



International Centre for Complex Project Management Limited (ICCPM)

Managing Risk in Complexity (MRC)

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Managing Risk in Complexity Special Interest Group (MRC SIG)

Members Guide

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1 Introduction to the Management of Risk in Complexity (MRC SIG)

Worldwide, large projects continue struggle to succeed in the face of highly complex, uncertain environments. It is widely recognised that current risk management thinking, and practice are not effective in such environments and that this is a contributor to many project failures.

In that context, risk management in complex projects was the focus of ICCPM's 2020-2021 Roundtable Series. The Management of Risk in Complexity SIG (MRC SIG) is an ongoing companion initiative designed to further review, explore and improve risk management in complex projects.

It is intended to compliment and support other areas of focus for improvement to complex project management.

2 MRC SIG Purpose, Role and Objectives

2.1 Purpose.

The higher purpose of the MRC SIG is to help ICCPM and its members to build complex project management capability and better serve its stakeholder community.

2.2 Role.

The role of the MRC SIG is to explore opportunities to improve the management of risk in complex project environments.

2.3 Objectives.

The MRC is intended to enable the following outcomes and outputs:

Key Outcomes:

1. Increased access for all ICCPM Members to improved methods, tools and skills for managing risk in complex projects.
2. Increased networking, dialogue and collaboration on complex risk management between members and partners of ICCPM.

Key Outputs:

1. New or improved risk management concepts, methods, tools or skills.
2. Regular ICCPM papers, articles, blogs and other sharing of knowledge on risk management in complex projects.
3. Regular updates on its activities by MRC SIG, to ICCPM members.

2.4 Other desired outcomes.

The MRC SIG should also enable:

1. Better integration of effective risk management in complexity into "business as usual" in complex projects.
2. Enhanced reputation for ICCPM as a thought leader in risk management in complexity.

3. Increased engagement with ICCPM by project management professionals and other project stakeholders, internationally.
4. High awareness of MRC SIG and its role, across ICCPM members and the broader project management community.

2.5 Key indicators of success:

- Each of the outcomes and outputs described above.
- High satisfaction rate of MRC SIG participants in the way in which it operates.
- Broad MRC SIG dialogue with high level of inquiry and openness.
- ICCPM managers and staff have high satisfaction with how MRC SIG connects with and supports ICCPM’s policies, priorities and initiatives.

3 MRC SIG as a complex system

3.1 Background

The MRC SIG operates under the auspices of ICCPM:

- the behaviours and actions of MRC SIG and its members must support ICCPM’s role and reputation;
- the scope of conversations and collaborative work in SIG meetings and working groups should contribute to better management of complex projects;
- ICCPM will provide the resources for MRC SIG operate effectively; and
- ICCPM will own any IP or copyright developed within MRC SIG.

3.2 MRC SIG Complexity

MRC SIG is a complex system:

- It will include multiple members and stakeholders with diverse perspectives, needs and relationships. Socio-cultural complexity should be assumed.
- The subject matter addressed by MRC SIG will create technical complexity, if only because of the uncertainties involved.
- It will operate over sufficient timescales to experience temporal complexity and emergence.
- MRC SIG will have a great deal of freedom in how it operates, and few precedents – these factors inherently create both structural and directional complexity.
- Membership is voluntary, so individual priorities and issues may override interest in remaining with, and contributing to, MRC SIG.



ICCPM manages the SIG as a system:

- MRC SIG was established under a “System Design Directive” that specifies the system characteristics required of MRC SIG.
- Operation of MRC SIG is expected to reflect the principles and practices of applied systems thinking.
- Core to MRC SIG’s success will be how well relationships, collaboration and other key socio-cultural factors are managed.
- SIG members will be allowed significant freedom, within boundaries, to self-direct what MRC SIG explores or works on, and how.

For further context and information about MRC SIG as a system, see Appendix 2.

3.3 Roles and responsibilities

System (MRC SIG) Owner: CEO ICCPM.

The system owner has the authority to start or stop the system, or to change its purpose and function. Specifies the system purpose, constraints, boundaries etc. Resources the system. Monitors system performance.

System Custodian: ICCPM Director, Industry Liaison and Member Services

The system custodian is responsible to monitor how well and whether MRC SIG is working as intended and to energise actions/response as necessary.

