



State University – Higher School of Economics

The Institute for Statistical Studies and Economics of Knowledge

Current Practice of Russian Technology Platforms Creation

Foresight

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European Experience and Prospects for the
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Contents

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II. Creation of the TPs: first steps

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Some Premises for the Creation of the TPs

Innovation sphere in Russia is still lacking due level of cooperative relationships between research organizations and industrial enterprises

- ❑ From the bulk of the domestic innovation firms, only 15 to 16% participate in joint projects effected in conjunction with scientific organizations, and only some 8% with higher education establishments
- ❑ Institutes attributed to the RAS (Russian Academy of Sciences) serve as the main source of information to 0.7% of the domestic innovation firms, while sectoral institutes to the 2.6-2.9%, and higher education establishments to 0.9% thereof.
- ❑ Financing of R&D by the entrepreneur sector accounts for a mere some 30% of internal costs.

The cooperative bonds as existed previously between scientific organizations and industrial enterprises are, now, broken throughout the former Soviet Union

- ❑ From Russian entities that carry technological exchange with the CIS member states: the share of those acquiring novel technologies is not more than 5%, while of those transferring novel technologies is 12%.
- ❑ From the overall number of novel technologies acquired by Russian entities engaged in technological innovations, the share of those purchased from the CIS member countries amounts to not more than 7%
- ❑ From Russian entities engaged in technological innovations, the share of those that undertake joint research and development projects with CIS member states is not more than 4%.

Sources:

Science and Technology Indicators: 2010. Data Book. – Moscow: Higher School of Economics, 2010. – 368 p.
Innovation Activity Indicators: 2010. Statistical Databook. – Moscow: Higher School of Economics, 2010. – 427 p.

Russian Technology Platforms: *basic documents*

Procedure for Preparation of the Technology Platforms List

УТВЕРЖДЕН
решением Правительственной комиссии
по высоким технологиям и инновациям
от 3 августа 2010 г., протокол № 4

ПОРЯДОК формирования перечня технологических платформ

I. Общие положения

1. Настоящий Порядок определяет необходимые условия

03 August 2010: the date of approval by the Government Commission for Advanced Technology and Innovations, Record N 4

ресурсов исследований и разработок на основе участия всех заинтересованных сторон (бизнеса, науки, государства, гражданского общества), совершенствование нормативно-правовой базы в области научно-технологического, инновационного развития (далее - технологическая платформа).

3. Формирование и реализация технологических платформ направлены на решение следующих задач:

- 1) усиление влияния потребностей бизнеса и общества на реализацию важнейших направлений научно-технологического развития;
- 2) выявление новых научно-технологических возможностей модернизации существующих секторов и формирование новых секторов российской экономики;
- 3) определение принципиальных направлений совершенствования отраслевого регулирования для быстрого распространения перспективных технологий;

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Recommendations on Developing Technology Platforms Realization Draft Document

"ОДОБРЕНО"
Руководитель рабочей группы по развитию
частно-государственного партнерства
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Заместитель Министра экономического развития
российской Федерации

(Клепач А.Н.)

"__" октября 2010 г.

мп.

РЕКОМЕНДАЦИИ ПО РАЗРАБОТКЕ ПРОЕКТА
РЕАЛИЗАЦИИ ТЕХНОЛОГИЧЕСКОЙ ПЛАТФОРМЫ

26 October 2010: the date of publishing in the Web site of the Ministry of Economic Development and Trade of Russia

Москва, октябрь 2010

Russian Technology Platforms: *the Instrument Lineaments*

PROCEDURE FOR PREPARATION OF THE TECHNOLOGY PLATFORMS LIST

- approved by the Government Commission for Advanced Technology and Innovations Resolution of 3 August 2010, Record N 4

1

“Technology Platforms are a communicative instrument aimed at enhancing efforts to create advanced commercial technologies, novel products (services), attracting additional resources to have research and development pursued on the basis of participation of all the parties concerned (i.e., of business, science, nation-state, civil society), and improving regulatory legal base in the field of research and technological development activities”

2

“In the course of technology platforms performance realization, there shall be:

- developed Research strategy,
- formed Training programmes,
- designed the programme for introduction and dissemination of advanced technologies, etc.”

