Engaging the World
With the World’s Computer Society

IEEE Computer Society
Strategic Planning Handbook
Including SP-7

IEEE Computer Society
Proprietary

Approved November 14, 2011
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Preface

This document, “IEEE Computer Society Strategic Planning Handbook/Including SP-7” is 1) an up-to-date (2011) handbook for IEEE Computer Society (CS) strategic planning, and 2) the repository of the most current CS Strategic Plan (SP-7). The document represents a major revision to the document, 2008 Strategic Plan (SP-6) developed by 2009 President Susan K. Land when she chaired the CS Planning Committee in 2008. The original document consisted of a number of diverse components that focused on the history of CS strategic planning activities that finally culminated in the 2008 Strategic Plan. This handbook builds on and revises that document, and provides guidelines to CS Boards on how and when to do strategic planning. SP-7 is included in this particular document because it is the most current Computer Society Strategic Plan.

The procedures described in this Handbook retire the tri-yearly strategic plan revision process that was in effect from 1991 until now. These procedures focus upon annual and continuous review and revision processes that are common and widespread in industry, and are consistent with the Hay Group’s recommendation (Appendix B) for “transitional versus transformational change … [and for us to] revisit our plans throughout the year.”

This Handbook is to be used by the Planning Committee and the Board of Governors as a guide for the annual review and revision of the CS’s short- and long-term goals. The Handbook itself, as described in 2010 revisions to the Policies and Procedure Manual, is also to be reviewed annually by the Planning Committee which will make revisions, both minor and major, as required.

Just as President Land stated in her introduction to the 2008 Strategic Plan, I too feel extremely privileged and humbled to lead a collaborative team of dedicated staff and volunteer leaders who are, without doubt, among the most outstanding thinkers on this globe. And with the continued participation of such people, including the members of the 2011 Planning Committee, I am confident that the IEEE Computer Society will continue to be “the leading provider of technical information, community services, and personalized services to the world’s computing professionals.”

John Walz
2011 Planning Committee Chair
November, 2010
Introduction

This Handbook has been developed to serve multiple purposes. It is to be used as 1) the repository for the current year’s Strategic Plan; 2) a guidebook for the activities related to an annual review and revision of IEEE Computer Society strategic goals; and 3) a repository of the background and history of strategic planning by the Computer Society. The Handbook describes CS strategic planning as a set of processes that are done incrementally, throughout the year and on an annual basis, rather than once every three years. Procedures for introducing and funding new initiatives related to Computer Society short- and long-term strategic goals are described in this document.

1- The Role of the Planning Committee

As outlined in the IEEE Computer Society Bylaws, the role of the Planning Committee is to:

... continuously attempt to identify potential new activities of interest to the Society, modify existing activities, and initiate, promote, and develop plans for such activities in conjunction with the appropriate committees.

The Planning Committee and this document serves as a reference source for Computer Society short- and long-term goals that the Finance Committee (and others) can use to ascertain strategic priorities approved by the Board of Governors.

2 -First Quarter New Initiative Funding

This Handbook presents processes that address the discontinuity in volunteer leader “thinking” that arises year to year when approximately half the volunteer leadership changes, following annual elections. Those who remain in their positions for a second term, through processes defined in this document, will have already set goals in their first term, and had input to the budget for the current year (their second term). (Note that budgets are set approximately in the middle of a year (e.g., 20xx-1), are in place all the following year [20xx], and are reconsidered in the middle of that year [20xx], for the next year [20xx+1].)
New leadership members come into office at the beginning of the year and inherit the commitments of previous year’s leaders that they are replacing. This is because almost all of the current year’s budget and resources are already allocated to the year’s operations plan when the new leadership takes office. A newly elected/appointed leader therefore has very few degrees of freedom insofar as introducing new initiatives when he/she first takes office.

This matter was first addressed in 2010 by setting aside a fixed and limited amount of funds for new initiatives, for which newly elected officers vied when they came into office. This process has now been codified in this document. Annual funding for such new initiatives were then, and will henceforth usually be available from a small, “new initiatives fund” set aside in the prior year for these new requests. Table 1 describes the schedule to enable new officers to seek such funds, using the First Quarter Project Initiative Form shown in Appendix D.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 By Jan 1</td>
<td>Staff works with new leaders to familiarize them with the goals and initiatives of their boards from the current year</td>
</tr>
<tr>
<td>1 Jan 1</td>
<td>New Board is seated (and meets before Feb 15)</td>
</tr>
<tr>
<td>2 By Feb 15</td>
<td>Committee/board heads review current year goals, status and budget, and with staff assistance reports goal-related initiatives.</td>
</tr>
<tr>
<td>3 By Feb 15</td>
<td>Committee/board heads may submit First Quarter Project Initiation Forms (PIFs) requesting budget additions/changes in current year, to Planning Committee.</td>
</tr>
<tr>
<td>4 By Feb 22</td>
<td>Planning Committee determines alignment of new PIF requests to current short- and long-term goals. Passes recommendation to FinCom.</td>
</tr>
<tr>
<td>5 By Mar 20</td>
<td>FinCom (in consultation with ED) reviews and approves/rejects new PIF requests.</td>
</tr>
<tr>
<td>6 By Mar 31</td>
<td>Annual Operations Plan is finalized and distributed, including new projects approved by FinCom.</td>
</tr>
</tbody>
</table>

Table 1. First Quarter PIF Request Schedule

A review of Table 1 shows that there is a very small window of time available for newly elected/appointed officers to 1) understand the short- and long-term goals of the Computer Society, 2) “invent” new initiatives that are aligned with those goals, and 3) have them reviewed and evaluated by the Planning and Finance committees.

Staff should clearly understand the Society’s strategic goals and serve as advocates to assist these volunteer leaders in their transitions. In fact, staff liaisons to major boards and committees should work with new leaders as soon as they are appointed to their new positions, in the waning months of the year after the elections. This way, new officers will have at least a little more time before taking office to begin making their plans for the coming year. Everyone involved in this process should clearly understand that projects eligible from this pool of funds should be relatively narrow in scope, and should not be requested to fund
items that are already part of the existing operating budget. As well, it is important to bear in mind that since the Executive Director is charged with allocating staff resources, requests for dramatic changes in staff resource allocation must require a very rigorous business plan with recommendations regarding tradeoffs with existing initiatives.

3 - New Budget PIF Request Processes

This section describes new processes and a schedule for volunteer leaders to request new funds in the current year, to be funded and included in the operating budget for the following year. These processes have been developed to provide all board/committee chairs at least six months from the time of their election/appointment to develop requirements for new, longer term initiatives for which they seek continued funding in the following year’s operating budget. Table 2 contains the schedule for making such requests, using the form New Budget Project Initiative Form (Appendix E).

