

Research evaluation and evidence-based policy making in a country in transition

Experiences from Vietnam

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The challenge

Why do emerging countries find it difficult to implement S+T evaluation and evidence-based policy making?

Illustrative examples

	Vietnam 	Germany 
NIS¹⁾ development status	'Beginners' level: S+T strategies, structures and resources still in development	Fully developed NIS: Sophisticated S+T strategies and programs, efficient structures and strong actors
S+T expenditure	Low total investment Mostly government funding	High total S+T investment Huge enterprise S+T investment
Public S&T policies	Limited budget, first generation policies, programs and instruments; limited experience	High budget; sophisticated policies, programs and instruments, long experience
Program evaluation experience	First pilot evaluation experiences, but not yet an established standard S+T policy instrument	Evaluations are established standard in the management of major S+T programs
Necessary evaluation prerequisites	Still building the basics: <ul style="list-style-type: none"> Shortage of experts and institutions to carry out evaluations Program managers and researchers not used to cooperate Necessary data not available S+T policy makers have no experience how to use results Evaluation not yet a part of planning, designing and implementing S+T policies 	Everything in place: <ul style="list-style-type: none"> Many suppliers of evaluation services, competing for projects Program managers and researchers used to being evaluated Statistical, program and project data collected systematically S+T policy makers request evaluations Standard element of S+T policy making, programs, etc.

1) S+T = Science and Technology; NIS = National Innovation System

The challenge

Using rigorous evidence for well-informed decisions leads to better policy decisions & implementation

Why do we need Evidence Based S+T Policy Making?

- S+T policy makers face tough budget and policy choices that affect outcomes and impact of S&T & best use of scarce resources
- S+T Policy processes are complex; relations between inputs, policy measure and outcomes not linear
- Policy makers often only weakly informed about S&T status, performance, results due to information gaps, secrecy, lack of transparency, biased data or political expediency
- Policy decisions often driven by interests of influential stakeholders, personal opinions or political bargaining

What are the benefits of Evidence Based S+T Policy Making?

- ✓ Data from research provides objective, unbiased evidence
- ✓ S+T Policy Decisions based on facts instead of beliefs or arguments which are driven by political, institutional or personal interest
- ✓ Holistic decision making: Account for all relevant aspects

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The challenge

***Research evaluation creates improved transparency ...
... this contributes to better decision making***

What can S+T evaluations deliver for S+T policy making?

- Policy/program/institutional assessment
Systematically reviewing available evidence on appropriateness, effectiveness and efficiency
- Implementation review
Ensuring that programs are effectively delivered and are faithful to their intended design
- Outcome monitoring
Measuring and reporting outcome data to determine whether interventions are achieving desired results
- Budget use
Ensuring that available resources are used in the most efficient way to generate best value for the tax payer
- Policy design
Provide inputs for formulation of next generation policies, pro-grams, etc.; recommend improvements of ongoing operations



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The challenge

Copy & paste of evaluation and S+T policy making concepts from western countries does not work!

Typical shortcomings in countries in transition

- **No previous experience with research evaluation**
- **Data necessary for evaluation often not available, outdated or quality not ensured**
- **Lack of stakeholder acceptance for evaluations**
- **Policy and decision makers not familiar with how to use evaluation results**
- **No tradition of stakeholder involvement in S+T policy formulation, implementation and review**
- **Historically grown decision making processes put priority often on other inputs than scientific evidence**
- **Cultural and behavioral barriers**
- **Lack of evidence based policy making concepts and experience**

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Current situation

Vietnam's efforts to establish Monitoring and Evaluation (M+E) started two decades ago

Development of Monitoring and Evaluation in Vietnam

General M+E schemes

- **Đổi mới (renovation) process launched 1986 prescribed fundamental reorientation of policies and of mission, roles and responsibilities of public sector institutions.**
- **Newly formed Ministry of Planning and Investment and Ministry of Finance became key actors with respect to the general introduction of M&E mechanisms. At the sectoral level, each Ministry was responsible for monitoring the activities in its area.**
- **Foreign assistance was used to introduce and strengthen M+E mechanisms. Example: In 1989, UNDP/World Bank undertook a program to strengthen the M&E Unit of the State Committee for Cooperation and Investment (SCCI) SCCI. The program (VIE/89/010) provided evaluation training.**
- **Major challenge: Inadequate availability and sharing of information, due both to lack of an effective information system, and to the institutional culture bred during the post-war years where information sharing was not encouraged. Efforts were launched to improve availability and sharing of information and to establish a new 'culture' with regard to information sharing.**
- **Since then, continuous efforts have been made to develop the M+E framework.**
- **ODA financed cooperation has been a major driver of progress with M+E. Example: Vietnam-Australia Monitoring and Evaluation Strengthening Project (VAMESP II) to develop an effective national system for M+E to maximize the benefits from ODA in Vietnam, as required by Decree 131/2006/N§-CP**

