

TECHNOLOGY TRANSFER CENTER OPERATIONS AND ACTIVITIES: STAKEHOLDER INVOLVEMENT

by

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Abstract

Stakeholder involvement in the activities of the Technology Transfer (T²) Center is crucial to the Sustainability of the Center. Available funding is not guaranteed by any particular entity. There is a host of stakeholders, traditional/nontraditional, that need to be sensitized to the programs and purpose of the Center. While there are a number of common stakeholders; the type of stakeholder may vary from Center to Center. It is crucial that the T² staff canvass and involve its stakeholders/customers/partners on an ongoing basis to ensure a means that will sustain the Center. This paper will identify a list of activities generally performed by T² Centers, elaborate on ways to identify stakeholders, describe strategic planning as it relates to stakeholder involvement, and layout a progress reporting process.

1. INTRODUCTION

The Transportation System is a vital part of the economic development of any nation. Technology Transfer Centers are a means to share effective and/or more efficient policies, practices, and technologies which could be implemented and result in a more cost-effective use of resources.

Technology Transfer (T²) Centers operations and activities vary from center to center. However, there are basic operating procedures that assist with successfully performing their functions. Among other pertinent responsibilities, education and training is one of the most important. Technology transfer centers facilitate the training of their constituencies involved in the transportation network. A few of the training areas include institutional change, program development, road maintenance and construction, work zone safety, private sector development, contract management, etc. In any event, the focus of the technology transfer program is based on the needs of the respective local transportation community.

In general the activities of a T² Center include the following six basic activities:

- Maintaining a mailing list
- Publishing a quarterly newsletter
- Serving as a clearinghouse for transportation information
- Providing information on new and existing technologies

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- Conducting training
- Performing a self-evaluation.

It is expected that a T² Center will change and evolve over time as the needs of the transportation community change. For this reason, it is important that T² Centers strategically assess stakeholders/customers/partners' needs on an ongoing basis. As the technology transfer program is established, the top priority is to identify user needs. After the needs assessment, it is imperative that the T² center management understand the local conditions, the types of technology, and levels of technical expertise that can be transferred, as well as, ascertain the types of appropriate technology available for adoption in their country. It is also very important to evaluate the transportation environment and identify potential committed stakeholders.

Each T² Center focuses on acquiring, disseminating and facilitating information and training that will meet the needs of their stakeholders. In today's world the necessary funding required to sustain a T² Center is not obtained from any one entity. Public funding is diminishing and the small fraction that is available in some instances is not guaranteed. With this in mind, T² Centers worldwide increasingly depend on innovative means of financing their operations and activities. A number of centers are being managed like a not-for-profit business. Tapping into the various public and private stakeholders/partners/customers funding pots has been recognized to be an evolving and necessary means by which to sustain a Center. Taking into consideration that the center's organizational performance is a primary interest of the stakeholders, their financial investments will be forthcoming if the center serves their transportation needs adequately. This means that there should be a formal process that links the input of the stakeholders to the goals, mission and values of the center. According to Mr. Camarota, President of AESIR International, the following is a paraphrased statement by the International Institute of Sustainable Development: "for the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders while protecting, sustaining and enhancing relevant resources that will be needed in the future."

This paper will address identifying stakeholders and a step by step process describing the development of a strategic plan and the incorporation of input from stakeholders/customers/partners.

2. IDENTIFYING STAKEHOLDERS

There are a number of ways to identify and categorize stakeholders. One very effective way is to prepare a list of primary and secondary stakeholders. Primary stakeholders are public and private sector members who are affected (positively and negatively) by the operations and activities of the T² Center. For instance, local contractors, local agencies, local associations, etc. are examples of primary [traditional] stakeholders. Secondary stakeholders are intermediaries in the process of delivering aid to the primary stakeholders. For instance, Federal Highway Administration, World Bank, United States Agency for International Development, European Union, and the World Road Association are secondary stakeholders.