<table>
<thead>
<tr>
<th>Process</th>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No later than June BoG Meeting</td>
<td>Committee/board heads review/revise their short-term goals and related initiatives to take effect in current year, and long-term goals to begin in next year.</td>
</tr>
<tr>
<td>2</td>
<td>At June BoG Meeting</td>
<td>Committee/board heads submit to Planning Committee PIFs for budget additions/changes for next year’s new initiatives.</td>
</tr>
<tr>
<td>3</td>
<td>June BoG Meeting + 7 days</td>
<td>Planning Committee determines alignment of PIF requests to strategic goals. Passes recommendation to FinCom.</td>
</tr>
<tr>
<td>4</td>
<td>June BoG Meeting + 14 days</td>
<td>FinCom (in consultation with ED) reviews and approves/rejects PIF requests, and if approved, budgeted initiatives become part of next year’s budget.</td>
</tr>
<tr>
<td>5</td>
<td>By Aug 7</td>
<td>FinCom presents next year’s budget to ExCom and BoG</td>
</tr>
</tbody>
</table>

Table 2. New Budget PIF Request and Planning Schedule

4 - Documenting Changes in Strategic Goals

The Planning Committee will annually review the current year’s set of short- and long-term strategic goals, and revise and consolidate them as necessary (Table 3). These will become effective in the following year. These goals can be very expansive, even including recommendations for redesigning boards and committees to be associated with strategic goals. It is important that changes and revisions, and deletions and additions be documented, showing the reason for such changes.

The schedule shown in Table 3 allows for semiannual fine-tuning of all short-term goals, and annual reflection upon, and fine-tuning of, long-term goals. And unless and until dramatic circumstance arise to cause the CS to undertake another transformation planning exercise, this annual and year-long set of processes can be more responsive to volunteer budget needs, and
also replace the three-year strategic planning process that had been in effect from 1991 to 2010.

<table>
<thead>
<tr>
<th>Process</th>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>By Sept 15</td>
<td>Planning Committee reviews current set of short- and long-term strategic goals and revises and consolidates as necessary – to become effective in the next year.</td>
</tr>
<tr>
<td>2</td>
<td>By/at Nov BoG meeting</td>
<td>Planning Committee submits new/revised short- and long-term goals to BoG for approval. Planning Committee documents changes to goals, revises the current year’s “handbook,” and issues next year’s revised handbook.</td>
</tr>
</tbody>
</table>

BoG members must be able to view (and compare) the current year’s goals with goals proposed for the following year. The Computer Society must provide a Web-based tool for the Planning Committee to document these two sets of goals, and for volunteer leaders and staff to be able to access that information as required. The tool should indicate, at a minimum, the information shown in Table 4. If a strategic goal is to continue to be in effect for the following year, the table entry should indicate no change (ongoing), and explain the reason for retaining that goal.

<table>
<thead>
<tr>
<th>STRATEGIC GOAL CHANGES – 20XX REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Year’s Goal (20XX)</strong></td>
</tr>
<tr>
<td>Strategy 1</td>
</tr>
<tr>
<td>Strategy 2</td>
</tr>
<tr>
<td>Strategy 3</td>
</tr>
<tr>
<td>Strategy 4</td>
</tr>
<tr>
<td>Strategy 5</td>
</tr>
<tr>
<td>Objective 1</td>
</tr>
<tr>
<td>Objective 2</td>
</tr>
<tr>
<td>Objective 3</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Objective 4</td>
</tr>
</tbody>
</table>

Table 4. Strategic Goal Changes

As part of the planning process, the Planning Committee will review this Handbook annually and update it to reflect 1) organizational and/or philosophical changes that may have occurred since the last revision and 2) revisions to the CS’s short- and long-term strategic goals.

5- Goal Alignment with Board and Major Committee Initiatives

All board and committee initiatives (projects) should be directly aligned with short- and long-term goals identified through the processes described in Tables 1 and 2 and documented in Table 4. The CS must provide a Web-based tool for board and committee leaders to document and maintain summary information for each group’s goal-related initiatives. Each board VP or committee chair must be provided this information as well as this document (that you are reading) no later than the time they take office in January (Process 0, Table 1).

As described in Sections 1 and 2, there are two opportunities in the fiscal year (which coincides with the calendar year) to request funding for new initiatives. The first request must be made by February 15 and the second no later than the June Board of Governors meeting. For each of these a different Project Initiation Form (PIF) is required by the Planning Committee. Both forms have been adapted from IEEE’s PIF processes, and modified to align more closely to Computer Society needs.

Because the pool of funds available for the first quarter window is relatively small, and since it is intended that this pool be shared by a number of requestors, the PIF form is relatively brief, not requiring significant details for the request (Appendix D). Funding requests made in this period should not be for projects or activities that are already or should be part of ongoing operating budgets, unless the request is for a first-time project, or one needing seeding to be included in a future operating budget. The second opportunity to seek funds has been designed for more significant requests that will require more and/or longer term funding. Such requests, if granted, are intended for inclusion in the operating budget for the next year (and perhaps subsequent years) of the request. For these requests more detail is required, and the form in Appendix E must be used.

It should be noted that the Planning Committee’s role regarding all the submissions is to assess the importance of the submissions in relation to the short and long term goals. It is the
Finance Committee’s role to determine whether or not funds are available for the requests, and/or whether priorities for currently funded projects might be considered for “reallocation” to fund new requests, and/or subsequent approval by the Board of Governors. The Finance Committee will confer with the Planning Committee if there is a need to consider reprioritizing the allocation of funds to existing projects. The Finance Committee is responsible for defining procedures for documenting the evaluation and funding of all PIF requests. Finance Committee funding decisions are reported back to the Planning Committee prior to their release to other Computer Society governing entities.

A critical piece of information that must be monitored, primarily by the Finance Committee, are tracking data necessary to provide input to the evaluation process for ongoing or carryover projects. Such data include resources, funding, and schedules associated with previously funded PIFs. Preparation and presentation of these data are the responsibility of the Finance Committee, through the Treasurer, working together with the CS Director of Finance. This information is an integral part of the initiative descriptions and progress reporting to the Executive Committee and to the Board of Governors.

Note that a consolidated annual planning calendar of all deadlines is provided in Appendix F.
6- Relation to IEEE Strategic Plan

Appendix G contains goals are from the IEEE Strategic Plan, in effect in 2010, but do not have corresponding elements in the CS plan. The Planning Committee reviews these goals annually and updates them as required. A relationship with the IEEE strategic goals must be identified when setting and/or revising CS goals and initiatives. Information about IEEE’s goals can be found at http://www.ieee.org/about/corporate/strategy/index.html

7- Monitoring and Reporting

It is essential that progress on all initiatives be monitored and tracked throughout the year. A popular and widely used planning and management system now in use by the CS is the Balanced Scorecard. Figure 1 and the information found at http://www.balancedscorecard.org/BSCResources/AbouttheBalancedScorecard/tabid/55/Default.aspx provide a complete description of the utility of the Balanced Scorecard to monitor the day-to-day progress of CS initiatives, while also retaining a perspective on strategic goals.

8 - Description of Appendices

This document contains the eight appendices described in Table 5. Appendix A should not require frequent revisions, but the Planning Committee may find it desirable to append new and/or significant information to it from time to time. Appendix B contains SP-6 goals and their related initiatives. The Planning Committee should annually revise this appendix as noted in in Table 3, completing the information shown in Table 4. Appendix C contains the 2010 Planning Committee’s recommendations regarding changes to SP-6 goals for 2011. This Appendix should be updated each year. Appendices D and E contain the PIF forms necessary to request short and long term initiative funding. Appendix F is a consolidated annual planning calendar (from Tables 1, 2, and 3) for all the activities described in this document.
Appendix G contains current IEEE goals described in their strategic plan. This appendix must be updated as required.

