

## Reviewing the applicability of the R&D eligibility criteria

## TOSSD Task Force Issues Paper<sup>1</sup> - Agenda item 6 20<sup>th</sup> meeting of the International TOSSD Task Force 7-9 March 2023, Dakar, Senegal

1. When the R&D eligibility criteria were agreed by the TOSSD Task Force, it was also foreseen that a review of these criteria would be undertaken after enough data had been collected. After three TOSSD data collection rounds, this paper examines the applicability of the R&D criteria. It also aims at feeding the ongoing Task Force discussions on the meaning and operationalisation of the pillar II general eligibility criterion, namely that the activities covered should provide "substantial benefits to developing countries".<sup>2</sup>

## I. Background on the R&D eligibility criteria

- 2. New discoveries and inventions can make essential contributions to global sustainable development, for example by allowing to save lives, de-carbonise the economy or better understand the drivers of sustainability. The role of Science Technology and Innovation (STI) for the achievement of the SDGs is explicitly recognised in the 2030 Agenda. STI or its components are mentioned in Goal 9 and many other sectoral targets (in agriculture, health, water and sanitation, clean energy, infrastructure and industry, and oceans and marine technology),<sup>3</sup> often as a means of implementation. The question of how to count R&D funding in TOSSD was therefore one of the first to be addressed by the Task Force when it started discussing the scope of pillar II: regional and global expenditures in support of international public (IPGs) and global challenges. Since all SDG-related cross-border flows to developing countries are eligible and included in pillar I, pillar II mainly covers domestic expenditures in provider countries and multilateral spending for normative activities.
- 3. A wide range of actions taken by countries domestically can have positive (or negative) spill overs to other countries. Traditionally, measurement of support to developing countries is based on the notions of "primary" or "disproportionate" benefits (e.g., malaria research would be included because it primarily benefits populations of developing countries, but cancer research would be excluded). This is the approach followed to define the scope of activities included in

<sup>2</sup> At its 17th meeting, the TOSSD Task Force noted the need to further discuss the implementation in Pillar II of the TOSSD criterion "substantial benefits to developing countries".

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<sup>&</sup>lt;sup>3</sup> The following sectoral SDG targets explicitly mention the role of STI: 2.a; 3.b; 6.a; 7.a; 8.2; 9.5, 9.b; 14.4, 14. In addition, the SDG 17 on the means of implementation includes three STI-related targets: 17.6, 17.7, 17.8.





official development assistance (ODA) or in the G-Finder survey<sup>4</sup> that tracks R&D investments in global health priorities that disproportionately affect people in low- and middle-income countries. It is also visible in the SDGs which call for example for supporting "the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries" (SDG target 3.b).

- 4. In delineating the coverage of R&D activities in TOSSD pillar II, the Task Force followed a different approach. In line with the universality of the SDG agenda, the Task Force supported the idea that R&D funding counted in TOSSD pillar II should not be limited to issues or areas (e.g. diseases) that primarily or disproportionately affect developing countries but rather have a broader coverage and include also issues (e.g. diseases) equally affecting both advanced and developing countries.5 This decision was in particular inspired by the analysis prepared by experts from the Overseas Development Institute (ODI)<sup>6</sup> using health as a case study, which advocated for a global public goods (GPG) approach in TOSSD pillar II. This choice of broad coverage of research areas has been translated in the Reporting Instructions through the Pillar II general eligibility principle based on the notion of "substantial benefits to developing countries" rather than "direct"/ "exclusive" benefits as initially proposed by the Secretariat. The other pillar II eligibility criterion that was proposed by the Secretariat – that activities be carried out "in co-operation with developing countries" – was retained. As mentioned in the Reporting Instructions, the "substantial benefits" criterion "is meant to exclude public investments that exclusively or overwhelmingly benefit provider countries' own populations" and "domestic activities whose benefits are only shared by the population of the provider country".
- In the eligibility rules specific to R&D, the broad coverage of thematic areas was translated through criterion a), which covers all research topics that are "potentially applicable" to developing countries (see Figure 1). The focus on developing countries would be defined

<sup>4</sup> See https://www.policycuresresearch.org/g-finder/.

<sup>&</sup>lt;sup>5</sup> The extent to which pillar II should focus on developing countries has been debated in the Task Force from the start, sometimes with diverging views. At the 6<sup>th</sup> Task Force meeting (see summary of item 5), a number of members "felt that the proposed criteria were too restrictive and that the coverage of pillar II should be as broad as possible and track total support to IPGs and global challenges" and "proposed to replace 'only benefit' by 'substantially benefit'". This proposal was agreed at 7th Task Force meeting (see summary of item 7c). More recently, at the 17<sup>th</sup> Task Force meeting, while some members called for distinguishing "between financing for developing countries and that for global challenges with no focus on developing countries", other members were concerned over such a distinction (see <u>summary of item 5</u>).

