DRAFT ACTION PLAN FOR TCP ENHANCEMENT

This Action Plan seeks to highlight specific opportunities for enhancement of the IEA Technology Collaboration Programmes (TCPs), outlining concrete actions by all key actors to achieve a shared, ambitious vision. The Action Plan includes specific, actionable recommendations for each key actor (IEA Committees and Secretariat; governments; and TCPs), and will only be successful with full ownership and enhanced commitment / resourcing.

This Action Plan was developed at the direction of the Committee on Energy Research and Technology (CERT), in cooperation with its Working Parties. It builds upon the strong 2015 IEA Ministerial mandate to strengthen the IEA's energy technology activities, and is informed by broad input from governments, companies, IEA staff, and TCPs (including a survey that achieved 90% response rate). It is also expected to be the central input to and outcome from the 2nd TCP Universal Meeting on 9 October 2017, and it will feed into the 2017 IEA Ministerial on 7-8 November.

There are four Action Areas:

- 1. Enhanced TCP-IEA collaboration
- 2. Engagement with governments and private sector
- 3. Interactions with multi-lateral initiatives
- 4. Awareness, communication and visibility

1. Enhanced TCP-IEA collaboration

TCPs represent a vast body of technology expertise. TCPs already feed into, complement and expand IEA's energy technology analysis, including *Energy Technology Perspectives*, *Tracking Clean Energy Progress*, *Technology Roadmaps*, the *World Energy Outlook* and various *market reports*. TCPs also benefit from a range of tools and outputs produced by the IEA, as well as from being associated with the highly recognized IEA brand.

TCPs produce a highly diverse array of outputs. While some TCPs carry out early stage research and development activities, other focus more on market analysis or enable scientific networking and collaboration. Some TCPs have a broad constituency, while others operate with a limited number of specialised partners. Due to the heterogeneity of the TCP landscape, the aim of strengthening interactions between the TCPs and the IEA Secretariat calls for an approach that is tailored to the specificities of each group. A one-size-fits-all approach will not produce effective impacts.

Action Area 1 seeks to expand the range of opportunities for supporting TCP growth and maximising the collaborative synergies between TCPs and the IEA, mindful that action options would need to be adapted to the technology focus, strategy, and operating capabilities of each TCP.

Actions:

- 1.1 Enhance IEA's capabilities to participate in TCP activities (e.g. Executive Committee meetings) and to otherwise increase interactions among TCPs and the IEA Secretariat.
- 1.2 Modernise and enhance the repository of TCP data, inclusive of information on TCP participation, projects, events, and other inputs useful to mapping and characterising TCPs' rich body of work.
- 1.3 Maximise the number of IEA workstreams that utilise TCP expertise and gradually institute the TCPs as a first-use resource for IEA analysis where relevant.
- 1.4 Seek to achieve a better alignment and coordination between TCPs' own activities (under the "Annexes" and specific projects) and IEA's planned technology work. This could be achieved, in part, by mutually consulting early on in the decision making process of the TCPs and the IEA respective work programmes.
- 1.5 Carry out a strategic review of how the CERT and its Working Parties the ETN bodies responsible for TCP oversight and guidance carry their mandate forward and consider whether changes are needed to increase the coherence and effectiveness of the sectoral groups.

Resources:

Significant parts of these enhancements would require additional resources. For example,
100,000 to 200,000 euro per year would enhance capabilities in the IEA coordination team
(IPI) and provide increased ability for IEA desk officers to engage with TCPs and participate in
relevant meetings.

2. Engagement with governments and the private sector

The IEA recognises the opportunity that energy research and technology offers to bring stakeholders together and create bridges between the public and private sectors, as well as among nations. Some 6,000 participants from about 300 organisations in 52 countries, over 50 non-governmental and industry entities, and four international organisations currently participate in TCPs, providing testimony of the effectiveness of the TCP mechanism in supporting IEA engagement. Building on progress under the IEA Association initiative, TCPs are also well poised to act as worldwide ambassadors of IEA expertise.

At present, entities located in IEA member countries still represent nearly 80% of total participations in TCPs. Though IEA efforts to support greater participation of partner countries in TCPs have had positive results, there remains considerable further potential for greater participation in selected regions. On several occasions, TCPs expressed interest in expanding participants' base to partner countries and private sector entities. For the TCPs, greater participation of IEA member and partner countries enriches the collaboration by providing a broader perspective on technology issues. Industry and business participation has provided an important contribution to accelerate energy technology innovation delivered by these networks.

Actions:

- 2.1 Enhance IEA's capabilities to support TCP outreach efforts, including TCP events, in coordination with IEA's own engagement with governments and industry.
- 2.2 Assist TCPs with identifying the appropriate "points of contact" to foster dialogue with partner countries, and raise awareness of TCPs during IEA Secretariat and member visits to partner countries.
- 2.3 Invite TCPs to participate in and contribute to IEA regional events organised with / in partner countries.
- 2.4 Explore options for closer TCP collaboration with the IEA industry stakeholder groups as a means to stimulate further participation of industry in TCPs activities, notably the IEA Energy Business Council, the Renewable Energy industry Advisory Board and the Energy Efficiency Advisory Board.
- 2.5 Building on IEA's own collaborations, help TCPs identify industry and non-governmental stakeholders that could be interested in specific TCP activities and projects, and assist to reaching out to the right contacts.

Resources:

Much of these activities could be undertaken by IEA Members and the Secretariat with only marginal additional staffing needs. For more robust implementation, resources in the range of 50,000 to 250,000 euro per year could cover travel costs of IEA staff in the coordination team (IPI), the Office of Global Energy Relations, and across the Agency in the teams that have substantive collaborations with industry.

