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Team of Specialists on Innovation and Competitiveness Policies

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Discussion of potential high-level innovation policy principles for sustainable development

Concept note on potential high-level principles for innovation policies

Note by the secretariat

I. Introduction

1. The mandate of the Team of Specialists on Innovation and Competitiveness Policies is to develop “international good practices and policy recommendations on the role of innovation and competitiveness policies to foster sustainable development” through a regular international policy dialogue, to disseminate these good practices broadly, to apply them in assessments of national innovation policies and performance, and to use them as the basis for policy advice and capacity building.¹

2. Since its inception, the Team has developed international good practices and policy recommendations on a broad range of topics including national innovation systems, promoting innovative entrepreneurship, the financing of innovation, regional innovation policies, promoting innovation in the services sector and in the public sector, impact investing for innovation-based sustainable development, overcoming innovation adoption gaps, and innovation for sustainable consumption and production.

3. These good practices and policy recommendations have been endorsed by the Team’s parent body, the ECE Committee on Innovation, Competitiveness and Public Private

¹ Revised Terms of Reference of the ECE Team of Specialists on Innovation and Competitiveness Policies (ECE/CECI/2017/2 Annex III), available at:
https://www.unece.org/fileadmin/DAM/ceci/documents/2017/CICPPP/Official_documents/ECE_CE_CI_2017_2-1705270E.pdf



Partnerships, and they have been disseminated periodically through comparative reviews and collections issued as official UN publications.

4. At the same time, we have gained new insights by using the above good practices in our country assessments and capacity building work, insights that can complement and enhance our knowledge base. We are also about to embark on a new initiative, a sub-regional Innovation Policy Index, which should ideally be based on a broad agreement on the key features of good innovation policies and institutions. And we have not yet settled on the best way of systematically integrating sustainable development aspects into our analytical and advisory work (cf. the following agenda item on updating the methodology for Innovation for Sustainable Development Reviews).

5. At its twelfth session in March 2018, the Committee asked TOS ICP to “explore the scope for developing high-level policy principles” (CECI/2018/2, Annex II para. 13, p.17) as a way to clearly articulate and further consolidate our knowledge, increase its visibility, and strengthen dissemination and application.

6. The present note is intended to provide some background and structure as a basis for the Team to explore the possible scope and modalities for such principles.

7. High-level or Guiding Principles, or Policy Frameworks containing such principles, have been developed on different economic policy domains in many United Nations inter-governmental fora, including under the auspices of the ECE Committee on Innovation, Competitiveness and Public-Private Partnerships (Guiding Principles on People First PPPs) and other ECE inter-governmental bodies. The Organization for Economic Cooperation and Development (OECD) has also developed such principles on different economic policy topics. Annex I contains an annotated list of selected principles and frameworks.

8. The following sections of this note present the rationale for developing innovation policy principles, options regarding their scope and modalities, a proposal for a possible structure and annotated outline of possible contents.

II. Rationale for Developing Innovation Policy Principles

9. The principles should capture overall consensus on what characterises and enables good innovation policies, institutions and processes across the ECE region, especially for member States with economies in transition.

10. This would constitute the conceptual foundation for our work on Innovation for Sustainable Development, and guide parallel efforts to upgrade and streamline the underlying methodology for national reviews. It would also form the core of the issues to be assessed in the proposed sub-regional innovation policy index.

11. It would provide a menu of options for concerted regional dialogue and co-operation on issues of joint concern, i.e. issues where the national policies of one country may have an impact on the economy of another.

12. The framework could also serve as a reference for national policy making more broadly. Agreed principles could serve as a reference to guide national reform efforts, help innovation policy makers lobby for increased policy co-ordination, and highlight issues to be addressed regionally through the Committee on Innovation, Competitiveness and PPPs and other mechanisms.