<sup>&</sup>lt;sup>6</sup> Rogerson, A. and C. Blampied (2018), Pillar 2: How should TOSSD identify and score Research and Development International Development Spill-Overs? Health https://www.tossd.org/docs/Pillar-2-topics-Focus-on-research-WEB.pdf.

<sup>&</sup>lt;sup>7</sup> The current TOSSD pillar II eligibility rules state that activities should "provide substantial benefits to TOSSD recipient countries or their populations, and/or be implemented in direct co-operation with TOSSD recipient countries, or private or public institutions from these countries, as a means of ensuring the benefit to TOSSD recipient countries or their populations." See paragraph 70 of the TOSSD Reporting Instructions, https://www.tossd.org/docs/reporting-instructions.pdf.



through the requirement that R&D funding is associated with conditions aimed at facilitating access to the outcomes of the R&D (knowledge, data, technologies, etc.) to researchers and populations from developing countries. The need to promote affordability and access is also stressed at multiple times in the 2030 Agenda.<sup>8</sup> At the same time, the potential difficulty in applying some of the R&D criteria was raised and the 8<sup>th</sup> Task Force meeting concluded that "members will test the eligibility criteria with their national experts and provide comments on their applicability." After three years of data collection, this paper invites the Task Force to reflect on the challenges in applying the R&D eligibility criteria, using concrete examples of TOSSD data collected so far, and discuss the scope of reporting in this area.

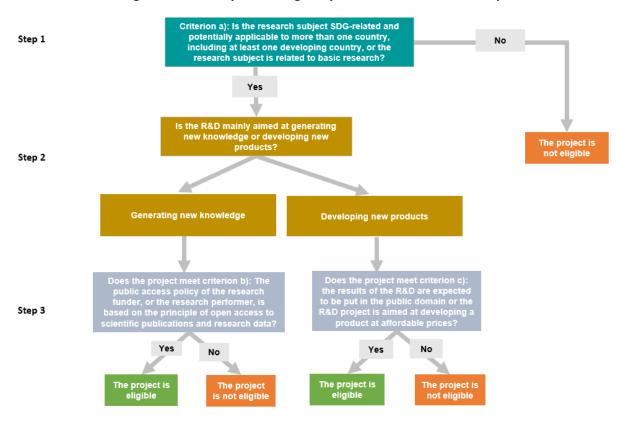


Figure 1. Summary of the eligibility criteria for R&D in TOSSD pillar II

<sup>&</sup>lt;sup>8</sup> Many SDG targets emphasise the importance of "affordable access". For example, SDG target 3.8 mentions the importance of "access to safe, effective, quality and affordable essential medicines and vaccines for all" to achieve universal health coverage (UHC), and SDG target 3.b emphasises the need to "provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health". Many other targets, on water, infrastructure, anergy, communications and transport also stress the importance of grating "affordable access".

<sup>&</sup>lt;sup>9</sup> See <u>action points in item 4</u>.



## II. Examining the relevance and applicability of the R&D eligibility criteria

- 6. This section examines whether the TOSSD eligibility criteria for counting R&D funding in pillar II are sufficiently operational, i.e., whether reporting and data collection is feasible. The analysis is mainly based on data reported by the EU the most comprehensive and detailed data received on R&D so far and that can be aggregated in various ways to illustrate the orders of magnitude of projects concerned but is pertinent for other reporters too. Another main source for the analysis is the TOSSD health pilot.<sup>10</sup>
- 7. The findings can be summarised as follows:
  - A. **Criterion (a)**, which defines the scope of R&D potentially covered in TOSSD **is partly operational but requires substantial screening capacity.** To facilitate the application of this criterion, the Task Force may want to discuss the possibility of applying the eligibility criterion at the level of broader research areas rather than at project level.
  - B. Distinguishing between research oriented towards knowledge and research oriented towards product development is difficult at project level but could be approximated through the type of organisation receiving the funding.
  - C. Criterion (b), which requires that public funding for research be conditioned to "open access", is easily applicable but may not be sufficient to conclude there is a "substantial benefit" to developing countries.
  - D. While **criterion (c)**, which requires that public funding for product development be conditioned to accessibility to developing countries, may well reflect the "substantial benefit" to developing countries, it **is difficult to operationalise**.

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<sup>&</sup>lt;sup>10</sup> See <a href="https://www.oecd-ilibrary.org/development/tossd-tracking-global-health-expenditure-in-support-of-the-sdgs">https://www.oecd-ilibrary.org/development/tossd-tracking-global-health-expenditure-in-support-of-the-sdgs</a> cb8be42b-en.



