



Integrated Project Team (IPT) Start-up Guide

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Integrated Project Team (IPT) Start-up Guide

Section One Purpose and Scope of this Guide

This Guide suggests how to set up, manage, and evaluate IPTs in government. It describes the most important decisions and key steps in IPT formation based on MITRE's research into best practices in industry and government as well as organizational behavior research on work team performance.

Numerous studies have clearly shown that failure of modernization, IT, and many other kinds of projects is more often caused by organizational and human – rather than technological – reasons. Integrated project teams hold great promise in addressing these organizational and human factors by bringing together all the key stakeholders in a collaborative team environment to address the most important decision points throughout the project lifecycle. However, ineffective formation and management of IPTs often cause them to fall prey to the same difficult organizational dynamics they are created to address. This Guide addresses these organizational and personnel factors so that IPTs can be more deliberately designed, implemented, and managed by taking advantage of the many best practices that have evolved in industry and government over the past 20 to 30 years.

Use with KSI Model – Setting up and managing an IPT – like any complex endeavor – is not just a matter of following certain steps; it also requires periodic evaluation and adjustment. The practices described in this Guide are best used in conjunction with the Key Success Indicator (KSI) Model, also developed by MITRE as part of the same research. The KSI Model allows an IPT and its stakeholders to quickly evaluate how well the practices in this Guide are being applied so that periodic adjustments can be made. (See Appendix A: Periodic IPT Evaluation using the IPT Key Success Indicator Model).

Use Alongside Standard Project Management Practices – Extensive guidance is already available on how to set up, manage, and evaluate projects based on Project Management Institute (PMI) standards and many other sources. This Guide and the KSI Model are intended to *supplement* this existing body of knowledge by addressing the deeper organizational and human factors not typically addressed in the project management literature. This is based on a growing awareness that it is often these organizational and team dynamics that derail a project as much as a failure to follow good practices around project definition, work breakdown, task and resource management, scheduling, and so forth. However, good project management and evaluation is still critical to overall project success and should continue to be used side by side with the guidance provided here.

Limits of this Guidance – This Guide is specifically tailored to how to set up and manage IPTs in government environments, especially federal civilian (non-DoD) agencies for which there is little guidance at present. Obviously, however, it is not intended – and should not be used – as a “one size fits all” approach. This guidance must be adapted to the specific reason an IPT is being used on a particular project. It must also conform to the existing organizational structures, policies, and culture. On the other hand, this Guide does explore how to adapt an IPT to different project and organizational contexts and even when structures other than – or in addition to – an IPT should be considered.

How to Use this Guide – This Guide is divided into four sections (including this section) and three appendices. The next section – Section Two – addresses some of the confusion that has arisen over what an IPT actually is and when it is best used. Section Three is the heart of the Guide that provides specific guidance on the three stages of defining the need for an IPT on a project, designing the IPT, and then implementing it. The guidance on designing the IPT deals not only with designing the IPT itself but also how to set up the larger project or program structure to obtain maximum benefit of IPTs. The final section – Section Four – provides some thoughts on managing and evaluating IPTs once they are well underway. There are also three appendices. Appendix A describes the Key Success Indicator (KSI) Model that MITRE recommends using with this Guide to evaluate the IPT shortly after start-up and on an on-going basis. Appendix B lists several of the articles and guidance that we reviewed for the research behind this Guide, which we consider particularly useful as additional guidance in setting up and managing IPTs. This material covers IPTs in the government (primarily DoD) as well as several articles around team performance from the organizational behavior literature. Appendix C contains a sample IPT Start-up Checklist/Schedule that can be adapted and used in assisting IPT sponsors, stakeholders, and members in following this Guide and quickly assessing whether all the steps are being followed in the right order.

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Section Two

What an IPT *Is* and *Is Not*

Popularity of “IPTs” – “IPT” has become a popular term for describing diverse groups of people brought together for any number of purposes. A “tiger team” that focuses for a short time on solving an intractable problem, a work group that designs and implements a software release, a governance or oversight board, an acquisition team, these and many other types of groups have been called an “IPT.” But, as the Government Accountability Office (GAO) noted as one of its primary findings in a 2001 study of DoD IPTs: “The teams [GAO studied] were at a disadvantage because they did not possess the key elements of IPTs and in fact were IPTs in name only.”¹ As explained in further detail below, an integrated project (or product) team is actually a very specific tool whose use should be carefully considered before the decision is made to deploy it. Management must first ask the questions: “Is this the best tool for the job?” and “At what points will this tool really be needed?”

Why IPTs Came About – Managers in both industry and government have long known the advantages – and challenges – of effectively bringing together people from different parts of an organization with different skills and points of view to produce a product or process. IPTs began to emerge in the Department of Defense in the 1980s to support concurrent engineering approaches and culminated in 1995 with the Secretary of Defense directing the Department to apply the Integrated Product and Process Development (IPPD) concept of using IPTs throughout the acquisition process. Similar use of IPTs had also emerged in industry, not only with defense contractors, but in commercial industry as well (e.g., the use of IPT-like design/build teams to develop the Boeing 777 aircraft in the 1990s). The GAO report concisely defines why IPTs have evolved in industry and the DoD as an essential tool: “The essence of the IPT approach is to concentrate in a single organization the different areas of expertise needed to develop a product, together with the authority and responsibility to design, develop, test, and manufacture the product. . . Under the IPT approach, each team possesses the knowledge to collaboratively identify problems and propose solutions, minimizing the amount of rework that has to be done. When this knowledge is accompanied by the authority to make key product decisions, IPTs can make trade-offs between competing demands and more quickly make design changes, if necessary.”² IPTs evolved because the old way of developing a product, with one organizational stovepipe (e.g., engineering, marketing, manufacturing, etc.) handing off to another in a kind of baton race, was often so inefficient as to lead to project paralysis. IPTs evolved as a more holistic approach to allow representatives from each stovepipe to come together as a team and work directly with each other throughout all phases of the project. However, experience has shown that IPTs must be formed and supported with even more care than other work groups because of the difficult dynamics inherent in such a diverse collection of team members and because the team’s capacity for consensus building is crucial.

IPTs in Civilian Agencies – Starting in the 1990s, other non-DoD government agencies also began using so called IPTs – or similar cross-functional teams – for a wide variety of purposes. However, until MITRE’s study there was little research on the use of IPTs in the government

¹ GAO-01-510, April 2001, *BEST PRACTICES: DOD Teaming Practices Not Achieving Potential Results*, p 53.

² *Ibid.*, p 11.

beyond DoD. Nor did MITRE find much guidance on how to form, support, or measure the performance of IPTs in the civilian sector based on the long experience of industry and government. This lack of guidance has led to some confusion not only on how to set up and manage IPTs, but even in understanding what an IPT actually is and how it is best used.

IPT = I + P + T

In considering whether an IPT is the best tool for the job, it is important to ask three questions:

1. **Integrated** – Does the work to be done require input, analysis, and decision-making from a true variety of skill sets, perspectives, and/or constituencies? For example, a group of software developers or acquisitions specialists or managers – no matter how diverse – is not really an integrated team unless they also represent different organizations whose perspectives and skills are vital to the project outcome.

2. **Project** – Does the work to be done require an actual *project*, i.e., will it produce a unique specific product within a specific timeframe? The product might be, say, a piece of software, document, policy, or process, but it is not an ongoing organizational function or service, such as a governance board that oversees software security policy.