System Operators: MRC SIG co-chairs (two volunteers):

The system operators (co-chairs) are responsible for setting up and managing the work of MRC SIG in accordance with this Directive, reporting to the System Custodian.

Role of the Co-chairs. The two volunteer MRC SIG Chairs should:

- Establish a way of operating for MRC SIG, reflecting the requirements and intent of this directive.
- Identify indicators and measures of MRC SIG performance reflecting MRC SIG outcomes specified earlier in this document. Submit those indicators and measures for approval by the System Owner.
- Monitor and report MRC SIG performance against approved indicators and measures
- Integrate across the work of any SIG working groups.

3.4 Constraints and boundaries

The boundaries of MRC SIG as a system include:

- Topic: - Its special interest is the management of risks in complexity
- Membership: - Direct involvement is limited to ICCPM partner organisations and individual members
- Policies: - The policy constraints imposed by ICCPM (see below)
- Time: - Although MRC SIG is not time limited, it will be subject to ongoing review, authorisation and resourcing by ICCPM.

SIG activities must reflect ICCPM's SIG policies including:

- Unconstrained membership.
- International.
- Open dialogue, inquiring, contributing, positive, sharing.
- Online events must be on ICCPM's platform.
- MRC SIG administration (e.g., membership, meeting dates/times, discussion forums) will be managed through facilities provided on the ICCPM website.
- At least four full MRC SIG meetings per year.

MRC SIG activities must align with and support ICCPM's priorities and initiatives.

3.5 Stakeholders

ICCPM, its partners and members, and MRC SIG members themselves are key stakeholders of MRC SIG and hence are part of MRC SIG as a system.

There are also indirect stakeholders (such as project managers and organisations not part of ICCPM) that may both be impacted by and may impact upon this work. As well, stakeholders such as professional bodies, key project organisations and Government can and do influence ICCPM's reputation and options.

In this context, MRC SIG and its members must remain aware of the diversity of stakeholders and their importance. Remaining connected with stakeholders and (as appropriate) communicating with them in their terms will be important. Issues of worldview and perception must be part of this.

3.6 Membership

Membership is open to all members of ICCPM.

ICCPM members who are interested in MRC SIG should log onto the ICCPM website (<https://iccpm.com/>) and navigate to Resource Centre/ Communities of Practice and Special Interest Groups.

Membership of MRC SIG is conditional on appropriate behaviours, matching the purpose and values of ICCPM and of MRC SIG Expected behaviours are identified in Appendix 1.

3.7 Resources

ICCPM will provide web-based support for the administrative of MRC SIG. For example, membership and event management, collaboration forums.

3.8 MRC SIG Co-chairs

MRC SIG will begin with two co-chairs nominated by ICCPM.

Co-chairs are expected to demonstrate behaviours consistent with Appendix 1.

A key role of the co-chairs is to enable an open environment within MRC SIG and the Working Groups that supports engagement, sharing and enthusiasm and self-direction within the scope of MRC SIG purpose and role.

MRC SIG Co-chairs will change from time to time. Any member of MRC SIG can be nominated (or self-nominate) at any time, to become a co-chair. A change of co-chairs requires agreement of (1) MRC SIG members (2) ICCPM.

3.9 Performance and reporting

Success (performance) will be monitored based on the indicators identified in Section 2.5.

MRC SIG will report to ICCPM on its progress and performance, within two weeks of each full MRC SIG meeting, commencing with the second meeting.

Each full meeting of MRC SIG will also be a gateway check/review, to test for feedback and to determine/confirm whether how MRC SIG is operating should change. Key to this will be feedback from MRC SIG members as well as feedback from ICCPM and other stakeholders.

Clear, precise, optimal outcomes and outputs may not always be possible. This will influence perceived value and performance. Working groups may need to focus on satisficing solutions that will provide some value, rather than maximum value. This will also require ongoing integration and negotiation between MRC SIG, ICCPM and its stakeholders.

4 MRC SIG Routines

4.1 MRC SIG Meetings

MRC SIG meetings will be held once approximately each three months, although this can be varied if desired by members.

Dates and times for upcoming meetings of MRC SIG will be available on the ICCPM website and in issues of the Connect Magazine.

