

PROMOTING WORLD-CLASS SOFTWARE DEVELOPMENT IN THE **TORONTO** AREA

TORONTO

SOFTWARE PROCESS IMPROVEMENT NETWORK

Toronto SPIN

Perceptions and Needs Survey
Results

Final v1.02

Content

1. **Executive Summary**
2. **Conclusions and Actions**
3. **Appendix
Detailed Results**

Content

1. Executive Summary
 - 1.1 Why
 - 1.2 How
 - 1.3 Summary of Results
2. Conclusions and Actions
3. Appendix
Detailed Results

Why a Survey

- Steering Committee wanted to understand:
 - The level of interested in, and the importance of CMMI®
 - The level of interest in formal process improvement
 - Whether the programs / speakers were delivering value
- Hypothesis
 - Use of CMMI was based on the need to show competitiveness compared to off-shore development houses
 - CMMI users, particularly maturity level 4/5, were perceived as not delivering promised quality and as inflexible
 - Newer approaches such as Agile were perceived as in conflict with CMMI principles

® CMMI, Capability Maturity Model, Capability Maturity Modeling, and CMM are registered in the U.S. Patent and Trademark Office by Carnegie Mellon University.

How

- Online survey with 3 major categories:
 - What is the interest in formal process improvement in general and CMMI in particular?
 - What are the community's interests and needs in the area of software process improvement?
 - What is the perception of T-SPIN?
- A few follow-up interviews based on survey results
 - 7 interviews were conducted.

Demography

- 51 respondents
 - 29% from consultant organizations
 - 23% from financial industries
 - 8% from manufacturers of computers, IT equipment or software

- Type of software development
 - 67% In-house information systems
 - 31% Develop and market a software product
 - 35% Software is the value-add/differentiator in the product

CMMI - Summary

- The majority of respondents were either users of CMMI or software CMM, so there were no overly negative opinions
- Many used the model as a source of best practice, but did not feel the need for formal appraisals, due to the effort and cost of an appraisal
- Some were involved in programs to achieve higher maturity levels, which they felt was beneficial
- Many in the Toronto SPIN community did not follow along in the evolution from CMM to CMMI, to the extent that some feel “CMMI damaged SPI”

Software Process Improvement (SPI) - Summary

- SPI is seen to be of value by practitioners and upper management, but it is more challenging to convince clients and colleagues of the value.
- CMMI is only one part of the SPI spectrum. It is the most adopted, but others (ISO and ITIL in particular) are now very close. CoBIT and Six Sigma are well known, but not well adopted.
- Cost is a major barrier to implementing SPI.
- SPI is seen to be of most benefit to large companies. Well known SPI practices are sometimes considered to be difficult to implement in small organizations. Larger companies are more likely to see the value and feel they can afford to implement SPI.
- Formal solutions are often used as general frameworks, or guidelines around in-house solutions.

Toronto SPIN (TSPIN) - Summary

- Most organizations support employee involvement in TSPIN activities.
- Regular TSPIN events are required with broader topics that are of interest and relevance to the Canadian environment.
- TSPIN events need to address the needs of members who are not able to attend downtown events (e.g. north-end locations; webinars).
- Most survey respondents were willing to volunteer for TSPIN events depending on the location.
- Respondents could not commit to becoming TSPIN sponsors, either because they are not authorized for this type of spending, or because they need to see a full calendar of TSPIN events before committing funds.
- Members are not concerned about the nominal fees charged for events as they deliver high value.
- Most members feel TSPIN delivers value to the community and appreciate the opportunity to network and learn from qualified speakers.

Content

1. Executive Summary
2. Conclusions and Recommendations
3. Appendix
Detailed Results

Conclusions and Recommendations

- TSPIN should continue to keep members informed of the evolution of the CMMI model (since SPINs are an outcropping of the SEI, evolving from the need to create a community of (software) CMM users)
- In parallel TSPIN must provide members with information on best practices and real experience from industry
- TSPIN should promote healthy debate on the merits/demerits of various practices but not encourage method wars.
- TSPIN must have more regular and frequent events at multiple locations around the Greater Toronto Area
- TSPIN needs to provide innovative ways for members to participate and collaborate

Content

Appendix

Content

3. Detailed Results

3.1 Background

3.2 Method

3.3 CMMI

3.4 Software Process Improvement

3.5 Toronto SPIN

Background (1 of 2)

- Steering Committee wanted to understand:
 - The level of interested in the importance of CMMI®
 - The level of interest in formal process improvement
 - Whether the programs / speakers were delivering value
- Hypothesis
 - Use of CMMI was based on the need to show competitiveness compared to off-shore development houses
 - CMMI users, particularly maturity level 4/5 were perceived as not delivering promised quality and as inflexible
 - Newer approaches such as Agile were perceived as in conflict with CMMI principles

® CMMI, Capability Maturity Model, Capability Maturity Modeling, and CMM are registered in the U.S. Patent and Trademark Office by Carnegie Mellon University.

Background (2 of 2)

- A survey working group tasked with:
 - Preparing a survey for all TSPIN members and non-members
 - Conducting interviews with volunteers (minimum of 5) to better understand survey findings
 - Developing conclusions
 - Presenting results to T-SPIN steering committee and T-SPIN members
 - Sharing results, if pertinent, with SEI

® CMMI, Capability Maturity Model, Capability Maturity Modeling, and CMM are registered in the U.S. Patent and Trademark Office by Carnegie Mellon University.

Content

1. Executive Summary
2. Conclusions and Actions
3. Detailed Results
 - 3.1 Background
 - 3.2 Method
 - 3.3 CMMI
 - 3.4 Software Process Improvement
 - 3.5 Toronto SPIN

Method

- Online survey with 3 major categories:
 - What is the interest in formal process improvement in general and CMMI in particular?
 - What are the community's interests and needs in the area of software process improvement?
 - What is the perception of T-SPIN?
- A few follow-up interviews based on survey results
 - 7 interviews were conducted.