Sources: Cook, J.R., Monitoring & Evaluation Capacity-Building Study. Study on behalf of the Australian Agency for International Development, ACN 001 528 883. Sydney, December 1997; Ministry of Planning and Investment, Monitoring and Evaluation Manual, Evaluation Practice Module, Hanoi, May 2007

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Current situation

As a part of this overall M+E initiative, S+T evaluation has begun to emerge since 2000

Development of S+T Monitoring and Evaluation in Vietnam

In 2000, the National Assembly promulgated the Law on Science and Technology (S+T Law). For the first time, Vietnam has its own uniform legal framework regulates the organization of Science and Technology activities.

- Articles 20, 24 of the S+T Law provide for evaluation, selection and assessment of the results of scientific and technological tasks
- Article 31 of the S+T Law provides for the evaluation of Science and Technology for the projects and programs of socio-economic development
- Pursuant to the S+T Law, the Ministry of Science and Technology (MOST) issues regulations and conducts evaluations of National S+T tasks, for example of the projects conducted under the National S+T Key programs (KC, KX); projects of the Gene Fund; projects of the international S+T Cooperation Program and of other projects conducted under the auspices of MOST
- Other ministries and provincial governments promulgate related regulations on S+T evaluation and evaluate those S+T tasks which they support.

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Current situation

Practical work started with putting in place first generation evaluation tools



Early examples of S+T evaluation in Vietnam

- The *National Foundation for Science and Technology Development (NAFOSTED)* evaluates the S+T tasks which are supported by the Foundation, currently mostly basic research projects.
- In other domains, e.g. applied research, S+T evaluation focuses only on selection, evaluation and assessment of S+T tasks (e.g. research projects).
- Systematic performance evaluation of S+T programs not yet established: At the end of each implementation phase (typically five years), S+T program management board self-assesses performance and results through the final report and submits this assessment to high level policy makers.
 - ↳ *First pilot evaluations carried out 2010, with revised methodology 2013/14*
- Regular evaluation of S+T organizations not yet established. S+T organizations prepare and submit annual reports on their activities to management agencies.
 - ↳ *First pilot evaluations carried out 2012/13*
- Evaluation of S+T strategies and policies not yet established: At the end of each implementation stage (5-10 years), MOST prepares and submits a report on the results of the implementation of S+T strategies and policies to high level policy makers.

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Current situation

Limitations encountered in the implementation of M+E

Issues	Vietnam today 	Germany 	Issues for development
Evaluation framework	Still 'bits and pieces', important elements missing	Consistent M+E, all major S+T elements evaluated systematically	<i>Design and implement a consistent evaluation framework</i>
Evaluation approach	Usually internal (self-) evaluation; low stake-holder involvement	External evaluation by neutral experts; strong stakeholder involvement	<i>Establish standards to ensure transparency and stakeholder involvement</i>
Evaluation instruments	Working on first generation M+E instruments	Proven M+E instruments, based on scientific methods	<i>Establish consistent set of M+E instruments; continuous improvement</i>
Data for evaluation	Administrative focus, lack of reliable performance-oriented data	Necessary data available and systematically collected	<i>Improve S+T statistics, learn to collect necessary data from programs, etc.</i>
Evaluation expertise	National competence center VISTEC, too few evaluation experts	Large pool of experienced evaluation institution and experts	<i>Strengthen VISTEC, disseminate M+E knowledge; build expert community</i>
System and behavioral restrictions	M+E-type interactions not encouraged; limited use of M+E results	Stakeholders used to collaborate, M+E results used for decision making	<i>Amend relevant system elements, build evidence-based policy processes</i>