<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>TITLE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>History of IEEE CS Strategic Planning</td>
<td>Describes history and background of the CS strategic planning process</td>
</tr>
<tr>
<td>Appendix B</td>
<td>SP-6: Strategic Goals and Related Initiatives</td>
<td>Lists and describes SP-6 - IEEE CS short term and long term strategic goals (review annually) and described related major goals and initiatives</td>
</tr>
<tr>
<td>Appendix C</td>
<td>Recommended Revisions of SP-6 Goals for 2011</td>
<td>All SP-6 goals are shown, using Table 2 described above, together with revision recommendations for 2011 (review annually)</td>
</tr>
<tr>
<td>Appendix D</td>
<td>First Quarter New Project Initiative Form</td>
<td>Submitted to Planning Committee by Feb 15 for short term funding in current year</td>
</tr>
<tr>
<td>Appendix E</td>
<td>New Project Initiative Form</td>
<td>Submitted to Planning Committee by June BoG Meeting for possible funding next year</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Annual Planning Calendar</td>
<td>Consolidation of Tables 1, 2, and 3</td>
</tr>
<tr>
<td>Appendix G</td>
<td>IEEE Strategic Goals</td>
<td>Must be referenced in all PIFs</td>
</tr>
</tbody>
</table>

Table 5. Summary of Appendices
APPENDIX A

HISTORY OF IEEE COMPUTER SOCIETY STRATEGIC PLANNING

The 2008 Strategic Plan included a number of activities that overlapped with the CS charter. In addition to the development of the strategic plan, in 2008 the IEEE Computer Society conducted transformation reviews and collected input from consultants in order to generate the 2008 Strategic Plan. For completeness, background prior to 2008 is provided here.

Strategic Planning Prior to 2005

The CS has practiced formal strategic planning since 1991. Strategic plans have traditionally been implemented going forward for three-year cycles. The first strategic plan (SP-1) was in effect from 1991 to 1994. SP-1 focused on issues deemed critical to the Society during this period, establishing goals and objectives for the CS boards and committees.

In 1994 the second strategic plan (SP-2) was developed and was in effect until 1997. The theme for SP-2 was service to members, to the profession, and to the societies in which CS members live and work. This set of strategies emphasized improvements in products and services for the three major member segments: researcher/academic, practicing engineers/scientists, and students.

For the next few years the strategic focus was on increasing the perceived value and society visibility to our volunteer membership. In 1998, the Society produced SP-3, emphasizing increased volunteer participation, meeting customer needs, and improving Society visibility. This was followed in 2001 with SP-4 which addressed the value proposition of membership, the Society’s electronic future, and organizational nimbleness, introducing the concept of the CS as the total information provider (TIP). SP-5 built on the TIP concept first introduced in SP-4, focusing the Society’s vision on its electronic future, refining the role of electronic communities, and moving the CS toward a service-model architecture. The major emphasis however, continued to focus on improving value to stakeholders.

Presidential Transformation Task Force

In 2005, in response to forecasts of deficit budgets, President Gerald Engel initiated a Presidential Transformation Task Force (TTF) to evaluate the need for:

- A three-year transformation plan.
- A “Track 1” plan that proposed the establishment of the CS as a Major Operating Unit (MOU) (as is IEEE USA) within the IEEE.
- A “Track 2” plan which offered some very “product centric” suggestions.
The TTF provided the following recommendations:

The Transformation Task Force (TTF) has reviewed the currently proposed Track 1 and Track 2 approaches. In order to discuss the validity of the Track 1 and Track 2 proposals as they support the CS transformation it is important that a description of these approaches be commonly understood. Simply put, Track 1 describes a proposal to establish the IEEE CS as a Major Operating Unit (MOU) within the IEEE. This proposal is currently under evaluation; Steve Diamond has been appointed as a member of the IEEE MOU committee. If the CS does leave the IEEE Technical Activities Board (TAB) to become an MOU it is important to recognize that this exit will initially be cash neutral. Track 2 describes a proposal that reorganizes the internal structure of the CS.

The TTF does recognize that the financial outlook for the IEEE Computer Society (CS) is severe. This committee is also aware that there is an urgent and immediate need to address the Computer Society’s relationship to the current IEEE TAB structure as outlined by Track 1. The TTF also identifies a need to focus on some type of restructuring internal to the CS so as to improve the society and reposition it for growth and renewal. However, it is position of this committee, that the current Track 2 proposal as the method of transformation should not be pursued at this time. It is the recommendation of the TTF that a task force, made up of a combination of volunteer and staff members, be formed to perform a top down review of the CS infrastructure. A review of both the staff and volunteer organizations should be performed. This review should focus on ways to leverage a more matrixed approach, basing product lines upon the stakeholders involved and identifying ways to streamline current operations, business practices, and volunteer activities.

2006 Presidential Transformation Planning Committee

In response to the recommendations of the 2005 TTF, in 2006 President Deborah Cooper reappointed the members of the TTF and created a Presidential ad hoc committee, the Transformation Planning Committee (TPC). Members included: Benjamin W. Wah (Chair), Ron Hoelzeman, Rangachar Kasturi, Susan K. (Kathy) Land, and Jon Rokne (Members); Deborah Cooper, Jerry Engel, Steve Seidman, and Mike Williams (Ex Officio Members). The TPC was charged with studying the transformation proposal and its related documents, determining the soundness of the proposed transformations, evaluating the validity of the claims and conclusions, and to propose possible future steps. Among its findings was the following recommendation:

The Track II Planning Group should examine our entire organizational structure (both volunteer/board structures and physical/office organizational structure) and evaluate whether this is the best structure if we were to start from scratch. If the Society is to transform itself, it cannot simply change the staff allocations and focus, but must change the volunteer structure to correspond to the new “product oriented” direction as well. The volunteers and staff that are responsible for the generation of the technical content should be more closely tied to the products that they produce.
and thereby to the customers that buy the products. This review should focus on ways to leverage a more matrixed approach, basing product lines upon the stakeholders involved and identifying ways to streamline current operations, business practices, and volunteer activities. It has already been mentioned that our pro forma financial statements are complex and hard to read. In part, this complexity simply reflects the complexity of our organizational structure. Proposals such as combining/eliminating boards, reducing the number of BoG members and meetings, consolidating into a single site, and so on, should fall into this study. We must avoid radical suggestions for change based on “the sky is falling” scenarios or on short-term bottom line impact. Instead, we should truly give an analysis of how our operations as a whole can be improved to reduce cost and facilitate growth.

Reference source not found.

The TPC established four subcommittees:

2. Governance Structure Review Subcommittee – Ben Wah (chair), Violet Doan, Jerry Engel, Michel Israel and Anne Marie Kelly.
4. IT Structure/Function Subcommittee – Sorel Reisman (chair), Jim Moore.

These subcommittees were charged with evaluating the organizational structure and its operational efficiency, asked to consider potential changes to the organizational structure that might be required to achieve objectives, and to report to the CS Board of Governors.

Hay Group Organizational Review and Strategy Clarification Workshop

The Hay Group was contracted by the CS to provide a set of recommendations. They were also asked to conduct a strategy clarification workshop with a set of senior volunteers and executive staff. The results of these activities were documented in:


Each of these documents and their contents are critical to the understanding of CS strategic planning, particularly relating to the 26 findings and their implications.