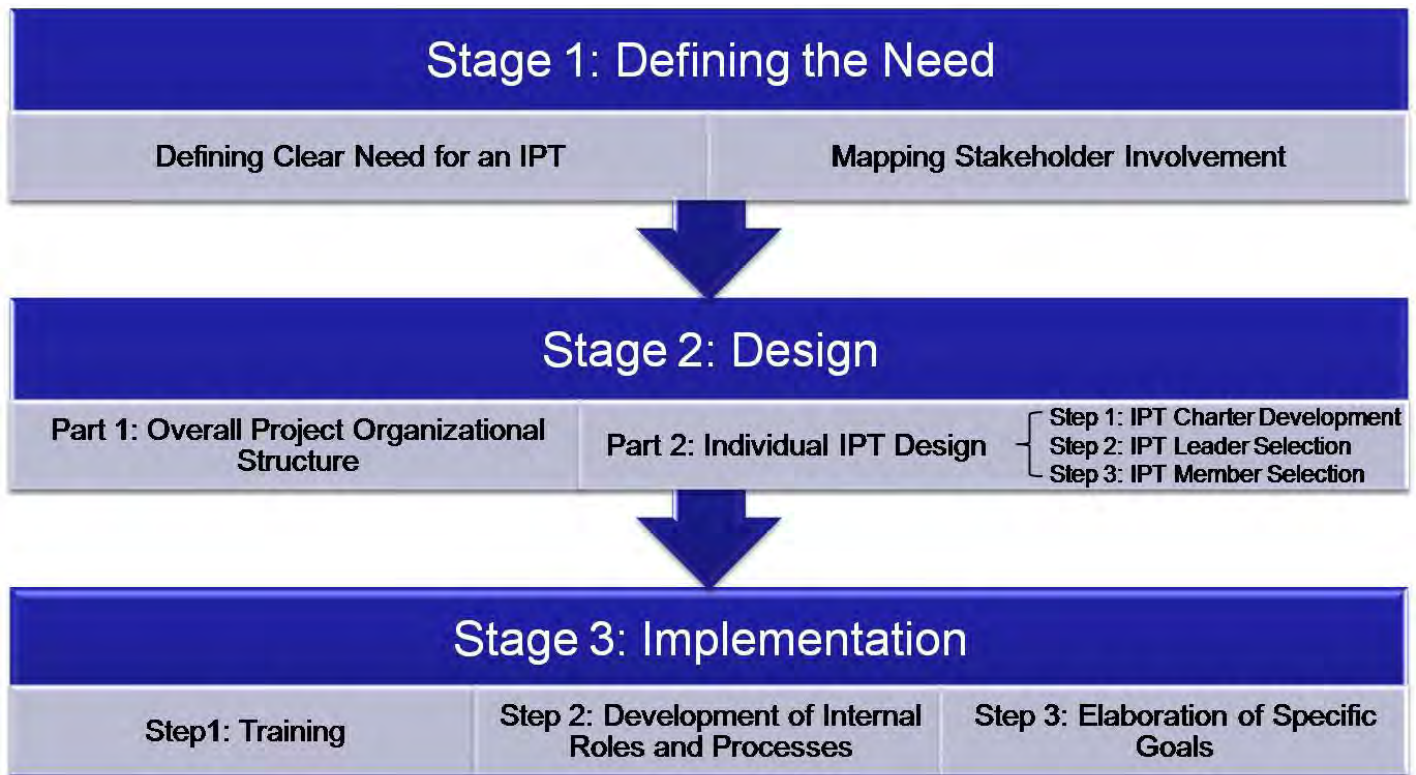
3. **Team** – Does the work to be done require a true peer environment where team members are mutually accountable for outcomes, and consensus-building (though not necessarily consensus decision-making) is essential? *Groups* can be formed simply by pulling people together in a room. True *teams* must be carefully built and require a specific form of leadership (as elaborated below). The following table illustrates the key differences between typical work groups and successful IPTs.

Dimensions	Work Groups	IPTs
Consensus	Not required	Essential
Leadership Role	Single leader with subordinates	Leader among peers
Accountability	Individual	Individual and mutual as a team
Adaptability of Purpose	The group's purpose is little subject to change	Team's purpose is externally established/overseen but can be influenced by the team
Work Products	Individually focused	Collective
Group Interaction	Open-ended discussion not required nor encouraged	Open-ended discussion and active problem solving involving the entire team is essential
Meeting Inclusiveness	Important meetings can successfully occur when individuals are absent	Important meetings with absent team members can have serious consequences
Performance Measurement	Measures performance by task completion and quality of individual outputs	Measures performance directly by assessing collective work products
Work Assignment	Leader decides and assigns work to individuals with minimal discussion	Team discusses, decides and delegates to various team members

Section Three

The Three Stages of Setting Up an IPT

Defining, Designing, and Implementing IPTs – Research has consistently demonstrated that IT projects fail more often because of organizational and personnel reasons than because of technological failure. Even the most skillful execution of standard project management disciplines (as defined by PMI and elsewhere) still may not address these organizational and human factors enough to avoid ultimate project failure. The classic example of this – which happens all too often – is of a system that has been well designed and executed but is ultimately rejected by the larger organization. The very reason that integrated project teams are so popular is because management recognizes that a key – perhaps *the* key – to ultimate project success involves somehow bringing together a complete diverse and often complex assortment of stakeholders and get them to work together effectively enough to define, design, implement, and operate IT systems (or policies or business processes) that will serve the actual needs of the larger organization once the system is ready for deployment. Yet, despite this widespread recognition of this key to project success, the very tool used to ensure that this diverse stakeholder engagement happens – the IPT – is often itself poorly understood, defined, designed, and implemented. Just as there are a series of well defined stages of requirements definition, design, and implementation of an IT system or business process, there should be a similarly mature process to define the need and design and implement an IPT. These stages are summarized in the following diagram:



Stage One: Defining the Need for an IPT Approach

Defining Clear Need for an IPT – Just as with the development of a system or process, the first step in defining the IPT is to clearly define the need to be served by an IPT approach, i.e., where and why is this the best tool for this particular job? The core capability that an IPT provides is the bringing together of the right stakeholders at the right time around the right task where a collegial consensus building team environment is essential to that task. A typical example is where IT system requirements need to be defined based on a consensus between management, end users, developers, acquisitions, and perhaps other organizational functions. So the key question to be answered when defining the need for an IPT is: **at what points in the project lifecycle do particular stakeholders (or stakeholder organizations) need to be involved and what is the nature of that involvement?**

Mapping Stakeholder Involvement – The following (much simplified) table illustrates how stakeholder involvement might typically be mapped over each phase of the project lifecycle.³ So, for example, where the stakeholders listed in the first column are shown as having “decision making” involvement for that lifecycle stage, that stakeholder is a candidate for inclusion in an IPT. Those listed as “support” might be brought in to IPT meetings for consultation where needed. The Executive Steering Committee would have oversight involvement at all phases of the lifecycle. Blank cells indicate the stakeholder is not involved in that phase.

	Project Lifecycle Phase						
	System Concept Definition	Requirements Development	Design	Development	Implementation	Testing	Operation
End User Mgmt (Sponsor)	Decision Making	Decision Making	Decision Making	Support	Decision Making	Decision Making	Decision Making
End Users	Decision Making	Decision Making	Decision Making	Support	Decision Making	Decision Making	Decision Making
Executive Steering Committee	Oversight	Oversight	Oversight	Oversight	Oversight	Oversight	Oversight
Acquisitions		Support					
Contracts		Support	Support	Support	Support	Support	
Software Development		Support	Decision Making	Decision Making	Decision Making	Support	Support
Configuration Management		Support	Support	Support	Support	Support	Support
Infrastructure	Support	Support	Decision Making	Support	Decision Making	Decision Making	Support
Security	Support	Support	Decision Making	Support		Decision Making	
Testing		Support			Support	Decision Making	
Operations	Support	Support	Decision Making	Support	Decision Making	Decision Making	Decision Making

³ This reflects more of an IT focused project and is for illustrative purposes only and not intended as a template.

Stage Two: Designing the IPT(s)

There are two parts that are equally critical to designing an IPT. The first part – often overlooked – is to design an overall project organizational structure that optimizes the use of IPTs within that structure. Our research has revealed that IPTs fail as much for a lack of this external supporting structure as for internal reasons. The second part is then the design of each separate IPT.

Part One: Designing an Overall Project Organizational Structure that Optimizes IPTs

Varieties of IPT Deployment – Once the nature of the stakeholder interaction is clearly defined for the different project phases, the next step is to begin the IPT design process by defining where an IPT approach needs to be applied during each phase. A single IPT may oversee an entire project over its entire lifecycle, or IPTs may be formed and deployed at any stage of the project lifecycle, from the initial project definition phase through the operational phase or any point in between. Nor is an IPT necessarily needed at all points in the project lifecycle.⁴ Different IPTs may be needed at different phases and may even work in parallel at different points. There may also be other kinds of groups or teams needed as well, such as a software development work team, or temporary sub-teams assigned a specific task by the IPT, or various contractor groups. Therefore, an overall structure must first be designed that defines these various IPTs and other work groups throughout the project lifecycle.⁵

Principles of Project Organizational Design – The overall organizational structure for a project and how IPTs are applied within it will vary widely from project to project and will also reflect an organization’s particular existing organizational structure, policies, processes, and culture. However, there are several overall design principles that are important to keep in mind when designing an overall project structure to take maximum advantage of IPTs:

