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Committee on Innovation, Competitiveness and Public-Private Partnerships

Team of Specialists on Innovation and Competitiveness Policies

Eighth session

Geneva, 16–17 December 2015

Report of the Team of Specialists on Innovation and Competitiveness Policies on its eighth session

I. Attendance

1. The Team of Specialists on Innovation and Competitiveness Policies (TOS-ICP) held its eighth session on 16-17 December 2015.
2. The session was attended by about 40 experts representing national government agencies, academic institutions, the private sector and international organisations. Participants from the following 15 UNECE member States attended: Belarus, Croatia, Czech Republic, Finland, France, Germany, Israel, Italy, Kyrgyzstan, Norway, Russian Federation, Switzerland, Turkey, Ukraine and United States of America.
3. The session was attended by a representative of the European Union.
4. Representatives of the International Trade Centre and United Nations Conference on Trade and Development participated in the session.
5. The following non-governmental organisations were represented: The International Centre for Trade and Sustainable Development, the World Business Council for Sustainable Development and the World Economic Forum.

II. Adoption of the agenda and election of officers (agenda item 1)

6. The Team adopted its agenda as contained in document ECE/CECI/ICP/2015/1 with corrigendum ECE/CECI/ICP/2015/Corr.1.

III. Substantive segment (agenda item 2)

7. The Team held the substantive segment of its eighth session as an Applied Policy Seminar on “The Innovation Adoption Gap – Strategies and Policy Options for Accelerating the Adoption and Diffusion of Innovations”. The Seminar provided a platform for international knowledge-sharing and policy-learning in this area.

8. In September 2015, the General Assembly of the United Nations adopted the 2030 Sustainable Development Agenda to promote inclusive and sustainable economic development. Innovation can make an important contribution towards advancing this agenda, as it drives productivity growth, conserves scarce resources and enables sustainable production and consumption patterns.

9. To fully realize the potential of innovation for sustainable development, it is necessary to encourage rapid and broad-based adoption and diffusion of innovations in fields critical for sustainable development. Cases in point include energy efficiency in buildings and transport, sustainable cities and the move to the circular economy, to name but a few.

10. Policies designed to increase the pace of technology adoption include standards, regulations, product labelling, awareness-raising campaigns, subsidies, tax incentives and public procurement. By strengthening demand for innovation, these policies can also encourage additional investments in innovation.

11. The applied policy seminar laid the groundwork for developing good practices and policy recommendations for addressing gaps in the adoption of innovations that are relevant for countries and regions facing a variety of development challenges. The conclusions may also serve as a contribution to the implementation of the 2030 Sustainable Development Agenda at the regional level.

12. The applied policy seminar was organised in four thematic sessions:¹

- a) Sustainable lifestyles and the circular economy: raising awareness of innovative approaches and facilitating systemic change;
- b) Sustainable energy: making markets for renewables and energy-saving technologies;
- c) Clean technologies and greening the economy: policies to strengthen demand and encourage investments; and
- d) Public procurement: the state as a source of demand for innovation for sustainability.

13. Among the issues discussed were the following:

- (a) Options to internalize the social costs and benefits of adopting innovations that support economic, environmental and social sustainability;
- (b) Ways to support the emergence of new markets for innovations that support sustainability;
- (c) The effectiveness in reducing innovation adoption gaps of alternative policy instruments as subsidies, taxes, standards, regulations, product labelling, awareness raising campaigns, and smart government procurement;

¹ The presentations can be found at <http://www.unece.org/index.php?id=40738#/>.

- (d) How to ensure policy consistency, i.e. how to avoid that support for “legacy” technologies or industries compromises the broad-based adoption of innovations;
- (e) How to address policy uncertainty, i.e. how to ensure that investors have confidence in the stability of the regulatory framework;
- (f) Policies for accelerating the move to a circular economy;
- (g) The international dimension, i.e. the need to avoid distortionary barriers to trade arising from these policies; and
- (h) The need for and benefits of international coordination.

14. When discussing innovation policy, the focus is frequently on “supply-side” policies to encourage additional innovation. At the same time, there is growing evidence that aggregate performance is usually far from what is possible based on the use of only current state-of-the-art technology, because the latest technologies are implemented only by a minority of firms and households. Significant progress in terms of productivity and sustainability can be made if the latest technologies are adopted more widely and more quickly. This is especially the case in areas critical for sustainable development, including the mitigation of climate change. Achieving this progress requires complementing supply-side policies with appropriate demand-side policies.