Stakeholders, both traditional and non-traditional, are often categorized according to the extent

that their needs and interest are priorities of, and influence the operations and activities of the Center. Examples of non-traditional stakeholders could be community organizations; women organizations; transit, railway, waterway, and airway organizations and associations; intermodal organizations and associations; general public; neighboring countries and states/provinces. Stakeholders may be divided into the following groups: occupation, organization type, gender, social or income classes, etc. Nevertheless, however divided, each group may house key stakeholders who can significantly influence the project or are most important with meeting the projects objectives.

While identifying stakeholders the following questions must be asked:

Who is directly involved in the design, implementation, and maintenance of the transportation network locally?

Who, locally and internationally, can contribute financial and technical resources?

Who, locally and internationally, can be the champion for your operations and/or activities?

Who might be affected by the operations or activities?

Who are the vulnerable groups/individuals?

Who are the representatives of those likely to be affected?

Who is likely to mobilize for or against what is intended?

Who can make what is intended more effective through their participation or less effective by their non-participation or opposition?

2.1 Internal and External Stakeholders

Stakeholders include any group internally or externally that has a stake in the organization's performance. They may also include those who are affected by the operations and activities of the center as well as those who may effect the Center's operations and activities. The primary internal stakeholders for any organization are the management, and the employees. The focus of internal stakeholders is on the processes that create value for customers, produce sustainable financial results, and integrate the organization with the transportation community, public policy making bodies, and any other interested and concerned individuals and bodies.

There are a host of external stakeholders, these include those who design, construct, manage, operate, maintain, and use the transportation system; community organizations; financial organizations; neighboring countries and states/provinces; donor organizations; policy makers; all levels of government institutions; associations and organizations; and financial institutions. This list of stakeholders varies from center to center and is proportionate to the transportation needs of the transportation community that it serves. Stakeholders may vary from activity to activity; with this in mind, it is important that the list of stakeholders be analyzed and modified on an ongoing basis. Ultimately, one must be inclusive in identifying stakeholders and must avoid shying away from non-traditional stakeholders.

2.2 Advisory Committee

The T² Center's Advisory Committee (AC) is one of the most effective tools for assisting in the planning and program development for the center. Typically the AC is comprised of primary stakeholders involved in various transportation issues. In some cases, the AC manages the T² center and acts as an internal and external stakeholder. In most instances, the AC simply advises

the T² Center Manager and staff. The make-up of the Committee may include an array of representatives from the above mentioned groups and is generally reflective of the local transportation needs.

2.3 A Sample List of Practical Stakeholder Responsibilities

Stakeholder involvement varies from center to center. Below is a list of possible responsibilities/tasks of the stakeholder.

- a) To support the center so as to achieve their goals through:
 - Assisting the center in assessing the training needs and developing/prioritizing the training plan
 - Utilizing the T² Center's services to obtain requested information
 - Giving constructive comments on T² center programs (through calling T² Center staff or sending e-mail and sharing their views with them, let's say on training, mailing list, newsletter etc.)
 - Sharing the information on new and existing technologies with other stakeholders or any interested party.
 - Utilizing effectively the library services (e.g. by borrowing publications, books, videos, CD ROMs etc.)
 - Circulating information to its employees (e.g. the T² center can send newsletter to an agency, which in turn can distribute them to its branch offices)
 - Giving feedback to the center on the implementation of the technologies
 - Giving feedback on the effectiveness of the center's operations and activities
 - Enhancing technology transfer (e.g. use the technology)
 - Enhancing networking
 - Becoming a training course reviewer.
 - Actively participating in various center activities (e.g. roads safety program, **TR**ansportation and **C**ivil Engineering (TRAC) program etc).
 - Supporting/sponsoring employees to attend training offered by the T² center
 - Helping to define or develop new courses
 - Sharing their experiences with their peers in other agencies by becoming expert resources
 - Becoming instructors for technical courses offered by T²Centers
 - Becoming speakers or panel participants for technical meetings and conferences sponsored by the T² Centers
 - Being a knowledgeable champion of the Centers' programs