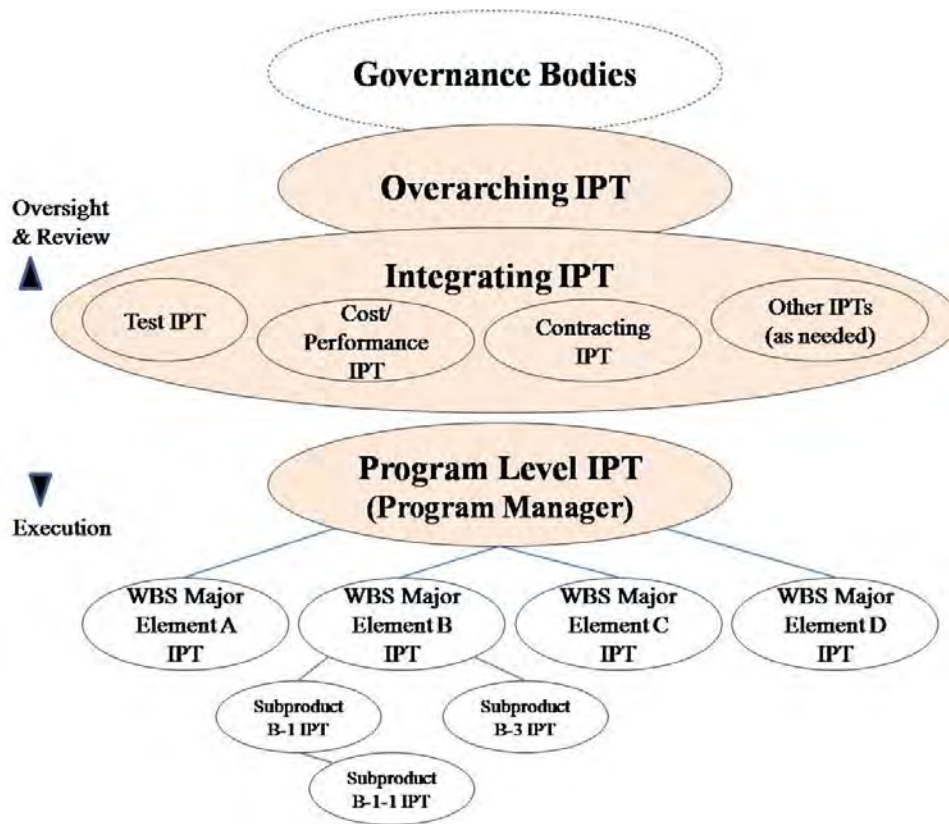
- **Number of Separate IPTs** – There are two somewhat competing priorities when considering how many separate IPTs to create at different points in the project lifecycle:
 - **Investment in IPTs Requires Minimizing their Number** – As elaborated below, successful IPTs do not operate like more typical hierarchical work groups. They require a significant investment in specialized leadership and membership skills - as well as relationship building - to avoid wasting the time of the critical stakeholders who participate. Such a significant investment implies minimizing the total number of IPTs across the project lifecycle.

⁴ Although for smaller projects, MITRE has observed that an IPT need not necessarily replace a traditional project manager in overseeing the entire project lifecycle, MITRE agrees with DoD that the more complex a systems acquisitions program becomes the more essential it is to have what DoD calls an “Integrating IPT” headed by the Program Manager. See DoD’s *Rules of the Road: A Guide for Leading Successful Integrated Product Teams*.

⁵ This is somewhat similar to the project management discipline of defining a work breakdown structure and corresponding human resource requirements for each project task, only the process described here is a more refined process that takes into account the particular need for an IPT approach at different points and the dynamics of IPT formation. The more standard project management approach is better used for traditional work groups where each individual has relatively separated job duties reporting up through a supervisor who assigns the work and is solely responsible for the overall outcomes of the work group and where there is relatively little need for collaboration and consensus building among other group members.

- **Decision-making Requires Limiting IPT Membership** – Often, the primary reason for going to the trouble of forming a team of diverse stakeholders is to make more effective project decisions more quickly than would be the case if decisions had to be passed from one stakeholder organization to another. Because IPTs are necessarily made up of peers from different organizational functions, consensus building (though not necessarily consensus decisions) is essential. Clearly there is a practical limit to the number of IPT members that can effectively build consensus over the kinds of difficult decisions an IPT is assembled to address. Much beyond eight to twelve members the effectiveness of the IPT to make decisions is greatly compromised. This Guide will discuss ways to allow for larger numbers of IPT members to function as an effective IPT, but, to the extent that the number of members can be minimized, the IPT will be much more effective.
- **Elevation and Delegation** – Another key to IPTs is their ability to effectively elevate and delegate analysis and decisions. Again, a core purpose of building a team of diverse stakeholders is to reach decisions in the most optimal way. However, there will always arise situations where the IPT must either elevate a decision to those with greater authority or delegate detailed work to a specialized sub-team or separate work group.
 - **Elevation** – In designing the overall project (or program) organizational structure it is critical to design an efficient governance structure and clear policies and processes for elevating IPT decisions to those bodies.
 - **Minimize Elevation** – The most important design principle in this regard is to clearly enable the IPT to make the vast majority of its decisions without having to elevate them (see the discussion of IPT authority below).
 - **Minimize the Number of Bodies to Which to Elevate** – For simplicity’s sake, there will ideally be a single governance body to which to elevate decisions – possibly itself an IPT or similar cross-functional group – such as an executive steering committee or program management office. Often, however, elevated decisions might be specialized in nature; for example: decisions around deviations from specific policies on human resources, software development, enterprise architecture, or information security. This may require IPT decisions being elevated to a governing body specific to one of these areas. DoD policy defines three basic levels of IPTs for a weapons acquisition program: an “overarching” IPT equivalent to an executive steering committee, “working” IPTs that govern various specialty areas such as testing, contracting, cost/performance, etc., and the “program” level IPTs which itself may be made up of different levels of IPTs that oversee the lifecycle of various system components and sub-components defined in the Work Breakdown Structure (WBS). See figure below.⁶

⁶DoD, *Rules of the Road: A Guide for Leading Successful Integrated Product Teams*, 1999 and *DoD Guide to Integrated Product and Process Development*, 1996.



Obviously, the more complex the system to be developed the more complex this hierarchy of IPTs may become. And often the organization will have an established program/project or acquisitions governance structure to which any new project will have to adapt. Again, to minimize ineffective decision-making within any of these project structures, it is best to take maximum advantage of why an IPT is established in the first place: its capacity to make decisions internally without having to go beyond the IPT itself. To get the maximum return on its investment in taking the trouble to build an IPT, management should go to great pains to define and establish clear decision-making authority for the IPT. Management also must provide the IPT with members who have the authority within the functions they represent to make decisions without having to constantly elevate those decisions to those functions beyond the IPT.

- **Delegation** – When designing the overall project organizational structure it is important to define any supporting work groups (such as contractor support teams) to take best advantage of IPTs. As mentioned earlier (on page 10), it is important to make a distinction here between an IPT and a “work group.” Unlike an IPT, a work group is typically a group of specialists – e.g., software developers or acquisitions specialists – with specific individual assignments reporting up through a single decision-maker who is entirely accountable for the output of the group. The output and level of effort is well defined up front and there is little need for the kind of collaboration and consensus-building an IPT provides. Often these work groups are contracted out. However, it is important that the work group leader or a relevant specialist also participate in IPTs where decisions are made about that work group.

IPT Support– As part of the overall project planning and funding process it is important to anticipate support and costs unique to IPTs.

- **Time** – One of the most frequent problems we’ve encountered in the early stages of IPT set-up is for sponsoring executives to not allocate enough time for setting up the IPT Charter and achieving buy-in from key stakeholders. Another frequent mistake is not taking enough time to carefully select the right IPT leader and members. Adequate time invested up front in this way will reap major dividends downstream. In addition, both the sponsoring executives and the direct supervisors of the IPT members must all plan ahead to allow those members to set aside enough of their regular duties so they can fully attend to their new IPT duties.
- **Co-location** – The creation of a trusted team environment is critical to a successful IPT. If an organization is going to the trouble of investing in an IPT, it should leverage that investment by co-locating its members if possible, as is strongly urged in much of the IPT literature. A dedicated common “team room” and dedicated administrative support is also a wise investment.
- **Travel** – If co-location is limited or not possible, it is very important to allocate a liberal travel budget to allow periodic “face time” for IPT members who are not co-located.
- **On-line Support Systems** – Liberal on-line meeting and collaboration support systems are also essential, not only to supplement face to face meetings, but also to maintain shared records of IPT meetings, products, and support materials. As we will discuss later, one of the most basic (but neglected) success factors of an IPT is to maintain complete records of meetings so that the analysis underlying its key decisions can be reconstructed and explained to outside stakeholders.
- **Training** – This is often the most neglected or under-funded aspect of setting up an IPT despite numerous studies citing its importance. IPTs often fail because the leader and members do not understand the unique purpose of an IPT and how it is supposed to function. IPTs simply cannot be formed by just having people show up in the same room. IPT orientation training is essential and must be budgeted. In addition, because IPTs necessarily bring together members with a wide array of professional disciplines, the core work of the IPT may require training in special skills with which many of the members are unfamiliar. For example, if an IPT is created to compose a contract vehicle, IPT members without acquisitions skills cannot be expected to function properly in that IPT unless they receive some basic training in the acquisitions disciplines.