# A. Criterion a), which defines the scope of R&D potentially covered in TOSSD, is partly operational but requires substantial screening capacity

TOSSD Reporting Instructions: "R&D activities ... are eligible for reporting under TOSSD Pillar II provided that: a) The research subject is SDG-related and potentially applicable to more than one country, including at least one TOSSD recipient country, or the research subject is related to basic research. The first criterion is meant to exclude R&D that is relevant to the SDGs, but for which the applicability is largely domestic."

## Most of R&D funding reported in TOSSD had been assigned an SDG target or goal

8. The bulk of R&D records (86% by count) reported in pillar II in 2021 had been assigned an SDG target or goal.<sup>11</sup> For some TOSSD reporters, the whole-of-government SDG mainstreaming facilitates the reporting. For example, Formas, the Swedish research council for sustainable development, is by law required to align and track all its funding against the SDGs. The EU internal systems also enable SDG scoring beyond development co-operation activities, although this is not yet systematically applied to all EU funding.<sup>12</sup> In other cases (e.g., France, Japan), the SDG coding is done manually by the TOSSD reporter. Finally, it is noteworthy that all R&D is in principle aligned at least with SDG target 9.5 which calls for stepping up investments in R&D in general and in all countries.<sup>13</sup>

Assessing the potential applicability of the research to TOSSD recipients is feasible in some but not all cases. The assessment is resource-intensive which triggers questions on efficient use of Secretariat resources.

9. When processing TOSSD data, the Secretariat could in many cases provide a light, non-expert assessment of the applicability of R&D projects to developing countries. Table 1 presents a few examples of cases where the Secretariat challenged the applicability.

<sup>11</sup> Based on data directly reported to TOSSD, excluding data taken from the CRS either as proxy or as estimates of data gaps.

<sup>&</sup>lt;sup>12</sup> The EU SDGs allocation process is performed by the reporting team based on three sources: the EU internal systems, inputs provided by the various Directorate Generals and agencies in the data collection process and mapping solutions developed internally by the team.

<sup>&</sup>lt;sup>13</sup> SDG target 9.5 reads as follows: "Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending."



Table 1. Examples of research where applicability to developing countries was challenged

Diseases mostly affecting people in advanced countries	
Advancing knowledge to improve outcome in Paget's disease of bone	Paget's disease of bone (PDB) is a common skeletal disorder in people of European descent characterised by abnormal bone remodeling which disrupts normal bone structure causing pain, deformity, nerve compression syndromes and fractures.
Products and tools tailored for national needs	
Modelling Individual Decisions to Support the European Policies related to agriculture	The European Union's future Common Agricultural Policy (CAP) plays a pivotal role in developing a sustainable agricultural sector. The future CAP will be more flexible and adaptable to the needs of EU Member States and the individual decision making (IDM) units in the sector.
Lawful evidence collecting and continuity platform development	The LOCARD project aims to procure a comprehensive platform that permits the storage of digital evidence data and ensures appropriate chain custody in juridical work. LOCARD will employ a 'Trusted Execution Environment' to guarantee privacy and provide access to a range of digital evidence.
Local adaptation and biodiversity	
The future of Arctic coastal ecosystems - Identifying transitions in fjord systems and adjacent coastal areas	The FACE-IT project hypothesizes that the biodiversity of Arctic coastal zones is changing in line with the rates of cryosphere changes. It also theorises that these changes have an impact on local communities, food production, livelihoods, and other ecosystem services. The concept of FACE-IT rests on a comparison of selected Arctic fjord systems at different stages of cryosphere loss in Greenland, Svalbard and Finnmark, Northern Norway.

- 10. However, difficulties were encountered in several areas.
- 11. The current formulation of the criterion a) may leave too much room for interpretation regarding the treatment of basic and knowledge-oriented academic research. While the Secretariat has screened all research projects based on their applicability/interest to developing countries, some reporters (understandably) interpret the criterion as a blanket inclusion of all basic research. The Secretariat's interpretation has led for example to a practice of generally accepting the inclusion of research in natural sciences, <sup>14</sup> based on the assumption that it holds by definition a transnational interest. <sup>15</sup> Similarly, knowledge-oriented engineering science has been generally considered applicable to developing countries by the Secretariat. By contrast, the Secretariat systematically challenged research in social sciences and humanities unless the focus was on issues arising from developing countries' social, economic, or historical context.

<sup>14</sup> A <u>natural science</u> is a "science (such as physics, chemistry, or biology) that studies the physical and natural world or the events that happen in nature". Other natural sciences may include oceanography, planetary and atmospheric sciences.