The time of day of meetings will vary to make it easier for international members to join in and to best suit the needs of the members expected to attend.

Each meeting will be one hour, followed by a 30 minutes "open session".

Meetings will be conducted using Microsoft Teams, with ICCPM as the host:

- Meetings will be recorded to facilitate the creation of meeting summaries:
- Recordings of meetings will be made available, on ICCPMs SIG website, for viewing by those MRC SIG members who could not attend. This is of particular value for international members in difficult time-zones.
- Recordings will not be made available outside MRC SIG and will be deleted after 3 months.

Members of MRC SIG will be able to adapt/change the agenda of meetings and to decide the topics discussed.

MRC SIG meetings will act as gateway points, with reporting back from Working Groups on progress and outcomes.

A written summary of each meeting will be made and will be available on the ICCPM MRC SIG web site.

4.2 Working Groups

At each MRC SIG meeting, those present will be asked to nominate and agree up to three practical topics of interest to be pursued by working groups over the next three months.

To be agreed as a Working Group Topic:

- The topic must have at least three members willing to actively take part in a series of more frequent working group sessions.
- There must be an agreed practical, useful objective that can feasibly be achieved within three to nine months.
- An MRC SIG member must be willing to coordinate/lead the efforts of each Working Group.
- A date should be set for the first Working Group meeting.

One of the two MRC SIG Co-chairs will attend each Working Group meeting. This will facilitate integration and sharing between Working Groups. It will also enable easier administration of meetings and recording/reporting of progress.

Working Group meetings will use Microsoft Teams, with ICCPM as host. Meetings will be recorded and managed in the same way as MRC SIG meetings.

Working Groups can determine how they operate including how often they meet, who coordinates group, and how to achieve their objectives.

Working Groups will be required to:

- Work within the scope/topic agreed when the Working Group was formed. If material changes are needed, this should be referred to MRC SIG Co-chairs for concurrence.
- Strive to deliver practical, real outputs ranging from short papers on a topic to new models or tools. The exact nature of the outputs can be decided by the Working Group.

Report progress at each MRC SIG in a form that the Working Group can itself determine.

5 MRC SIG Evolution

5.1 Changes to operation

It is expected that MRC SIG will evolve over time as the study progresses, more effective approaches to research emerge, communication improves, and as the study into risk in complex projects moves into new topics and different fields of thought.

As changes in how MRC SIG operates occur, they will be recorded to assist future SIGs in their own endeavours.

5.2 MRC SIG Exit Strategy

MRC SIG will operate for at least 12 months.

After the first SIG meeting of each calendar year, the owner, custodian and current co-chairs will review progress MRC SIG and decide whether it should:

- continue to operate for another year
- operate in a modified form
- terminate immediately or at some future time.

The views of MRC SIG members and ICCPM members will be sought before any major change is made and taken into account.

Possible reasons for ceasing or modifying how MRC SIG operates include:

- ICCPM and key MRC SIG stakeholders are satisfied that its task(s) have been completed.
- The work of MRC SIG no longer aligns with the objectives set by ICCPM;
- membership of MRC SIG falls below the minimum set by ICCPM; or
- ICCPM is no longer able or willing to provide the support to MRC SIG to enable the work to continue.

5.3 Working Group Exit Strategy

A working group may cease operating when a majority of MRC SIG members are of the view that:

- The Working Group has completed its tasks(s);
- The Working Group is no longer viable or functional due to lack of members or for any other substantive reason.

Appendix 1. Expected Behaviours

1.1 Collaboration

- Collaboration should be communicated as a value, not as a priority to be traded off against cost and schedule
- Make clear the guidelines and rules set by ICCPM for MRC SIG, and the resources available
- Do not enforce uniformity across teams – allow as much autonomy as possible, with the internal structure and dynamics emerge within a framework of collaboration
- Give honest information about collaboration performance, even if it is not well received
- Follow through on commitments, and act consistently in any setting
- Call to account poor or inappropriate behaviours or performance
- Treat others with respect and dignity
- Demonstrate personal concern for well-being of others
- Address short-term imperatives without losing sight of long-term objectives; learn from experience and embrace changes
- Aim to foster mutual understanding
- Actively use the ICCPM knowledge network to ensure effective sharing.
- Appreciate and respect differences in cultures; be proactive to resolve potential difficulties and overcome barriers
- Manage relationships within teams, and with MRC SIG and ICCPM. Escalate any issues that are unresolved beyond one meeting to the Chairperson(s)
- Understand and support others in the achievement of their goals and interests, that may be different to yours
- Accommodate the needs of all stakeholders in order to deliver shared goals
- Avoid micromanagement
- Act in the best interests of the joint effort
- Negotiate with the joint objectives in mind

