities at the national level (67), an increasing number recognize their importance and the Beneluxa Initiative responded by setting up the International

Horizon Scanning Initiative (IHSI) in October 2019 as a collaborative approach (68). The IHSI aims to provide "a permanent horizon scanning system that can support countries and institutions in policy planning and their decision-making regarding the reimbursement of new pharmaceuticals" (69). The data it collects will offer valuable insights for political decision-makers and payer organization negotiators to better understand upcoming innovations and their impact on the health system, as well as providing leverage for price negotiations with the pharmaceutical industry (70).

In preparation, a thorough planning and consultation process was conducted. In 2017 the Beneluxa Initiative tasked the Belgian Health Care Knowledge Centre to develop a horizon scanning methodology and a possible model for a joint horizon scanning system for medicines. The Centre recommended setting up a central horizon scanning unit (either to be newly established or as an expansion of the horizon scanning activities of an existing unit), to provide sufficient resources to pilot test the methodology proposed and perform an evaluation with subsequent adjustments (*71*).

On the basis of these findings, work began to identify possible solutions for implementation of a joint horizon scanning database and invited other countries to join the collaboration, without the need to join the Beneluxa Initiative. An open market consultation was conducted with the aim of informing market operators about the intentions of the project and obtaining input on the feasibility of building such a system (72). Feedback from the consultation confirmed that "a horizon scanning system fully complying with the currently defined requirements is not readily available on the commercial market" (73). Participating market operators, however, confirmed their capability to submit a proposal in line with the requirements. While only a small number of respondents had both the information technology and medical capabilities to satisfy procurement needs, others stated their willingness to create consortia to submit a suitable offer (73).

In October 2019, the IHSI was established as an independent legal entity (launch meeting on 29 October 2019) (68). The IHSI started with nine countries: Belgium, Denmark, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Sweden and Switzerland. Many other countries have also shown an interest in joining (74, 75). It will be operationalized in 2020, with a call for tenders for a market operator.

Key lessons learned include the following.

- Given the increasing interest and need of countries to join forces in the field of horizon scanning, the Beneluxa Initiative has spearheaded efforts to set up the IHSI. For a large endeavour such as a central horizon scanning unit, collaborative approaches are required, since this can hardly be established by a single country or even a single collaboration. The IHSI was successfully opened up, allowing further countries to benefit from a horizon scanning system and, at the same time, reducing the (financial) burden for each country involved.
- New collaborative approaches had to be sought and agreed upon, leading to the establishment of the IHSI as an independent legal entity that installed its own governance structures.
- Data generated through a joint horizon scanning system can support countries in their policy planning and decision-making regarding the (pricing) and reimbursement of new medicines: the successful launch of the IHSI thus allows governments to be prepared for future developments. Collaborations can build their efforts, such as joint HTA or procurement, strategically on the findings of horizon scanning as part of a life-cycle approach.
- As the IHSI aims solely to consider published information, its outcomes can be published without limitation, should their members decide to do so.
- Stakeholder involvement of possible suppliers was ensured through an open market consultation to
 explore feasibility and can help prepare a call for tenders that will be aligned to practical requirements
 and limitations.
- National experience in horizon scanning of one of the countries involved (the Netherlands) was
 probably supportive of establishment of the IHSI. In addition, the careful preparation, based on
 the scientific analysis done by a research institute, can be considered good practice that provided
 evidence and guidance for the process.

Roadmap for establishing successful cross-country collaborations

4

Based on the analysis of the five cross-country collaborations, further evidence from the literature (34) and the authors' own experiences of collaborative action, a number of factors were identified that determine whether progress can be made in collaborations and the intended objectives achieved. A practical checklist of actions to consider is provided in section 4.2.

4.1 Facilitating and hindering factors

Of several factors that affect progress, five are considered key prerequisites to ensure successful crosscountry collaboration.

- Cross-country collaborations to improve access to medicines through joint activities are predominantly
 government-led initiatives requiring **political support and commitment**. High-level political support
 is of extreme importance. One collaboration that was originally set up as a bottom-up technical
 collaboration acknowledged the importance of political support by signing a MoU between political
 leaders of two countries.
- Especially in the starting phase, working in a collaboration requires additional resources, as new tasks will be performed. Investment in developing a working structure (based on an analysis of cross-country procedures and their adaptation to the collaboration) is also required. The work in a collaboration is done by the officials involved on top of their routine work. Human resources were identified as a limiting factor in the collaborations surveyed. In addition, other costs may be required (such as investment in information technology for communication, website set-up, organization of meetings, travel costs or commissioning of work, as in the framework of the IHSI (see section 3.5.5)).
- To perform activities on time, of high quality and collectively, successful collaborations defined a working structure and leadership that take into account the planned activities and the resources, expertise and organizational culture of the institutions involved. A coordinating unit plays a key role in facilitating communication, decision-making and collaborative performance of activities and of leadership.
- The organization of the health care and pharmaceutical system, including legal provisions, can strongly affect how much time and effort are required to achieve results. In the collaborations surveyed, similarities in the organization and funding structures of the health systems of the countries involved were facilitating factors, for instance. Member countries with fragmented health care systems (such as different responsibilities for outpatient and inpatient sectors), however, met more difficulties with collaborating and a higher level of intracountry coordination is usually required. Different legal provisions may be in place that need to be changed or, at least, aligned to allow collaborative action.
- A major challenge for collaborations is to secure the interest and willingness of industry stakeholders to engage and participate – for example, in a joint negotiation – and to respond to a call for tenders. Stakeholder management requires significant resources, but is critical and rewarding, as good practice examples have shown.