<sup>15</sup> Natural science is aimed at enhancing the understanding of natural phenomena (e.g., atoms, cells, cognition) which, in general, are not limited to a specific country or population.



However, this was not always agreed by the reporter. Table 2 gives concrete examples of all these cases.

12. A possible way forward to address this issue could be to clarify that basic research should also be applicable/of interest to developing countries.

Table 2. Examples of basic and knowledge-oriented academic research

#### Research in natural sciences assessed eligible by the Secretariat

From selective detection of cellular oxidants and small molecule signaling agents towards better understanding of their biological chemistry

Measuring Acidification in the Arctic Ocean

Cognition in a changing world: exploring the evolutionary potential of cognitive abilities in the wild

#### Research in engineering sciences assessed eligible by the Secretariat

Nanoengineering of thin layers of semiconductor photocatalysts in a microreactor environment for lignin-based model compounds valorization

Robots learning about objects from externalized knowledge sources

Magnetic, electric-field and light induced control of spin-polarized supercurrents: fundamentals for an offbeat electronics

#### Research in social sciences assessed by the Secretariat not applicable to developing countries

The Politics of Cultural Exchange: Anna of Denmark and the Uses of European Identity

Naturalism in German Classical Philosophy: Nature, Recognition and Freedom in the Hegelian Theory of Social Interaction and Cooperation

Late Antiquity After Antiquity: The Last of the Ancient Platonists in the Early Modern Period

#### Research in social sciences assessed by the Secretariat as applicable to developing countries

Horn & Crescent. Connections, Mobility and Exchange between the Horn of Africa and the Middle East in the Middle Ages

At a Crossroads of Bantu Expansions: Present and Past Riverside Communities in the Congo Basin, from an Integrated Linguistic, Anthropological and Archaeological Perspective

Voting on the future: Imaginaries and motivations in referendum decisions against extractive industries in Colombia

13. The applicability of the research topic to developing countries may not be a relevant eligibility criterion for R&D activities that do not directly lead to research outcomes. Some R&D funding is not targeted at new research projects but rather at building the capacity of researchers. This is the case for example for research infrastructure, 16 trainings 17 and networks. In the R&D funding data reported by the EU, this type of activities totalled around EUR 730 million in 2020. 18

<sup>16</sup> Research infrastructures are "are facilities that provide resources and services for research communities to conduct research and foster innovation."? See for example all H2020 projects which have INFRADEV, INFRAIA, or INFRASUPP in the project title. Or research platforms (e.g., European Technology and Innovation Platform for Ocean Energy or Aerosols, Clouds and Trace gases Preparatory Phase Project)

<sup>&</sup>lt;sup>17</sup> See for example the <u>EU Marie Curie - European Training Network</u> funding scheme. "The goal is to train a new generation of creative and innovative researchers, able to convert knowledge and ideas into products and services for economic and social benefit in the Union."

<sup>&</sup>lt;sup>18</sup> Of which research trainings around EUR 430 million, research infrastructure around EUR 300 million and research networks around EUR 50 million. These figures are based on a manual classification by the Secretariat.



- 14. Should members wish to report such activities, an alternative could be to link their eligibility to the participation of researchers from developing countries in the networks, infrastructure, etc. This would be particularly relevant as the main barrier preventing many researchers in developing countries from enjoying the benefits of research is their limited capacity to perform research and their lack of integration in global research networks. The notion of "co-operation with developing countries" is already incorporated in the general pillar II eligibility criteria but currently missing in the eligibility criteria specific to R&D.
- 15. For certain projects, assessing the potential applicability to developing countries would require technical expertise that the Secretariat does not have. Being a layman in the vast majority of R&D areas, the Secretariat provides assessments that are based on partial and non-expert examination of the project descriptions. This has limitations and the more complex the research project the less reliable the assessment is. Some projects are just too complex for the Secretariat to provide any judgement. In addition, the transnational benefits of certain research areas will depend on Task Force deliberations that are still pending, for example on biodiversity.
- 16. Finally, the question arises on the cost-benefit ratio of project-level screening. While providers that report a "manageable" number of projects generally screen them before reporting, those with more comprehensive reporting coverage tend to include entire research programmes with no project-level screening due to limited capacity at their disposal. Given that TOSSD data coverage is expected to increase, it is likely that we reach a situation where the Secretariat is unable to screen all R&D activities. In addition, while the time spent to identify projects not applicable to developing countries is worthwhile for the credibility of TOSSD data, the volumes of financing that would be excluded are relatively small. For example, in the 2020 TOSSD data collection, out of EUR 5.7 billion R&D funding reported by the EU, EUR 297 million was flagged as possibly not applicable to developing countries. In certain areas, the share of research not applicable to developing countries would be even smaller. Out of EUR 1 billion of health research projects reported by the EU in 2020, only EUR 17 million was flagged by the Secretariat as possibly not applicable to developing countries. As shown in the TOSSD health pilot, only few health research topics would not be applicable to at least one developing country. The same may hold true for other areas such as environmental research.
- 17. Discussion points: members are invited to share their experience in applying criterion a). To facilitate the reporting on R&D, would it be useful to apply this eligibility criterion at the level of broader research areas rather than at project level, while leaving the possibility for reporters to exclude individual projects that would not be applicable to developing countries