3

“ Within technology platforms, there shall be undertaken work on:

- detailing the themata of the R&D supported by the State,
- determining forward-looking requirements to qualitative characteristics of the products (services) to be supplied to public sector;
- elaborating programmes for innovation-based development designed for big companies which involve State as a Shareholder;
- detailing the directions and principles for the State institutions to support scientific technical and innovation activities;
- improving educational standards;
- defining directions of international co-operation to develop”.

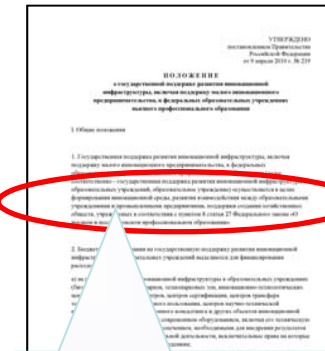
Technology Platforms in the System of Policy Instruments

Programmes for innovation-based development of companies which involve State as a Shareholder

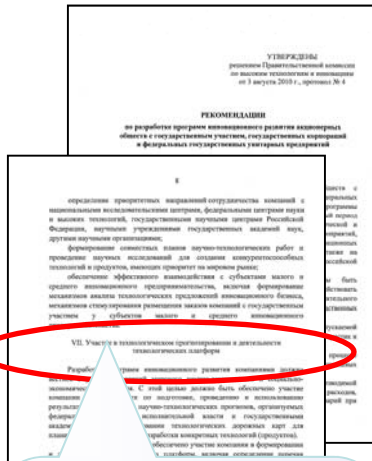
Resolution by the Russian Federation Government, dated 9 April 2010 N 218



Resolution by the Russian Federation Government, dated 9 April 2010 N 219



TECHNOLOGY PLATFORMS



p. 8. Participation in technological forecast and in technology platforms performance

FCP "Research and Development in Priority Areas of Science and Technology Complex of Russia for 2007 – 2012"

p.1. Forming innovative environment, developing higher education establishments interaction with business