Part Two: Designing the Individual IPT

Three Design Steps –There are three critical steps when designing an individual IPT:

1. IPT Charter Development
2. IPT Leadership Selection
3. IPT Membership Selection

Step One: IPT Charter Development

Once the overall project organizational structure has been designed to optimize the use of IPTs across the project lifecycle the design of the individual IPT(s) begins with the formulation of the IPT Charter. It is recommended this be done first before considering IPT leader or member selection because the process of designing the Charter often defines the qualifications needed for

the IPT leader and members. Although this seems logical enough, MITRE’s research revealed that IPT charters are often delayed or neglected. If the Charter is developed at all, it is often too high level to define the purpose, authority, and scope of the IPT effectively enough to inform its actual day to day operation. Sometimes also the Charter is only fully defined after the IPT is well underway. While this may be understandable in some situations a tremendous part of the value of the Charter is not just in what it says but in the stakeholder commitment that is created through the process of its development. A vague initial Charter weakly committed to can not only lead to a weak choice of the IPT leader and members but can also indicate wavering commitments in terms of funding and other resources downstream. Even if – as is sometimes done – the IPT Charter is included as part of a larger program or project charter or plan, all the core elements discussed below must be addressed for each IPT.

Core IPT Charter Elements – The purpose for forming an IPT is to allow representatives of all key stakeholder groups to effectively address difficult project issues. If the IPT does not have the clear established authority to address those issues the very purpose for creating an IPT is defeated. In order to establish this clear authority the following core elements need to be addressed in the Charter:

- **Need, Purpose, and Scope** – The purpose of this IPT needs to be clearly stated, including the background and need for an IPT approach (see “Stage One: Defining the Need for an IPT Approach” above). As applicable, the boundaries between what is and is not included in this purpose should also be stated, particularly with regard to other bodies with potential overlapping work or where it is important to state for political reasons. This includes clarity about when the work of the IPT is to be concluded.
- **Outcomes, Outputs, and Performance** – The specific outcomes and outputs of the IPT are stated and how they will be measured, including specific standards and policies that apply. The outputs and performance measures may include not only standard primary project outcomes typically also documented in the Project Plan (e.g., on time, within budget, passes performance testing, conforms to standards, etc.) but should also include secondary outcomes and measures specific to the IPT. This can be accomplished using the IPT Key Success Indicator Model (see Appendix A).
- **Authority** – This is one of the most important elements of the Charter which defines:
 - The scope and limits of the authority of the IPTs to make unilateral decisions.
 - Where and how to elevate decisions outside the authority of the IPT. This should already have begun to be defined with the design of the larger project organizational structure. However, this part of the Charter should go into more detail about what specific kinds of decisions should or might be elevated to specific governance or specialist bodies. It is important here to empower the decision-making authority of the IPT as much as possible and minimize the need to elevate.
 - The IPT’s authority to direct other bodies, such as contractor work groups, advisory groups, and subordinate IPTs.
- **Key External Processes** – This addresses only those processes that extend beyond the internal functioning of the IPT. Internal processes should be determined by the IPT membership.
 - **Oversight** – How often and to whom the IPT will report progress and a description of what will be reported.

- **Interface with Key External Processes** – A description of how the IPT will interface with the most important of the external processes with which it needs to work, e.g., program management, Enterprise Lifecycle tracking and documentation, configuration management, security management, testing, project scheduling, resource/contract management, etc.
- **Membership** – Once it is clear what the purpose, outcomes, authority, and external processes are, the organizations and/or functions to be represented on the IPT can be defined as well as the qualifications, skills, and authority of the IPT leader and the other members who represent those organizations and functions. This becomes the selection criteria for the actual individuals on the IPT both initially and into the future (in case of turnover).
 - **Qualifications/Skills** – There are two types of qualifications and skills to be defined here: those specific to the nature of the work the IPT is undertaking (e.g., acquisitions, system requirements definition, software development, process improvement, etc.) and the more generic skills needed to be an IPT leader or team member. See the IPT Leadership Selection and IPT Membership Selection steps below for their suggested generic IPT role characteristics.
 - **Decision Process** - The level of authority of individual IPT members also may need to be defined here. In general, the best practice is to allow the IPT members to decide for themselves the manner in which they will arrive at decisions and recommendations. For some IPTs, however, it may make sense for some members to be voting members on IPT decisions, whereas other members can be involved in discussions but do not vote. There sometimes is also an “observer” status for some IPT members. The Charter should state explicitly whether the members can decide on how they reach decisions. If not, the Charter should prescribe a decision-making process and the level of decision-making authority of each member according to the organization they represent.

Charter Stakeholder Engagement Process – The process of putting together the IPT Charter is just as important as what the Charter ends up saying. This process begins with establishing who will be the process leader for developing and establishing the Charter. Typically this will be the oversight body (e.g., Executive Steering Committee), Program/Project Manager (PM), or the executive sponsor of the project. Next, the Charter development process needs to engage all the stakeholders who will be providing representatives on the IPT. Ideally, the Executive Steering Committee plus the PM will include all these stakeholders, but it may be necessary to include other stakeholders as well. It is critically important that the *entire* stakeholder community take the time to flesh out all the core elements of the IPT Charter not only so that the Charter will serve the needs of the IPT once it is formed but also to build strong relationships among these external stakeholders so that their commitment to their IPT representatives and to the work of the IPT will remain strong over the life of the IPT. The external stakeholder community whose representatives constitute the IPT is the foundation for everything the IPT does. The preparation of the IPT Charter is the laying of that foundation.

Step Two: IPT Leadership Selection

Once the Charter is complete, including the IPT Leader selection criteria, the process for selecting the Leader can begin. The selection of the IPT Leader is no less important to the ultimate success of the IPT than the development of the IPT Charter. The Leader is typically nominated by the PM or project executive sponsor with approval of the Executive Steering

Community or other governing body. As with the Charter development, the larger stakeholder community should also be consulted in the IPT Leader selection.

Commitment from IPT Leader's Supervisor - The most important stakeholder for every individual IPT member – including the IPT Leader - is the supervisor to whom they permanently report. Clearly, it is essential that the IPT Leader's direct supervisor be completely committed to work of the IPT and their employee's role on the IPT. The best indicator of this is the extent to which the Leader is allowed to stick to the time commitment agreed to mutually between the supervisor and the person who nominates them. Therefore this time commitment needs to be clear up front and the procedure clear for renegotiating this commitment if that should become necessary. The same is true for all IPT members and their supervisors, even more so since members other than the Leader are more often part time on the IPT. The supervisors also must concur with the IPT's authority and decision process as described in the IPT Charter.

IPT Leader Characteristics – It goes without saying that the right leadership of a team is essential to its success, and there is voluminous research into what makes for effective leadership in many different contexts. While not an exhaustive list, MITRE's own research has identified the following leader characteristics that appear to be especially critical to the success of an IPT:

- **Lack of Bias** – Since the IPT must reach decisions that represent the point of view of as many stakeholders as possible the Leader must be perceived as relatively unbiased by the needs or point of view of his/her own constituent organization or function.
- **Technical/Domain Expertise** – The work of an IPT usually requires some concentration of technical skills and/or knowledge of the user or operational domain to which the IPT product will be applied. Although the Leader need not be an expert in those areas, it may be important that the Leader be conversant in the technical area or operational domain or at least willing and able to learn about it.
- **Project Management** – The Leader effectively oversees project management, e.g., creates and manages to the Project Plan and schedule, tracks/adjusts project resources and tasks, and addresses project risk. Even if the Leader receives project management support it is still important to be well versed in project management basics.
- **Management of External Environment** – The Leader works effectively and impartially with the various organizations represented on the IPT and effectively manages the impact of the external environment, e.g., spans organizational boundaries, monitors and informs members of events that impact the team, removes roadblocks, and supports members within their organizations. The Leader also needs strong knowledge and relationships with the larger political/organizational/cultural environment the IPT team is working within. The Leader plays the central role in engaging on a regular basis the external sponsors and executives of the project and ensuring the IPT's work is adequately reviewed and good feedback is provided.
- **Team Engagement** – The Leader actively includes team members in the decision making process, demonstrating fairness, respect, and consideration.
- **Inclusion** – The Leader coordinates the team's collective actions and integrates members' ideas into the team's recommendations.
- **Decisiveness** – After seeking consensus the Leader makes final decisions and moves on.
- **Time Management** – The Leader effectively manages time during meetings, preferably with the support of a Facilitator (see discussion of Facilitator role below).

- **Elevation/Delegation** – One way the Leader manages time effectively is to appropriately delegate work and elevate decisions.
- **IPT Leader Commitment** – The IPT leader demonstrates commitment to the IPT’s successes and it is clear that the IPT is his/her main priority.

Step Three: IPT Membership Selection

The final step in designing an IPT is the selection of members who will effectively represent their constituent organizations or functions but also participate as part of a team in achieving consensus with other members and sharing accountability for the team’s success. For IPTs this step is almost as critical as the selection of the Leader. If just one member lacks the knowledge, skill, or authority to represent his or her constituent organization or function this can lead either to a chronic inability of the IPT to reach decisions or to a consistent lack of that member’s organization’s point of view in decisions that are reached, leading to sometimes dire consequences downstream. In the nearer term, if an organization that is poorly represented on the IPT is then delegated an important action/task by the IPT, this can translate into inaction by that organization that can also paralyze the ability of the IPT to complete its work.