- b. To nominate competent, active, willing members to serve on the Advisory Committee – Agencies dealing with transportation related activities nominate members to represent them on the Advisory Committee. The mission of the Advisory Committee is to provide input, ideas and assistance for the operation of the T² center. The mission can be achieved through playing various roles including:
 - Actively participating in committee meetings
 - Working on subcommittees
 - Serving as an advocate of the T² Center
 - Providing feedback from customers

- Reviewing, monitoring or assessing services, programs or products (e.g. reviewing seminars, workshops and courses programs of the T² Center)
 - Evaluating the performance of the T² Center's programs
 - Developing a strategic plan for the center
 - Approving programs
 - Reporting on the center's activities
 - Providing feedback on the action plan/yearly work plan and specific programs
 - Providing an opportunity for customers and partners to be involved in the center's activities
 - Building a group of outside experts
 - Providing a sounding board for new ideas, programs, etc.
 - Providing newsletter articles and ideas
 - Helping identify and obtain additional resources for the center to ensure its sustainability
 - Serving as ambassadors of the center through the variety of contacts each member brings to committee
 - Creating opportunities to promote and market the center
- c. To identify opportunities to participate in national programs on new and existing technologies.
- d. To identify opportunities to participate in national strategic planning on transportation related activities
- e. To provide feedback to the center on the impact of the training offered by the center.
- f. To enhance the internal and external stakeholder capability and capacity through applicability of knowledge, principles and techniques obtained from training.
- g. To provide information to the center on best practices and technologies for dissemination to other stakeholders. The center can perform this task easily due to its effectively categorized mailing list and networking activities
- h. To provide update individual information to the center for effective maintenance of the mailing list.

3. STRATEGIC PLANNING AND THE STAKEHOLDER

According to the US Federal Consortium Benchmarking Study Team, strategic planning as defined by Goodstein, Nolan, & Pfeiffer “is a continuous and systematic process where the guiding members of an organization make decisions about its future, develop the necessary procedures and operations to achieve that future, and determine how success is to be measured.” To fully understand strategic planning, it is necessary to look at a few key words in the definition:

- *continuous* refers to the view that strategic planning must be an ongoing process, not merely an event to produce a plan;
- *systematic* recognizes that strategic planning must be a structured and deliberate effort, not something that happens on its own;

- *process* recognizes that one of the benefits of strategic planning is to undertake thinking strategically about the future and how to get there for the sake of sustainability
- *guiding members* identifies not only the needs of the primary external stakeholders, but the internal stakeholders. (It also, considers stakeholders and customers who may not make these decisions, but who affect the decisions being made.)
- *procedures and operations to achieve that future* means the full spectrum of actions and activities, from aligning the organization behind clear long-term goals to putting in place organizational incentives, allocating resources, and developing the workforce to achieve the desired outcomes; and
- *how success is to be measured* recognizes that strategic planning must use appropriate measures to determine whether the organization has achieved success

One model for strategic planning for T² centers is as follows:

- Mission:** define the mission of the T² activities in terms of what you do
- Vision:** state where you want to be sometime in the future
- Goals:** define the specific goals that will enable you to achieve the vision
- Strategies:** identify specific strategies that will enable you to accomplish your goals.
- Actions:** Identify specific actions your organization can take to implement the strategies
- Performance measures:** identify how each action will be measured (either quantitatively or qualitatively)
- Monitor:** use performance measurement data and other feedback from stakeholders to improve operations and activities, which may trigger an update to the strategic plan.

It is important that management decisions are fact-based decisions that can support you as you seek financial resources from your stakeholders. The results from measuring the output of the center's operations and activities should be reviewed to identify the strengths and weaknesses. The information resulting from measuring the output transpires periodic revisions to the strategic plan which in turn re-establishes the strategic position of the center. The initial steps involved in defining the strategic position is a data-gathering exercise that may include the following elements:

- applicable legislative and regulatory requirements;
- applicable financial requirements;
- aspects and impacts of the organization's current products, services, and activities;
- stakeholders perceptions of the characteristics of the organization's products, services, and activities
- existing management process
- opportunities for technology sharing, joint ventures, and strategic alliances
- other existing management systems that could either enable or impede performance

Information in support of the above mentioned elements may be achieved by performing a baseline study of the center's current internal and external position. Performance information may be accessed through stakeholder surveys, interviews, hot lines, etc.