III. Possible Scope and Modalities for Developing Innovation Policy Principles

13. As shown in Appendix I, the various policy principles developed at UNECE and other organizations differ in their thematic, geographical and legal scope, and in the modalities used in developing and using them. These examples are indicative of the options the Team may wish to consider. Clarifying the scope and modalities is important because they will frame the options for the substantive content of innovation policy principles. For instance the substance member States would be able to agree on would depend critically on the degree of commitment they would undertake by adopting or endorsing the policy principles.

Scope

14. Some of the policy principles developed elsewhere aspire to universal applicability, while others are tailored to specific regions (such as the ACP-UNCTAD Guiding Principles on Investment Policy Making), or sectors (such as the OECD Policy Framework for Investment in Agriculture). Usually, principles or frameworks that are region- or sector-specific build on more general principles or frameworks.

15. Some policy principles or frameworks are developed by individual organizations, while others, such as the Pan-European Framework for Greening the Economy, are developed jointly by more than one organization.

16. Given that ECE is a regional organization, any ECE innovation policy principles should be tailored to the specificities of our region. However, to the extent that many of the policy issues facing our region also arise elsewhere, the Team may wish to explore possibilities for cooperation or coordination with other United Nations entities and possibly other international organizations with expertise and mandates in this field.

17. Possible candidates for cooperation or coordination would include other regional Economic and Social Commissions under the UN, the United Nations Conference on Trade and Development, or the Organization for Economic Cooperation and Development, to name a few. The United Nations Inter-Agency Task Team on Science, Technology and Innovation for Sustainable Development is also a forum that could be useful for coordination and/or cooperation.

18. A structure that would combine some general, universally applicable principles with region-specific ones could also be envisaged. By the same token, there could be a combination of general principles, followed by sectoral ones (cf. below). Alternatively, general and specific principles could be developed as separate documents, with the specific ones referring to and complementing the general ones.

19. Most of the demand for policy guidance in the ECE region has been articulated by countries with economies in transition. The principles therefore should also reflect international good practice on any specific policy issues these countries are facing.

20. While most policy principles considered in this note as examples provide guidance from an economic development or economic growth perspective, the UNCTAD Investment Policy Framework aims specifically to provide guidance from a Sustainable Development Perspective. The Team may wish to consider how to mainstream sustainable development into ECE innovation policy principles.

21. Some documents consist of a relatively small number of general principles with brief annotations, while others, often referred to as “Policy Frameworks”, are documents of over 100 pages containing detailed commentary and explanations. Obviously, the size of the document will be closely related to the scope and ambition of the principles being developed.

22. One possible approach would be for the Team to start out by developing a small set of core, relatively general guiding or “high-level” principles with limited annotations, and then to expand on these gradually over time by adding more specific principles and/or more elaborate annotations.

23. Most of the principles considered in the Appendix provide policy guidance but are entirely non-binding, while a few contain commitments ranging from regular reporting on progress to commitments to implement specific policy actions to consultation processes.

24. At this stage, the most promising approach may be to aim for non-binding principles which the secretariat can use as a basis for its policy advisory work, and which national Governments can refer to when contemplating changes to their national policies.

Modalities

25. The policy principles or frameworks considered here as examples are developed on request and under the auspices of an inter-governmental organization or a committee or other subsidiary body of such an organization.

26. Most are developed by expert groups either convened specifically for the purpose (task forces), or by standing subsidiary bodies of the convening entities. In some cases, they are also developed purely under the authority of the secretariat of an inter-governmental organization.

27. While the Team has been requested by the Committee to explore developing innovation policy principles, the Team may wish to consider establishing a dedicated task force or steering group from among its members and under the leadership of the Team’s Bureau, that would, with support from the secretariat, define the scope and modalities for ECE Innovation Policy Principles, and lead the work on drafting such principles on the basis of the good practices the Team has developed in the past.

28. The development of policy principles usually involves several rounds of consultations. They often include not only Government delegates, but also wider stakeholder communities, such as the academic and business communities and civil society.