In addition, further elements may have supportive or hindering impacts on the progress of collaborations (Table 4.1).

Factor	Effect on collaborations surveyed	Recommendations
Key prerequisites		
Political support and commitment	Strongly facilitating factor, as most collaborations surveyed are politically driven	 To ensure political support from the very beginning To inform high-level policy-makers and politicians and involve them as far as possible (for example, via parallel meetings of technical experts and political leaders) To ensure continuation when people in political positions change

Table 4.1. Facilitating and hindering factors for successful cross-country collaborations

Table 4.1. contd

Factor	Effect on collaborations surveyed	Recommendations
Resources	Highly limiting factor, in particular when new activities (such as joint procurement and negotiations) are started	 To assess resources needed for the work in a collaboration and review them regularly in the light of previous experience To assess availability of resources in institutions and countries To provide, if possible, further resources (for example, through involvement of further authorities in the country or task shifting) For defined activities, to assign and give a mandate to a designated team (to avoid redundancies)
Working structure and leadership	Important factor, both facilitating (progresses observed in the collaborations as soon as functioning working structures have been established) and hindering (in cases of lack of clarity on who shall take the lead)	 To organize work in a collaborative and work-sharing manner To define roles, tasks and responsibilities of each unit/body in the collaboration, including timelines and milestones To review progress and adapt the workplan accordingly To establish a coordination structure within the collaboration that performs this role for a defined period of time (this may rotate) and to give a clear mandate to this body respecting this authority
Health system organization and legislation	Important factor, both facilitating (similar health care systems) and hindering (legal barriers due to national provisions for pricing and reimbursement, fragmented health care systems)	 To establish, if possible and politically feasible, collaborations of countries of similar socioeconomic level and similar health system characteristics and legislation To find ways of working together that require minimal national legal changes as far as possible To analyse processes and legislation that are relevant for joint activities (e.g. joint procurement) and identify similarities and differences, as well as possible needs for (legal or organizational) changes To plan and undertake changes in legislation if needed To involve all relevant authorities and public institutions in a country, although to different extents
Stakeholder interest and involvement	Important facilitating factor as the collaborations surveyed have invested, to different extents, in stakeholder management, while reluctance of pharmaceutical companies to engage with a cross-country collaboration as a partner is an existing risk	 To identify key stakeholders and develop a stakeholder management plan To invest in external communications To hold larger stakeholder events and targeted meetings with stakeholders, and to launch consultations (if needed, in line with the stakeholder management plan), also with the aim of motivating stakeholders to engage
Further facilitators	and barriers	
Language	Hindering factor in the case of different languages (and the need to choose another working language), with legal implications; and facilitating factor if members of a collaboration speak the same or a similar language	To consider the same language as one possible criterion for selection of countries to collaborate
Trust	Facilitating factor in the collaborations surveyed, which rely on a trustful relationship between people involved in the collaborations	 To invest into trust-building measures (in particular for newcomers) and to dedicate sufficient time and actions for trust-building To develop a working environment based on trust and mutual understanding, as well as sharing of common values and goals
Vision	Facilitating factor in the collaborations surveyed due to set-up of politically driven initiatives with technical experts	 To ensure that the vision of the cross-country collaboration is communicated to all members and the outside world To develop a workplan that operationalizes the vision

Table 4.1. contd

Factor	Effect on collaborations surveyed	Recommendations
Motivation and qualification of experts	Facilitating factor in the collaborations surveyed, given the existence of enthusiastic, committed and highly qualified experts in the institutions of the collaborations and their involvement in the work	To identify the right people for the collaboration
Previous collaborations	Facilitating factor in some collaborations in which the experts involved counted on previous experience of collaboration (e.g. informal long-term cooperation, experts knowing each other)	 To build on good experience and working relations established in previous collaborative actions, if possible
Information technology	Facilitating factor in communication as it helps to avoid face-to-face meetings and thus saves resources	 To make use of information technology (e.g. effective teleconference tools, internal platforms) to support interaction and communication, while at the same time not entirely avoiding face-to-face meetings at regular intervals

4.2 Action plan

Table 4.2 proposes a checklist of key actions to consider before and when establishing a cross-country collaboration. An action plan needs to be adapted for each collaboration; in particular, the proposed plan lists actions required or recommended when a country decides to establish a new collaboration. In the case of joining an existing initiative, some activities may be omitted or be performed differently, since certain governance structures or processes are likely to have been defined already.