Demography

- 51 respondents
 - 29% from consultant organizations
 - 23% from financial industries
 - 8% from manufacturers of computers, IT equipment and software

- Type of software development
 - 67% In-house information systems
 - 31% Develop and market a software product
 - 35% Software is the value-add/differentiator in the product

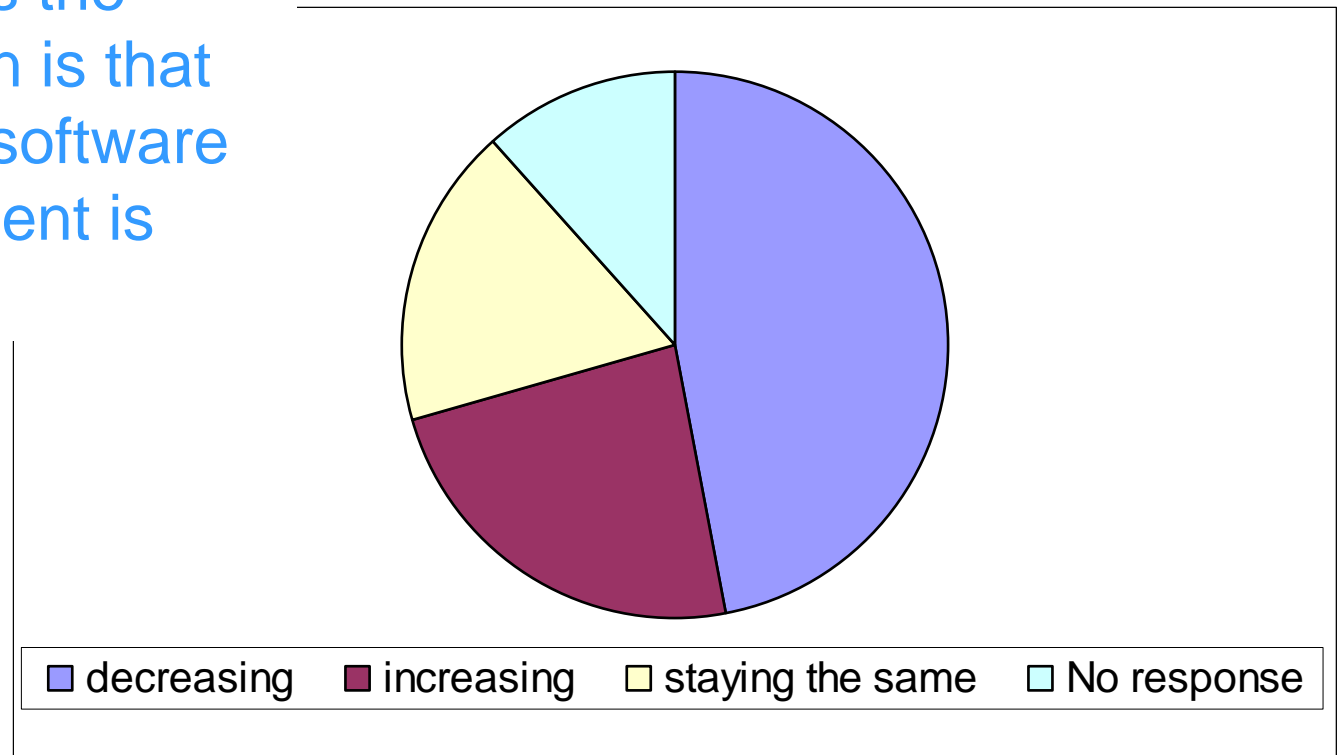
Demography

- Respondents

- Approximately 50% worked in companies with > 5000 employees.
- 72% older than 39 years.
- 57% had university level education
- 34% had post-graduate training
- 17+ years of software development experience in average
- 32% occupied specific process improvement roles
- 15% were in Quality/Testing
- 15% were in Consulting
- 14% were in senior management

Software Development Trend

Based on 45 responses the perception is that in-house software development is declining



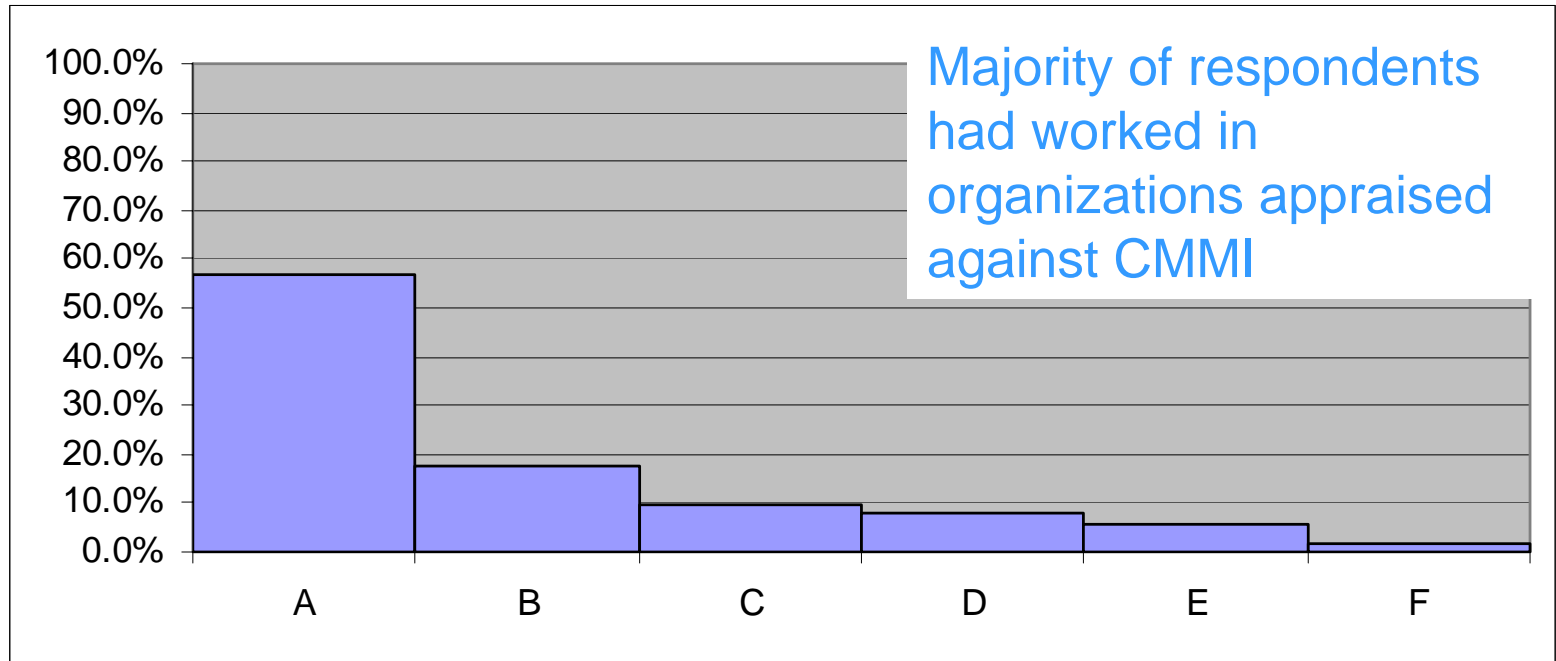
Content

1. Executive Summary
2. Conclusions and Actions
3. Detailed Results
 - 3.1 Background
 - 3.2 Method
 - 3.3 CMMI**
 - 3.4 Software Process Improvement
 - 3.5 Toronto SPIN