Strategy Clarification Workshop

The Hay Group facilitated a two-day Strategy Clarification Workshop to provide clarity and consensus on the ‘meaning’ behind a business strategy and establish clear criteria to assist in decision making. Participants were taken through a series of exercises designed to help the CS define:

- Future key customer/market segments
- External differentiators
- Lists of internal capabilities and core competencies
• Priority next steps to communicate and sell strategies

Workshop participants identified the following key market differentiators to serve customers:
• Highest Quality Information: IEEE CS provides a forum for the best minds to come together to develop and acquire the highest quality information.
• Personalized Access: IEEE CS provides customized and personalized access to expertise, products, and services using contemporary and popular technologies.
• Targeted Solutions: IEEE CS provides targeted solutions (based on authoritative IP) to industry technical challenges.
• Skills Certification: IEEE CS is a global resource for internationally recognized skill certification desired by employers and professional practitioners.

The following six Critical Success Factors, capabilities critical to achieving success in order to support success in the marketplace, or “differentiation” were identified:
1. Industry Penetration
2. Product Development/Management
3. Marketing and Sales
4. New Technology/Platform
5. Volunteer and Staff Resources
6. Relationship with IEEE

The group identified three themes for communicating/selling the outputs from the Strategy Clarification Workshop:
1. Transitional vs. Transformational change.
2. Consistent with SP5.
3. Need business plans/timelines to back-up strategic direction.

Figure 2 diagrammatically represents the outcomes of that meeting.

The importance of these themes cannot be stressed enough. For example, the emphasis on transitional versus transformational change is a recurrent message throughout the Hay Group recommendations. Consistency is also an important communication recommendation so that all planning that has been accomplished be reviewed and carefully considered, learning the lessons of the past, when planning for the future. Finally, we must consistently and carefully revisit our plans throughout the year and must have a way to measure our progress against any plan that we propose.
Organizational Review

The following is from the Hay Group organizational review:

IEEE Computer Society Business Model

The IEEE Computer Society’s senior leadership declared that its Business Model is to:

- Change the Society’s external focus and its market position to become more industry and practitioner-focused.
- Increase value-added, relevant, and more integrated products and services for industry and practitioners while retaining the high level of researcher and academic involvement that remains a major contributor of technical expertise and information.
- Become the leading provider of computer-related technical information and personalized services for computing professionals as well as build e-based user networks and community forums for specific user or common-interest groups to come together, acquire, and share the highest quality information.
- Provide more customized and personalized access to computer-focused technical information, including bundled packages of related information.
- Develop new and expanded ways to better attract and serve non-dues paying professionals and find alternative membership models.

The collective intent of the above is to change market positioning to:

- Improve financial stability in a not-for-profit environment.
- Increase customer loyalty and grow members and users of services while retaining existing customers.
- Continue to maintain the value and relevance of technical products and high quality, peer-reviewed intellectual property.
Internal Operating Model

The IEEE Computer Society will operate internally using the following:

- Strong customer intelligence about needs that drive product and service activities.
- Integrated marketing approach that includes strong customer research, which, in turn, supports product and service development and innovation and that also helps influence increased membership and non-dues paying users to become increasingly involved with the IEEE Computer Society.
- Clear accountabilities among key roles.
- Leveraging of IEEE’s support and enabling functions.
- Engagement in revenue-generating business planning based on increasingly precise budgeting and resource information that augments decision-making to achieve better economic outcomes.
- Increased practitioner and industry involvement including membership, common interest user groups, and individual users.
- Alignment of communications, coordination, and volunteer services by the support staff.
- Volunteer executive roles that better balances the focus on strategic versus operational accountabilities and includes rebalancing the volunteer mix to include practitioners and more thought leaders from industry.
- Retention of the ability to produce high quality intellectual property related to computing and information technology.

In addition to the above, the IEEE Computer Society must further redesign the organization by modifying, adding, or deleting to:

- Increase customer and stakeholder intimacy and loyalty capability as well as increase revenue positive partnerships and alliances.
- Develop and provide targeted solutions based on the identification of technical challenges.
- Expand the capability for competent IT-related skill certifications, accreditations, and professional development desired by computer-focused employers and professional practitioners on a global basis.
- Strengthen internal marketing, customer research, advertising, and sales capability.
- Enhance the internal capability to provide Web-based tools and e-based infrastructure, especially for attracting industry practitioners and non-traditional members.
- Exploit internal support tools like the Business Management System (BMS) and market research engines.
- Create a capability to regularly assess and abandon non-value adding programs and projects.

Two-Phased Approach

The Hay Group provided additional detailed recommendations in support of a two-phased 12-24 month approach toward reorganization of the CS. The report included the following as examples of items that might be included during the first phase of such reorganization:

- Create customer intelligence and research in order to feed innovative product and service development as well as increase industry and practitioner understanding.
- Initiate a dedicated Marketing Department.
• Add Web design capability to promote technical communities and enhance usability of existing systems (internally and externally).
• Engage industry advisory during turn-around/transition period.

The report suggested that the second phase consider:
• The evaluation of existing programs for the purposes of abandonment where products, services, projects, and programs are deemed non-economical.
• Establishing an ‘academy’ for certification and accreditation.
• Engaging a public relations firm
• Expanding marketing functions.
• Increasing value products based on customer-driven intelligence.
• The creation of a controller position.

Quick Hits

The Hay Group presented a list of summary recommendations, calling these “quick hits.” They suggested that acting upon these recommendations would enable the IEEE Computer Society to become more organizationally effective more quickly.

The following is derived from the Hay Group list of quick hits:

1. Create a strong and active customer research and intelligence function that drives marketing, promotion, and new product development. The Society must run on knowing members and customer needs. Set a high priority to identify new market differentiators based on customer research and lead the competition in innovation and creative products and services.

2. Add and delete new programs and projects. Until revenue stability is achieved and suitable reserves exist, if the senior leadership decides to add a new program or project not identified as part of this Transformation, then they must identify a trade-off or offset reduction of comparable magnitude and impact to make the new work cost neutral. This offset includes staff workload, FTE requirements, dollars, etc. As non-economically viable programs and projects are terminated, corresponding reductions should be made in the associated volunteer staff to ease the burden on the support staff.

3. Prepare a comprehensive business case before investing in new or revised products or services. The business case should identity the pros and cons of the investment, clarify customer requirements and calculate the expected return-on-investment.

4. Set a goal to rebalance the governance structure by 10% each year for the next three years with active industry and practitioner people who have demonstrated thought leadership in the field. Thirty to forty percent of the active governance bodies should be made up of these people within three years. Use these new additions to help penetrate the industry market and help develop targeted
solutions for industry. The new research function should help identify issues and concerns that will encourage this involvement.

5. Leverage IEEE’s support staff and improve working relations. This includes possibly keeping staff within IEEE CS but have them on the IEEE payroll which may be amenable to IEEE. It also includes capitalizing on DL delivery platforms and BMS.

6. Establish three or four absolute “must do” priorities annually. Internally publish these as critical annual priorities that must be achieved. They directly support goals and objectives and should not be debatable. These should be in “plain” language that anyone in IEEE CS can understand and interpret within their roles and responsibilities. Indicate how these will be coordinated, tracked, and executed. Call them BOG “must do” priorities for (year). These should be chosen with great care, results religiously monitored, and become a part of performance assessments and strategy achievement.