Table 4.2. Checklist of major actions proposed for establishment of a cross-country collaboration

Phase	Action			
From need to vision: pre-establishment phase				
Analysis of benefits and challenges of cross-country collaboration		 country collaboration has been highlighted as a possible solution. A vision for cross-country collaboration has been developed, outlining expectations on the benefits of the collaboration. Possible areas for joint work have been considered. A preliminary assessment has been made of the country's possible contribution to a cross-country collaboration, and of the amount of resources (human and financial) able to be assigned to work in a collaboration. 		
Decision on moving forward		Mapping of existing collaborations (including possible exploratory talks) has been performed, with a view to identifying whether existing cross-country collaborations could be joined to improve the country's access to medicines.		
		The decision has been made to join an existing cross-country collaboration.		The decision has been made to establish a new cross-country collaboration.
From vision up to launch: setting up a collaboration				
Searching for member countries		 legislation, similar market size, similar income level, same/similar language, health care priorities and value, capacity). Exploratory discussions have been held. 		
Securing political support		 If not, support of political leaders has been sought. Politicians have been informed regularly about progress in the establishment of the cross-country collaboration. 		

Table 4.2. contd

Phase	Action
Definition of objectives and areas of work	 General and specific objectives, the scope (e.g. new and/or older medicines, medical devices) and planned activities (e.g. joint price negotiations, joint procurement) have been proposed by the launch country and discussed with candidate countries. Required resources and contributions of candidate countries have been discussed. Based on preliminary agreements, a summary of objectives, scope and activities has been included in the political document.
Establishment of the cross-country collaboration	 The start of the cross-country collaboration has been announced, ideally by political leaders (e.g. in a launch ceremony). A document expressing the political will to collaborate has been signed. The start of the collaboration has been accompanied by media coverage.
Taking action: gettin	g started
Definition of the governance structure and working modalities	 Key principles related to decision-making and collaboration modalities have been agreed upon and defined. Governance and management structures have been defined. A document summarizing agreed principles, processes and structures (e.g. terms of reference, MoU) has been drafted, discussed, revised and signed. A decision on whether this document will published – including which parts, and how – has been made. In the case of a positive decision, publication has taken place (possibly accompanied by further communication work, such as press releases).
Establishment of the working structure	 Defined structures/entities (e.g. committees, working groups) have been established. All members involved in the collaboration have signed relevant forms as appropriate (e.g. conflict of interest forms). The entities have developed workplans which define activities and milestones, linked to timelines. Workplans have been approved. The entities involved in the collaboration have defined frequency of meetings and modes of communication. Meetings have been held as defined and key results documented in minutes. A coordinating structure (e.g. secretariat) has been set up. A decision on the working language(s) of the collaboration and for communication with stakeholders (e.g. for submission of dossiers) has been made.
Involvement of the political level and further relevant institutions	 A mode of appropriate involvement has been defined and is being implemented (e.g. regular reporting to politicians, parallel meetings of ministers of health and technical experts). Mapping of further authorities and public institutions has been performed, and their possible roles (e.g. engagement in the collaboration, information about activities of the collaboration) have been defined. Talks with representatives of these institutions have been held, in which their roles and future actions have been defined.
Analysis of national procedures and legal framework	 A survey of national procedures (including timelines) of the countries involved for activities intended to be done collaboratively (e.g. HTA, negotiations, procurement) has been performed. As part of that survey, relevant national legislation has been analysed, with a view to identifying legal barriers.
Reassessment of contributions and resources	 A detailed analysis of required resources for the agreed activities and the contributions to be made by each country has been undertaken. Resources have been budgeted for at least the next year (including by hiring further staff, freeing experts from other tasks or involving further public institutions in a country).
Strengthening internal communication	 An internal communication plan (e.g. defining communication and reporting channels, frequency of meetings) has been developed and agreed upon. An entity (e.g. the coordinating structure) has been tasked with monitoring the communication plan and reporting regularly on its implementation.