CMMI

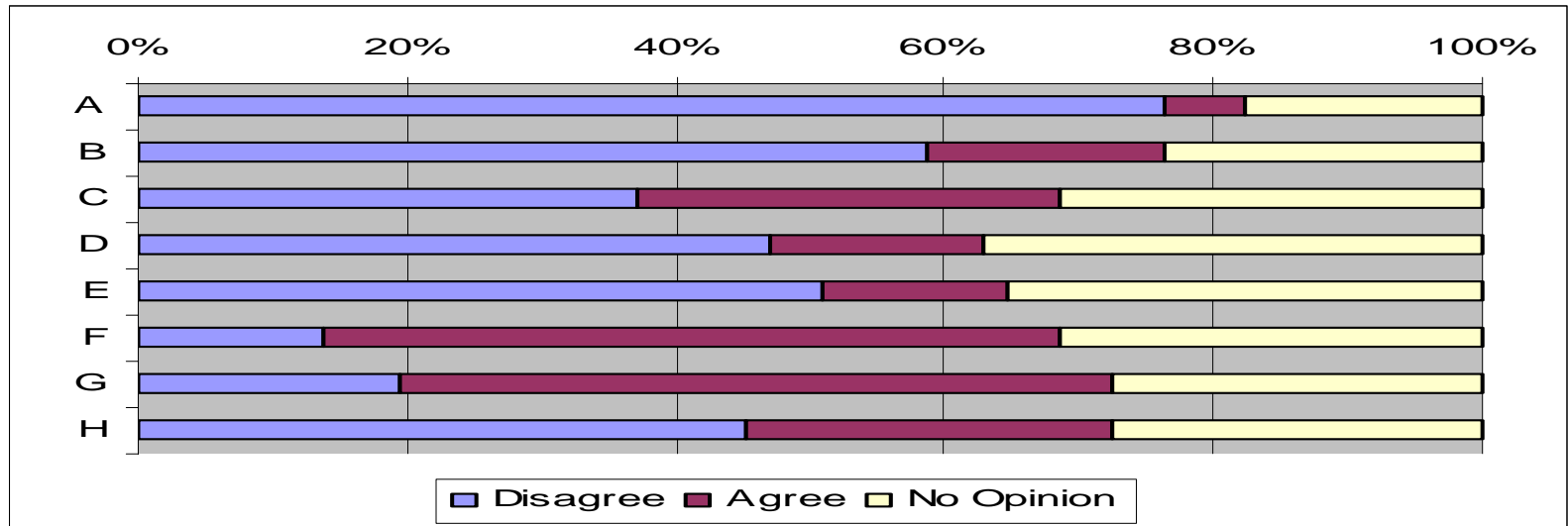
- The majority of respondents were either users of CMMI or software CMM, so there were no overly negative opinions
- Many used the model as a source of best practice, but did not feel the need to be appraised at a certain level, due to the effort and cost of an appraisal
- Some were involved in programs to achieve higher maturity levels, which they felt were beneficial
- Many in the Toronto SPIN community did not follow along in the evolution from CMM to CMMI, to the extent that some feel “CMMI damaged SPI”

Level of Familiarity with CMMI



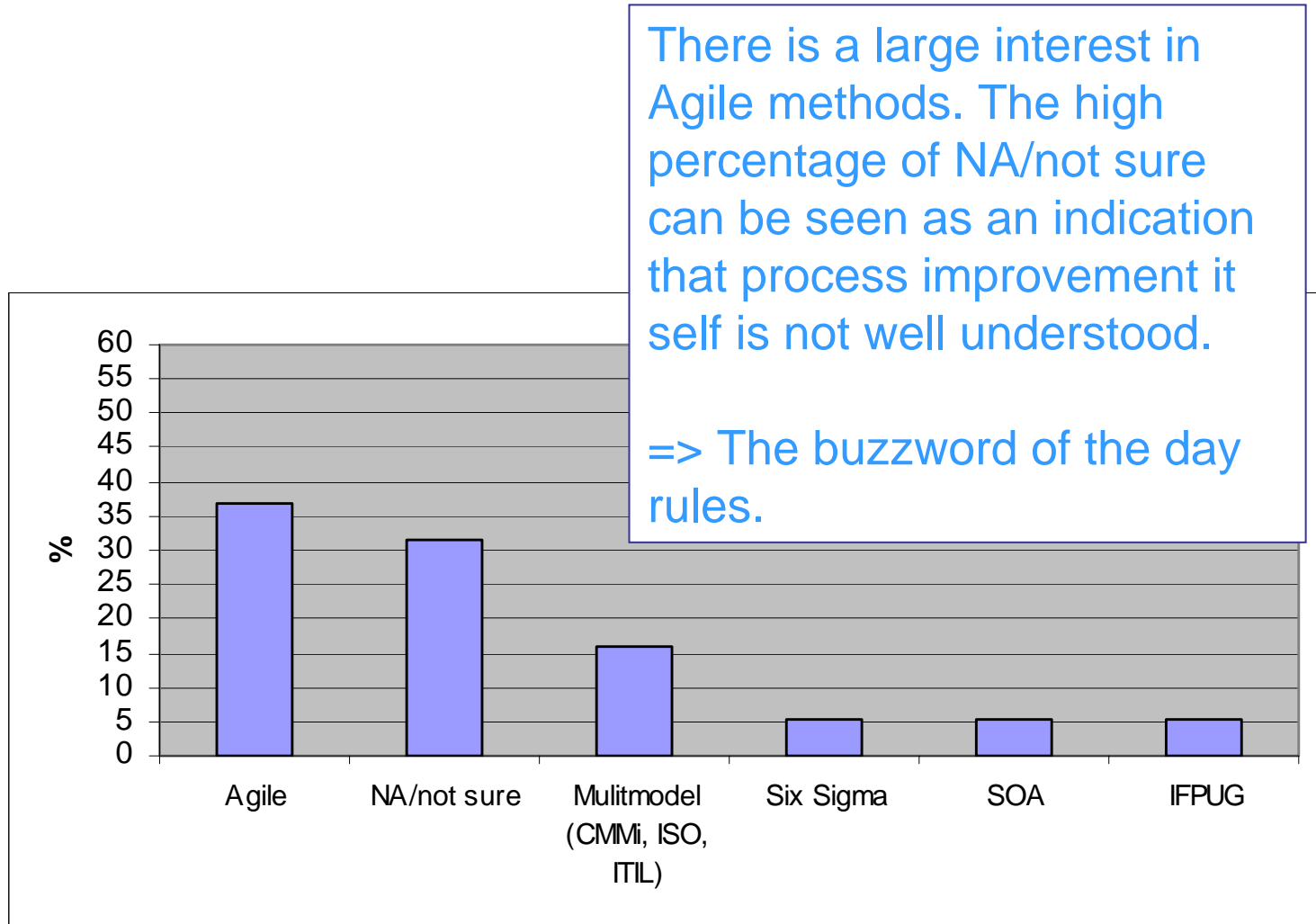
- A Worked in organization appraised against CMMI
- B Familiar with concepts and structure of CMMI
- C CMMI instructor and/or appraiser
- D Heard the acronym
- E No response
- F Contacts with organization using CMMI