In essence, a continuous measurement of performance to improve the overall performance of the center may be viewed as a proactive stakeholder management process that requires a redefining of stakeholder requirements and perceptions at regular intervals. This information once fed back

into the strategic plan may redefine the direction of the center. If the value of stakeholder involvement is amplified through the strategic plan and if the needs are clearly addressed and satisfied, the worth of the center is clear to the stakeholder and resources to ensure its sustainability will surface naturally. This process is illustrated in figure 1 and may be used to satisfy the current needs and desires of the stakeholder on an ongoing basis.

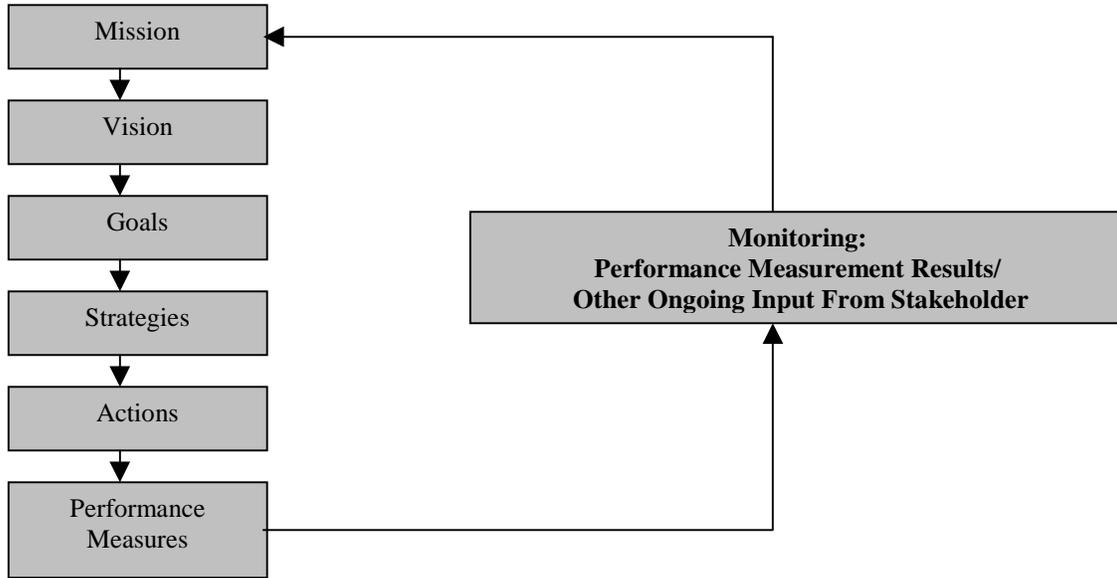


Figure 1: Sample Model for Stakeholder Involvement in Strategic Planning for T² Centers

4. PROGRESS REPORTING PROCESS

Stakeholders’ identification and strategic planning are vital aspects of any organization and are a part of the reporting process. Organizations that commit to stakeholder reporting do so with the aim of securing sustainability.

The center’s mission, vision, and values form the foundation for stakeholder reporting. Stakeholder reporting allows management to cross-reference the mission, vision, and values of the center with the expectations, demands, and values of the stakeholders. It is used by management as a valuable tool for improving dialogue and communication with the stakeholders, which in turn provides a foundation for trust, openness to change, and supportive information that will assist with securing funds to sustain the center.

4.1 Dialogue and Communication

Stakeholder reporting, in improving dialogue and communication, allows T² Center management to communicate a more complete picture of the center to its stakeholders, thereby improving stakeholder value, and accounting for its performance in living up to values that are important. Thus protecting and ensuring a continued “license to operate,” while minimizing the risk of unexpected negative reactions.