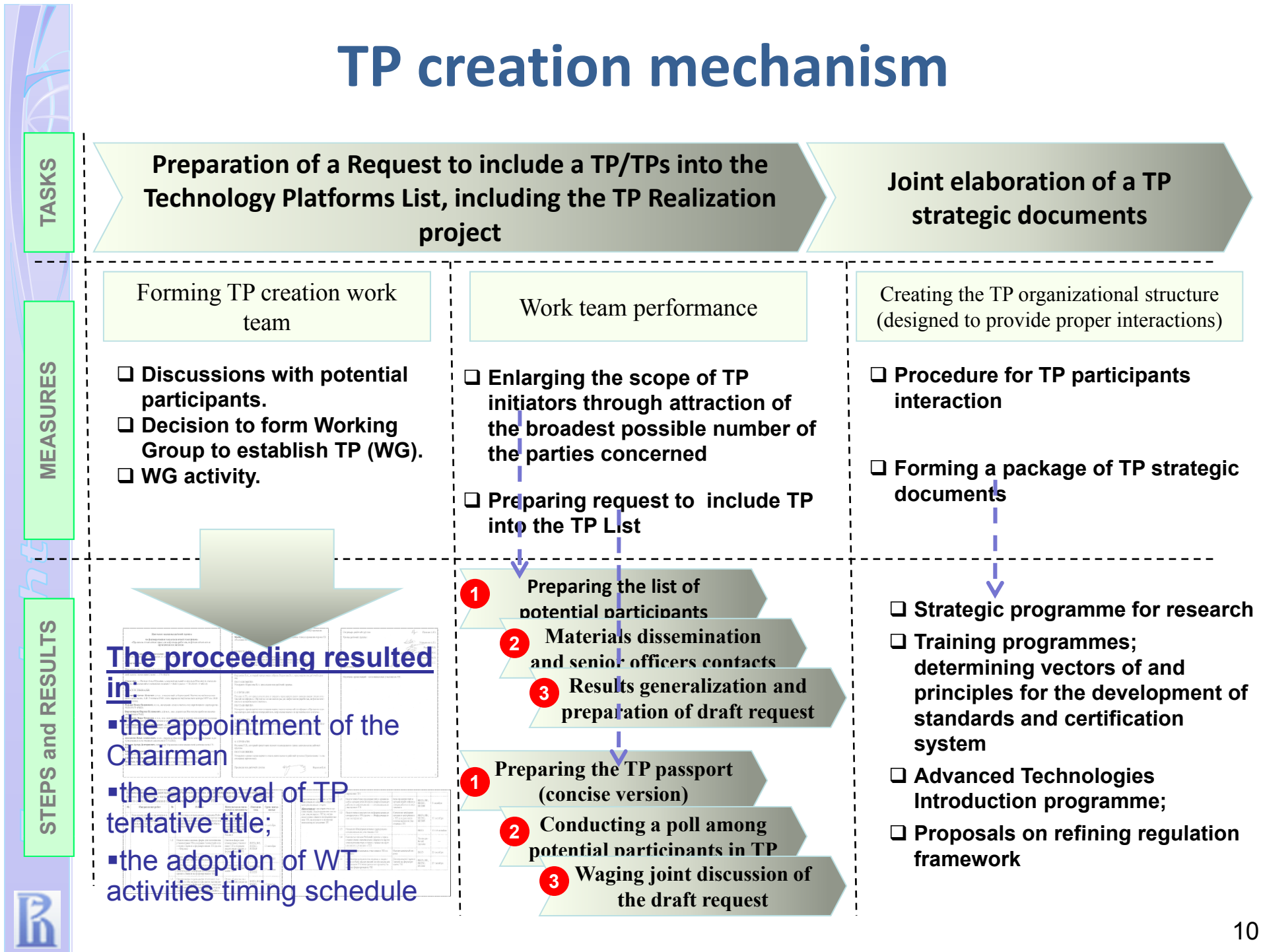
Capacity of Participants in a Technology Platform

- Improvement of innovation-supporting environment, stimulation of demand for innovatory products
- Realization of R&D in a TP, within target programmes financed from the federal budget
- Preparation of public contracts for products provided for under TPs and their reconciliation with governmental authorities
- Having innovation-based projects financed from development institutions funds
- Enlargement of the scope for partner selection
- Improvement of legal framework to base regulation upon
- Development of new and updating of ongoing Training / Skills Development programmes