15. In a similar vein, much of the focus, especially in the debate on climate change, has been on policies focused on the production side, i.e. encouraging the development of more ecologically-friendly products. But the consumption side is equally important, including policies which lead to behavioural changes in consumption patterns.

16. Affecting positive change in consumption patterns is not only a question of making new and better technology available, but also a question of effective marketing and communication to change perceptions, aspirations and behaviours. A case in point is the move to a “sharing economy” where people aspire less to owning durable consumption goods, such as cars, and focus more on being able to use them when they need them. This provides examples of innovations which, although often enabled by technology, are essentially new business models enabling new modes of consumption.

17. Affecting positive change in consumption patterns also depends critically on incentives through appropriate price signals, i.e. market prices that reflect as accurately as possible the full cost to society of alternative consumption choices, including their environmental impact.

18. In this regard, information has a key role to play, and advances in information and communication technologies, such as the move towards the Internet of Things, hold a lot of promise. This move will generate large quantities of data, for instance about how household appliances are being used, and these data can in turn be used to inform consumers about the true costs of their consumption choices, and to create pricing schedules which provide incentives for a more efficient use of resources.

19. When designing policies to promote the adoption of innovations critical for sustainable development, it is important to take into account their potential impact on international trade and investment. Among these policies are regulatory standards, carbon labelling, voluntary supply chain measures (if implemented by large players with market power, they become de facto mandatory), charges on embodied carbon, subsidies and product tax incentives, preferential finance terms, government procurement, and approved technology lists.

20. On the one hand, care needs to be taken that such policy measures comply with international trade rules and they do not become technical barriers to trade. On the other

hand, product certification and traceability remain key challenges in order to ensure that policies such as the above do not lead to distorted trade flows. An example would be when products which comply with a domestic standard and are, therefore, more expensive are replaced by cheaper imports, which may not comply with the standard.

21. In this regard, there is also a need for more information about the large number of national standards, labels and certification schemes, and the UNECE Committee on Housing and Land Management is working on compiling such information for energy efficiency in housing.

22. There was general agreement that technology-neutral policies, which aim to promote certain outcomes (e.g. thermal conductivity standards for buildings), are preferable to policies which promote the adoption of specific technologies, and which may result in missed opportunities from alternative technologies which may turn out to be superior.

23. Policy coherence is a challenge, particularly in areas where the goals of sustainability and social inclusion may conflict. One example would be where policies encouraging the adoption of innovative energy efficiency solutions for households coexist with policies subsidizing energy for households for social reasons. Overcoming policy incoherence requires a coordinated approach across different government ministries.

24. There was some discussion about the problem of legacy technologies and industries, how to overcome potential resistance to the adoption of innovations, and about the ways and costs of changing from one integrated system, such as fossil fuel powered cars and gas stations, to another, such as electric cars and charging terminals.

25. The UNECE Committee on Sustainable Energy has produced a study on best practice policies for promoting energy efficiency, including policies to accelerate the adoption of critical innovations in this area. Among the criteria for policies to be considered best practice are: significant impact, complementarity with other existing policies at the national and international levels, political feasibility, and economic feasibility. Capacity constraints were identified as a main barrier to implementing these policies.

26. The state can be an important source of demand for innovation for sustainable development, notably through public procurement for innovation and pre-competitive procurement. Demand side measures are generally about market creation, and public procurement has a specific role to play.

27. There are a range of challenges to promoting innovation through public procurement in all its forms, including lack of expertise, limited interaction between buyers and sellers, fragmented markets, absence of strategies to link policy objectives, procurements and market/ technology developments, a perceived conflict between value for money and innovation, including a tendency or even imperative to favour lowest cost bids, and limited networking between procurers.

28. Key lessons from attempts to promote innovation through public procurement highlight the importance of:

- (a) Needs identification: an outcome-based specification, with a long term perspective, and functional specifications;
- (b) Market dialogue prior to the bidding process, openness to unexpected and innovative solutions, and engaging suppliers broadly at an early stage;
- (c) Focus on procurement methods, contract models, incentives, competitive dialogue;
- (d) Engaging end-user and other stakeholders in the process early on;
- (e) A holistic approach to avoid sub-optimizing value;

- (f) A strategy for procuring innovations;
- (g) Awareness-raising among procurers;
- (h) Allocation of adequate resources to the pre-procurement and development phases of public procurement for innovation;
- (i) Continuity: markets are not changed by a single project, and the market needs a signal of continuity in order to keep developing;
- (j) ICT and new business models as key enablers of innovative solutions.