29. Broad-based multi-stakeholder consultations are indeed essential when developing credible policy guidance, especially on a cross-cutting issue such as innovation. The Team is well-placed to provide a forum for such consultations. In addition, the Team may wish to consider creating a process for online consultations in between sessions where interested parties could lodge comments on initial drafts of the Innovation Policy Principles.

30. Due consideration should be given in this process to creating opportunities for other UN entities and other international organizations to contribute, and for coordinating the work as appropriate.

30. Most policy principles and frameworks are adopted or endorsed by an inter-governmental body. Some are negotiated and adopted at high, up to ministerial, level. However, there are also cases where they are published purely under the responsibility of the secretariat of an international organization.

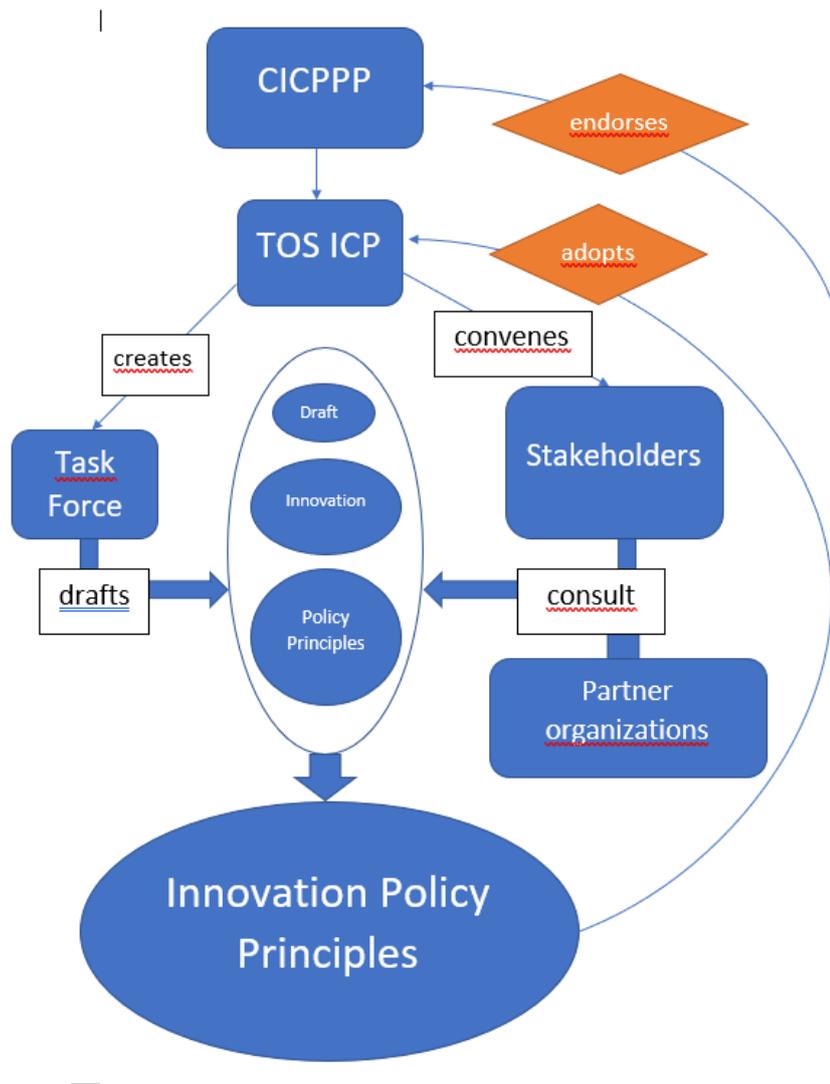
31. In order to ensure that ECE Innovation Policy Principles receive visibility and carry a certain authority, they should be submitted to the Committee on Innovation, Competitiveness and PPPs for endorsement, as has been done with good practices and policy recommendations in the past.