What CMMI has to offer



- A Achieving a CMMI maturity level is a marketing gimmick
- B CMMI maturity level 4/5 organizations tend to be slow and inflexible
- C CMMI maturity levels useful, but cost of formal appraisal prohibitive
- D CMMI is not compatible with Agile methods
- E Other models/standards (eg. ISO, ITIL, CoBIT) more useful
- F CMMI continuous is useful
- G Familiar with CMMI continuous
- H CMMI is a best practice reference, an appraisal is of no value

Level of Interest in non CMMI Models and Standards



WM11 compare to rest of orld
Winifred Menezes, 1/11/2008

WM12 remove not sure
Winifred Menezes, 1/28/2008

CMMI

- CMMI-Related Interview Comments
 - First interviewee – Financial
 - Familiar with CMMI but it is not practiced in the organization.
 - Interest in the CMMI model stayed the same in the last years.
 - CMMI is a good model to be implemented because it is structured and has a framework designed.
 - Using the assessments for achieving different levels is valuable because this involves commitment from teams and senior management and also they can take advantage of the reports concentrating on areas were they are advised to make improvements.

WM13 put in industry (financial)
Winifred Menezes, 1/11/2008

CMMI

- CMMI-Related Interview Comments
 - Second interviewee –Consultant:
 - Customers generally are aware of model but not really aware of what it means. Would not know the difference between CMM and CMMI or what levels mean. Level 4/5 is not associated with bureaucracy
 - Same with ISO – can't really describe what it is.
 - Choice of suppliers is dependant on the cost of the service first and quality second, though the acquisition process does specify levels of quality.
 - Medium sized companies are attracted to new ideas only from a concept viewpoint. The benefit must be presented as a short payback period, regardless of whether they build software products or create software for internal use.

CMMI

- CMMI-Related Interview Comments

- Third interviewee – Manufacturing:

- Interested in specific areas – requirements management, requirements development and new technology introduction.
 - Product is leading edge technology - important for our customers to plan introduction of new technology.
 - Requirements Definition - strong marketing organization. Our direction described to customers who provide feedback in real time. We simulate results before developing the product. We push back on demands for immediate changes.
 - Senior management is experienced and they deal with clients – push back pretty hard – we listen to clients but don't tie to a sale.
 - Use CMMI as best practices as a reference – an underlying foundation.
 - Best practices don't go beyond maturity level 3. Not sure what parts of the organization could benefit from maturity levels 4 or 5.
 - Achieving certification is not that important in Canada especially among public companies. Could be the Canadian culture.
 - There are few leader companies in the Toronto area. Montreal used to have a strong community in the late 90's. Ottawa too.
 - Executives expect investments in new technologies and methods to turnaround in short timeframe.
 - SEI shot themselves in the foot. They lost a lot of people with the CMMI. They took a simple framework, expanded it cut-it up made it difficult to explain to people and lost a lot of people. Complexity increased with 2 model documents. The latest is better with one document. The real 'art' is to simplify the concepts so that they can be understood and followed.
 - The importance of achieving a maturity level would depend on the reasons for achieving the level

CMMI

- CMMI-Related Interview Comments
 - Fourth interviewee – Software Development:
 - Works for organization that has achieved Maturity Level 3 and is working toward Maturity Level 5.
 - CMMI is a good and useful marketing tool.
 - Certification is an immense exercise. Then we have to close the few existing gaps
 - Maturity Level 4/5 is not about processes but how to improve and change.
 - All organizations need to establish mature processes. The more process oriented the organization gets, the more rules there are. This means rules are enforced which results in less flexibility.
 - Typically those responsible for the processes are responsible for the transition from CMM to CMMI. People in the projects are not affected. They have their processes.

CMMI

- CMMI-Related Interview Comments

- Fifth interviewee – Financial

- The interviewee is the SEPG chair and is familiar with CMMI.
 - Interests in the CMMI model grew in the last years as the department is moving to CMMI Level 5 in 2008 and other departments in the organization will be having CMMI assessments.
 - CMMI is a good model. Using the model helped the organization to be mature, and deliver products better, faster and cheaper. Following CMMI model is a way to manage an integrated approach to the software and system engineering as part of reaching the business objectives.
 - The model focuses on improving processes and helps manage an evolutionary improvement. CMMI provides an opportunity to eliminate existing organizational barriers. The flexibility built into the model allow each organizations to interpret practices using knowledge of CMMI, the organization, the business environment and the circumstances involved

CMMI

- CMMI-Related Interview Comments
 - Sixth interviewee – Software Development:
 - Familiar with CMM/CMMI model. Information on the model was imparted within organization via management.
 - Implementation of CMM/CMMI model practices is time consuming.
 - Improvements, best ideas and good initiatives are implemented and maintained independent of specific models. The organization does not practice CMMI related activities.
 - The interest in the CMMI model is growing based on the customer expectations and industry trend.
 - Has not noticed differences between CMMI appraised and not appraised companies.
 - An open mind is maintained related to best practices in the Marketing area.