Each member of an IPT is typically chosen or nominated by a key stakeholder from the organization or function that they will represent on the IPT. As with the selection of the IPT Leader, it is wise to at least confer with the PM, executive sponsor, or governing body regarding potential choices for each member representative. Unfortunately, the stakeholder organization or function sometimes chooses whoever happens to be available without really taking the time to consider several possible alternatives. It is important for the stakeholder organization to take the following characteristics into account when choosing an IPT member to represent their organization or function:

- **Authority** – Does this individual truly have the authority to represent this organization/function and make decisions on its behalf within the IPT?
- **Background/Knowledge/Skills** – Does this person have the specific background, knowledge, and skills to represent the organization/function on the IPT? Just as importantly, does the person have the ability and willingness to communicate that expertise to the IPT?
- **Open-Mindedness** – Will this person not only be able to effectively represent the views of their organization/function but also be able to suspend their assumptions and be truly open to understanding and incorporating the views of the other IPT members? Is this person eager to share their expertise and knowledge as well as to collaborate with fellow team members?
- **Team Skills** – Is this person experienced at effectively participating in a peer oriented consensus building team environment and to accept shared responsibility for the IPT’s decisions and outputs?
- **Personal Commitment** – Does this person have a personal stake in the IPT’s success and believe the IPT’s goals will truly benefit the larger organization? Are his or her personal career goals aligned with this success, perhaps even as an opportunity for them to advance professionally?
- **Time Commitment** – Is there clear agreement with the IPT Leader what the time commitment will be for this person in serving on the IPT and will this person realistically be able to fulfill that time commitment? Will this person’s direct supervisor allow her or him to do so?

Stage Three: IPT Implementation

There are three essential steps in implementing the IPT once it has been designed: training the IPT members (the most overlooked but nonetheless essential), the development of internal roles and processes within the IPT, and the elaboration of the specific goals of the IPT based on the Charter.

Step One: IPT Training

Once the IPT's Charter has been developed and the Leader and members selected, the IPT implementation is ready to begin. The first step in IPT implementation is unfortunately often the most neglected. The stakeholders who create a new IPT must ensure that the Leader and members clearly understand:

1. The purpose of an IPT
2. Why an IPT approach has been adopted in this particular case
3. How an IPT needs to function
4. The behaviors and skills required of the IPT Leader and of members

Training as a Critical Factor of IPT Success – Almost universally, research into IPT effectiveness has demonstrated that an investment in initial training always pays off in terms of time saved downstream. No matter how urgent the apparent need to establish an IPT quickly, the project stakeholders who establish a new IPT must not negate the already considerable investment of their own time and that of the key personnel who will represent them on the IPT by rushing through or ignoring this key start-up phase. All too often these stakeholders assume that how to be an effective IPT leader or member is a matter of common sense or can be learned “as you go.” But an extensive body of research into organizational behavior, team effectiveness, and IPTs in particular strongly suggests otherwise. As should now be abundantly clear from all that has been said in this Guide, IPTs are a special kind of tool with tremendous potential to ensure the ultimate success of projects, but only if that tool is wielded with skill. The very formation of an IPT is usually an indication that the stakes for project success are high. It therefore would be very wise for the creators of an IPT to hedge the large investment of talent they have committed to the work of an IPT with a relatively small additional investment in its training on how to be an effective IPT. One of the core reasons why MITRE conducted its research and developed this Guide based on that research was so that new IPTs have clear guidance on which to base such training.⁷

Additional Training Needs – Beyond general training in how an IPT should function, there may also be need for training in skills specific to tasks of this particular IPT. For example, if the IPT is expected to prepare funding requests and contractual documents for a major IT acquisition, although there may be representatives of the acquisition organization on the IPT, the entire team may need at least a basic understanding of acquisitions policies and procedures. Every new IPT should assess, as a first order of business, what – if any – specific skills training that may be required early on.

⁷ The Defense Acquisitions University provides free DoD oriented online training courses that can be adapted for use by civilian agencies. See Course CLM014 “IPT Management and Leadership” at <https://learn.dau.mil/html/clc/Clc1.jsp?cl>.

Step Two: Development of Internal Roles and Processes

The next step in IPT implementation is for the IPT Leader and members to establish effective internal agreements about roles and processes for the IPT. This is not only important in establishing basic operating procedures but also a key first step in establishing the peer based collaborative consensus-building team environment essential to a successful IPT. The following is a discussion of the core agreements and processes that need to be established.

Roles and Responsibilities

- **Leadership** – One of the characteristics of a healthy team is shared accountability and a willingness to reach consensus on leadership roles. Some of the responsibilities of the IPT Leader may already be prescribed by the IPT Charter or larger organizational policies and procedures around project management. Nevertheless, since the core dynamic of an IPT must be peer-based collaboration, consensus-building, and shared accountability it is important for the team to initially share their assumptions around what each member expects of the Leader and the extent to which leadership responsibilities should be shared. For example, is the Leader to make all final decisions after a period of dialogue and consensus-building or is there to be a vote of certain members? What is the style of leadership the members expect of the Leader? It might at this point be helpful for the team to consider the IPT Leader Characteristics listed above.
- **Facilitation** – MITRE’s research shows that a facilitator role – distinctly apart from the Leader role – is a key success factor for IPTs. Although the IPT Leader must understand and play a key role in fostering the healthy IPT team dynamics described earlier, the Leader is also sometimes expected to be the core technical expert on the IPT. The Charter may also task the Leader with being the final decision maker on key IPT decisions. The Leader also can play a key role in IPT members’ employee evaluations. For any of these reasons it may be difficult for the Leader to serve effectively in a facilitator role as well. A facilitator is most effective if they are perceived by the team as having an impartial focus on team dynamics and adherence to team agreements and processes. They are also usually responsible for developing the agenda for meetings, recording effective minutes and tracking actions, and managing other critical IPT documents, additional duties that can be taxing in addition to the many other responsibilities of the IPT Leader. For these reasons, most of the more successful IPTs MITRE studied used an independent professional facilitator.
- **Other IPT-specific Roles** – During initial conversations within the IPT about roles, there may be other roles that need to be defined up front based on the specific work of that IPT. For example, a particular member may need to be the lead on a specific external process with which the IPT needs to interface, e.g., Enterprise Lifecycle tracking, configuration management, security management, testing, project scheduling, resource/contract management, etc. Another member may need to serve as the IPT subject matter expert to train the other members on a set of policies or procedures or methodologies central to the IPT’s work. Other members may need to lead IPT sub-teams with delegated tasks. Many such specialized roles on the IPT typically emerge at a later time but there should at least be a conversation up front within the IPT to make explicit any questions or expectations around the need for specialized roles.

Internal Processes

- **Decision-Making** – The most crucial internal process that an IPT must agree on is decision-making. This may already be prescribed to some extent by the IPT Charter: for example, the role of the IPT Leader or specific voting members, the use of voting, consensus, or other decision-making approaches, what constitutes a quorum for voting, etc. Even if certain decision-making parameters are already prescribed by the Charter or other organizational policies or procedures, it is always imperative for the IPT to clarify expectations and perhaps flesh out in more detail how decisions are to be reached. The core reason an IPT is created is usually to allow for all project stakeholders to contribute effectively to key project decisions through collaborative teamwork. Obviously, the team members must have a substantial say in defining the decision-making process in which they will be expected to participate.
- **Meetings and Communications** – Another crucial process that IPT members must agree to is how meetings are to occur, including ground rules, location, scheduling, requirements for virtual (non face-to-face) meetings, facilitation, agenda preparation, and documentation and dissemination of meeting results. One essential aspect of this that is sometimes overlooked is the extent to which meeting results are documented and communicated within and beyond the IPT.
 - **Confidentiality** – IPTs often deal with sensitive issues that require a great deal of give and take between members over time. Trust is critical for maintaining an environment for the respectful free exchange of ideas and opinions and there is frequently the temptation to share this with member's constituent organizations or others. IPT members must explicitly agree on ground rules around confidentiality of discussions and what is to be shared outside the IPT and when.
 - **Documentation and Follow-Up** – The work of an IPT is frequently complex, requiring consistent documentation of decisions, assigned actions, follow up, and tracking of those actions. Even if this is assigned to a professional facilitator IPT members should first reach agreement early on about expectations for documenting and following up on meeting results.
 - **Document Management** – Because of the volume and complexity of IPT and project documentation it is especially important for there to be clear processes for document preparation, coordination, approval, staffing, storage, and controlled updates. Dedicated administrative support and online collaborative document management tools are essential for this.
- **Team Dynamics** – IPTs need to be particularly sensitive to the internal dynamics and style of interaction between members both during and outside of meetings. Members – both initially and ongoing – need to explicitly share their expectations around how to respectfully share and acknowledge each other's point of view, ensure balanced participation from all members, build trust and collegiality, deal with conflict, and maintain morale and team spirit. It is often helpful to establish explicit ground rules for meetings that can be referenced and enhanced over the life of the team, especially with the support of a facilitator. Much of the research on IPTs also emphasizes the need for enough face-to-face time to ensure optimal communications and relationship building and maintenance. If IPTs cannot be co-located, it is vital for the IPT to at least meet frequently over phone or videoconference and be supported by other on-line support systems, such as on-line collaboration tools.