3. Interactions with multi-lateral initiatives

Outside of the TCP network, there is an extensive and multi-faceted web of other fora, partnerships and initiatives working on energy technology research, development, demonstration, and deployment as well as on the related policy issues. There is growing recognition that multi-lateral collaboration is needed to accelerate energy innovation, however, open question remains on how the discrete collaborative efforts of policy makers, research organisations, and the private sector could best be harnessed to drive forward the global energy transition.

In January 2017, the TCP-wide survey revealed that numerous TCPs already collaborate with other multi-lateral efforts, notably under Mission Innovation (MI) and the Clean Energy Ministerial (CEM). These inter-linkages could be further strengthened under Action Area 3, with a view to enhancing ambition, participation and impact of TCP activities. Care should be taken to improve co-ordination and minimise overlap of work streams, including within the TCP network, and exploring opportunities for further dual-hat initiatives as relevant (such as the ISGAN TCP and C3E TCP that are also CEM Initiatives).

Actions:

- 3.1 Enhance IEA's capabilities to support TCP interlinkages with other multi-lateral efforts.
- 3.2 Organise joint events and meetings with TCPs and representatives of other multi-lateral efforts, notably the CEM and MI.
- 3.3 Leverage the IEA's multi-lateral collaborations to increase awareness and information sharing on the work of the TCPs, fostering joint use of respective capabilities to achieve common goals. Facilitate discussion of plans for the development of additional joint capacities.
- 3.4 Carry out strategic analysis and mapping of multi-lateral efforts relevant to energy technology research and innovation to identify TCP-specific opportunities to strengthen interactions and interlinkages, as well as to undertake new collaborative efforts.
- 3.5 Enhance TCP coordination of cross-cutting initiatives; identify topics of mutual interest, and try to harmonize respective work-streams.

Timeframe and Resources:

ш	Resources are sought in the range of 100,000 to 400,000 euro per year depending on the level
	of ambition, in support of enhanced capabilities of IEA staff in the coordination team (IPI) to
	carry out analytical and organizational work to assist with TCP engagement efforts with other
	multi-lateral initiatives.

4. Awareness, communication and visibility

Over the past two years, the CERT, the Working Parties and the IEA Secretariat have made concerted efforts to raise awareness of TCPs, to strengthen communication with internal and external audiences, and to give visibility to TCP results. These efforts were enhanced since the adoption in February 2016 of a new Communication Framework as well as a revised procedure for TCPs' Request for Extension (RfE).

TCPs carry out a wide variety of activities related to training and capacity building, including webinars and distance learning; in-person training courses; events; publications and online communication. The TCP survey, in particular, revealed great interest by TCPs for further help with their communication efforts going forward. Such efforts could aim to ensure that TCP products and messages reach relevant decision-makers, including more strategic use of the IEA website and better coordination with the IEA Training and Capacity Building Programme.

Actions:

- 4.1 Increase TCP visibility on the IEA website (e.g. monthly web news); enhance accessibility of data and information on TCPs (e.g. by means of infographics and/or with a new, interactive TCP Atlas); and revamp individual TCP webpages on the IEA website.
- 4.2 Disseminate the monthly IEA Newsletter to the whole TCP distribution list, including a new section "TCP News" based on TCP submissions and featuring TCP events. Discontinue email distribution of the OPEN Bulletin, however maintain the related webpage and upgrade it with RSS web feed functionalities.
- 4.3 Produce short films (2-minute) about TCPs, including interviews with TCP representatives and testimonials.
- 4.4 In consultation with TCPs and Working Parties, develop a "TCP communication toolkit", consisting of a TCP promotional brochure and one-page pull-outs for each TCP.
- 4.5 Create a new logo for TCPs and update the IEA guidelines that apply to TCP communication, including terms of reference for the use of TCP logo and brand. Organise training sessions and webinars for TCPs to enhance the respective communication activities.

Resources:

ш	Resources are sought in the range of 100,000 to 500,000 euro per year in support of enhanced
	capabilities in the IEA communication and information team. Some actions that require
	specialist ICT competences and equipment (hardware / software / filming) may be contracted
	out.

All of us need to do our parts for all of us to be successful...

The IEA Secretariat, the national governments of IEA member and partner countries, and TCPs each play a critical role in the implementation of this Action Plan for TCP Enhancement. The success of the plan relies on active leadership by all stakeholders, and on the allocation of resources adequate to the level of ambition desired.

IEA (Members and Secretariat)

- Make concerted efforts to raise resources for the implementation of this Action Plan
- Strengthen IEA capabilities to provide TCPs with strategic directions to maximise impact and mutual benefits, including by sharing information on IEA programme of work and priority activities as relevant
- Further raise TCP visibility, enhance communication, and strengthen interlinkages with multi-lateral efforts

Governments participating in TCPs

- Regularly assess opportunities to further participate in TCPs as a means to pursue the goals of national energy research and technology strategies
- Ensure that the IEA Secretariat and the individual TCPs of interest are provided with resources, and toplevel talent adequate to carry the respective mandates forward in a meaningful way
- Provide strategic directions and guidance to TCPs through the relevant governance bodies (notably CERT, Working Parties, TCP Executive Committees)

TCPs

- Ensure continued dialogue and exchange of information with the IEA Secretariat and country governments on TCP strategy, activities and resources, making concerted efforts to implement this Action Plan and to enhance TCP leadership
- Seek to expand participation to maximise inputs and outputs of TCP activities, engaging relevant government and non-government stakeholder, as well as other multi-lateral initiatives as relevant
- Ensure transparency and accountability of operations, in compliance with the requirements of the IEA
 Framework and of relevant IEA procedures (notably the Request for Extension and the Communication
 Framework)