Table 4.2. contd

Phase	Action	
External communication	 A plan for external communication (dissemination plan) has been developed and agreed upon. At the coordinating structure and/or in each member country, people have been assigned to do external communication work (ideally communication experts). The press departments of institutions engaged in the cross-country collaboration have been informed and/or involved to give support. Information for the public has been prepared and disseminated as agreed in the dissemination plan. A website (if agreed) for the collaboration has been set up and is updated regularly with information. A logo has been developed. An account for social media has been created (if agreed in the dissemination plan). Press releases have been launched on specific occasions and/or at specific intervals, as defined in the dissemination plan. Stakeholder meetings (including meetings with the media) have been organized on specific occasions and/or at specific intervals, as defined in the dissemination plan. Stakeholders have been consulted on their views and willingness/ability to engage. 	
From preparation to piloting: cross-country collaborative action		
Harmonization and overcoming legal barriers	 A decision has been made on whether collaborative activity can be done based on existing national procedures. If not, action has been prepared for identified changes needed to national legislation. New processes (including timelines) for collaborative action that account for cross-country differences identified in procedures have been developed and agreed upon. New forms (e.g. for submission of dossiers) and templates (e.g. for joint HTA reports) have been defined. 	
Performing pilots	 Pilots on planned collaborative action have been defined and agreed upon. Agreement has been reached in the collaboration about which member countries will participate in the pilots, and in which roles (e.g. leader, observer). A workplan for the pilot, including timelines, deliverables, assigned and budgeted resources and (a few) indicators to measures progress, has been developed and approved. Legislation has been changed to facilitate the collaborative action (if applicable). Stakeholders have been informed about planned activities and consulted, if appropriate. Stakeholders have been invited to participate in a concrete pilot. Clear information has been communicated to stakeholders on new processes due to their engagement with a collaboration. A limited number of pilots has been launched. 	
Evaluation of existing work and adaptations	 Pilots have been performed. The lessons of the pilots have been evaluated, and decisions on future actions (e.g. adaptation of processes required, transferring pilots into routine) have been made. An evaluation of the collaboration (not limited to the pilot) has been performed, and the findings have guided the collaboration members on decisions on the future (e.g. new activities, stopping some work, assignment of further budget, welcoming new member countries). 	

Conclusions

5

Sustainable and equitable access to affordable medicines is no longer a challenge solely for low- and middle-income countries. Owing to the emergence of medicines with very high price tags, public payers in high-income countries have increasingly struggled with medicines access.

Collaborative approaches among countries have been proposed as a possible pathway for the future, since decisions on price and reimbursement status and reimbursement amount/price of a medicine remain a national responsibility across the world (including in the EU): each country decides separately, based on its national legal and organizational framework. In response to the access challenge, some government-led cooperation initiatives have been established in the WHO European Region, particularly by EU and EEA Member States.

The types of medicines covered and the range of activities vary between cross-country collaborations. While all collaborations surveyed work together to improve accessibility to new, possibly premium-priced medicines, some also aim to address availability issues of older medicines. In the public debate, cross-country collaborations are frequently referred to as "procurement initiatives", but this label is misleading: not all aim to conduct joint procurement; others perform joint reimbursement negotiations to include a medicine into the national reimbursement system under different conditions.

A medicine's pathway along its value chain is reflected in the scope of activities performed by cross-country collaborations, as pre-launch activities such as HTA and horizon scanning are also done collectively.

Information sharing is of the utmost importance. In addition to technical tasks such as joint negotiations, procurement and HTA, the exchange of contextual, non-confidential information and policy practice is another key activity. Some cross-country collaborations have acknowledged this by explicitly including it in their terms of reference or by establishing a separate working group.

Expectations need to be managed. Information sharing is highly valued by experts involved in crosscountry collaborations as they learn that they are not the only ones confronted with major challenges in access to medicines, but the relevance of information sharing is difficult to communicate to political leaders, the media, the public and any parties not involved. Examples of tangible results include the conclusion of a joint procurement or of negotiations leading to lower medicine prices or the availability of a list of emerging therapies with high budget impact.

Getting into collaborative action takes time. Benefiting from information sharing can offer "quick wins" for those involved, but tangible results require considerably more time, since the features of the different health care systems involved need to be analysed first. Possible differences have to be identified and solutions sought and agreed upon. During the starting phase, cross-country collaborations may experience some setbacks or failures, which eventually turn into lessons learned and ensure improvement and successes at later stages.

Alignment of processes and even legal changes may be needed. As a result of the different organizational set-up of the national pharmaceutical systems between countries, processes – including timelines – differ between countries. Collaborative action may thus require an alignment of processes and in some cases even changes in legislation. Nevertheless, several collaborative actions (including joint reimbursement negotiations) may be performed without (major) legal changes, based on the national procedures and regulations of each country, and these could lead to different outcomes for the countries involved.

Collaborations benefit from an overall understanding that they can create a win-win situation for all. While collaboration representatives see the benefits at early stages, companies tend to be more reluctant to engage with a collaboration. Their willingness to engage with the cross-country collaborations is key, however. Successful conclusion of business with a collaboration and the perspective of gaining swift access in several markets at the same time may encourage further companies to engage.

Strengths and weaknesses of national authorities are amplified in collaborative work. If all public institutions involved in a cross-country collaboration share the same strengths (e.g. technical expertise in HTA and procurement) and weaknesses (e.g. few external communication activities), their limitations are unlikely to be addressed appropriately by the collaboration. Further efforts are required.

Working together requires appropriate attention. Collaborative action between countries is a challenge: diagnosis, development of a model of how to collaborate, constant learning and adaptations are needed. Working in a cross-country collaboration requires additional, often time-intensive, activities on top of daily work. Thus, sufficient support and attention from political leaders and high-level staff in the involved institutions is key, and this must translate into provision of adequate resources for the staff to be able to perform their work in the collaboration.