29. Smart cities have an increasingly important role to play in innovative procurement, and innovative procurement should increasingly become a part of standard practices in municipalities.

30. There is a need to move towards “smart” procurement programmes, and to influence the general attitude towards innovative procurement as an enabler for innovation. Smart procurement programmes can help shorten the time for innovations to enter the market, and provide a first market reference for innovative SMEs.

(a) Public procurement is the process whereby public authorities - including all levels of government and public agencies - buy goods and services or commission work. These contracts make up a significant share of markets everywhere. For example, in the EU market, procurement accounts for about 19% of gross domestic product (GDP).

(b) Public procurement of innovation (PPI) occurs when public authorities act as an “early user” customer for innovative goods or services. These are typically not yet available on a large-scale commercial basis and may include conformance testing. The procurer may be the user or catalysing/aggregating demand of others.

(c) Pre-commercial procurement (PCP) is an approach within the public procurement of innovation, developed specifically for the procurement of R&D services rather than actual goods and services; if the goods or services developed during the R&D phase are then to be procured, this would need to be based on a separate procurement process.

31. Examples of PPI include:

- (a) When a public agency places an order for a product, system or technology that does not exist.
- (b) The technology is known and proven but not at a market scale.
- (c) Products new to the market (developmental PPI).
- (d) Incremental or adaptive products (diffusion oriented PPI).

32. In one example, the European Union has made changes to procurement procedures, which are expected to increase the uptake of PPI. These include:

- (a) Increased flexibility and simplification on the procedures to follow, negotiations and time limits.
- (b) Clearer conditions on how to establish collaborative or joint procurements which, through bulk purchasing, can provide the necessary demand to launch new solutions.
- (c) Strengthening the use of life cycle costing that describes all the phases through which a product passes from its design to its marketing, use, disposal and discontinuation of its production.

- (d) The creation of innovation partnerships, which enable a public authority to enter into a structured partnership with a supplier with the objective of developing an innovative product, service or public work, with the subsequent purchase of the outcome.
- (e) The exemptions for procurement of R&D services currently included in the new Directives (which are the basis for PCP) will be maintained. Public procurers can therefore continue to undertake pre-commercial procurement.

33. Overall, PPI is gaining a greater role in innovation policy and is often linked to developing lead markets. PPI works best when integrated into a viable innovation system with capable suppliers and sophisticated procurers/agencies. However, even in less developed economies, PPI may be useful especially when the project can be linked to a wider system and innovation cycle. Global challenges and green innovation are increasingly becoming drivers of progress, with PPI an element in a package to support a greener economy and compensate for frequent failure of markets to take into account environmental and social costs. Additional corrections may be necessary for failures in policy coordination and governance.

34. The moderators thanked the speakers. Team members were encouraged to benefit from the outcome of the discussions and the circulated material, available on the website², in their future work.

IV. Business Segment: Review of the work of the Team of Specialists on Innovation and Competitiveness Policies (agenda item 3)

35. The secretariat briefed the Team members on the outcomes of the activities carried out since the seventh session, which included:

- (a) Policy Document: “Good practices and policy recommendations on “Smart Specialization Strategies” (ECE/CECI/2015/4)
- (b) Policy Document: “Innovation in the public sector” (ECE/CECI/2015/5);
- (c) Policy Document: “Good Practices and Policy Recommendations on Aligning Entrepreneurship and Innovation Policies” (ECE/CECI/2015/6);
- (d) Presentation and launch of the Innovation Performance Review of Armenia in Yerevan;
- (e) Innovation Performance Review of Tajikistan (ECE/CECI/24);
- (f) Publication “Innovation in the Public Sector” (ECE/CECI/22);
- (g) Seminar “International technology transfer: Policies and practices”, Astana, Kazakhstan, and Workshop to provide policy advice on Kazakhstan’s Strategy for International Cooperation in Science, Technology and Innovations, Astana, Kazakhstan, 29 October 2014;
- (h) High-level Seminar on “Public – Private Partnership in Innovation Activities”, Minsk, Belarus, 4 December 2014;
- (i) Seminar on “Smart Specialization and Regional Innovation Strategies”, at the 10th Kazan Venture Fair, Kazan, Russian Federation, 23-24 April 2015;

² <http://www.unece.org/index.php?id=40738#/>.