1.2 Respect

- Members of MRC SIG may come from a wide range of experiences, qualifications, knowledge and world views. The success of MRC SIG and Working Groups depends on all members being fully included in conversations and discussions, and respect should always be shown to all members to encourage open engagement and sharing.
- Members of MRC SIG and/or Working Groups should show sensitivity and respect for others' feelings, cultures and beliefs, and show respect for diversity.

1.3 Innovation

- Technical teams can have a tendency to focus on earlier experience, and develop blind spots which result in important contributions from others are overlooked. In addition, teams can lose focus on the original objectives, and spiral off into interesting, but unrelated blind gullies.

- It will be essential that MRC SIG maintain open communication, with the willingness to challenge teams, ensure focus remains on ICCPM's satisficing zones, and not allow innovation to become the goal in itself.

1.4 Communication

- Communication and the sharing of knowledge, experience and research outcomes will be critical to the success of MRC SIG.
- Rich and frequent communication needs to be encouraged in order to maintain some sense of alignment across the SIG. Possible solutions to aspects of the SIG, identification of new areas of uncertainty, and agreement on resolution of uncertain aspects of the SIG need to be shared.
- The MRC SIG itself may provide opportunities to see risk issues emerging in a complex project, so communication on what is happening for participants may provide a rich source of data.
- Encourage frequent and rich internal communication between teams, through knowledge sharing, meetings and discussions.
- Encourage transfer of information between teams and with ICCPM about where tentative solutions have been found, where new areas of uncertainty have been uncovered, and which areas of uncertainty have been resolved.
- Encourage each team to separately take new information into account in their ongoing efforts
- Listen effectively, respect opinions of others.
- Communicate effectively, consistently, openly, honestly and in a responsive manner.
- Communicate critical issues to ICCPM and manage the expectations of ICCPM throughout the life of the SIG.
- Ensure consistency across the project at review gateways.

1.5 Information and knowledge sharing

- Learn from and share experience.
- Engage and encourage others to relate their experiences.
- Apply constructive questioning and give open and honest feedback.
- Facilitate creativity in others by encouraging challenge and new ideas.
- Respect the experience and knowledge offered by others. Respect the Intellectual Property associated with material provided by others.
- Balance risk and reward when considering innovative thinking and future possibilities.
- Consider the possible future implications of current issues.
- Support experimentation, case studies and discovery whilst maintaining a realistic timeframe.
- Papers and other outputs.

1.6 Relationships

- Identify where relationship issues are emerging within teams, between teams, or between teams and stakeholders, and escalate the issues to the chairperson(s).
- protect, nurture and motivate teams.

- Recognise individuals and show appreciation for good collaborative behaviours, in order to ensure that the positive behaviour is repeated. The Chairperson(s) should ask to hear about any concerns or challenges individuals see as preventing collaborative working and commit to helping them address those challenges. Follow up on any commitment or ensure building of trust.
- Encourage teams to discuss collaboration concerns amongst themselves.
- If team members leave the SIG, seek to understand any factors that may have contributed to their leaving.

1.7 Leadership

- MRC SIG encourages leadership to emerge from members of MRC SIG on any particular topic and on aspects of the operation of MRC SIG.

1.8 Flexibility

- Encourage team to be quite flexible, responsive to environmental changes, and able to assume new forms.
- Be willing to change course on a topic, if outcomes of other teams show greater potential in other directions.
- Be willing to 'burn your darlings' if the topic or approach is not effective.

Appendix 2. The MRC SIG system

Traditional project management tools and techniques assume that a set of tasks can be discrete, with well-defined information about time, cost, and resources, and with extensive pre-planning and control. This assumption is now understood to be inappropriate for all but the simplest of projects.