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<sup>&</sup>lt;sup>19</sup> Even health research that may aim at answering domestic questions (e.g., how to scale interventions or reach particular groups) can inform other countries in similar contexts if publicly available. See section 4.3.2 in the <u>TOSSD pilot study on health</u>.



if easily identifiable? What are members' views on the reporting of research infrastructure, trainings, and networks?

- B. Distinguishing between research oriented towards knowledge and research oriented towards product development is difficult at project level but could be approximated through the type of organisation receiving the funding.
- 18. The distinction between knowledge-oriented and product-oriented research is generally not made in R&D funding data. The OECD Frascati manual provides definitions of basic research, applied research and experimental development, which could be used as imperfect proxies, knowing that the development of new products can involve basic or applied research. However, these categories are generally not tracked at project-level. As shown in the TOSSD health pilot with the R&D data from the US National Institutes of Health (NIH), these categories often need to be ascertained manually for each project based on the publicly available abstracts. <sup>20</sup> The Secretariat did so in 2020, which demanded substantial screening resources, and in many cases the categorisation based on project descriptions was not straightforward. NIH experts also noted some definitional challenges in classifying projects in these categories as each organisation and scientific discipline may have a different definition of where basic science ends and applied/translational research starts.
- 19. Researchers interviewed in the TOSSD health pilot suggested using an institutional approach to make an approximate distinction between R&D mainly oriented towards knowledge-generation and R&D mainly oriented towards product development. In particular, funding channelled through academic research entities would be considered mainly knowledge-oriented, while funding channelled through profit-making entities, or a group of research entities involving industrial partners, would be considered product-oriented. Information on the type of organisation performing the research is provided for example in the EU CORDIS platform, where the "activity type" indicates whether the grantee is a "higher or secondary education establishment", a "private for-profit entity", etc.<sup>21</sup> Although generally focussed on knowledge, research in universities may also sometimes be oriented towards product-development.<sup>22</sup> Using the information provided in the research funding schemes can help further identifying which research is product-oriented. For example, while the European Research Council Proof of Concept (PoC) grants<sup>23</sup> may target academic researchers, their aim is to "bridge the gap between the results of their pioneering research and the early phases of its commercialisation".<sup>24</sup>

<sup>&</sup>lt;sup>20</sup> See the interview with NIH experts in section 6.2 of the TOSSD pilot study on health.

<sup>&</sup>lt;sup>21</sup> See the CORDIS reference data.

<sup>&</sup>lt;sup>22</sup> Academic researchers are actually often encouraged to actively seek the commercialisation of their research.

<sup>&</sup>lt;sup>23</sup> See <a href="https://erc.europa.eu/apply-grant/proof-concept">https://erc.europa.eu/apply-grant/proof-concept</a>.

<sup>&</sup>lt;sup>24</sup> See https://erc.europa.eu/news-events/news/eu25-million-edge-frontier-research-closer-market.



- 20. Discussion points: members are invited to share their feedback on the distinction between R&D oriented towards knowledge and R&D oriented towards product development. A possible way forward to address this issue could be to use both information on the legal status of the recipient organisation and the type of funding scheme.
  - C. The criterion (b), which requires that public funding for research be conditioned to "open access", is easily applicable but may not be sufficient to conclude there is a "substantial benefit" to developing countries.

TOSSD Reporting Instructions: "b) In the case of scientific publications and research data, the funder institution's public access policy is based on the principle of open access. This will ensure that results of the research are put in the public domain and therefore available for populations and scientists worldwide, including in TOSSD recipient countries."