Commitment and formalized procedures contribute to the success of "voluntary" cross-country collaborations. One of the major weaknesses of collaborations is their perceived voluntary, non-binding character. Successes were found to be linked to the introduction of more formal procedures and rules, thus moving away from the principles of voluntariness.

Evaluations of performance may offer lessons to be learned. To allow lessons to be learned, crosscountry collaborations are advised to consider introducing evaluation systems to assess the joint activities.

Champions of cross-country collaborations may support further countries to work together. Despite their challenges, collaborations have been shown to contribute to improvements in access to medicines through better accessibility of new medicines and availability of older medicines. Good practice may serve as a model, and experiences of front-runners in cross-country collaborations can support newcomers who aim to follow the path of "voluntary" collaboration.

For the future, collaboration between cross-country collaborations could be a promising option, since in some cases challenges may require joined forces of more than the countries involved in one collaboration. The IHSI is one example of cooperation that goes beyond one collaboration. Further, collaborative actions including joint procurement and joint negotiations by different collaborations could be pathways for the future to improve access to medicines and to support the implementation of the World Health Assembly resolution on improving medicines price transparency (28).

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Annex 1. Survey methodology toolkit for interviews

The methodology materials for the interviews with collaboration representatives comprise three elements.

- Before the interviews, **informed consent** was given via forms sent to interviewees. The signed forms have been stored appropriately in line with legal provisions such as the General Data Protection Directive.
- The semi-structured interviews were based on an interview guide; this was shared with the
 interviewees in advance to allow them to prepare. The version set out below is the final interview
 guide used in most interviews, which was slightly adapted after piloting of an earlier version of the
 guide in three interviews.
- The interview guide also contained a brief questionnaire to estimate resources. This was discussed within the interviews; most interviewees provided additional information in writing after the interviews.

Informed consent form

Part I: information

Background

You are being asked to take part in this project because you form part of a team involved in a country collaboration on access to medicines.

Purpose

The purpose of this study is to describe existing country collaborations on medicines, their results, challenges and facilitating factors. We would like to provide lessons learned to countries to improve existing collaborations and identify areas where new country collaborations could be beneficial.

What happens in this research study

You have been asked to participate as one key informant in this project. The project will take place in three WHO geographical regions: Europe, the Americas and Africa.

If you agree to be in this study, we will ask you questions about the scope of the country collaboration(s) your country has been involved with, the principles of engagement and operating procedures, the sustainability of the collaboration, perception of facilitating factors and barriers for collaboration and recommendations for other collaborations. The interview questions will be based on previous knowledge that we gained through document review. We may also ask to recommend other people that are knowledgeable about the country collaboration. The interview will take approximately 45 minutes of your time. We will share in advance the list of questions to allow you to prepare. After the interview we will share the minutes for your information and possible correction of factual wrong information.

Participant selection

You are being invited to take part in this research because we feel that your experience can contribute much to our understanding and knowledge of country collaboration(s) on access to medicines.

Risks and discomforts

The interview may take time to complete and this may cause you some inconvenience. You may also feel uncomfortable answering the questions. You do not have to answer questions that make you feel uncomfortable. There is a risk of loss of confidentiality. We explain measures taken to ensure your confidentiality below.

Potential benefits

You may not receive any direct benefits from participating. The information that this project will help develop effective country collaborations to increase equitable access to affordable medication globally.

Alternatives

Your alternative is to not participate in the study.

Subject costs and payments

There are no costs to you for participating in this research study, except the time of conducting the interview.

Confidentiality

We will only collect identifying information one time and we will then keep this information separate from all other information that you provide. All of your identifying information will be kept strictly confidential through the use of unique identifying numbers on all paper forms and computer-based files, with the exception of an initial form that will include name and contact information. The file linking names and study numbers will be password-protected, maintained on computers in locked offices or hotel rooms (when collecting data in the field), and only accessible to authorized study personnel. It will be destroyed within 6 months after the project is completed. All study results presented in written form will be aggregated, with no individual identifying information. Information from this study may be used for research purposes and may be published; however, your name will not be used in any publications. We will also make all efforts to describe the results in such a way that it is not possible to conclude from the contextual information who provided the information. The use of personal data will be in line with legal requirements such as the Data Protection Fundamental Directive that enters in force in the EU for all EU personal data.

Subjects' rights

By consenting to participate in this project you do not waive any of your legal rights. Giving consent means that you have heard or read the information about this project and that you agree to participate. You will be given a copy of this form to keep. If at any time you withdraw from the interview you will not suffer any penalty or lose any benefits to which you are entitled.

You may obtain further information about your rights as a participant by contacting: [contact details of principal investigator included]

Right to refuse or withdraw

Taking part in this project is voluntary. You have the right to refuse to take part. If you decide to be in the project and then change your mind, you can withdraw from it at any time. Your participation is completely up to you. Your decision will not affect your work.

Part II: certificate of consent

I have been invited to participate in research to describe existing country collaboration(s) on medicines, their results, challenges and facilitating factors. I am being asked to take part in this project because I form part of a team involved in a country collaboration on access to medicine.