- (j) Session on Innovation for Sustainable Development at the SPECA Economic Forum, Dushanbe, Tajikistan, 10 November 2015;
- (k) International conference “Better Policies for More Innovation: Assessment – Implementation – Monitoring”, Minsk, Belarus, 17-18 November 2015;
- (l) Preparatory mission for an Innovation for Sustainable Development Review of Belarus, 19-24 November 2015;
- (m) Contribution to the 1st Russian Export and Investment Fair, Moscow, 19-20 November 2015;
- (n) Contribution to the 3rd Regional Internet Governance Forum of Azerbaijan, Baku, 3-4 December 2015.

36. The Team expressed its gratitude to the Government of the Russian Federation and the Eurasian Development Bank for their financial and in-kind contributions towards its work.

37. The Team expressed its satisfaction as to the outcomes of the work carried out, which has effectively responded to the needs of countries with economies in transition, in accordance with its mandate.

V. Inter-sessional implementation plan for 2016 (agenda item 4)

38. The secretariat presented the implementation plan for 2016 (ECE/CECI/2015/10).

39. The Team adopted the implementation plan for work to be undertaken in 2016 which is in accordance with the Programme of Work of the Sub-programme on Economic Cooperation and Integration in 2016-2017 (ECE/CECI/2015/9) as adopted at the ninth session of the Committee on Innovation, Competitiveness and Public-Private Partnerships (ECE/CECI/2015/2).

40. The following outputs and activities will be delivered:

- (a) A parliamentary document for the 2016 session of the Committee on Innovation, Competitiveness and Public-Private Partnerships on “Strategies and Policy Options for Accelerating the Adoption and Diffusion of Innovation for Sustainable Development”, preliminarily planned for Geneva on 23-24 May 2016 or in Belarus at a later date. The decision on the date and venue will be made by the bureau of the Committee in consultation with the UNECE member States;
- (b) Contribution to the substantive segment during the 2016 session of the Committee on Innovation, Competitiveness and Public-Private Partnerships;
- (c) One or more sessions on innovation during an international conference to be organized jointly with the UNECE Steering Committee on Trade Capacity and Standards. The outcomes of the conference will provide inputs for the 70th Anniversary session of the Economic Commission for Europe in 2017;
- (d) A UN publication based on the policy discussions held at the annual session of TOS-ICP in 2015;
- (e) An international conference, seminar or workshop on Innovative Entrepreneurship for Sustainable Development, to be organized jointly with the Government of Israel in Geneva. The date will depend on the scheduling of the tenth session of the Committee on Innovation, Competitiveness and Public-Private Partnerships;

- (f) An Innovation for Sustainable Development Review of Belarus. The policy recommendations will be reviewed at the tenth session of the Committee on Innovation, Competitiveness and Public-Private Partnerships. Upon completion, the review will be launched in Belarus and published as an official UN publication;
- (g) A preparatory mission for an Innovation for Sustainable Development Review to be organized in 2017 in Azerbaijan or for a second Review of Ukraine;
- (h) Policy advisory workshops to support the implementation of the recommendations contained in the Innovation Performance Reviews of Armenia, Kazakhstan, Tajikistan and Ukraine;
- (i) A session on innovation policy at the Novosibirsk Venture Fair on 9-10 June 2016;
- (j) Contributions to the 2016 sessions of the Working Group on Knowledge-Based Development and the Economic Forum of the UN Special Programme for the Economies of Central Asia;
- (k) Contributions to the work of the Inter-Agency Task Team on Science, Technology and Innovation for Sustainable Development, including the preparation of the 2016 Multi-Stakeholder Forum on Science, Technology and Innovation for Sustainable Development and the online platform on existing mechanisms, initiatives and programmes;
- (l) Sub-regional capacity-building and knowledge sharing conferences, seminars and workshops on policies for promoting knowledge-based development, subject to demand from member States and the availability of extra-budgetary funding.

41. The Team of Specialists thanked the Russian Federation for its generous financial support for the planned work.

42. The Chair encouraged Team members to participate in the planned activities and events. She also reminded the Team that capacity-building activities require support through extra-budgetary funding and in-kind contributions and encouraged the Team to contribute to raising such extra-budgetary support.

VI. Other business (agenda item 5)

43. The Team agreed that its next meeting be held on 20 - 21 October 2016, subject to confirmation of room availability. Any changes in these dates will be made in consultation with the Bureau.

VII. Adoption of the Report of the session (agenda item 6)

44. The Team adopted the Report of the session.