32. There are several examples of principles and frameworks that are reviewed and updated periodically, with typical review periods ranging from three to ten years, while others have been developed only once.

33. Given that innovation policy, by the very nature of the activities it governs, is a dynamic field, the Team may wish to envisage to periodically revisit and update the principles.

34. Figure 1 presents a schematic outline of possible modalities for developing voluntary ECE Innovation Policy Principles.

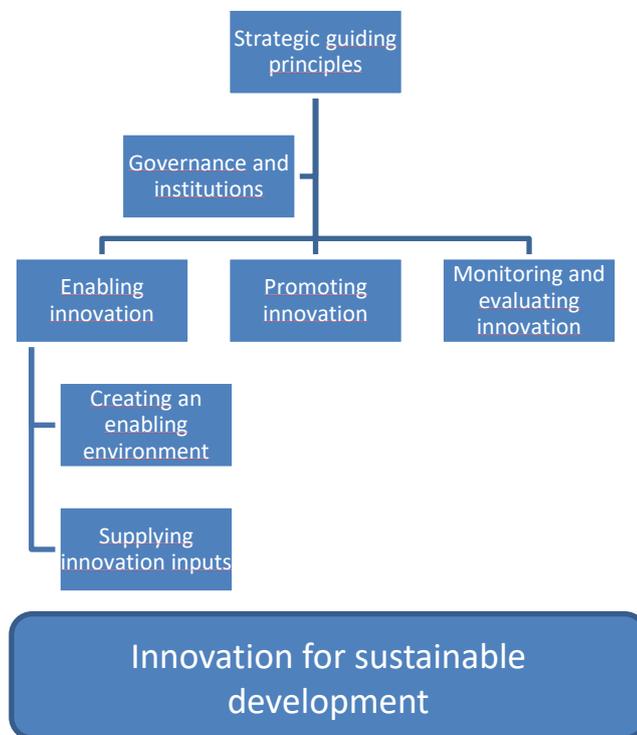
Figure 1. Possible modalities for developing ECE Innovation Policy Principles



IV. Possible Structure and Outline of Content

35. Principles could be organised hierarchically, starting with high-level strategic guiding principles and then addressing specific issues in more detail (Figure 2).

Figure 2. Possible structure for ECE Innovation Policy Principles



36. In order to ensure consistency, the structure should be aligned with the conceptual structure of the Innovation Policy Index, as well as with the updated methodology for the national Innovation for Sustainable Development Reviews.

37. The document could start out with a set of strategic, “high-level” or “core” principles which offer overall guidance on the purpose and scope of innovation policies in light of international good practice.

38. It could then cover the frameworks and institutions through which innovation policy – as an effort that cuts across the remits of various Government ministries and agencies – can best be governed to ensure internal consistency of policy initiatives.

39. This could be followed by principles on how to enable innovation, both on the supply and demand side, on how to actively promote innovation, possibly including in certain strategically important areas, and on policy learning through monitoring and evaluation.

40. A key issue would be how to mainstream sustainable development considerations in national innovation policies. This is an area where international good practice is still in the process of being developed. It is also an area where issues of governance, policy coordination and consistency are particularly important.

41. As indicated above, additional principles could be developed over time on specific issues, such as sectoral innovation policies, either as part of or as a complement to the core principles.

42. **Strategic guiding principles** would define basic assumptions about what constitutes innovation and the role for public policy. Possible principles could include:

(a) ***Take a broad and long-term view of innovation.***

Innovation is more than frontier technologies and ICT start-ups – most benefit emerge from better use of existing technology and business ideas throughout the economy, in sectors such as retail and transport. Innovation also takes time to impact sustainable development positively; and it is impossible to predict exactly how that impact will take shape.