- 21. Criterion b) aims at ensuring that research potentially applicable to developing countries can actually be used by them, by making sure it is accessible. As anticipated, it is the most easily verifiable criterion. The Secretariat systematically asks reporters whether they have open access policies. To date, all providers have reported having such policies. Given that a large part of basic and knowledge-oriented research is "potentially applicable to developing countries" (criterion a, as shown in the above section), and that all research reported meets the "open access" condition (criterion b), the result is that a large part of basic and academic research is eligible to TOSSD pillar II. Given that most of public funding goes to this type of research, a quite large part of public R&D funding can be eligible to pillar II. For example, the TOSSD health pilot showed that the typical outcome for the vast majority of research grants provided by the US National Institutes of Health (NIH) is an openly accessible scientific publication rather than a patent or health product.<sup>25</sup> This would mean that almost all NIH grants, USD 27 billion in 2020, could in principle eligible to pillar II. Providing incentives for public support to basic research is consistent with a global public goods approach, given the large potential spill overs but low incentives for private investments.
- 22. However, requesting the research to be openly accessible may not be sufficient to conclude there is a "substantial benefit" to developing countries. As stressed by several researchers in the TOSSD pilot study on health, <sup>26</sup> even if the knowledge is in the public domain, local capabilities and infrastructure are needed to extract value from research and appreciate its possible applications. Given that the primary issue in many developing countries is not open access but the capacity to perform research, this means that much of the publicly accessible research will not necessarily provide benefits to researchers in developing countries. This issue was also raised

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<sup>&</sup>lt;sup>25</sup> See section 4.3.3 of the TOSSD pilot study on health.

<sup>&</sup>lt;sup>26</sup> See the interview with NIH experts in section 6.2 of the TOSSD pilot study on health.



by representatives from developing countries at the TOSSD consultation with Latin American and Caribbean (LAC) countries and institutions.<sup>27</sup>

- 23. The large coverage of basic and knowledge-oriented research on the one hand, and the difficulty to assess its substantial benefit to developing countries on the other, may raise the question of the scope of research areas covered in TOSSD pillar II. In addition, this may contrast with the relatively difficult eligibility test, in theory, for funding for product development, as shown in the next section.
- 24. Discussion points: members are invited to share their views on the current broad coverage of basic research and knowledge-oriented research, in particular in terms of focus/benefits to developing countries. Important to note that while it may be feasible to include/exclude overall basic research areas, it would be difficult to assess whether individual projects would be beneficial to developing countries or not. In addition, as explained above, excluding basic research entirely would exclude a large part of public R&D funding.
  - D. While the criterion (c), which requires that public funding for product development be conditioned to accessibility to developing countries, may well reflect the "substantial benefit" to developing countries, it is difficult to operationalise.

TOSSD reporting instructions: "c) In the case of official support for experimental development, the activity is eligible provided that it meets one of the following conditions:

- The results of the R&D activity are expected to be put in the public domain, for example through applied public research.
- Research contracts are associated with conditions that aim at promoting competitive manufacturing, for example through non-exclusive licensing.
- The support consists of schemes such as Advanced Market Commitments (AMC) which aim at developing a product at low prices."
- 25. Screening the R&D funding counted in TOSSD Pillar II against the principle of access to health technologies would fill a key information gap in current global health policy. The issue of global access to research and technologies figures prominently in the SDG framework, for example in

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<sup>&</sup>lt;sup>27</sup> See section III of the <u>main messages</u> of the TOSSD Consultation with Representatives from Select Latin American and Caribbean (LAC) countries and institutions.



SDG 3<sup>28</sup> on health or SDG 7 on energy.<sup>29</sup> It is also a key element of policy coherence for sustainable development. The affordability of medicines remains for example a major obstacle that prevents millions of people in developing countries from accessing essential treatments for illnesses such as hepatitis C or cancer. The COVID-19 pandemic introduced a new push to the "equitable access" agenda<sup>30</sup> and the Zero Draft of the WHO accord on pandemic prevention, preparedness, and response ("WHO CA+"),<sup>31</sup> that has recently been presented by the WHO Intergovernmental Negotiating Body, may announce a historical breakthrough in this regard. The text makes proposals for intellectual property waiver during pandemics and for conditions to ensure equitable global access to publicly funded medical products. By providing information on R&D funding that promotes affordable access to developing countries, TOSSD would respond to a key information need of the international and SDG community. As discussed in the TOSSD pilot study on health, the current criterion c) is generally relevant for describing R&D funders' policies that promote access to innovations, although it could be complemented and expressed in more general terms to cover more cases.<sup>32</sup>

26. However, this criterion is currently difficult to operationalise and if strictly applied would exclude much of the official support for product development. Neither the reporters nor the Secretariat are currently able to apply this criterion. The brief project abstracts available in TOSSD data are not sufficient to make an assessment. Screening the projects on the basis of additional publicly available information and data on research grants<sup>33</sup> is possible in some cases, but very resource intensive and with no guarantee of finding decisive information.<sup>34</sup> As an experiment, the Secretariat reviewed R&D projects reported in 2020 by the EU (more than 8 500

<sup>28</sup> SDG target 3.b: "Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all".

<sup>29</sup>SDG target 7.a: "By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology".

<sup>30</sup> See section 4.3.4 of the <u>TOSSD pilot study on health</u> for more information the "equitable access" debate that followed the COVID-19 crisis.