- **Team Self-Assessment** – Team effectiveness research has shown that, periodically, the healthiest teams self-assess how well they are achieving their goals, adhering to their agreed upon roles and processes, and maintaining healthy team dynamics. The IPT Key Success Indicator Model is helpful as a starting point for this (see Appendix A).
- **Interface with External Processes** – As mentioned above, there are usually key external processes with which the IPT needs to interface (e.g, configuration management, security management, testing, etc). Although interfacing with these may be assigned to specific IPT members, there should be at least an initial overview of these external processes with the entire IPT to explore interdependencies among the IPT’s internal and external processes and to make explicit corresponding overlapping responsibilities among IPT members.

Step Three: Elaboration of Specific Goals

The third and final step in setting up an IPT – overlapping with Step Two: Development of Internal Roles and Processes – is to further clarify and elaborate the goals, outcomes, and performance measures explicitly prescribed by the IPT Charter. As with the definition of roles and processes IPTs collaborate as a team to ensure the specific outputs of the IPT – and how these outputs are measured – reflect the point of view of the IPT stakeholder organizations/functions. Unlike the internal process and roles, however, these elaborated goals, outputs, and measures are typically reviewed and approved by the IPT’s higher governing bodies.

Section Four

Ongoing IPT Management and Evaluation

The focus of this Guide is on IPT start-up: need definition, design, and implementation, rather than on on-going management of the IPT. Nevertheless, this Guide does present the essential governance, roles, processes, and dynamics by which the IPT can be managed once it is well underway. Offered here are a few additional success factors that emerged from MITRE's research that pertain specifically to ongoing IPT management and evaluation.

Frequency and Quality of Governance Review – Research has shown that one of the most important factors in sustaining the momentum of successful organizational change initiatives is frequent and effective review by management (i.e., those with funding authority). With government IPTs there is sometimes an unfortunate proliferation of the quantity of governance bodies that regularly review the work of the IPTs and other project teams. Similar to what was suggested in the paragraph above on “Minimizing the Number of Bodies to Which to Elevate” we suggest also minimizing the number of governance bodies to which to report progress/risk – preferably to the program manager or the one body that has budget authority over the project the IPT is serving. In addition, to help both the IPT and its governance body to assess not only standard project risk but also the organizational and team factors typically not addressed in standard project management risk models, MITRE has created the IPT Key Success Indicator Model. See Appendix A.

Turnover Transition Time – Just as it is a wise investment for management to invest in time allowed for training IPT Leaders and members at start-up, similarly it is wise to allow enough transition time when there is a turnover in IPT leadership. Although this can mean introducing a delay in the Project Schedule, as is the case with the training, this is an investment that will end up saving time in the long run as the new Leader has the time to become familiar with the IPT and its work. Allowing transition time is important to anyone coming into a leadership position, but especially so with IPTs where the interpersonal team dynamics are so essential to the ultimate success of the project. An alternative to delay, but more costly and difficult given standard human resource policies, is to allow overlap between the incoming and outgoing Leaders. This is, in fact, the better of the two options since naturally the incoming Leader will learn their new role best by observing the outgoing Leader.

Connecting IPT and Employee Performance – A number of organizational behavior studies into team effectiveness have stressed the importance of incentivizing individual team members and tying their performance appraisal and rewards to team performance. In the Federal Government – beyond standard government performance appraisal processes or performance incentives at the Senior Executive Service (SES) level – options to incentivize individual IPT members in this way are limited. Certainly, one would expect the performance of IPT members to be documented as a part of their standard annual performance appraisal based at least on input from the IPT Leader and possibly the next higher level PM authority. If possible, one way to incentivize the IPT goal of team shared accountability is to also include input from all IPT members in each other's annual appraisal. In the sections on IPT Leader Characteristics and IPT Member Characteristics this Guide provides generic characteristics that can be adapted for use in setting some of the IPT members' annual employee performance goals as well as development

goals. Another possibility is for the IPT Leader to negotiate with the executives of the team members regarding an agency award or recognition that can be provided for the team members if the IPT is successful. Also, periodic opportunities could be provided for the IPT members to brief their respective executives on some aspect of their work. This would provide valuable opportunities for IPT feedback from the larger organization as well as providing individual IPT members with valuable recognition from high levels within their own areas.

Appendix A: Periodic IPT Evaluation using the IPT Key Success Indicator (KSI) Model

Purpose of the KSI Model

As part of the research that produced this Guide MITRE developed a Key Success Indicator (KSI) model to help IPTs assess the organizational and team dimensions of project risk. This Model will help IPTs and their sponsors to periodically and quickly supplement the traditional project risk indicators with indicators that address these organizational and team factors so that they can make periodic adjustments based upon this Guide. As described below, an IPT Risk Profile is constructed from one of two quick surveys depending on whether the IPT is in the start-up phase (approximately the first two to three months) or post-start-up.

Levels of Risk/Success Assessment

There are four levels of success that ultimately determine the overall success of a project:



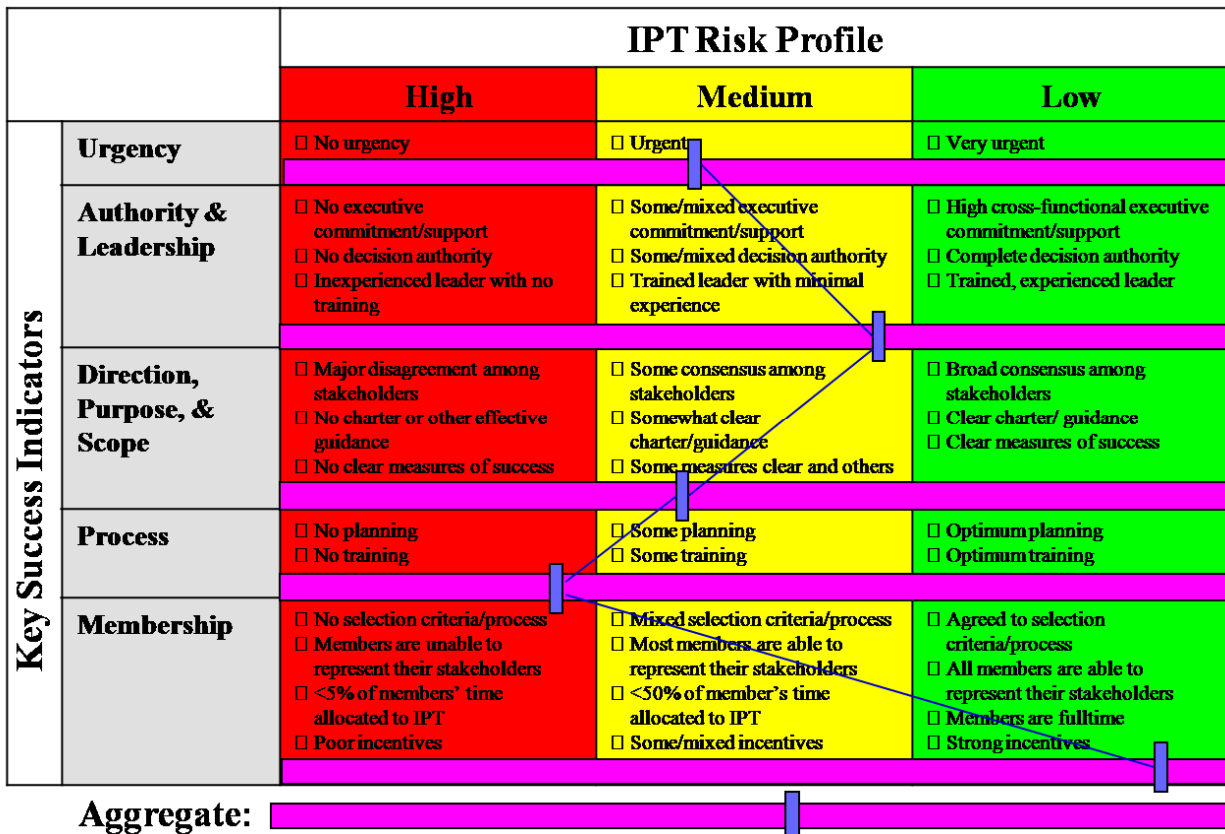
1. **Organizational** – To what extent will the project produce something the organization can afford and use? A project may even be “successful,” i.e., on budget, on time, and meeting the original requirements. However, unless all key stakeholders – especially users and their management - are continuously engaged during not only initial requirements development but also during design, development, testing, and deployment, organizational circumstances may well change and lead to project irrelevance or deprioritization. The core purpose of the IPT approach is to maintain this broad stakeholder engagement so that the project can evolve if necessary in response to organizational changes. So the periodic assessment of how well the IPT is maintaining that engagement is vital to the ultimate success of a project at the organizational level.
2. **Project** – The KSI assessment of the IPT must not *replace* the traditional risk assessment of the project, i.e., on budget, on time, and meeting requirements. This IPT assessment must *supplement* these traditional risk measures.
3. **Team** – The IPT KSI Model addresses not only the larger external organizational dynamics of the project beyond the IPT but also the internal dynamics of the team, including the skills

of the leader and members and the internal processes they are following (especially decision-making).