(b) ***Target positive changes in the production structure.***

Innovation is not an end in itself, but a means to achieving and sustaining economic growth, environmental sustainability and social inclusion. Innovation policy should have clear, measurable objectives that also consider trade-offs, interactions, and effects on sustainable development.

(c) ***Support all types of innovation across all industries.***

Innovation is more than high technology. A robust body of data show that much of innovation-induced productivity growth comes from outside high-tech activities, including agriculture, retail, logistics, and business services. While promoting new, highly-value added activities remain important, it is also essential that the economy as a whole be able to absorb better ways of doing things.

(d) ***Create an environment that facilitates absorbing innovations from outside.***

Innovations at the global knowledge frontier are very risky and very expensive to generate. They also require global excellence in human capital, research, and infrastructure. Very few, if any countries, possess global excellence in all sectors. Most, if not all, rely on importing, adopting and adapting innovations that have been proven elsewhere for most of their economic progress. This requires skills, resources and institutions adapted to this purpose. Innovation policy should promote these. Promoting activities with strong potential spill-over effects on the rest of the economy is especially important.

(e) ***Embrace creative destruction and failure of both policies and the private sector.***

Innovation requires experimentation on all sides – with new policies, business ideas, products, and regulations. What is essential is not to get the plans right, but to embed within the National Innovation System the ability to measure success and respond to new opportunities. This might require new organisations and approaches on a pilot basis. It also means monitoring potential lock-in effects, where existing economic activities are maintained through subsidies or lack of competition to the detriment of more innovative ones.

(f) ***Focus on the enabling environment for innovation first.***

The role of government should be that of a gardener that helps existing crops flourish and new crops grow while laying those that fail to rest. This includes ensuring that markets are competitive, that the price of imported capital goods is not distorted, and that the education system is able to supply the labour market with the right skills. Governments should work from the bottom up, first on preparing the ground for crops (education, infrastructure), adding nurturing soil (research, relations), then removing weeds (competition, deregulation, public inputs), and finally watering and fertilising (targeted support, financing).

(g) Support the scaling up of promising innovations.

In many places, the economy-wide impact of innovation remains limited because innovative entrepreneurs lack the resources and enabling environment to reach critical scale. This is where targeted public support can make a tremendous difference, working with entrepreneurs to remove constraints to development, filling in missing links, and in some cases taking steps to defray risks through co-investment or credit guarantees.

(h) Promote strong linkages between the parts of the National Innovation System.

The effectiveness of a National Innovation System does not only depend on the strengths of its constituent parts – education, research organizations, enterprises, the market. For innovation to flourish, the constituent parts have to work together seamlessly. Innovation policy should focus on enabling and promoting productive relationships at least as much as on strengthening the individual components. This is especially important in many ECE economies in transition, who often struggle with reaping the full potential from established institutions with strong legacies, such as their networks of applied public research institutions and research universities.

(i) Do not duplicate what the private sector can do.

Innovation policy should solve problems and remove constraints in cases where the private sector is unable or unlikely to do so without intervention.

43. The **strategic guiding principles** would also define which areas innovation policies should target based on both need and capacities. This might include:

(a) Strengthen the knowledge base for innovation,

such as through public basic and some applied research. Public R&D that creates new, public knowledge that can be applied. Building skills and capacities for research and development

(b) Strengthen the demand for innovation,

through promotion, procurement, networking. Public procurement can, if done well, be very effective in creating new product markets and setting standards conducive to sustainable development.

(c) Strengthen innovative entrepreneurship and business sector innovation,

including by adapting the rules of the game (IPR, product regulations) to create the right incentives for business, and possibly through subsidies of highly selected initiatives (new, joint, with positive spill-overs, and with a contribution to sustainable development – and unlikely to take place at all without some kind of risk-mitigating support). Incubation services, co-financing, consulting services.

44. **Principles on governance and institutions** would outline the structure, position, resources, and partners that are needed to put the strategic guiding principles into practice. Possible principles could include:

(a) Develop a comprehensive, cross-sectoral national innovation strategy.