(This section is mandatory)

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print name of participant _____

Signature of participant _____

Date _____

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

- 1. The participant is being asked questions about:
 - the scope of the country collaboration in my country has been involved with,
 - the principles of engagement and operating procedures,
 - the sustainability of the collaboration,
 - perception of facilitating factors and barriers for collaboration and recommendations for other collaborations.
- 2. The participant may be asked to recommend other people that are knowledgeable about the country collaboration.
- 3. The participant is aware that s/he can withdraw at any point in time.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Print Name of Researcher/person taking the consent: [name included]

Signature of researcher /person taking the consent _____

Date _____

Interview guide

Note: A few of the questions might already been answered due to published documents (e.g. MoU); in these cases questions will be adapted as to confirm existing evidence and to identify missing information.

Scope, goals and objectives of the cross-country collaboration

- What was the key intent to start or join the country collaboration?
- What are the short-term and long-term goals of each participating country?
- Which were the expectations of the country when starting the collaboration (different expectations of different authorities/institutions involved, differences between the technical and political level)?
- What are planned changes (e.g. further countries joining, expansion of activities)?
- Would you do something different or expand the scope?

Process of country collaboration

- How long did the process of setting up the collaboration or joining an existing collaboration take? Which challenges did you encounter in this process?
- What is the level of engagement from the governments involved? (e.g. participation of highlevel Ministry staff or Minister in collaboration meetings; only technical staff is directly involved in collaboration)
- Which relevance would you attribute to political commitment in setting up the process and implementing it?
- Could you please identify the MoUs, resolutions and operational/technical documents (e.g. annual work plan) supporting the cooperation that have been signed?
- Did you define measures or indicators to monitor the performance of the collaborations in achieving their objectives? If yes, which ones? If not, how would you define progress?
- What are governing principles and the implementation mechanisms of the collaboration initiative? (e.g. confidentiality, conflict of interests, transparency of reporting the outcomes, accountability)
- What resources have been invested and will you further invest in the collaboration (see also the short survey of resources)?
- How have country values (e.g. health priorities, disease burden) been taken into consideration?
- Who is the audience interested in the outcomes of this collaboration?
- What are the mechanisms to disseminate the results of the collaboration?
- How is decision-making (intra-country of the institutions of the cross-country collaboration and between the countries) organised (e.g. approval / clearance process?
- How is communication (internally and representation to the "outside world") organised?

Facilitating factors of cross-country collaborations

• What are the factors that facilitate the collaboration and ensure meeting outcome measures?

Challenges

• What are the challenges and constraints faced during the collaboration?

Achievement of the cross-country collaboration

- Do you consider the collaboration successful? Why? Which processes / tasks / outcomes do you consider as a success? Why? Where do you see room for improvement?
- Do you plan to publish and communicate internally to other countries outcomes, challenges and success factors of the collaboration?
- Has the country collaboration changed the process of decision-making? Has this collaboration changed national health priorities?
- What is the view of the industry, of patients, media, public and other stakeholders on the collaboration?
- Which impact did the country collaboration have on other government institutions in your country?

Next steps in promoting cross-country collaborations

• What lessons could you share with other interested countries thinking about entering a collaboration?

Short survey of resources involved in the collaboration

Individual responsible for providing the information

Full name:

Position:

Name and address of the institution:

Contact phone number:

Email contact:

Please provide the estimated resources that has invested in the following country collaboration

You may provide different tables for different tasks.

Domain	Description	Please provide information in the space below
Staff	Number of government staff or commissioned expert involved (in full-time equivalents)	
Financing	Total amount in monetary terms	
Time	Number of remote meetings / monthly	
	Average time of each remote meeting (hours)	
	Number of face-to-face meetings	
	Average time of face-to-face meetings (including travel time):	
Period of collaboration	Start date	
	End date (if applicable)	
Other relevant resources	e.g. website, travel costs, conference software – please specify	

Please list the tasks done in the collaboration with the respective time invested.

Task (e.g. arranging a face-to-face meeting)	Position of the individual responsible (e.g. senior policy adviser)	Time required (hours)

Annex 2. Key details of the Beneluxa Initiative terms of reference

The terms of reference of the Beneluxa Initiative include the following points:

- prerequisites (such as no conflict with national regulations or legislation; ensuring external transparency unless confidentiality is required);
- context (such as limitations in the pharmaceutical market hampering patients' timely access to medicines; why collaboration may benefit countries);
- vision (goal and aims to achieve it);
- scope and objectives (including horizon scanning, HTA, information sharing, joint price negotiations for each, determining overall goal, desired outcome, extent of collaboration, formalized organizational structure, pilot projects and working language);
- membership (including options, expectations, responsibilities and resources);
- internal transparency (definitions and expectations);
- public access (agreements to what is public and what can only be shared among institutions of the collaboration);
- review and planning (such as progress review and drafting of planning documents);
- conflict resolution (including steering committee reviews of incidents jeopardizing or violating general principles of the terms of reference, with conclusions submitted to the appropriate political level if deemed necessary);
- working methods (such as overall coordination, appointed representatives, roles, responsibilities and set-up);
- general assembly (members);
- communication (topics, formats, tools and coordination).