<sup>33</sup> Usually, publicly available data on research grants include basic project information (e.g., the name and type of organisation receiving the grant, project description, etc.) and information on the related funding schemes and calls where funders specify certain policy objectives or targets.

<sup>34</sup> In most cases even these data are too brief to adequately and reliably classify the R&D according to the TOSSD criteria. This was confirmed by researchers specialised in analysing R&D funding data (see the interview in section 6.3 of the TOSSD pilot study on health).

<sup>31</sup> See https://apps.who.int/gb/inb/pdf files/inb4/A INB4 3-en.pdf.

<sup>&</sup>lt;sup>32</sup> See section 4.3.4 of the <u>TOSSD pilot study on health</u>.





records representing EUR 5.7 billion) based on additional information searched online (the methodology followed is explained in the Box). Although in some cases the alignment with criterion c) was clear (see examples in the Box), the information was often not sufficiently detailed to be able to fully ascertain this. The assessment confirmed eligibility of research projects totalling EUR 287 million but was often based on the presence of some keywords.<sup>35</sup> When adding R&D projects that are carried out in co-operation with researchers from developing countries (a criterion currently not included in the R&D criteria but part of the general pillar II eligibility criteria), the total of projects the eligibility of which could be confirmed increased to EUR 705 million. As shown in the methodology this latter criterion was also easier to verify.

27. Given that the data reported in TOSSD are not sufficient to verify criterion c) and that searching for additional information online for individual projects is very resource intensive and with no guarantee of results, the Secretariat did not verify this criterion in 2021 data. While additional information available to funders internally, for example on R&D proposals and contracts or funders' policy documents, may help in screening the projects, these are often confidential, including for TOSSD focal points.

## Box. Assessment of R&D projects reported by the EU against criterion c

To assess whether the project was aligned with criterion c), the Secretariat reviewed additional information available online, in particular from the following sources:

- The <u>EU CORDIS website</u> about research results: The Secretariat used the information provided
  in the project description, the Horizon 2020 programme (the previous EU R&D funding
  programme), the H2020 topic, the H2020 funding scheme, the identity of the recipient
  organisation, the activity type (legal status of the recipient organisation) and the country of
  origin of the different partners involved in the project.
- The information provided in the project website when available.

To identify projects focussed on affordability/access, the Secretariat (i) searched in the project descriptions, H2020 programmes and funding schemes, keywords such as "affordable", "cost-effective", "accessible", and "low-cost", and/or (ii) reviewed whether the recipient organisation was a not-for-profit focussed on access. This was for example the case for the <u>Genethon</u>, whose goal "is to bring to patients innovative treatments, at a controlled and fair price". Such projects represented around EUR 197 million.

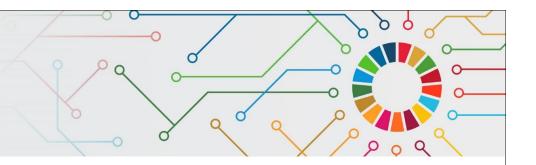
In addition, to identify R&D projects where the resulting technologies/solutions are expected to be placed in the public domain or openly shared, the Secretariat searched in the project descriptions, H2020 programmes and funding schemes, keywords such as "open science", "open innovation", "open source", etc. Such projects represented around USD 90 million.

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<sup>&</sup>lt;sup>35</sup> A further complicating element is that this assessment is based on affordability within the provider country, which may not necessarily coincide with the affordability standards of developing countries.



Total Official Support for Sustainable Development



## Box. Assessment of R&D projects reported by the EU against criterion c (continued)

To identify projects implemented in co-operation with researchers from developing countries, the Secretariat reviewed information on the identity and nationality of all research partners participating in the project. Such projects represented around EUR 470 million.