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Current situation

Typical challenges of a country in transition

Regulatory basis, standards & framework	<ul style="list-style-type: none"> Target: Consistent set of regulations, standards, etc. Challenges: Binding M+E requirement in place, but detailed guidance for implementation missing
Evaluation skills and experience	<ul style="list-style-type: none"> Target: Set of proven M-E instruments, adapted to specific situation and needs; large pool of practitioners Challenges: Accelerate build-up of M-E capacities/competencies
Institutional capacities	<ul style="list-style-type: none"> Target: Full-fledged M+E competence-center Challenges: VISTEC = under-critical mass; lack of other practitioners/institutions
Networking and learning	<ul style="list-style-type: none"> Target: Exchange of experiences, integration in international M+E networks and co-operations Challenges: Necessary instruments and capacities missing
Necessary preconditions	<ul style="list-style-type: none"> Target: Improved preconditions for M+E: Availability of statistical data, trans-institutional data collection, etc. Challenges: National S+T statistics system still inadequate
'M+E culture'	<ul style="list-style-type: none"> Target: Stakeholders collaborate constructively, decision makers use M+E results for evidence-based decision making Challenges: Institutional and behavioral barriers
'Bits & pieces' → M+E System	<ul style="list-style-type: none"> Target: Integration of all M+E elements for better efficiency and impact = political and management challenge!

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The establishment of an M+E competence center was a decisive milestone

VISTEC establishment

- First proposals to establish an independent evaluation institution 2004
- VISTEC formally established 2005

VISTEC's Mission

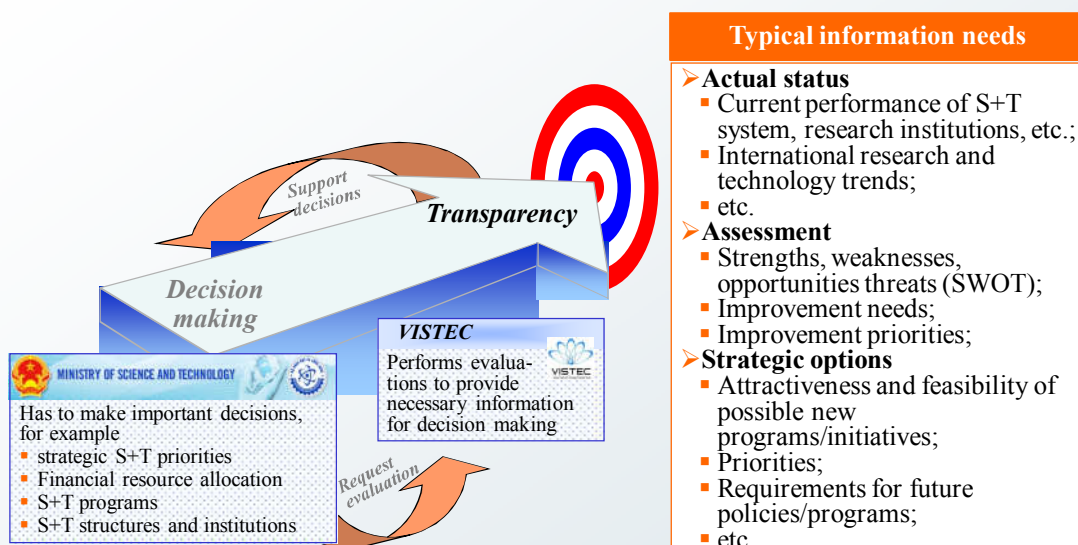
- **Become the leading independent organization for conducting S + T evaluation activities in Vietnam**
- **Implement evaluation principles of international standard in Vietnam**
- **Provide useful recommendations for S+T budget allocation and for policy formulation and implementation**

Functions defined by Decision No 2942/QĐ-BKHCHN of the Minister of Science and Technology

- assisting the pre-planning survey and analyses prior to national R&D program setting and supporting evaluation activities throughout the whole R&D life cycle;
- carrying out evaluations of R&D organizations;
- supporting the assessment of the national R&D budget allocation
- evaluating R&D Human Resources in Vietnam.