The following key steps are critical to managing stakeholder reporting:

4.1.1 Laying the groundwork

It is essential that T² Center management is committed to initiate and support the process of stakeholder reporting. Management must realize that all information (negative and positive) is good information. Negative information is quite useful in that it identifies areas of the center's operations and activities that require improvement. Positive information identifies areas in which the center may build upon. Also, management must determine the objectives, scope and resource allocation for the process. The initial steps should be the mission, vision, objectives, and strategies, and careful consideration of how stakeholder dialogue and reporting will create value for the center. The responsibilities of designing, implementing and overseeing should be formally assigned to someone so that the reporting process receives the necessary attention needed to be successful. Moreover, to ensure support for the process throughout the organization, management, as well as T² Center staff, must be prepared for organizational changes driven by the process. It is important to be modest in the launching of the process so as to avoid generating expectations among stakeholders that may not be fulfilled.

4.1.2 Embedding

Embedding is essential to the principles of stakeholder reporting. It may be necessary to revise the company's mission, vision, goals and strategies. These elements of strategic planning should reflect the key priorities identified by the stakeholders. A key element in stakeholder reporting is to identify and prioritize stakeholders and focus areas. Management should identify its key stakeholders-those stakeholders that are most important and have the greatest influence on the center's activities, and direct its dialogue and reporting efforts towards these. Consultation and dialogue with stakeholders provide vital input to the process. Various approaches to stakeholder consultation and dialogue can be used, such as focus group meetings with representatives of key stakeholders. These consultations may reveal a need to re-evaluate the center's mission, vision, goals and strategies. Management must generate measurable performance indicators that live up to stakeholder values and expectations. Performance indicators include use of T² Center's services, increased outreach to stakeholders, increase in number of customers served by the T² Center, number of training courses conducted by the T² Center, and the extent to which those who take part in the training use the tools and concepts presented in the training courses. Means such as surveys and interviews are used to measure the performance of the center's activities. The effectiveness of this process should be monitored for continuous improvement.

4.1.3 Communicating

External and internal communication of the results of the measurement and dialogue processes must be consistent and coordinated. The report may include an overview of the center's operations and activities, its strategies and values, targets and results, as well as a financial picture that support operations and activities of the center.

Written reports generated from ongoing consultation and dialogue with stakeholders provides management with an evaluation of the process and its results, and possibly concrete follow-up proposals. It also provides input for the next round of dialogue and reporting cycles.

5. CONCLUSION

Not for profit and/or for profit organizations leaders around the world are recognizing the significance of developing and maintaining collaborative business relationships with stakeholders that support a sustainable organization. Organizations must realize the importance of integrating stakeholder issues, concerns, and requirements into to the mission, goals, vision, and strategies. With this in mind, it is essential that the strategic planning elements are institutionalized throughout the operations and activities of the center.

An ongoing mechanism in place that identifies primary and secondary external stakeholders are essential. Expansion of T² Center activities may identify new groups and individuals that may contribute to the centers' existence. With this in mind, the center must not overlook any entity that may add value the center's efforts to sustain itself. Moreover, while the input and involvement of the external stakeholder are critical, the center's management must emphasize the importance of incorporating input provided by the internal stakeholder. Employees, management bodies, and other internal stakeholders hold the key to the success of the organization. The organization's level of credibility in the eyes of the external stakeholder is directly proportionate to the extent to which the mission, goals and values are imbedded throughout the organization. The internal stakeholders must believe in, practice, and support the strategic plan and its worth.

In any event, the creation of both an internal and external value for the T² center and its stakeholders is the pinnacle of the organization's aim. The implementation of ongoing processes and mechanisms that identify key stakeholders, and monitor and rejuvenate the strategic planning process is key. In other words, a two-way reporting process, a means by which to communicate the results and adopted procedures that fold pertinent information back into the strategic planning process is crucial to the sustainability of the center. Moreover, this would enhance the center's abilities to contribute to the harmonization of the transportation network as a whole.

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