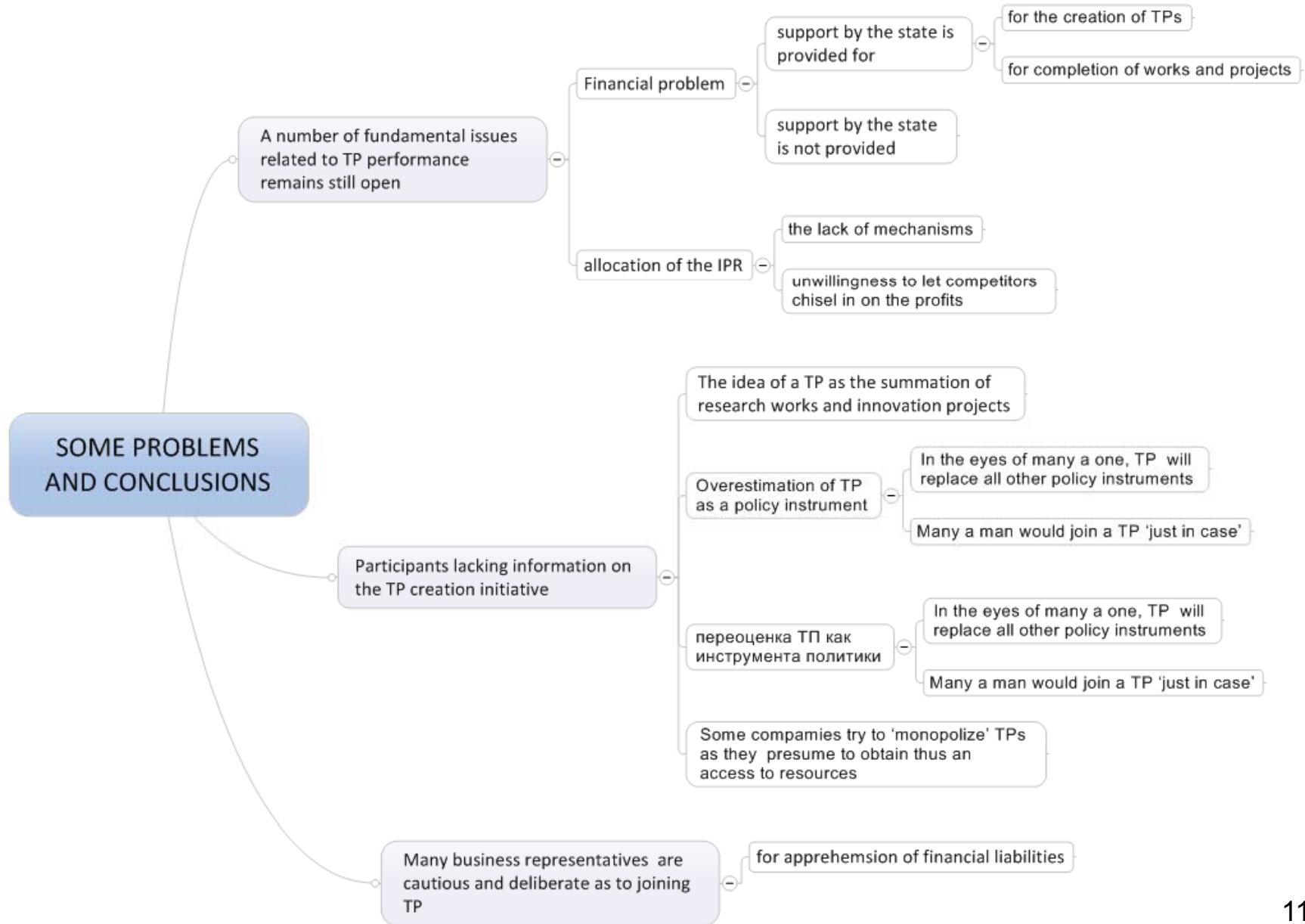
Russian Technology Platforms: *Development Factors*