CMMI

- CMMI-Related Interview Comments
 - Seventh interviewee – Consulting
 - Beginning to second guess the decision on ISO. ISO is not easily geared to software development
 - The value of high maturity companies really hit home during SPIN meeting when speaker spoke of the value of getting to level 3
 - CMMI has benefit of having lower stages (1-2-3) which allows you to move in smaller steps
 - Certification has big benefit – allows company to advertise and increase sales

Content

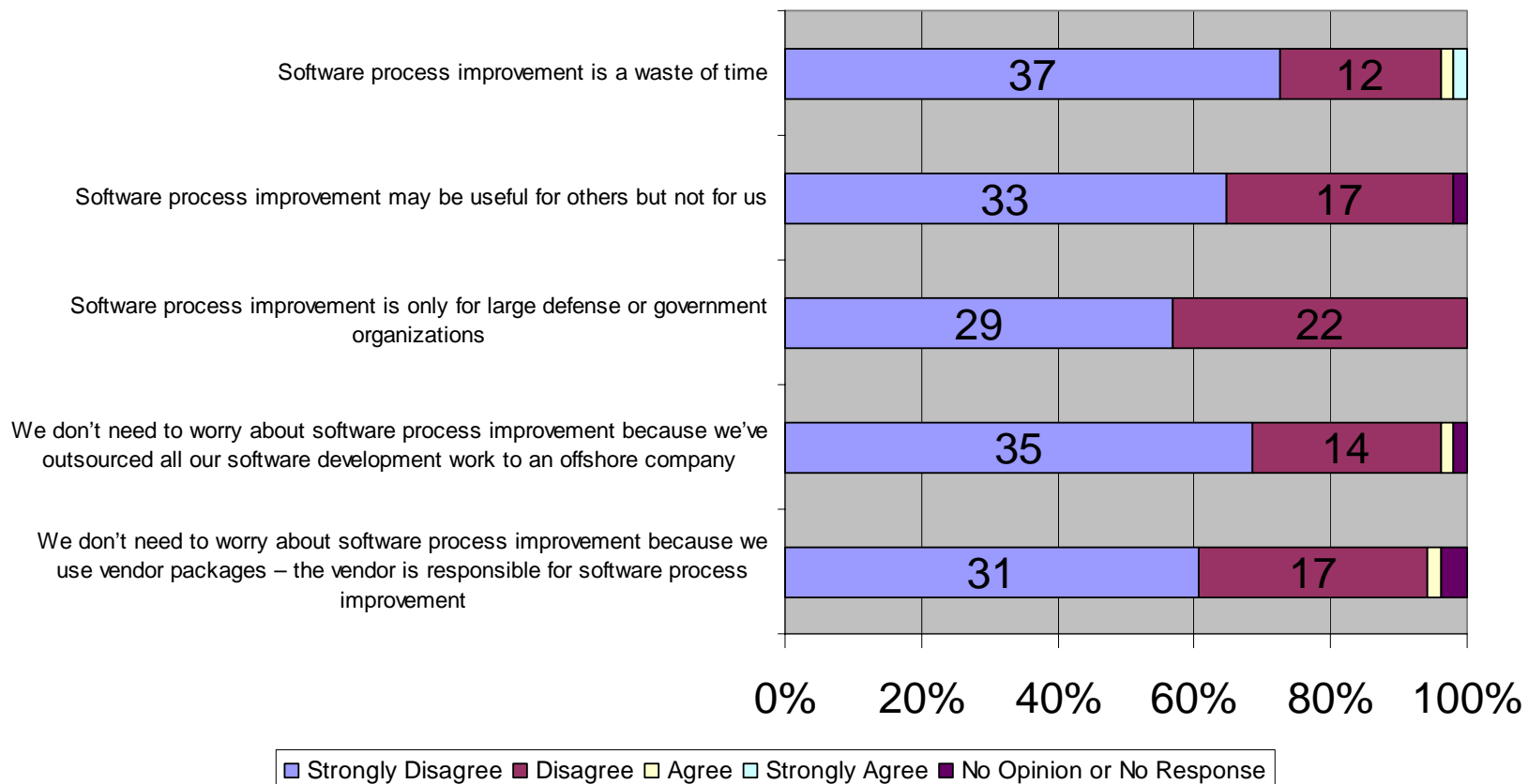
1. Executive Summary
2. Conclusions and Actions
3. Detailed Results
 - 3.1 Background
 - 3.2 Method
 - 3.3 CMMI
 - 3.4 Software Process Improvement
 - 3.5 Toronto SPIN

Software Process Improvement (SPI)