Source: Terms of reference. In: Beneluxa Initiative [website]. Vienna: Beneluxa Initiative; 2018 (https://beneluxa.org/mandate, accessed 28 February 2020).

Annex 3. Communication and dissemination activities of the cross-country collaborations surveyed

The cross-country collaborations use a mixture of different communication tools to disseminate information.

Information via websites and social media

The Beneluxa Initiative is the only collaboration among those surveyed to maintain its own website; official information about other collaborations (such as the Nordic Pharmaceutical Forum or FAAP) is accessible on official websites of participating agencies, such as the ministry of health or national procurement agency (Fig. A.1). The Beneluxa Initiative also holds a Twitter account.²

Press releases

The Valletta Declaration regularly issues press releases: these have provided information about the establishment of the collaboration and joining of new members; face-to-face meetings are also accompanied by press releases.³ In addition, member countries of the Valletta Declaration sometimes follow up by publishing national, slightly adapted press releases in their own country's language. Press releases are typically coordinated through the press department of key institutions of the collaboration, usually in the country of the president, chair or secretariat or in the country hosting the specific.

Official statements

In addition to reports on objectives, ongoing and planned activities, achievements and meetings (by the Valletta Declaration and the Beneluxa Initiative on its website), official statements on key discussion points have been published in a few cases. For instance, the Valletta Declaration called for greater transparency and announced that it would collaborate on practical steps to implement the objectives of the World Health Assembly resolution on improving medicines price transparency.⁴ Before that Assembly, the Beneluxa Initiative had published a brief statement on transparency.⁵

² Beneluxa Initiative on Pharmaceutical Policy (beneluxa.org@BeneluxaCoop). Vienna: Beneluxa Initiative; 2019 (https://twitter.com/ beneluxacoop, accessed 1 March 2020).

³ The Valletta Technical Committee met yesterday in Lisbon [5 May 2018]; Fifth meeting of the Valletta Technical Committee: policies on biosimilars and evaluation of innovative medicines defined as priorities [13 July 2018]; Valletta discussed new ways to improve transparency in the drug market [15 July 2019]. In: Infarmed press releases [website]. Lisbon: Infarmed; 2019 (https://www.infarmed.pt/web/infarmed/ comunicados-de-imprensa1, accessed 1 March 2020).

⁴ Resolution WHA72.8. Improving the transparency of markets for medicines, vaccines, and other health products. In: Seventy-second World Health Assembly, Geneva, 20–28 May 2019. Geneva: World Health Organization; 2019 (https://apps.who.int/gb/e/e_wha72.html#resolutions, accessed 26 February 2020); Fletcher ER. Malta looks for European action on medicines price transparency. Health Policy Watch. 2 October 2019 (https://www.

healthpolicy-watch.org/malta-looks-for-european-wide-action-on-medicines-price-transparency/, accessed 10 October 2019.

⁵ The statement was as follows: "The members of the Beneluxa Initiative highly value transparency as a key contributor to achieving sustainability of access to medicines. Transparency will assist in improving insight into the inner workings of the pharmaceutical value chain. We strongly support access to data generated by clinical research, including negative and inconclusive outcomes. We welcome a wide debate on these topics and further discussion at international level. The first concrete step should be to create price transparency among countries." Beneluxa experts and leaders met: "We are open to engage the next pilots" (November 2019). In: Beneluxa Initiative [website]. Vienna: Beneluxa Initiative; 2019 (https://beneluxa.org/news3, accessed 2 July 2019).

International conferences

Given the high interest in cross-country collaborations, representatives have been invited to international conferences (including those of ISPOR, the Professional Society for Health Economics and Outcomes Research, and the Portuguese Medicines Agency Infarmed,⁶ as well as World Orphan Drugs conferences) to present on their collaborations. Representatives have reported on activities, progress and achievements, and spoken about the challenges involved.

National events

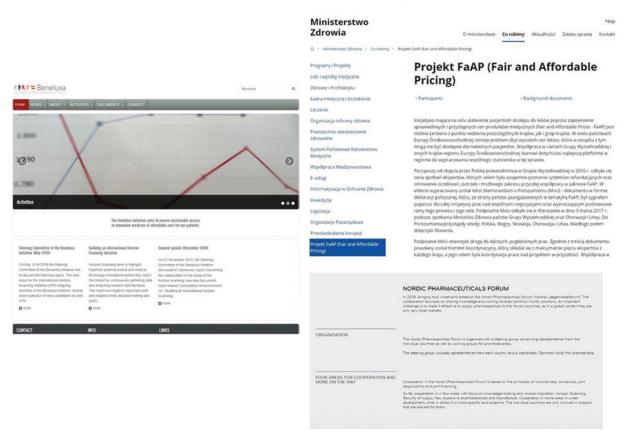
Slovenia provided information on the Valletta Declaration at a national stakeholder meeting in October 2018. A representative of the Nordic Pharmaceutical Forum reported having invested a lot of time speaking at meetings attended by the pharmaceutical industry to encourage working with the collaboration. The reluctance of the industry to collaborate was mentioned as a major challenge by several collaboration representatives.