7. Design, develop, implement, and analyze metrics for each strategic objective and Critical Success Factor and convert data into meaningful information for decision-makers. Decision-makers must know if they are achieving the results they desire and be able to take action or not.
IEEE Computer Society Strategic Plan - 7

Roger U. Fujii (Chair), Liz Burd, Tom Conte, Paul Croll, David Alan Grier, Harold Javid, Paul Joannou, Rangachar Kasturi, Dejan Milojicic, Don Shafer

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1. Introduction

In this report, the 2011 Strategic Planning Subcommittee of the IEEE Computer Society presents a series of goals and objectives for the operation and organization of the society. The subcommittee undertook this task at the request of President Sorel Reisman -- with four distinct objectives.

First, the plan should ensure that the society is prepared to deliver the same high-quality products and services that it has in the past. These products and services should meet the needs of a professional community that includes industry practitioners and academic researchers and teachers.

Second, the plan should reflect the changes that are occurring in the computing community. These include the commoditization of computing services. Increasingly, computing services are delivered by an infrastructure that is both ever-present but hides many of its technical details. This infrastructure includes grid and cloud computing, pervasive and large scale mobile computing, peer to peer interaction and social computing.

Third, the plans should address the changing nature of the computing profession. Over the past decade, an increasing number of people identify themselves as computing professionals whose formal education is quite different from the traditional fields of computer science, electrical engineering, and software engineering. These individuals have often gained their technical abilities through hands-on experience and self-development.

Fourth, the plan must address the fiscal state of the Society and be consistent with its recovery program.

In preparing this report, the Strategic Planning Subcommittee built on the short- and long-term goals of prior Planning Committees. The current subcommittee concluded that those goals still represented the aspirations of the Society and its present leadership. However, the subcommittee concluded that the CS needs both structural changes and new programs to address the challenges before it. The current set of products and services do not satisfy the needs of our members or the wider computing community, even though the underlying intellectual content is still valid and valuable.

In its effort to address the four issues raised by President Reisman, the subcommittee recast them as four overarching objectives:

1 See Strategic Plan for the IEEE Computer Society 2008 Edition
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1. Operate as the premiere professional organization in computing technology;
2. Increase the number of members;
3. Develop the next generation of volunteer leadership; and
4. Create a sustainable financial model.

The first of these objectives draws from the work of all recent Strategic Planning committees. The next three are measurable objectives drawn from the issues that initiated the work of this subcommittee.

To satisfy these four objectives, the subcommittee considered five categories of strategies that reflect the values and core competencies of the Society. The subcommittee feels that these five categories represent the areas of greatest promise for the Society and that all tactical efforts and plans should be built within them. This report does not direct the Society to create specific products or services within these categories. Instead, these categories should foster the innovative spirit of the Computer Society officers, Board of Governors, members/volunteers, and CS staff who will create the new offerings and services for our future members and professionals.

The five strategies are:

1. Future Technologies;
2. Knowledge Creation;
3. Education and Professional Development;
4. Outreach and Engagement;
5. Special Technical Communities.

**Future Technologies:**
The IEEE Computer Society needs to take the leadership role within the IEEE on new computing technologies, including those that engage several Societies. These technologies include Smart Grid, Cloud Computing, Life Sciences, Future Processing Technologies, and Machine Learning. The first three of these areas represent current initiatives of the IEEE.

**Knowledge Creation:**
The IEEE Computer Society will develop and revitalize its products and services that create, validate, categorize and deliver technical information. It should produce products and services that are targeted at all elements of the Society membership: academics, researchers, practitioners, and students.

**Education & Professional Development:**
The IEEE CS will be valued by global computing professionals and their employers by providing education, professional development and standards for professional practice that will help develop a global workforce that is competent to perform at the level of best practices.

**Outreach and Engagement:**
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IEEE Computer Society will reach out and engage with underserved academic organizations, industry sectors and non-traditional computing professionals to offer personalized and tailored products and services from the broad spectrum of Society products and services.

**Special Technical Communities:**
As technical knowledge is supported and sustained by technical communities, the IEEE Computer Society will create and encourage flexible communities that develop technical knowledge as well as products and services from this knowledge. These communities, whether demographically- or technically-oriented, should utilize the best practices and technologies of social networking.

To identify these five categories and to define the products and services that might be associated with each of them, the subcommittee reviewed the goals and objectives from former strategic plans and attempted to ensure that each category was harmonized with all of those former goals and objectives. In some cases, the subcommittee adopted the exact wording from prior strategic plans.

To create effective products and services for each of these categories, IEEE Computer Society boards and committees will need to combine their capabilities in new ways. The subcommittee noted that the IEEE Computer Society will likely need to consider an internal organizational change to implement the strategies based on these categories. As some of the ideas cut across different fields and different units of the Society, they may have to be managed by special ad hoc coordinating committees established by the President. Eventually, these will likely evolve into permanent governing structures defined in the Society’s *Policies and Procedures Manual*.

One plan for 2012 will be to increase BoG member roles for increased Program Board engagement to improve the cross Program Board coordination. Each BoG member will elect or be assigned to a pair of Program Boards in order to better understand the Society, support Society sub-strategies planning and implementation of across Boards, contribute to the discussion on cross Board activities, and use their network to find answers to Board action items.

The Strategic Planning Subcommittee has drafted proposed action plans for each of the strategic goals and objectives. However, the responsibility for developing the approved action plans will belong to the IEEE Computer Society boards and committees. The Board Vice Presidents and committee chairs must annually develop new action plans or modify existing action plans. Each plan must include clearly defined measures and metrics in order to track progress.

Because of the multiple year nature of the sample action plans as well as the strategies themselves, the Strategic Planning Subcommittee recommends that the Planning Committee address and reconsider the one year terms of office of the senior volunteer members of the Executive Committee. Annual changes in the position of the presidents of the CS introduce an annual disconnect within multiple year strategies and
projects. While it might be argued that staff can provide the continuity required for the success of multiple year projects and strategies, we must remember that the Computer Society is not a corporation or a foundation. It is a volunteer-driven society led by volunteers. While the staff can provide operational continuity from year to year, volunteers must provide strategic continuity.

The Planning Subcommittee believes that the IEEE Computer Society has the key capabilities and core competencies, in the near future, to execute and implement the new strategies described in this document. In devising these plans, the Society volunteers and staff will face the challenge of changing the structure of the Society and making it able to meet the needs of the next generation of members and computer professionals.

2. Sub-Strategies

The strategic objectives describe the five broad capabilities and knowledge areas that the Computer Society would like to achieve in the future. The strategic objectives do not change frequently – rather these strategic objectives set broad directions and lofty achievements for the Computer Society. The sub-strategies reflect the innovative ideas from the Computer Society volunteers as significant approaches to achieving the strategic objectives. The sub-strategies can change or be modified frequently, typically annually. The following are sub-strategies for the five strategic objectives.