This strategy should adhere closely to the strategic guiding principles, in particular through a broad view of innovation that affects a wide range of policy areas beyond science, technology, and research.

(b) Ensure efficient co-ordination across a range of relevant policy areas.

To put such a strategy into practice, most of the work will be done through agencies outside the remit of most innovation agencies, with especially strong roles for those in charge of supporting entrepreneurship, SMEs, industry, regional development, and higher education. A central element will be a high-level co-ordination council, typically chaired by a senior minister or even the head of state.

(c) Consult closely with the business sector.

The business sector is the core driver of innovative activity and the best sources of knowledge of where opportunities lie, what the binding constraints are, and how they could be resolved. A network of formal and informal, standing and ad-hoc consultation mechanisms will be essential to identify problems, evaluate solutions, and monitor their impact. At the same time, policy makers will have to watch out for and put safeguards in place to mitigate the risks of encouraging rent-seeking, growing bureaucracies, and creating entrenched interests that, in the end, stymie innovation.

(d) Create responsive structures that can react quickly to emerging needs.

This should include flexible agencies with local offices with access to a full range of technical, financial, and commercial means to support potentially valuable projects (eg. Tekes in Finland).

45. **Principles on enabling innovation** would outline how governments should analyse and decide how to intervene to create a receptive and mobilising environment. This might include:

- (a) Create a favourable business climate**
- (b) Remove distortions in business regulations and licensing**
- (c) Create stable, transparent, predictable tax systems and open trade**
- (d) Invest in education as a key public good**

17. **Principles on promoting innovation** would guide efforts to provide targeted direct support to economic activities. They could include:

- (a) institutional design principles for „new“ industrial policy**
- (b) differentiate between supply and demand-side policies,**

with the latter drawing from research on public procurement; the potential driving force of large-scale public investments (military; infrastructure); and successful efforts to create demand for sustainable development, such as voluntary accreditation (Svanmärkning etc.).

- (c) build on existing assets, like public research institutions,**

particularly in countries with economies in transition, and ensure that existing capacities are enhanced rather than being lost.

17. **Principles on innovation policies for sustainable development** would serve to strengthen the contribution of innovation to the wide range of public policy concerns

reflected in the UN Sustainable Development Goals in general, and priority Goals identified by each country in particular. They could include:

(a) ***Focus on promoting activities critical for sustainable development.***

Initiatives that reduce environmental degradation and resource depletion per unit of GDP growth need particular attention.

(b) ***Strengthen the demand for innovations with sustainability benefits.***

This could include awareness raising campaigns, product labelling, or environmental performance standards.

(c) ***Ensure that social policies are in place to mitigate the effects of creative destruction.***

Inevitably, some kinds of innovation, especially productivity enhancing process innovation, will involve short-term trade-offs in the shape of layoffs, regional disparities, and even the demise of whole sectors of the economy. Innovation policy makers have to address this in two ways: in the long-term, through clear objectives aiming at finding new sources of employment; and in the short-term, ensuring that social policies are in place to mitigate poverty and prepare the labour force for new kinds of jobs.

(d) ***Remove subsidies for non-sustainable practices.***

In many cases, non-sustainable products or consumption patterns are being subsidized in an effort to support the living standards of vulnerable groups. Such policies are typically unnecessarily expensive because most of the benefits accrue to non-vulnerable groups. Such policies also undermine the demand for sustainable innovations because the beneficiaries do not bear the full social cost of their non-sustainable practices and therefore have little incentive to switch to more sustainable ones. It is preferable to phase out such subsidies and to use the attendant fiscal savings for targeted income support to vulnerable groups.

(e) ***Enable better use of the labour force, especially women, young, and old.***

Although ECE countries in transition have high levels of female participation in the labour force, family creation in particular sees many women reduce their involvement in or dropping out of the labour force. Flexible work arrangements, retraining, affordable child care, and entrepreneurship promotion rank among some of the effective tools governments can use to enable broader and deeper use of talent.