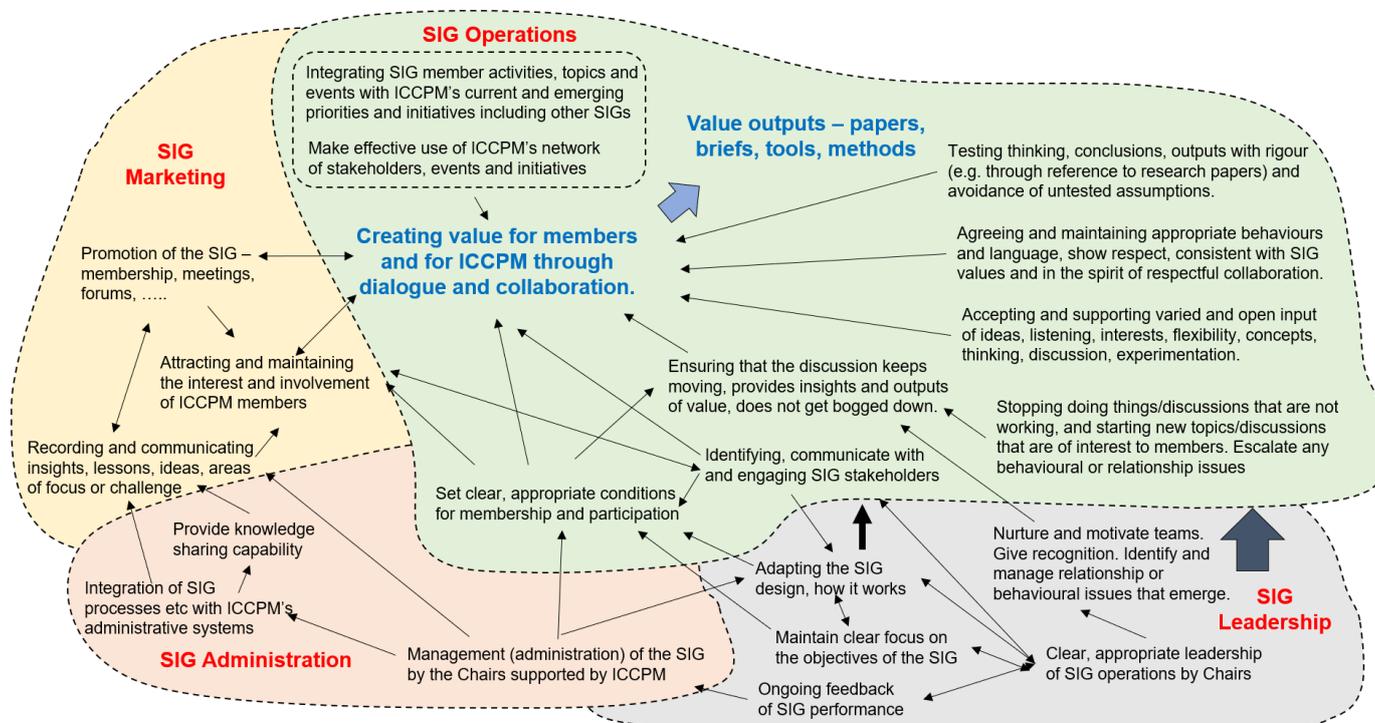
Approaches to managing risk in projects that utilise linear approaches can provide project managers with unrealistic risk estimations ignoring multiple feedback processes, interrelated project components, irrational human behaviour and nonlinear relationships of the project.

As awareness and experience of complexity and risk in small to large projects increases, alternate approaches to understanding and managing risk are emerging, and may provide some useful approaches to enabling more effective decision making in an environment of uncertainty. Hence MRC SIG assumes:

- It is worth further exploring and extending how we understand and manage risk in complex projects;
- The concepts, methods and tools involved solution will be multi-faceted, with application depending on the context, the nature of the project, and the likely risks; and
- Effective solutions and new value are more likely to emerge through conversations between a widely diverse group with variety of lived experience, perceptions, knowledge, and approaches.

It is likely that other bodies will also be working on matters associated with risk in complex projects. MRC SIG should be open to external input and to work collaboratively with external organisations where value for both parties justify the effort.

Indicative MRC SIG System Map



MRC SIG core sub-system: Creating value for members and for ICCPM through dialogue and collaboration.