1. Future Technologies: IEEE CS will take a leadership role within IEEE in determining how computer science and information technology play a part in key future technologies affecting humanity (e.g., Smart Grid, Cloud Computing).
   - Strategy #1.1: Smart Grid – The IEEE CS will lead an initiative to develop and define a long term vision (2030 – 2040 timeframe) on Smart Grid including how the Computer Society’s Publications Board, Standards Activity Board, Technical Activity and Conferences Board, Education Activity Board, Professional Activity Board and Membership and Geographic Activity Board contribute to fulfillment of that vision.
   - Strategy #1.2: Cloud Computing – The IEEE CS will lead the definition and formulation of cloud computing concepts for the IEEE. This initiative will include formulating framework architecture, defining interoperability principles and standards, and serving as the coordinating body for all interested organizations/industries.
   - Strategy #1.3: Life Sciences – The IEEE CS will lead an initiative to identify how computer science and information technology can advance humanity in all of the life sciences fields of interest (e.g., medical records, smart devices, medical monitoring, telemedicine).
   - Strategy #1.4: Future Processing Technologies – The IEEE CS will establish a program to encourage the development of future processing technologies including multicore computing, GPUs, FPGA, assisted computing, molecular computing, quantum computing, general purpose large scale parallel computing, nonvolatile memories (NV RAM), memristors, chip-level photonics, 3D stacking, DNA computing, and embedded...
and cyber-physical systems, and will continue the progress in the computer industry of producing faster, more powerful, and cheaper machines.

- **Strategy #1.5: Machine Learning** – The IEEE CS will lead in the theoretical development and application of Machine Learning. This will include developing cutting-edge theoretical Machine Learning concepts, promoting Machine Learning applications, and supporting publications, conferences, and other volunteer-driven activities concerned with all facets of Machine Learning.

2. **Knowledge Creation:** The IEEE CS will provide forums for top minds to come together to develop, validate, and disseminate the highest quality information. The IEEE CS will be the premiere source of creating, validating, and delivering new computer science theories, methods, and standards for academics, researchers, practitioners, and information technology professionals.

   - **Strategy #2.1: Innovating Publishing Process** - The IEEE CS will innovate the process of publishing intellectual property, including new ways of developing, soliciting, reviewing, editing, and broadcasting ideas.
   - **Strategy #2.2: Innovate Engineering Practice** - The IEEE CS will design new ways of delivering information and new forms of information that improve the practice of engineering.
   - **Strategy #2.3: Engage Other Disciplines** - The IEEE CS should engage other parts of IEEE and other fields of endeavor with relevant information about computation and with relevant processes for technology development.

3. **Education and Professional Development.** The IEEE CS will be valued by global computing professionals and their employers by providing education, professional development and standards for professional practice that will help develop a global workforce that is competent to perform at the level of best practices.

   - **Strategy #3.1: Future Professionals** - The IEEE CS will take a leadership role in promoting the strategic importance of the computing field to the general public with the aim of convincing pre-university student to be next-generation computing professionals.
   - **Strategy #3.2: Creating and Maintaining Knowledge** - The IEEE CS will develop and maintain a comprehensive and integrated set of education, training and professional development resources and products, leveraging the work of others where appropriate.
   - **Strategy #3.3: Member and Employer Advancement** - The IEEE CS will support the advancement of computing professionals and their employers through a program of opportunity so that computing organizations can employ best practices.
   - **Strategy #3.4: Range of Computing Careers** - The IEEE CS will support a range of computing careers by leading initiatives that enhance the education and professional development of leaders in adjacent and related interdisciplinary technology fields.
4. Outreach and Engagement: The IEEE CS will reach out and engage with underserved industry sectors, academic organizations, and non-traditional computing professionals

- **Strategy #4.1: Industry/Practitioners** – The IEEE CS will take an industry focus and provide technology thought leadership to underserved industry sectors. The model for this will be our approach to the military and nuclear industry adoption of IEEE software-engineering standards.

- **Strategy #4.2: Academics/Researchers** – The IEEE CS will reach out to a critical sector of our market (academics/researchers) and will define a process to improve cooperation and coordination with CS operational areas addressing timely marketing, distribution, sharing, and validation of scholarly works. The IEEE CS will engage academics/researchers and their organizations with value added tools; e.g. Open Scholar, Google Scholar, Zotero.

- **Strategy #4.3: Computing Professionals** – The IEEE CS will develop relevant services and products to non-traditional information technology professionals (i.e., those without an engineering or CS undergraduate degree).

5. Special Technical Communities: The IEEE CS will evolve special technical communities and will deliver trusted computer science information on an on-demand basis to the community members using the latest relevant technologies.

- **Strategy #5.1: Formation** – The IEEE CS will empower technically like-minded people to form communities to exchange information and innovative ideas (expose them to relevant CS IP, equip with modern tools and technologies)

- **Strategy #5.2: Growth** – The IEEE CS will enable communities to organically grow from informal ones to those with events, newsletters, magazines, and transactions and will provide the processes, procedures, and tools to enable them to downsize as necessary

- **Strategy #5.3: Financial Sustainability** – The IEEE CS will encourage and support communities to become financially sustainable and to foster new business models
3. Action Plans and Strategy Roadmaps

Each detailed strategy implements a portion of a strategic objective by executing a planned sequence of activities over a 2-3 year period. IEEE CS staff and CS volunteers execute the action plan. IEEE CS and other organizations fund these activities. Performance metrics are assigned to each action plan activity (where possible) to monitor activity progress and provide the Planning Committee and Board of Governors with quantitative metrics on the progress of each action plan activity. To maintain continuity with previous IEEE CS strategic planning efforts, the SP-07 action plan activities use the same performance metrics as prior IEEE CS planning committee reports. Also, SP-07 uses the Balanced Scorecard system as provided by the Hayes Group for the IEEE CS. The following diagram illustrates the performance metrics and relationship of those performance metrics to the IEEE CS Balanced Scorecard system.
3.1. Strategy #1. – Future Technologies

3.1.1 – Strategy #1.1 - Smart Grid Action Plans and Strategy Roadmap

The action plan for Strategy#1.1, Smart Grid, is shown below.

**Primary Near-Term Achievement:** “To become a leading IEEE society in Smart Grid technology coordination by hosting the annual Smart Grid conference and establishing/leading the Special Technical Community (STC) on Smart Grid across industry, academia, and other technical communities”

3.1.1a Year 1 (2011)
1. Select management team (practitioner/standards, academic/researcher, energy sector expert) to lead the IEEE CS Smart Grid vision initiative
2. Invite key CS Smart Grid visionaries to brief management team at the first Smart Grid workshop (metric - # of attendees)
3. Initiate an awareness campaign within the CS to encourage innovative Smart Grid CS concepts (magazine articles, conferences with Smart Grid panels and paper tracks)
4. Target future conferences to include Smart Grid tracks (metric - # of presentations and papers)
5. Develop first draft of long term Smart Grid vision using inputs from IEEE PES P2030 project, academia, and practitioners

3.1.1b Year 2 (2012)
1. Initiate a campaign to promote a long-term Smart Grid vision
2. Target a major conference with Smart Grid as one of the key focus items (metric: # of attendees, net income)
3. Begin standards development to support the Smart Grid vision (e.g., Cloud Computing, interoperability, intelligent agent technology, 802/LAN, cybersecurity, embedded microprocessors) (metric - # of new PARs)
4. Develop an overall Smart Grid architecture
5. Develop involvement of key industry participants including power and energy, communications, and computer technology
6. Produce detailed strategies for Smart Grid architecture
7. Form a Special Technical Community on Smart Grid (metric - # of participants)