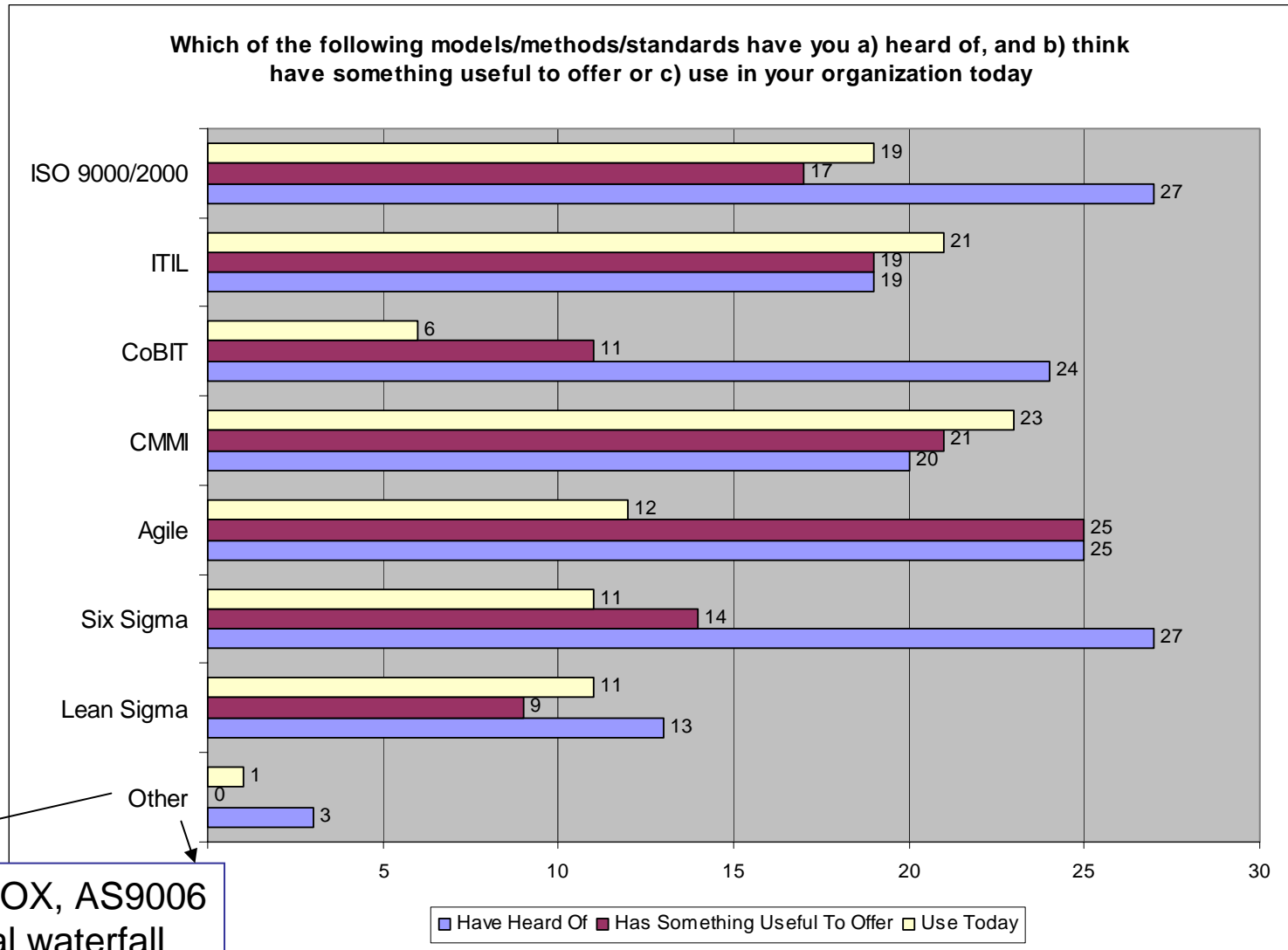
- SPI is seen to be of value by practitioners and upper management, but it is more challenging to convince clients and colleagues of the value.
- CMMI is only one part of the SPI spectrum. It is the most adopted, but others (ISO and ITIL in particular) are now very close. CoBIT and Six Sigma are well known, but not well adopted.
- Cost is a major barrier to implementing SPI.
- SPI is seen to be of most benefit to large companies. Well known SPI practices are sometimes considered to be difficult to implement in small organizations. Larger companies are more likely to see the value and feel they can afford to implement SPI.
- Formal solutions are often used as general frameworks, or guidelines around in-house solutions.

Software Process Improvement

Please indicate your level of agreement with the following statements (51 Responses) :



Software Process Improvement



SPICE, SOX, AS9006
Traditional waterfall

Software Process Improvement

- SPI-Related Interview Comments
 - First interviewee – Financial
 - SPI is very important for any organization; ISO, ITIL, CoBIT, Six Sigma, LeanSix Sigma and bank specific regulatory standards are used.
 - The more the effort and cost increase the chances to be implemented are considerably reduced.
 - The existence of multiple models is no problem even though some of the standards are overlapping

WM14 put in industry (financial)
Winifred Menezes, 1/11/2008

Software Process Improvement

- SPI-Related Interview Comments
 - Second interviewee –Consultant:
 - Process Improvement is not a need recognized at the first level by clients. They are usually faced with issues (Time to market, cost and quality). They don't see it as a need They don't know what SPI can do for them. They might perceive it as a heavy, bureaucratic overhead.
 - Believes that a code review is more effective than quality control – based on # of errors trapped/unit of time.
 - Companies are usually reacting rather than preventing – takes some coaching – have to build a business case and show that the dedication of resources is needed and demonstrate that the cost is justified.

Software Process Improvement

- SPI-Related Interview Comments
 - Third interviewee – Manufacturing:
 - Process Improvements are absolutely critical.
 - Need to become more formalized in order to attract clients (Fortune 500 companies) and investors.
 - CMM, AGILE RUP provide a process frame work – a boundary but leave the details flexible. We take the best practices and try to make them work for us. We focus on specific areas, such as more effective team work
 - Some of the founders of this company had their own ideas of how work was done and were not so receptive to standard processes.

Software Process Improvement

- SPI-Related Interview Comments
 - Fourth interviewee – Software Development:
 - Software Process Improvement is required to be more successful. It is important to deliver what is promised, in order to make customers happy.
 - Have an SEPG and major process improvement initiatives, but they have to be approved by upper management.

Software Process Improvement

- SPI-Related Interview Comments

- Fifth interviewee – Financial

- SPI is necessary for standardization, consistent planning, and tracking in order to establish performance capability for the development organization.
 - Assessed at CMMI Level 4 in October 2006 and ISO certified for Project Management, Requirement Management and Functional Testing processes.
 - Using SPI is important on many different levels; resource allocation, re-deployment, consistency in deploying processes among organizational groups.
 - It is also important in order to understand the capability of development and in order to accurately identify areas of improvements satisfying the business and client goals.
 - Factors that impact processes are: resource turnover, organizational changes, tools, training
 - Ideas for SPI are driven from the external assessments findings, internal audits, measurement trends and analysis, post implementation reviews from development initiatives.
 - Once the organization matured it was easier to implement new process improvement initiatives. Requirements for initiatives are based on data collected (measurements) and analysis.
 - Existence of multiple models is not a problem although some overlapping processes and procedures result in a considerable amount of work in order to eliminate redundancy.

Software Process Improvement

- SPI-Related Interview Comments
 - Sixth interviewee – Software Development:
 - Software Process Improvement importance is growing
 - The importance of processes more now than ever in a high-technology environment of the twenty-first century it should help building the more and more complex products. In time process improvement related disciplines will become a critical part of the business.
 - As a distributed organization best practices are considered the “consistent practices”.
 - Ideas are encouraged and sustained by the management. Maturity and expertise of resources lead to best practices and improvements are selected collaboratively.
 - Best Practices are organizational specific, Industry standards are not used.