STRENGTHS	WEAKNESSES
<p>Permanent enhancement of competences of higher education establishments' and scientific organizations' researches, in priority areas of the industrial development of Russia</p> <p>The systemic and integrated nature of TPs, their long-term orientation, which allows components of research to be integrated into a sound 'innovation contour'</p>	<p>The main parties concerned are, generally, not duly prepared to implement long-term integrated initiatives providing for coordination</p> <p>Temporal lag between the creation of a TP and the first results of its performance may appear to be big enough, thus weakening the motivation of the participants and the state.</p>
CAPACITIES	THREATS
<p>TP development management is facilitated owing to the structure of branches of Russian industry (large percentage of companies involving state as a Shareholder and of vertically integrated companies)</p> <p>The capacity being in place for competences of Russian companies in the field of innovation-based management to be built up over a short interval</p> <p>The state has diverse levelers to exert influence on the economy, including those to support TP development</p> <p>The state may easily initiate the creation of TP in the areas strategically important to the nation</p> <p>Taking advantage of state order to render support to TP – direct (the state will give a TP a purchase order for the development and manufacture of products) or indirect (guaranteeing that future TP products will have good demand, through making a provision for sale adjustment subject to the TP performance results)</p> <p>Using a TP to rise a demand over the industry for innovatory products and to create new innovation product markets</p> <p>Involving TP participants to elaboration of policies to be pursued in the area of the TP creation; developing the policies Roadmap</p> <p>Having that Russian practices of TP creation is disseminated over the territory of the CIS member states (creating new TPs, admitting organizations from the CIS member states to the membership of participants in Russian TPs)</p> <p>Establishing co-operation between Russian and European TPs</p>	<p>The interest of participants, including that of business, might be limited to lodging formal application</p> <p>Industrial sector may appear to be not able to formulate long-term demand for the results of innovatory R&D in engineering</p> <p>The existing business processes and resources allocation schemes may have an adverse effect on the participation of companies in TPs</p> <p>Imports can also pose a threat (in that, Russian business may prefer to purchase foreign technologies, instead of waiting for the results of the TP performance)</p> <p>Difficulties regarding industrial introduction of the results of the R&D done by TP (for example, the problem of scaling R&D results)</p> <p>'Dictate' of the thematic based on the already achieved results, not on the market requirements - owing to research organizations and universities prevailing in the body of the TP participants</p> <p>Not all the TP give the opportunity of integrating all stages of innovation cycle from R&D to production. "Borrowings" of lacking technologies from abroad might result in the threat to economic security and often are limited in their scope</p> <p>There may appear new or sharpen old problems in the NIS or economy on the whole, and, as a consequence, the outflow of the resources of the state and business from the TP</p> <p>Potential participants might lack information on the TP (which may result in improper perceptions and unjustified expectations, and in the decrease of the actual number of participants).</p>

TP creation mechanism



Some Problems And Conclusions



Предложения по критериям оценки проектов ТП

Предложения по критериям оценки технологических платформ

1. Конечная ориентация на рынки, а не только на развитие технологий
2. Соответствие определению технологической платформы (представлена платформа, а не проект)
3. Четкая определенность научно-технических задач и обоснованность их значимости для развития секторов экономики
4. Представительство ключевых организаций научных и образовательных организаций, работающих с данной технологией
5. Представительство ключевых компаний, не только государственных, но и частных
6. Исключение доминирования монополистов - технологических и рыночных.
7. Значимость позитивных эффектов, достигаемых благодаря созданию технологической платформы по сравнению с существующей ситуацией
8. Невозможность решения поставленных задач без координации широкого круга участников
9. Проработанность первоочередных действий в рамках технологической платформы
10. Вовлеченность профильных федеральных органов исполнительной власти

Возможные решения по проекту ТП

- Проект можно рекомендовать к включению в перечень технологических платформ
- Следует рассмотреть возможность объединения данного проекта с другими проектами в связанных областях (указать, какими именно)
- Следует рассмотреть возможность разделения проекта на несколько отдельных ТП (указать, каких именно)
- Работу по проекту следует продолжить
 - проект следует доработать (указать, по каким направлениям)
 - необходимо запросить дополнительные сведения по проекту (указать, какие именно)
 - проект необходимо направить на дополнительную экспертизу (указать предмет)
- Проект следует отклонить

План первоочередных действий

- Формирование организационной структуры ТП:
 - Создание рабочих групп (по формированию механизмов функционирования ТП и обеспечению ее организационного развития, по долгосрочному научно-технологическому прогнозированию, по разработке и реализации СПИ, по разработке и реализации ПВПТ, по образованию и подготовке кадров, по подготовке предложений, направленных на совершенствование регулирования в научно-технологической и инновационной сфере)
 - Формирование оргструктуры ТП
- Разработка механизмов функционирования ТП, включая:
 - Механизмы финансирования деятельности ТП, в том числе в рамках частно-государственного партнерства.
 - Механизмы распределения результатов интеллектуальной деятельности и др.
- Форсайт и разработка стратегических документов ТП, включая:
 - Определение долгосрочных приоритетов научно-технологического развития и целей ТП
 - Построение дорожной карты достижения целей ТП
 - Разработка стратегической программы исследований, программы по внедрению и распространению передовых технологий, программ обучения, предложений, направленных на совершенствование регулирования в научно-технологической и инновационной сфере

Thank you for your kind
attention!

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