3.1.1c Year 3 (2013)
1. Grow the Special Technical Communities (STC) to include other societies and volunteer organizations such as ACM
2. Devote a full conference about Smart Grid (metric - # of attendees)
3. Codify Smart Grid architecture
4. Structure an educational program around Smart Grid concepts and technologies as a professional broadening activity (metric - # of new members or participants)
5. Initiate specific standards development including interoperability, common Smart Grid situational awareness, and visualization (metric - # of standards in development)

3.1.1d Year 4 (2014)

1. Generate standard on the Smart Grid Reference Architecture
2. Generate standard(s) on Smart Grid from sponsoring standards committees (S2ESC, LAN, etc) (metric – number of standards in development for SG)
3. Establish the IEEE CS Smart Grid conference as a worldwide conference for Smart Grid technologists (metric – number of participants)
4. Create a Smart Grid curriculum for university/college students
5. Create a Smart Grid curriculum for industry sectors
6. Continue the Smart Grid special technical community as a worldwide forum

The Smart Grid (Strategy #1.1) strategy roadmap is shown on the following page.
Strategy #1.1 – Smart Grid
3.1.2 Strategy #1.4 – Future Processing Technologies Action Plans and Strategy Roadmap

**Primary Near-Term Achievement:** “To form a multi-society alliance to share expertise and drive an international agenda centered on Future Computer Processing Technologies in general, and beginning with the emerging and important technology of multicore computing.”

The action plan for one of the technologies of Strategy #1.4, Multicore, is shown below.

**3.1.2a Year 1:**
1. Form the multi-society alliance (*metric - # of societies participating*)
2. Create Multicore Advisory Group and Multicore special technical community: Begin with workshop among “luminaries” (*metric - # of “luminaries” who accept invitation*)
3. Special issues of *COMPUTER* and *Trans Computers* on Multicore with mix of invited and solicited papers (*metric - # of paper submissions*)

**3.1.2b Year 2:**
1. Form task force of relevant TCs and hold a joint meeting with Multicore Advisory Group (*metric – number of participants*)
2. Create a Multicore media event, e.g., explore forming a Federated Multicore Conference
3. Partner with industry (e.g., NVIDIA, Intel, AMD) to offer educational products such as webinars and tutorials on Multicore technology (*metric - # of webinars and tutorials offered*)
4. Brainstorm recommended curricula with CSAB/ABET via EAB Curriculum Committee (*metric - # of multicore-related proposals sent to EAB; % acceptance of those proposals*)

**3.1.2c Year 3:**
1. Evaluate progress via Multicore Advisory Group (*metric - # of action items and completed action items of Advisory Group*)
2. Implement recommended curricula with CSAB/ABET via EAB Curriculum Committee (*metric – time to completion of implementation*)

The strategy roadmap for this component of Strategy #1.4 is shown in the diagram below:
Strategy #1.4 – Component: MultiCore
3.2 Strategy #2 - Knowledge Creation Action Plans and Strategy Roadmap

The action plan for Strategy #2, Knowledge Creation strategy is shown below.

*Primary Near-Term Achievement* Within three years, the society should have a single electronic platform that is capable of publishing all of its scholarly and professional content. This platform should be sufficiently flexible so that it can handle the new forms that are rapidly developing, including open access journals, multimedia publications, free material, Webinars, reader commentary, special compendia of material, conference publications, courseware and testing material. This platform will need to work in conjunction with existing systems that the society currently operates, such as the ScholarOne system which is used for soliciting, editing, and preparing material.

- **Background**
  The Computer Society has been working to develop elements of a unified platform for intellectual property over the past 4 years. To date, the accomplishments towards this end include:
  - *Computing Now* Web Site for General Content (2009)
  - Special Technical Communities (2010)
  - Design and Test Transfer (2011)
  - Multimedia/Mobile *Computer* (2011)

- **Targets:**
  - 2012: Unified DLOC and scholarly platform
    This platform will include the digital library and have more flexible tools for commenting on material and selling it to readers. It should have commentary/Modern Bibliometrics features.
  - 2013: Competitive Store and General Distribution Mechanism
  - 2013: General Publications should be in Electronic Format. Multimedia should be available whenever appropriate.
  - 2014: All Scholarly Publications, including all Transactions, in fully electronic format
  - 2014: Single Source for all Intellectual Property
    - (e.g., Store, Digital Library Operations Committee, Professional Development, Webinars, Free materials)

- **Utilize New Technologies to develop a new plan for publication that includes new formats, such as multimedia, or new modes of publication, such as open access or new subject areas.**
  - 2012: Develop plan for new formats or modalities, including the society’s plan for open access and multimedia
  - 2013: Initiate periodicals in promising areas:
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- Life Sciences
- Special Topics (as a mean of capturing new ideas.)
  - 2013: Initiate plans for publications in:
    - Cloud
    - Smart Grid
    - Future Processing Technologies
    - Machine Learning

3.2.1a Planning Year (2011)
- Reinvest
  - Start redeploying resources for periodicals that will not progress, beginning with Design & Test Magazine.
  - Prepare financial plan that recognizes current decline in revenue and plans for the future
- Partner
  - Identify activities that could be done better with Partners, including IEEE and other societies, such as ComSoc and EMBS
- Plan
  - Review portfolio and prepare to eliminate other periodicals and other publications that show declining readership and authorship and seem unlikely to find new purpose.
  - Prepare plan for Computing Now to include material from Transactions
  - Prepare plan for a multimedia version of magazines - Multimedia and Computing Now [4]
  - Prepare plan for transferring Digital Library to new platform [1]
  - Prepare new ways of delivering content that meet the needs for technical materials. These methods should include
    - Tablet and portable applications
    - High speed dissemination that includes twitter [3]
    - Flexible mechanisms, based on an electronic marketing platform, that allow for selling courseware, and repackage materials and other forms of context
  - Expand the portfolio of Certification Materials

3.2.1b Year 1 (2012)
- Accomplish
  - First steps of scholarly platform with commentary/Modern Bibliometrics and others items
  - Updated DLOC on new platform [10]
  - Mobile applications and extended abstracts [5] (metric – # of readers)
  - Multimedia/Tablet editions of two magazines: Software and Multimedia (metric - % of readers who transfer from paper editions)
  - Establishment of the administrative mechanism that will allow STCs to form editorial boards and to publish articles electronically
through either Computing Now or Transactions on Emerging Topics of Computing [8] (metric - # boards formed, # of papers published)

- Establishment of a web-based store that allows us to market articles, webinars, and other materials to professionals for professional development and general education.
- Deployment of Crosscheck for selected Transactions (metric - # of publications using Crosscheck)

Plan
- Plan to develop an Open Access Transactions (or other form of publication). Most likely, it will follow the Public Library of Science (PLOS1) that has been adopted by the IEEE. [7]
- Plan for a mechanism that allows public commentary on Transactions articles, such as the PLOS1
- Review Computing and Computing Now to determine how we will publish general articles for the membership. In particular, address the issue of whether Computing Now will replace paper magazines as the publication platform for Computer.
- Provide means to move general professional publications to electronic format
- Develop approach on how to deploy Crosscheck for conferences
- Develop plan to retire paper versions of magazines, converting some to electronic format, and some to divisions of Computing Now or other publication venues