Annex I. List of selected United Nations Guiding Principles and Frameworks in the economic sphere

The following presents a non-exhaustive annotated list of selected policy principles and frameworks with an economic focus developed by ECE, other UN organizations and other inter-governmental organizations. The list shows the scope and modalities of these initiatives. It is intended to provide additional background information regarding the various options available for developing ECE innovation policy principles or a policy framework for innovation.

a. Principles and frameworks developed at ECE

Title	Parent body	Process of development	Level of adoption/ endorsement	Degree of commitment	Living document/ periodic review	Comments
Guiding principles on People First PPPs	CICPPP, Working Party on PPPs	Task force, online consultations	to be adopted by the Committee	non-binding	no/ to be determined	
Guiding Principles for the Development of the UN Model Regulations on the Transport of Dangerous Goods	Inland Transport Committee	United Nations Economic and Social Council's Sub-Committee of Experts on the Transport of Dangerous Goods	ECOSOC	ECOSOC "expects" Member States to "conform"	yes, currently 5 th edition	based on a binding UNECE convention, intended to support its implementation
Principles for Effective Joint Bodies for Transboundary Water Cooperation	Committee on Environmental Policy/ Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention)	Working Group on Integrated Water Resources Management; extensive consultations	Meeting of the Parties to the Water Convention	non-binding	no/ to be determined	based on a binding UNECE convention, intended to support its implementation
Policy Framework for Sustainable	Committee on Housing and Land Management/ Working Party	Real Estate Market Advisory Group	Real Estate Market Advisory Group	non-binding	no	

Real Estate Markets	on Land Administration					
Pan-European Strategic Framework for Greening the Economy	Committee on Environmental Policy	Committee on Environmental Policy together with UNEP, OECD, EEA	adopted by the UNECE Committee on Environmental Policy, endorsed by the Eighth Environment for Europe (EFE) Ministerial Conference	non-binding	no/ to be determined	complemented by the Batumi Initiative for Greening the Economy, in which countries have made commitments to policy actions

b. Principles and Frameworks developed at other UN and other inter-governmental organizations

Title	Parent body	Process of development	Level of adoption/ endorsement	Degree of commitment	Living document/ periodic review	Comments
UNCTAD Investment Policy Framework for Sustainable Development (including core principles and additional principles)	UNCTAD	UNCTAD secretariat, consultations with stakeholder communities, member states; online consultations; peer reviews	published under the authority of the UNCTAD secretariat	non-binding	updated periodically	
Joint ACP-UNCTAD Guiding Principles for Investment Policymaking	ACP group of States	UNCTAD and ACP secretariats; consultations with ACP Member States and regional organizations	ACP Committee of Ambassadors	non-binding	no/ to be determined	Based on the core principles of the above Investment Policy Framework for Sustainable Development, but with annotations tailored to the ACP countries
United Nations Set of Principles on Competition	UNCTAD, Conference on Restrictive	Conference on Restrictive Business Practices	UN General Assembly	Strong, including annual reporting to the General Assembly, and a consultation	review conferences every five years	

	Business Practices			mechanism in case of disputes		
ESCAP Policy Framework for the Use of Intelligent Transport Systems in Asia and the Pacific						
OECD Policy Framework for Investment	OECD Investment Committee, Development Assistance Committee	International task force, Advisory Group on Investment and Development	OECD Council, OECD annual Ministerial Meeting	non-binding	so far updated once in 10 years	Two sectoral policy frameworks, on agriculture and clean energy infrastructure, were developed on the basis of the Policy Framework for Investment
OECD principles for internet policy making	OECD	OECD secretariat; multi-stakeholder consultations	OECD Council, High-Level Multi-Stakeholder Meeting on the Internet Economy	non-binding	no/ to be determined	