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The establishment of a M+E competence center was a decisive milestone



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VISTEC's mission and tasks

Mission	<p>VISTEC supports the decisions which Science and Technology (S + T) policy makers and research managers have to make by providing</p> <ul style="list-style-type: none"> state-of-the art analyses and evaluations of Vietnam's S + T system; and recommendations for improvement and further development.
Tasks	<p>To fulfill this mission, VISTEC</p> <ul style="list-style-type: none"> performs evaluations, strategic studies and technology valuations; develops and disseminates evaluation knowledge and methodologies; develops a national evaluation framework and an expert network.
Clients	<ul style="list-style-type: none"> VISTEC's primary clients are MOST and its institutions. VISTEC's services are also available to all other stakeholders of Vietnam's S+T system, for example other ministries, provinces and their DOSTs, research institutions, associations and enterprises.
Service areas	<p>VISTEC's portfolio of evaluation services focuses on</p> <ul style="list-style-type: none"> the evaluation of S+T policies and their implementation and of S+T programmes, projects and institutions; related strategic studies in the field of S+T; technology valuation.
Promulgation	<p>VISTEC supports the dissemination and application of S+T evaluation through</p> <ul style="list-style-type: none"> dissemination of evaluation knowledge and methodologies; evaluation skill building (e.g. training) for other stakeholders; development of a network of national evaluation experts and practitioners; collaboration with international evaluation experts and practitioners.

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




VISTEC's main missions: Act as M+E competence center + develop all elements of the national M+E framework

Own evaluation and study activities	<p>Typical projects</p> <ul style="list-style-type: none"> Evaluation of selected research programs Evaluation of research institutions and S+T structures Evaluation of regional/provincial S+T investment and/or technology position Contributions to major national initiatives, for example the development of sectorial S+T strategies or technology foresight etc.
Evaluation framework development	<ul style="list-style-type: none"> Proposals and support for MOST and other policy makers for the development of the legal framework for S+T evaluation Contributions to the development of other S+T regulations and procedures (e.g. for program management)
VISTEC skill building	<ul style="list-style-type: none"> VISTEC skill development <ul style="list-style-type: none"> internal training; own research on evaluation methodologies; Participation in international training events. Development of stakeholders' S+T evaluation skills: Delivery of first training elements (e.g. in cooperation with MTI)
National capacity building	<ul style="list-style-type: none"> Identify evaluation experts as network partners in Vietnam Launch first national network activities Start to integrate in international S+T evaluation networks (e.g. submitted two papers for AEA annual conference 2011)

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Capacity building through “learning by doing” in collaboration with experienced international partners

VISTEC’s international collaborations for evaluation capacity building

- Since the foundation of VISTEC, international collaboration has been used systematically to build evaluation capacity
- Some important milestones
 - Vietnam’s Evaluation of the Science and Technology System (VISION) 
 - Joint Research on R&D Programs and Projects Evaluation in Vietnam 
 - (Joint) Evaluation of the KC05 applied research program 
 - Evaluation Capacity Building (EvaCap) 
- Complementary knowledge transfer and continuous support by an integrated German expert 
- Continuous exchange with other leading S+T policy/M+E institutions, e.g. in Germany, France, China, Taiwan and Korea

Collaborative capacity building

Example: EvaCap project

Initiation



Project partners



Module 1: International conference on research evaluation

Two day conference, providing state-of-the-art information about approaches to selected priority evaluation areas; stimulate new initiatives and cooperation in key areas of research evaluation

Module 2: Development of foundations for the evaluation of Vietnam’s research institutions

Collaborative project to build know how, capacities and methodological base for the evaluation of research and development institutions in Vietnam through two joint pilot studies

Module 3: Knowledge and capacity building

Development of evaluation knowledge and capacities of Vietnamese experts and stakeholders; pilot event to initiate a systematic dissemination of evaluation knowledge in Vietnam (Evaluation Summer School)

Module 4: Confirmation and deepening of VISTEC’s capacities in advanced evaluation methodologies

Transfer of state-of-the-art methodological and application know how in modern evaluation techniques in a joint project on an advanced evaluation research topic in Vietnam (career paths of young researchers)

Approach – Dissemination

Building capacities and competencies on the national level requires a dedicated effort



Vietnam's first S+T evaluation Summer School

Hanoi, September 18 – 20, 2012

Time	Agenda Point
8:30 – 8:45	Opening Ceremony and Greetings
8:45 – 9:15	Introduction of Participants and their Expectations for the Summer School
Morning Session: Introduction to Research Evaluation	
9:15 – 10:00	Issues of Research Evaluation in Vietnam
10:00 – 10:30	Coffee break
10:30 – 11:30	Theory and Concepts of Research Evaluation, Types of Evaluation, basic Tools and Approaches
11:30 – 12:15	Principles and Standards of Research Evaluation
12:15 – 12:35	Lunch break

Day 1
Evaluation principles
Evaluation standards
Use of eval. results

Time	Agenda Point
Afternoon Session: Role of Research Evaluation in S+T Policy Formulation and Implementation	
13:15 – 14:15	Research Evaluation and its Role and Value for Formulating, Implementing and Reviewing Science Policies
14:15 – 15:15	Linking Research Evaluation to Science Policy: The Example of the Evaluation of the Higher Education Institutions in Germany
15:15 – 15:45	Coffee break
15:45 – 16:45	Discussion: How can S+T Evaluation help to improve S+T System? What S+T Evaluation System does we need?