Calls for collaboration and specific communications with pharmaceutical companies

All cross-country collaborations surveyed had contacts with individual companies that may have led to negotiations between the company and the collaboration. In the beginning, collaborations had to explain the procedures in depth, and elaborate on how they would differ if the company negotiated with the collaboration instead of undertaking separate negotiations with each country, and how this would affect the results. Calls for tenders were published by the Baltic Procurement Initiative and the Nordic Pharmaceutical Forum; in the latter case this was followed by a meeting with potential tenderers to clarify open issues (see section 3.5.2). In addition, the Beneluxa Initiative launched an open market consultation with possible bidders for the horizon scanning endeavour; the call for tenders in this area is expected to be published in due course (see section 3.5.5).

⁶ International Conference "Facing the Challenges: Equity, Sustainability and Access" [website]. Lisbon: Infarmed; 2018 (https://www.infarmed. pt/web/infarmed/25-anos/eventos/international-conference-facing-the-challenges-equity-sustainability-and-access, accessed 4 February 2019).

Fig. A.1. | Examples of official websites with information about cross-country collaborations



Sources: Projekt FAAP (Fair and Affordable Pricing) [website] [in Polish]. Warsaw: Ministry of Health; 2018 (https://www.gov.pl/web/zdrowie/faap, accessed 24 September 2019);

Beneluxa Initiative [website]. Vienna: Beneluxa Initiative; 2019 (https://beneluxa.org/, accessed 22 November 2019); International Cooperation: Nordic Pharmaceutical Forum. In: Amgros [website]. Copenhagen: Amgros; 2019 (https://amgros.dk/en/ about-amgros/cooperation-partners/international-cooperation/, accessed 1 March 2020).

Annex 4. Glossary

Terminology is based on the Glossary of Pharmaceutical Terms of the WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies¹.

Affordability	The extent to which medicines and further health care products are available to the people who need them at a price they / their health system can pay.
Cross-country collaboration	Initiative of two and more countries to work together in defined areas (e.g. horizon scanning, HTA, procurement in the context of this report, with the aim to improve patient access to affordable medicines)
Essential medicines	Those that satisfy the priority health care needs of the population. They are selected with due regard to public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. Essential medicines are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford.
Health technology assessment (HTA)	A multidisciplinary process that summarizes information about the medical, social, economic and ethical issues related to the use of a health technology in a systematic, transparent, unbiased, robust manner.
Horizon scanning	The systematic identification of health technologies that are new, emerging or becoming obsolete and that have the potential to effect health, health services and/or society.
Joint procurement	The procurement of certain products or services is done by a single purchasing body for several healthcare providers (e.g. hospitals, regions, countries).
Managed-entry agreement (MEA)	An arrangement between a manufacturer and payer / provider that enables access to (coverage/reimbursement of) a health technology subject to specified conditions. These arrangements can use a variety of mechanisms and are usually classified into financially-based and performance-based MEA.
Marketing authorisation	A licence issued by a medicines agency approving a medicine for market use based on a determination by authorities that the medicine meets the requirements of quality, safety and efficacy for human use in therapeutic treatment.
Medicine (pharmaceutical)	Any substance or combination of substances which may be used in or administered to human beings either with a view to restoring, correcting or modifying physiological functions by exerting a pharmacological, immunological or metabolic action, or to making a medical diagnosis.

¹ https://ppri.goeg.at/ppri-glossary

Orphan medicine	A pharmaceutical for the diagnosis, prevention or treatment of a life- threatening or chronic condition that is rare (defined in the European Union as not more than 5 out of 10,000 people) and that without incentives it is unlikely that the marketing of the product in the community would generate sufficient return to justify the necessary investment.
Price negotiation	A pricing policy in which medicine prices are discussed and agreed by seller and purchaser (e.g. between manufacturer and third party payer).
Pricing (Pricing Policy, Price Control, Price Regulation	Action by a government authority to set the price of a medicine and/or indirectly influence it (e.g. through pricing policies) for different price types (e.g. ex-factory price, pharmacy retail price) and to monitor and review and eventually adapt it.
Procurement	A process to purchase goods and services (e.g. medicines) that involves many steps and many stakeholders based on national, or supranational, regulation, policies, structures and procedures.
Reimbursement	Coverage of the cost of reimbursable medicines by a public payer (e.g. Social Health Insurance / National Health Service).
Tendering	Any formal and competitive procurement procedure through which tenders (offers) are requested, received and evaluated for the procurement of goods, works or services, and as a consequence of which an award is made to the tenderer whose tender / offer is the most advantageous.
Vaccine	A substance that helps the body's immune system to recognize and fight pathogens like viruses or bacteria, which then keeps human beings safe from the diseases they cause.

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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