Software Process Improvement

- SPI-Related Interview Comments
 - Seventh interviewee – Consulting
 - Trying to get company ISO certified. With company of , ISO cert has been difficult to get
 - 8 years ago – started with the company – no processes were in place. Now have libraries, test cases, still don't do formal unit testing
 - Electronic form of tracking deficiencies
 - Now have formal requirements – sign off – stops scope creep
 - Hard to get buy-in from fellow workers ; management is easier
 - Once show proof of value, it's a little easier
 - Looked at CMMI and ISO and chose ISO – company is geared towards the one mode

Content

1. Executive Summary
2. Conclusions and Actions
3. Detailed Results
 - 3.1 Background
 - 3.2 Method
 - 3.3 CMMI
 - 3.4 Software Process Improvement
 - 3.5 Toronto SPIN

Toronto SPIN (TSPIN)

- Most organizations support employee involvement in TSPIN activities.
- Regular TSPIN events are required with broader topics that are of interest and relevance to the Canadian environment.
- TSPIN events need to address the needs of members who are not able to attend downtown events (e.g. north-end locations; webinars).
- Most survey respondents were willing to volunteer for TSPIN events depending on the location.
- Respondents could not commit to becoming TSPIN sponsors, either because they are not authorized for this type of spending, or because they need to see a full calendar of TSPIN events before committing funds.
- Members are not concerned about the nominal fees charged for events as they deliver high value.
- Most members feel TSPIN delivers value to the community and appreciate the opportunity to network and learn from qualified speakers.

Toronto SPIN

- In what way(s) do you support your employees' volunteer involvement (attendee, speaker, trainer or committee member) in organizations like the Toronto SPIN?
 - Answered 24, Skipped Question 27
 - Response Summary:
 - Encourage people to attend, speak, or volunteer, as long as it does not significantly impact work.
 - Enforce mandatory volunteer and 'give back' requirements for maintaining professional certification within the organization.
 - Profession guides suggesting association presentations and volunteering as board members.
 - Provide approval for travel.
 - Provide time off during work hours to participate. This time is not billable, which will always carry some stigma, but participation is not punished or cause for disciplinary action.
 - Provide a 'training budget' for every employee which can be used for conferences, courses, or days off work to attend such events.
 - Provide reimbursement for attendance fees and membership dues.
 - Forward email and organizing a group to attend meetings.

Toronto SPIN

- The mission of Toronto SPIN is to “to promote world-class software development in the Toronto area and functions as a forum for the open exchange of software process improvement expertise, experience and ideas.” What kind of activities could TSPIN sponsor that you would see as valuable for your employees...that you would encourage your employees to participate in?
 - Answered 26, Skipped Question 25
 - Response Summary:
 - Have more activities in the northern part of the city - going downtown is out of their way.
 - Events on Estimation; Process improvement; Best Practices (how to improve software process without impacting flexibility and efficiency); Agile; Lessons Learned; Quality; Requirements; Standards; Benchmarking; Industry Average; ITIL; Value of processes; and process improvement.
 - There needs to be a greater marketing push from SPIN to “hit” a greater practitioner audience.

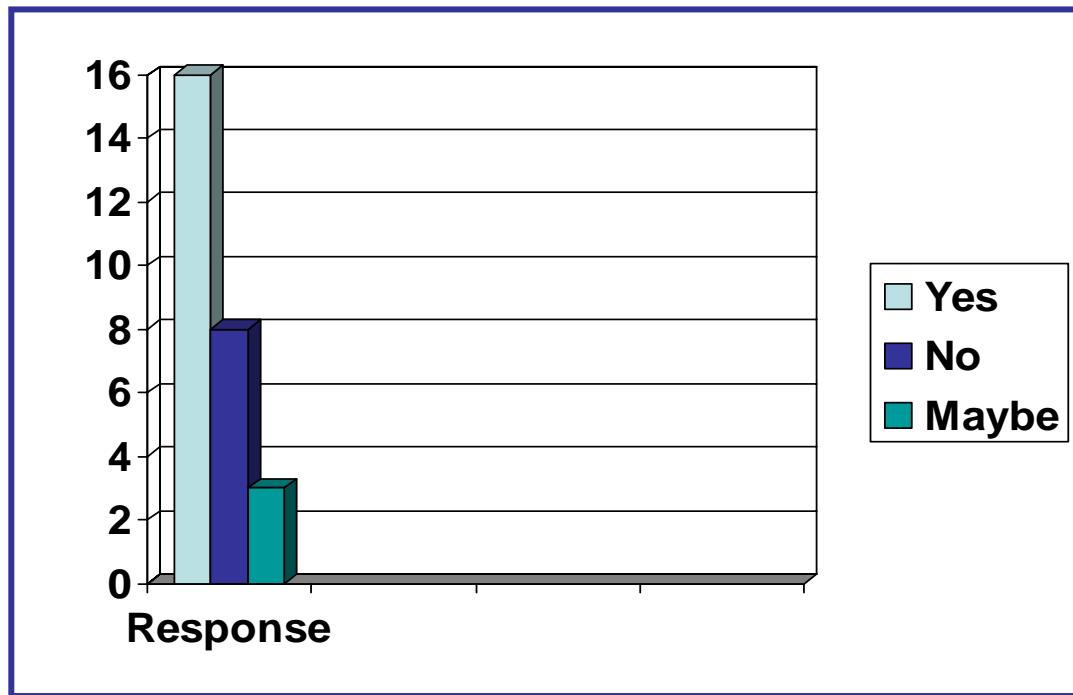
Toronto SPIN

– Continued

- Quality and requirements. This is our business.
- Mini 1/2 day or 1-day conferences on narrow topics, diving deep, rather than just 1 or 2-hour seminars that can only scratch the surface. Willing to pay for these events.
- Networking; exchange of ideas, expertise and project results; Current role-related networking
- Monthly meetings with a presenter; more events
- Well designed hands-on workshops.
- Webinars (for people / organizations not in Toronto); Establish a Waterloo-based chapter in the CTT area (Canada's Technology Triangle - Kitchener/Waterloo, Cambridge, Guelph)
- More emphasis on general business process improvement, not just software process improvement, i.e. a more holistic view.
- Sponsor events, training or seminar on the latest development in software development improvements - new models, new methods and compare to current ones;
- Speakers that know what is happening in Canada

Toronto SPIN

- Would you be willing to volunteer to help at a Toronto SPIN event?
 - Answered 27
 - Skipped Question 24