4. **Personal** – To what extent are the individual team members’ motivation aligned with the team, project, and organizational needs. The KSI Model helps with this level of assessment but must be supplemented by active involvement of the IPT Leader and the members’ direct supervisors from their constituent organizations to ensure their motivation continues to be aligned with that of the entire IPT, the project it supports, and the need of the organization as a whole.

IPT Risk Profile

The figure below illustrates the “IPT Risk Profile,” the summarized output of the KSI Model that can be used by the IPT and its sponsors to quickly focus attention on areas that need adjustment. The IPT Risk Profile is similar to typical risk assessment profiles used in project management with vertical color bands of red, yellow, and green indicating (from left to right) declining project risk in each of the five KSI categories shown in the gray column. The horizontal purple bands – with the blue “sliders” – that extend across each vertical risk band indicate the level of risk for each of five KSI categories. At the bottom of the diagram is an Aggregate purple band and blue slider that is an average of the five risk scores shown above it. The IPT Risk Profile thus allows IPT members, sponsors, and governing bodies to quickly assess the current strengths and weaknesses of the IPT as a basis for exploring where to make adjustments.



The Five KSI Categories

The five KSI categories shown above in the IPT Risk Profile emerged from MITRE’s research as useful ways to group and summarize at a high level the KSIs essential to an IPT’s success. The five categories are shown in the following table along with the specific KSI statements that comprise them (and which are used in the surveys described below from which the Model is constructed). Also shown is how the underlying KSIs for each category shift somewhat depending on whether the IPT is in the Start-up Phase or Post Start-up:

<u>KSI Category</u>	<u>Start-up Phase</u>	<u>Post Start-up</u>
Urgency	<ul style="list-style-type: none"> • The IPT received the appropriate resources (e.g., people, technical, tools) needed to be successful. • The time lines and goals set for the IPT were achievable given the resources and members assigned. 	<ul style="list-style-type: none"> • The IPT is receiving the appropriate resources (e.g., people, technical, tools) needed to be successful. • The time lines and goals set for the IPT are achievable given the resources and members assigned. • Team members believe that the established team goals are more important than the goals of the individual members.
Authority and Leadership	<ul style="list-style-type: none"> • Our key external stakeholders publicly demonstrated their commitment for our team. • The IPT Leader publicly and privately demonstrated their commitment to the team (i.e., time, attention, participation). • The IPT leader had the characteristics (professional and personal) to effectively lead the team. 	<ul style="list-style-type: none"> • Our IPT leader maintained commitment to the IPT’s success and it was clear that the IPT was his/her main priority. • The IPT Leader was actively engaged with the team (e.g., including team members in the decision making process, demonstrating fairness, respect, consideration). • The team leader effectively coordinated our collective actions. • The team leader effectively managed the impact of the external environment (e.g. removed roadblocks, suggested solutions).
Direction, Purpose, and Scope	<ul style="list-style-type: none"> • The IPT created (or was provided) an IPT Charter. (i.e., Description of Need, Outcomes, Authority, Membership, Skills, Decision Process). • The mission/goals of the IPT were communicated and clear to stakeholders outside the IPT. 	<ul style="list-style-type: none"> • The results and impact of this IPT were regularly and effectively reviewed by supportive executives/champions.

KSI Category	Start-up Phase	Post Start-up
Process	<ul style="list-style-type: none"> • There was adequate time allowed for the establishment/set-up of the IPT, including team training. • Our regularly scheduled team meetings were effectively managed (i.e., Use of outside facilitators, agendas, effectively scheduled). • Our roles/responsibilities on the team and performance expectations were clearly defined and updated as necessary. • Our decision-making process was clear, effective, and appropriate. 	<ul style="list-style-type: none"> • The amount/style of communication, including knowledge sharing, was effective. • Our team used processes for regularly reviewing how the team worked together and how we handled conflicts. • Our regularly scheduled team meetings are effectively managed (i.e., use of outside facilitators, effectively scheduled, agendas). • Our decision-making process was clear, effective, and appropriate, and decisions are well documented.
Membership	<ul style="list-style-type: none"> • The IPT members were able to impact the setting of team sub goals/measures that allowed them to create a shared vision for how to implement them. • The IPT members selected for this team had the necessary technical experience/skills/knowledge. • The IPT members selected for this team had the right interpersonal skills (i.e., willing to sharing information; willing to collaborate). 	<ul style="list-style-type: none"> • The members on the IPT have the capabilities/experience and skills to succeed at all IPT tasks. • The team members have a sense of loyalty/trust with one another.

KSI Model Construction

The KSI Model is constructed based on responses of agreement/disagreement by the IPT members to a 15 statement survey. There are two versions of the survey: one for the start-up phase and a different one for post-start-up, once the IPT is well underway. The surveys are shown on the next two pages.

Each statement in the survey represents a key success indicator that emerged from MITRE’s research into the factors that most contribute to IPT success based on research in industry and DoD and the experience of participants in IPTs in federal civilian agencies.⁸ The IPT member survey respondent indicates – on a seven point scale – their level of agreement/disagreement with each KSI statement (there is also an eighth column to indicate “I don’t know”). All but the first of the 15 statements corresponds to one of the five KSI categories shown in the IPT Risk Profile.⁹ The position of the blue slider on the purple bar to the right of each KSI category – and therefore its placement inside one of the three vertical risk bands – is determined by adding up the agreement/disagreement scores of all the statements corresponding to that category. The score summations are then normalized to take into account the differing number of questions for each category.

⁸ MITRE’s research involved a review of 83 articles and guidance on IPTs in industry and DoD as well as organizational behavior research on team effectiveness. Our research also included interviews with 60 IPT participants from 19 IPTs across four civilian agencies.

⁹ The first statement on both surveys is an overall success statement included to establish relevance correlations with all the other statements and is not particular to any of the five KSI categories.

IPT Assessment Survey (Start-Up Phase)

Directions: During the start-up of the Integrated Project Team (IPT), please indicate the extent to which you agree with each of the following statements. PLEASE CIRCLE JUST ONE RESPONSE FOR EACH QUESTION.		Strongly Disagree	Disagree	Moderately Disagree	Neither agree nor disagree	Moderately Agree	Agree	Strongly Agree	I Don't Know
During the start-up of the Integrated Project Team (IPT)...									
1.	The overall start-up phase of the IPT was successful.	1	2	3	4	5	6	7	?
2.	There was adequate time allowed for the establishment/set-up of the IPT, including team training.	1	2	3	4	5	6	7	?
3.	The IPT created (or was provided) an IPT Charter. (i.e., description of Need, Outcomes, Authority, Membership, Skills, Decision Process).	1	2	3	4	5	6	7	?
4.	The IPT Leader publicly and privately demonstrated their commitment to the team (i.e., time, attention, participation).	1	2	3	4	5	6	7	?
5.	The IPT received the appropriate resources (e.g., people, technical, tools) needed to be successful.	1	2	3	4	5	6	7	?
6.	The mission/goals of our IPT were communicated and clear to stakeholders outside the IPT.	1	2	3	4	5	6	7	?
7.	The time lines and goals set for the IPT were achievable given the resources and members assigned.	1	2	3	4	5	6	7	?
8.	The IPT members were able to impact the setting of team sub goals/measures that allowed them to create a shared vision for how to implement them.	1	2	3	4	5	6	7	?
9.	The IPT leader had the characteristics (professional and personal) to effectively lead the team.	1	2	3	4	5	6	7	?
10.	The IPT members selected for this team had the necessary technical experience/skills/knowledge.	1	2	3	4	5	6	7	?
11.	The IPT members selected for this team had the right interpersonal skills (i.e., willing to sharing information; willing to collaborate).	1	2	3	4	5	6	7	?
12.	Our key external stakeholders publicly demonstrated their commitment for our team.	1	2	3	4	5	6	7	?
13.	Our regularly scheduled team meetings were effectively managed (i.e., Use of outside facilitators, agendas, effectively scheduled).	1	2	3	4	5	6	7	?
14.	Our roles/responsibilities on the team and performance expectations were clearly defined and updated as necessary.	1	2	3	4	5	6	7	?
15.	Our decision-making process was clear, effective, and appropriate.	1	2	3	4	5	6	7	?