Day 2
Evaluation practices
Program evaluation

Time	Agenda Point
Morning session: How to Evaluate Research Institutions	
8:30 – 9:30	Evaluating Research Institutes in Countries in Transition – a Suspended Framework
9:30 – 10:30	Evaluation of Research Institutes: Principles, Approaches and Experiences from Germany
10:30 – 12:00	Practice Session: Designing, Planning and implementing an Institution Evaluation
12:00 – 12:30	Coffee will be served during the Practice Session
12:30 – 13:30	Presentation of group results and discussion
13:30 – 14:00	Lunch break

Time	Agenda Point
Afternoon session: How to Implement program evaluation	
13:00 – 14:00	Evaluating Applied Research Programs: Experiences from Vietnam and Germany
14:00 – 16:30	Practice Session: Designing, planning and implementing a Program Evaluation
16:30 – 17:00	Presentation of Group Results and Discussion

Day 3
Institutional Eval.
Usr of indicators
Implement. learnings

Hanoi, Nov. 30 – Dec. 1, 2010

Conference on Research Evaluation and Technology Valuation

Day 1: Institutional evaluation – approaches and contributions to the development of Vietnam's research system

- Morning Session: Role of Institutional Evaluation in the optimization of the National Science System
- Afternoon Session: Best practices in institutional evaluation

Day 2: Technology Valuation

- Morning Session: Technology valuation and its strategic role
- Afternoon Session 1: Practical approaches and instruments of technology valuation
- Afternoon Session 2: Summary and conclusions