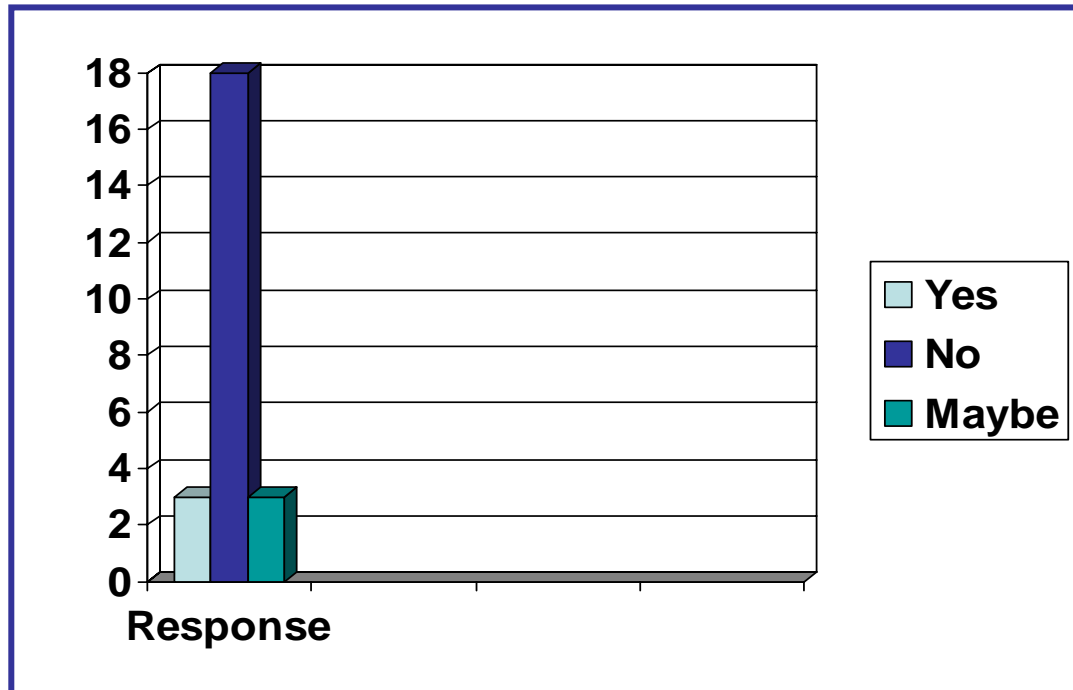


Key reasons for not volunteering:

- Too far from work location (Brampton/Mississauga)
- Commuting issues & time commitment

Toronto SPIN

- Would you be able to sponsor Toronto SPIN?
 - Answered 24
 - Skipped Question 27



Key reasons for not sponsoring:

- Unable to authorize this type of spending
- Need to see a full packed program of activities for a period of time

Toronto SPIN

- TSPIN-Related Interview Comments
 - First Interviewee - Manufacturing
 - TSPIN should introduce hot topics such as – AGILE, SCRUM – people are looking for the latest innovation.
 - Meetings during working hours somewhere along the subway line are good. Occasional one in the north would be OK.
 - Meetings every 3 or 4 months, taking holidays and summers into consideration.
 - Allow time for networking and try to bring in senior people.
 - Perhaps create a group within a network like LinkedIn.
 - Each person should go through an introduction – name, company, role or speciality 10-15 sec per person at the beginning - that way you know who to talk to during the networking break.

Toronto SPIN

- TSPIN-Related Interview Comments
 - Second Interviewee – Management Consultant
 - Better in the evening – near Union Station would be ideal.
 - Topics should be anything to do with process engineering (e.g. CMMI light; CMMI-ACQ {acquisition}); express the benefit, show case studies.
 - \$10 meeting fee is fair – can expense it. If it is a dinner, could be more.
 - Should be 1 event per month.
 - SPIN should organize an event and invite/ market to local companies. Generate some buzz in the community. Be seen as a Centre of Competence. Many of our customers don't know SPIN exists.

Toronto SPIN

- TSPIN-Related Interview Comments
 - Third Interviewee – Management Consultant
 - Bulletins and other reading material to take away are good (doesn't have to be published- can be on website).
 - Presentations on website are useful.
 - Meetings are good; Networking sessions are less useful but this could be due to some awkwardness - slowly getting more comfortable.
 - Mornings or afternoons are better. Evening travel is not preferred but an end time of 8:00PM would be acceptable.
 - Downtown is good since it is accessible to GO train and subway. Markham or Scarborough would also be acceptable.
 - Company reimburses for \$10 fee.
 - Evening courses spread across several days or full day courses are acceptable - the company encourages training

Toronto SPIN

- TSPIN-Related Interview Comments

- Fourth Interviewee – Software Developer

- The current focus of Toronto SPIN is OK.
 - The current meeting time is not convenient as it is not possible to attend during working hours. Evening would be better.
 - Downtown is the best possible location.
 - Can sometimes get compensation for the event fee, but \$10 is not an issue - if the fee was \$100 that might be an issue.
 - T-SPIN events should be 1 per 1.5 or 2 months, excluding July, August and December.
 - Courses for members is a good idea. A communication from T-SPIN once every month or 2 months would be OK. The training schedule could be put in this communication.

Toronto SPIN

- TSPIN-Related Interview Comments

- Fifth Interviewee – Financial

- SPIN as an organization that promotes software process improvement is very valuable.
 - Would like to see SPIN more involved is Benchmarking and Industry standards.
 - Employer allows staff to go to events related to process improvements. The preferred timing for events is from 4:00pm to 6:00pm and location in downtown or Mississauga to be more accessible. It would be preferable to pay fees at the door (they have an unpleasant experience in paying corporate fees but people not attending the events)
 - Interested in courses – mostly testing improvement related.

Toronto SPIN

- TSPIN-Related Interview Comments
 - Sixth Interviewee – Software Developer
 - Toronto SPIN is a useful organization, an opportunity to network with peers in other organizations to share ideas, share their experiences initiating and sustaining software process improvement programs of software process and a benefit for continuing education and personal development.
 - TSPIN events organization - Time - day-time or evenings after 7:30 PM; Location - subway access; Frequency – monthly; Fees - no concern (sample 20\$).
 - Not interested in TSPIN Courses.

Toronto SPIN

- TSPIN-Related Interview Comments
 - Seventh Interviewee – Financial
 - Promoting software process improvement via TSPIN is valuable in sharing information and experiences.
 - TSPIN should use all available channels to support SPI.
 - Employer allows staff to go to events related to process improvements. No preference for events time (afternoons is not a one day event) and preferred location, downtown. Also as frequency – quarterly.
 - Have internal training so less interested in SPIN courses.