Examples of projects assessed by the Secretariat as aligned with criterion c

R&D projects focussed on affordable access	
Gene Therapy for X-linked Chronic Granulomatous Disease	"Genethon is in favor of 'fair and controlled' pricing: the market price of gene therapy drugs should align with the capacities of our healthcare systems and should never prevent patients from getting treatment. We are particularly forceful on this issue when we form industrial partnerships to develop our products."
Imaging of Neoplastic Tumours	The GLINT project addresses the current global lack of safe, cheap, easily accessible and accurate image-based metabolic evaluation techniques to detect cancer.
Highly advanced modular integration of insulation, energising and storage systems for non-residential buildings	Smart modular building facade systems for retrofit will affordably enhance energy efficiency
Resilient farming by adaptive microclimate management	STARGATE will create a model focused on the visual presentation of data at a wide array of local and international levels to facilitate better decision-making and application on the ground in an easier and more affordable way.
Audio-based Mobile Health Diagnostics	Mobile health is becoming the holy grail for affordable medical diagnostics. It has the potential of associating human behaviour with medical symptoms automatically and at early disease stage; it also offers cheap deployment, reaching populations generally not able to afford diagnosis and delivering a level of monitoring so fine which will likely improve diagnostic theory itself.
R&D funding programmes and calls focussed on affordable access	
Low-cost, low-carbon energy supply	Activities shall focus on research, development and full-scale demonstration of innovative renewables, efficient, flexible and low carbon emission fossil power plants and carbon capture and storage, or CO2 re-use technologies, offering larger scale, lower cost, environmentally safe technologies with higher conversion efficiency and higher availability for different market and operating environments.
Affordable solutions for the preventive conservation of cultural heritage	One or more innovative low-cost tools/solution for PC of movable CH artefacts (in storage and/or on display) should be developed;
Global Alliance for Chronic Diseases (GACD) prevention and management of mental disorders	The aim should be to adapt and upscale the implementation of these intervention(s) in accessible, affordable and equitable ways in order to improve the prevention and management of mental disorders in the community in medical health care, psychosocial, and public health and other settings and fields.
Open-source software/tools	
Open-source toolbox for modelling integrated energy systems	The Spine Toolbox and the Spine Model will be deployed by open sourcing all the developments.
Agent-based support tool for the development of agriculture policies	This open-source tool will permit more efficient, optimised policies with its predictive and monitoring capabilities while ensuring transparency and constant improvement.



- 28. In general, even if it was possible to reliably verify whether R&D funding is associated with objectives regarding the access to potential resulting technologies, this would likely exclude a large part of public funding for product development. Indeed, as shown in the TOSSD health pilot, in general, domestic R&D funding institutions do not condition their support to the accessibility or affordability of the resulting technologies either because this is not always relevant and feasible, or because they do not have the mandate to do so.<sup>36</sup> While examples of funding explicitly focussed on accessibility exist, these are rather exceptions. In addition, certain innovative research areas with high curing potential, such as cancer immunotherapies or gene therapies, attract significant funding in advanced countries but have been on the spot for the highly unaffordable technologies they lead to, even in rich countries. Therefore, strict eligibility rules on affordability and accessibility of product development would exclude a relatively large share of public funding for product development.
- 29. Noting the above challenges to reliably and comprehensively identify R&D funding associated with accessibility objectives in developing countries, the TOSSD pilot study on health had explored the possibility of tracking this funding through a voluntary policy flag, to be applied progressively, rather than a strict eligibility condition.<sup>37</sup> This raises the question of how to define the scope of funding for product development captured in pillar II in a way that is at the same time suitable for the purposes of TOSSD and practicable from a reporting perspective. Two considerations may be useful to take into account:
  - Broadening the coverage and including all funding for product development that may be applicable to developing countries, which is de facto already the case given that the Secretariat no longer verifies criterion c), would be easier to operationalise but raises the question of focus on developing countries.
  - By contrast, limiting the scope to research areas that primarily affect developing countries, and excluding those where appropriate investments already occur in response to high-income country markets, would be both more practical from a reporting perspective and more focussed on the needs of developing countries. But it would raise the question on the added value of TOSSD for providers that already report to the OECD Creditor Reporting System, given that this type of R&D funding is in principle already captured in ODA.
- 30. Discussion points: members are invited to share their views on the challenges in applying criterion c) and provide guidance on how to address this issue. Do these challenges have implications on the scope of funding for product development that should be captured in pillar II?

<sup>&</sup>lt;sup>36</sup> See section 4.3.4 of the TOSSD pilot study on health.

<sup>&</sup>lt;sup>37</sup> See section 4.3.6 of the TOSSD pilot study on health.





#### **Issues for discussion**

Task Force members are invited to reflect on the challenges in applying the R&D criteria and share their experience in applying these criteria.

- a) What is members' feedback on applying criterion a)? Would it be useful to apply this eligibility criterion at the level of broader research areas rather than at project level, while leaving the possibility for reporters to exclude individual projects that would not be applicable to developing countries if easily identifiable? What are members' views on the reporting of research infrastructure, trainings, and networks?
- b) What is members' feedback on the distinction between R&D oriented towards knowledge and R&D oriented towards product development? Would it be useful and feasible to use information on the legal status of the recipient organisation and the type of funding scheme to make this distinction?
- c) Members are invited to share their views on the current broad coverage of basic research and the difficulties to ascertain the benefits to developing countries. Does this have implications on the scope of funding for basic research captured in pillar II?
- d) Members are invited to share their views on the challenges in applying criterion c) and provide guidance on how to address this issue. Do these challenges have implications on the scope of funding for product development captured in pillar II?