Illustrative examples

Our experiences and learnings

Holistic approach & integrated framework

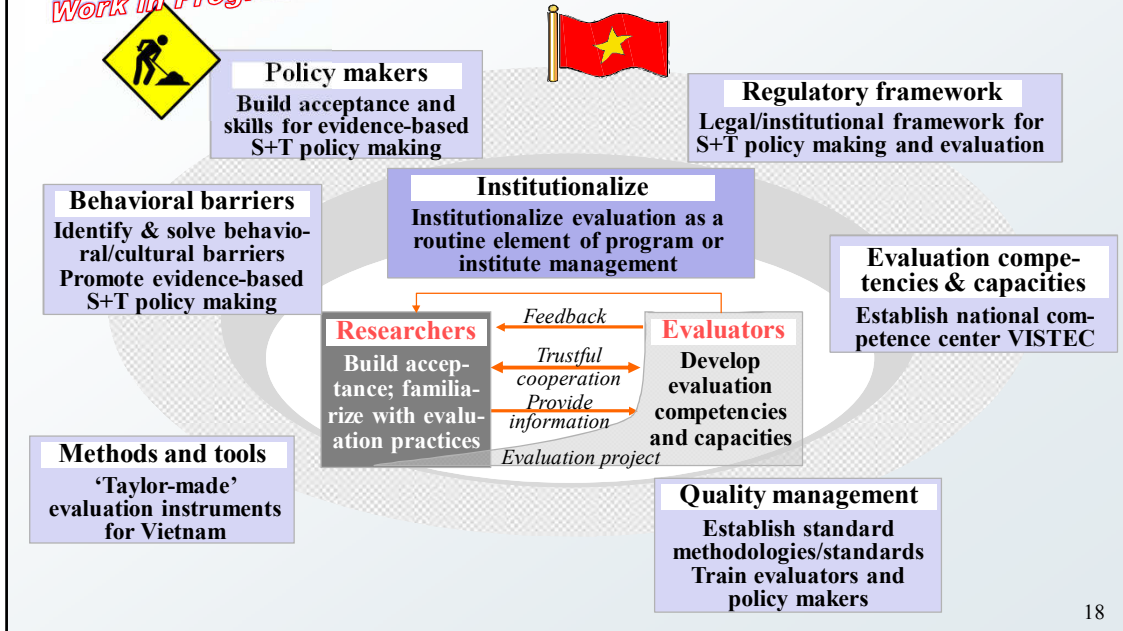
Work in Progress



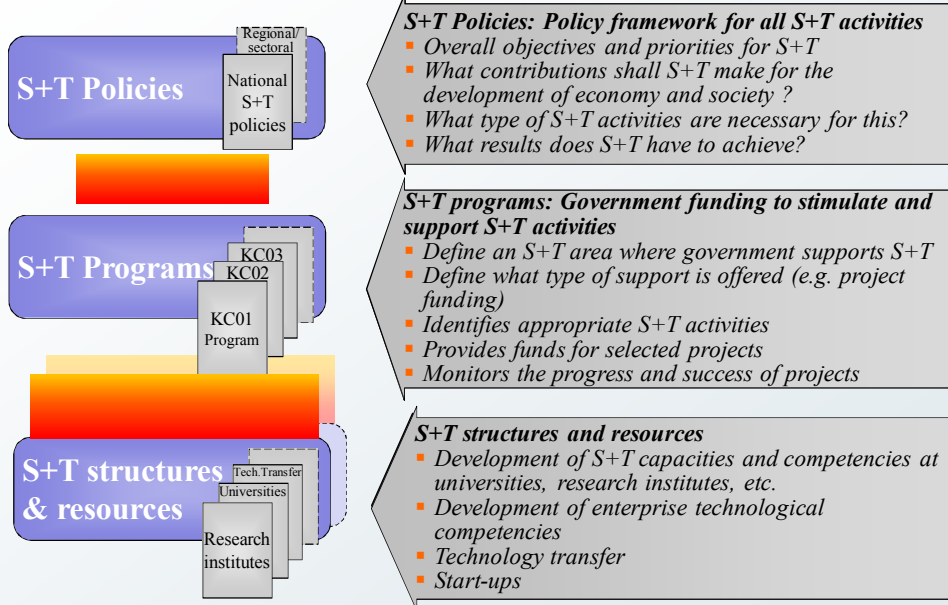
Implementation	<ul style="list-style-type: none"> ➤ Holistic approach necessary ➤ Establishing only evaluation achieves limited sustainable impact
Methods & tools	<ul style="list-style-type: none"> ➤ Taylor-made evaluation methodologies ➤ Develop stepwise: Start with pragmatic, simple to use first generation methods
Policy & socio-econ. environment	<ul style="list-style-type: none"> ➤ Evaluation must fit organically into the 'landscape' ➤ Adapt to policy and socio-economic context
Cultural issues	<ul style="list-style-type: none"> ➤ Don't underestimate cultural differences! ➤ Examples: Different approaches to critique, questionnaires, workshop discussions, communication of results, etc.

Holistic approach & integrated framework

Work in Progress



Build a comprehensive portfolio of evaluation instruments but do it step by step



The way forward for Vistec

Development of organization and resources

- Growing VISTEC staff to a critical mass
- Building a core of experienced senior evaluation experts
- Building a continuous influx of new talent



Development of evaluation tools and skills

- Pragmatic first generation approaches and tools for specific Vietnamese conditions
- Learning by doing + international collaboration
- Incremental extension of scope and sophistication

Acceptance and dissemination

- Information and communication, especially with potential evaluatees and users of evaluation results
- Training and documentation
- Gain acceptance through successful evaluations

Development of the network

- Building a national network of evaluation experts
- Dissemination of skills through training
- Cooperation with research and academic institutions

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Some lessons learned

Do's

- ✓ *Full commitment and support of high-level leaders is crucial for establishing evaluation systems and culture*
- ✓ *Establish a dedicated institution which assumes responsibility for building and maintaining the evaluation system*
- ✓ *Invest in capacity building and development of skills to perform evaluations and to use their results for improvements*
- ✓ *Build acceptance and trust → successful evaluation requires stakeholder collaboration*

Dont's

- ❗ *Accept alibi function and/or 'pro forma' assignments without impact*
- ❗ *Attempt to beyond your limits: Start with pragmatic assignments, go for more sophisticated approaches as experience and skills grow*
- ❗ *Become tired of requesting improvements of the necessary preconditions, e.g. better science statistics and program/project reporting*

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Contact

Questions? Suggestions?
Please contact us



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