IPT Assessment Survey (Post Start-Up Phase)

Directions: Since the last assessment of the Integrated Project Team (IPT), please indicate the extent to which you agree with each of the following statements. PLEASE CIRCLE JUST ONE RESPONSE FOR EACH QUESTION.		Strongly Disagree	Disagree	Moderately Disagree	Neither agree nor disagree	Moderately Agree	Agree	Strongly Agree	I Don't Know
Since the last assessment of the Integrated Project Team (IPT)...									
1.	The IPT produced it agreed-upon deliverables (achieved its goals) on time, within budget and scope.	1	2	3	4	5	6	7	?
2.	Our IPT leader maintained commitment to the IPT's success and it was clear that the IPT was his/her main priority.	1	2	3	4	5	6	7	?
3.	The amount/style of communication, including knowledge sharing, was effective.	1	2	3	4	5	6	7	?
4.	The time lines and goals set for the IPT are achievable given the resources and members assigned.	1	2	3	4	5	6	7	?
5.	Team members believe that the established team goals are more important than the goals of the individual members	1	2	3	4	5	6	7	?
6.	The members on the IPT have the capabilities/experience and skills to succeed at all IPT tasks.	1	2	3	4	5	6	7	?
7.	The IPT Leader was actively engaged with the team (e.g., including team members in the decision making process, demonstrating fairness, respect, consideration.)	1	2	3	4	5	6	7	?
8.	The team leader effectively coordinated our collective actions.	1	2	3	4	5	6	7	?
9.	The IPT is receiving the appropriate resources (e.g., people , technical, tools) needed to be successful.	1	2	3	4	5	6	7	?
10.	Our team used processes for regularly reviewing how the team worked together and how we handled conflicts.	1	2	3	4	5	6	7	?
11.	The team leader effectively managed the impact of the external environment (e.g. removed roadblocks, suggested solutions).	1	2	3	4	5	6	7	?
12.	The team members have a sense of loyalty/trust with one another.	1	2	3	4	5	6	7	?
13.	The results and impact of this IPT were regularly and effectively reviewed by leadership and key external stakeholders.	1	2	3	4	5	6	7	?
14.	Our regularly scheduled team meetings are effectively managed (i.e., use of outside facilitators, effectively scheduled, agendas)	1	2	3	4	5	6	7	?
15.	Our decision-making process was clear, effective, and appropriate.	1	2	3	4	5	6	7	?

Use of KSI Model

Because the surveys take less than five minutes to complete, the KSI Model and its IPT Risk Profile output can be constructed quickly and used as often as necessary as a key feedback tool for IPTs members, sponsors, and governing bodies as often as deemed necessary. Research has shown that, especially in the early months, it is important for progress of change initiatives to be reviewed no less frequently than every two months (depending of course on how quickly the IPT is given the resources it needs to form). It is recommended to administer the Start-up Phase Survey approximately two months after initial kick-off, or until most of the critical membership is on board and the IPT has begun to function. The Post-Start-up Survey would then be administered at approximately two to three month intervals thereafter or whenever the review cycles are scheduled to occur per the Charter.

In addition to the IPT Risk Profile, it is recommended provide a summarized form of the survey that was used showing the average agreement scores for each of the 15 questions. This will allow whoever is using the Model to drill further down into the specific areas where there was low agreement. This can then be used as the basis for further discussions about corrective adjustments.

Appendix B: Selected Additional Research and Guidance on IPT Management and Team Performance

Guidance on DoD/DOE IPTs

Rules of the Road - A Guide for Leading Successful Integrated Product Teams, US Department of Defense, November, 1999.

DoD Integrated Product and Process Development Handbook, Office of the Under Secretary of Defense (Acquisition and Technology), August 1998.

IPT Management and Leadership, Defense Acquisitions University, Public On-Line Course CLM014 (go to <https://learn.dau.mil/html/clc/Clc1.jsp?cl>)

Integrated Project Teams, US Department of Energy, Office of Management, Budget and Evaluation, June 2003.

Research/Articles on DoD IPTs

Getting the Most Out of Integrated Product Teams (IPTs), DiTripani, Anthony et al, Center for Naval Analyses, October 1996.

Best Practices: DoD Teaming Practices Not Achieving Potential Results, General Accounting Office, GAO-01-510, April 2001.

The Phoenix Rises, Davis, Randy et al., Acquisition Review Quarterly, Fall 1997.

Research on Building and Managing Effective Teams

Teams Embedded in Organizations, Ilgen, Daniel R., *American Psychologist*, February 1999.

The Science of Team Success, Kozlowski, Steve et al., *Scientific American*, May 30, 2007.

Understanding Team Adaptation, Burke, C. Shawn et al., *Journal of Applied Psychology*, 2006, Vol 91, No. 6, 1189-1207.

On Teams, Teamwork, and Team Performance: Discoveries and Developments, Eduardo Salas et al., *Human Factors*, June 2008.

Appendix C: Sample IPT Start-up Checklist/Schedule

The following sample IPT Start-up Checklist/Schedule can be adapted and used in assisting IPT sponsors, stakeholders, and members in following this Guide and quickly assessing whether all the steps are being followed in the right order. As with the Guide as a whole, this Checklist is not intended – and should not be used – as a “one size fits all” approach. It must be adapted to the specific reason an IPT is being used on a particular project. It must also conform to the existing organizational structures, policies, and culture.

Stage	IPT Start-up Steps	Lead	Start	Comp
Definition of Need	Define a clear need for IPT(s) by mapping stakeholder involvement over the course of the project lifecycle (p 9)			
Overall Project Organizational Design	<p>Design an overall project organizational structure that optimizes IPTs in the following ways (pp 10-12):</p> <ul style="list-style-type: none"> • Does the complexity of the project require multiple IPTs? • If so, is there an “integrating IPT” that integrates the work of all the other IPTs? • At what points in the project lifecycle do each IPT need to be convened and disbanded? • Is there a good balance between the overall number of IPTs and the number of members on each IPT? • Does the reporting structure simplify and minimize the number of decisions that will need to be elevated beyond each IPT? • Is it clear to which supporting non-IPT work groups (e.g., contractor groups) each IPT can delegate its work? 			
	<p>Budget sufficient time and funding for (p 13):</p> <ul style="list-style-type: none"> • Charter Development and Stakeholder Engagement • IPT Leader selection • IPT membership selection • Allocation of IPT members’ time/duties • Co-location of IPT members (where possible) • Travel • On-line support systems • Training in IPT skills and skills specific to the particular work of the IPT 			

Stage	IPT Start-up Steps	Lead	Start	Comp
Individual IPT Design	Develop an IPT Charter with the following elements (pp 13-15): <ul style="list-style-type: none"> • Need, purpose, and scope • Outcomes, outputs, and performance • Authority (including scope/limits, decision elevation, directive authority over other groups) • Key external processes (including oversight process and interface with key external organizations/processes) • Membership (including individual qualifications and decision authority) 			
	Engage and obtain full support for the IPT Charter from all key stakeholder organizations (including those represented on the IPT) (p 15)			
	Select the IPT Leader and commitment from the Leader's supervisor to the Leader's role and time commitment to that role. Characteristics of the leader should include (pp 15-16): <ul style="list-style-type: none"> • Lack of bias • Technical expertise • Project management skills • Ability to manage external environment • Team engagement skills • Values inclusion • Decisive • Time management skills • Able to effectively elevate/delegate decisions • Commitment to IPT's work 			
	Select the IPT members and commitment from the members' supervisors to their role and time commitment to that role. Characteristics of the members should include (pp 16-17): <ul style="list-style-type: none"> • Authority to make decisions on behalf of their constituent organization • Background, knowledge, skills to represent their constituent organization • Open-mindedness • Team skills • Personal commitment • Time Commitment 			

Stage	IPT Start-up Steps	Lead	Start	Comp
IPT Implementation	Conduct training for the IPT members in the following areas (p18): <ul style="list-style-type: none"> • The purpose of an IPT • Why an IPT is being used in this case • How an IPT needs to function • Behavior and skills required of IPT leaders and members • Skills specific to the tasks of this IPT 			
	Define and establish internal IPT roles, including (p19): <ul style="list-style-type: none"> • IPT Leader • Facilitator • Lead roles on specific internal processes • Lead expert roles (e.g., SME) • Lead roles with work groups reporting to the IPT • Interfacing roles with external organizations and processes 			
	Define and establish internal IPT processes including (p20): <ul style="list-style-type: none"> • Decision-making • Meetings and communications (including around confidentiality, documentation, and document management) • Team dynamics • Team self-assessment (including use of the IPT KSI Model in Appendix A) • Interface with external processes 			
	Further define, clarify, and elaborate the goals, outcomes, and performance measures defined in the IPT Charter and obtain concurrence from governing bodies.			