3.2.1c Year 2 (2013)

Accomplish
- Storage for all Professional Development and similar material [11] (metric - # papers sold, revenue)
- Establishment of an Open Access Model that will work for all [9] (metric - # papers, # users)
- Deployment of Crosscheck for all Transactions
- Deployment of Crosscheck for select conferences
- Beginnings to convert magazines to new format
  - Deployment of multimedia versions of at least two more magazines.
  - Combination or in other ways merger of magazines

Plan
- Plan high value Transaction article of future such as Mathematica
- Complete multimedia versions of remaining magazines
- Plan further integrating Open Access with other Computer Society Pubs
- Develop integration of tablet interface for all publications
- Store periodicals (11) (metric - # papers sold, revenue)
3.2.1d Year 3 (2014)

- Accomplish
  - Unified Site for All Intellectual Property
  - Store for Intellectual Property
  - CN (or equivalent)
  - Digital Library
  - Open Access

- Plan
  - Start strategic plan for next cycle of publication technology and ideas
  - Expansion of high value publication

The strategy roadmap for Scholarly Knowledge Creation (Strategy #2.2) are shown in the diagram below:
Strategy #2.2 – Scholarly Knowledge Creation
3.3 **Strategy #3: Education and Professional Development Action Plans and Strategy Roadmap**

The action plans for Strategy #3, Education and Professional Development are provided below.

**Primary Near-Term Achievement**: “To develop a comprehensive and cohesive model of the computing discipline and profession to strategically guide the identification, development and maintenance of high quality bodies of knowledge, competency and curriculum models and relevant standards”

3.3.1 **Strategy #3.1: Future professionals** - The IEEE CS will take a leadership role in promoting the strategic importance of the computing field to the general public with the aim of convincing pre-university students to be next-generation of computing professionals

3.3.1a: **Pre-university Education** - The IEEE CS will develop a program of activity to support, promote and improve the educational experiences of pre-university students studying computing topics

1. Define a set of activities (at least 2) that members will lead within Computing in The Core (CinC) and PACE initiatives (*metrics – member participation in events, potential future member participation in events*)

2. Use volunteer time for the creation of lesson plans for TryComputing.org, to ensure that each major topic of our curricula have a plan (*metric – member participation in events*)

3. Define new ways of introducing computing into extra-curricular activities encompassing a broad range of activities, for instance, to enhance interest among female students at all levels of education (*metric – influencers participation in events*)

4. Use the resources of TryComputing.org to offer mentoring and training programs to teachers to enliven school curricula with computing concepts, such as through collaboration with IEEE TISP (*metric – influencers participation in events*)

5. Create a briefing paper on educational advice to offer governments to support the introduction/shaping of pre-university computing curricula, and measure take up and action on this advice (*metric – influencers participation in events*)

6. Create a podcast equivalent to Royal Society Christmas lectures on a topic in computing and promote this for use in schools (*metrics – number of webinars downloads*)
7. Work with industry to identify ways they can support collaborations between practitioners and teachers, initially through collaborative definition of TryComputing lesson plans (*number of industrial sponsorships received for events via participation, total industrial sponsorship received via financial measures*)

8. Participate directly and actively with ACM in our membership in Computing In The Core (CinC) to further the objectives of that organization.

**3.3.1b: Geeks to Heroes** – The IEEE CS will develop new and innovative ways to enhance the general population’s understanding of the current achievements and grand challenges undertaken by computing professionals

1. Identify at least three example per year of grand challenges solved by computing heroes and measure how often these are used by the media (*metric – number of articles appearing in press, number of references in IEEE press*)

2. Identify new approaches of communicating to families in the broad media, for instance, seek to identify what is computing’s equivalence to chemistry’s (and physics’) big bangs, and supporting computing activities in pre-university education (*metric – influencers participation in events, potential future member participation in events*)

3. Define a set of, and put into action, five new activities for promoting the computing profession in a positive way (*metric – influencers participation in events, potential future member participation in events*)

4. Create a knowledge marketplace by exploring opportunities for converting conference IP into products for general public educational media, and marketing these in novel ways (*metric – number of web document downloads*)

5. Collate and make available through the website at least ten case studies in which industrial teams/members have used computing to solve novel problems or ‘saved the day’ when faced with specific issues (*metric – number of articles in the press, number of references in IEEE press*)

**3.3.1c: Computing Education Research** – The IEEE CS will bring about change in computing education by being a leading authority in researching and disseminating new and better ways to teach computing

1. Create a major activity of the education STC concerned with promoting new pedagogic research and the integration of existing research into curricular activity (*metric – STC education membership/activity/outputs*)
2. Increase the focus of computing educational research in conference activity including the FIE conference (*metric – conference activity submission/attendance, CS registration at FIE*)

3. Use strategic publications to raise the profile of educational and pedagogic research in the computing field (*metric – number of pedagogic publication downloads*)

4. Integrate research into IEEE CS course development and use this to help market our products (*metric – number of opportunities taken to promote IEEE CS products*)

The strategy roadmap for Future Professionals (Strategy #3.1) is shown in the diagram below. The expenses, revenues, and operations requirements for Strategy #3.1 are contained in Annex 1.
Strategy #3.1 – Future Professionals
Strategy #3.2: Creating and Maintaining Knowledge - The IEEE CS will develop and maintain a comprehensive and integrated set of education, training and professional development resources and products, leveraging the work of others where appropriate.

3.3.2a: Curricula - The IEEE CS will continue to design and disseminate computing-related curriculum definitions, but will take an increasingly proactive lead on new initiatives to improve the coverage of computing topics at all levels while adopting a strategic approach to clarify inter-relationships between program topics and levels.

1. Ensure that the contributions of the IEEE are well respected and recognized, including requesting a name a change for renewed curricula to JOINT ACM/IEEE CS (metric – activities completed that make existing product base more maintainable and/or future-proofed, number of downloads of definitions including curricula and competency models)

2. Ensure curriculum review committees are resourced and have international contributors who offer leadership experience as well as specialist technical knowledge in the field of computing (metric – participation from each region)

3. Strategically identify new partnerships for the creation of specialist degree and inter-disciplinary programs including those currently run through leading international universities (metric – potential future member participation in events)

4. Explore opportunities to support pre-university curricular definitions, but only proceed after we can be assured that these will be used (metric – number of risk assessment activities used to assess feasibility of business direction)

5. Set up a working party to define the scope of the entire computing field into a set of discrete knowledge areas so that it is clear how curricular subject areas overlap, and the impact of change request to specific curricula can be assessed (metric – activities completed that make existing product base more maintainable and/or future-proof)

6. Identify a set of computing course content terminology to form a definitive glossary of the computing field (metric – number of web document downloads)

7. Define a model for computing that represents how computing discipline topics and professional career routes align (metric – number of web document downloads)
8. Cross-map education and professional terms so that links among pre-university, graduate attributes, professional development and industrial requirements are better understood (metric – number of document downloads, activities completed that make existing product base more maintainable and/or future-proof)

9. Obtain agreement on a set of graduate curricula to support the advancement of the discipline, which will include systems engineering (metric – number of risk assessment activities used to assess feasibility of business direction)

3.3.2b: Competencies – The IEEE CS will provide definitions of the competencies required to perform best practices.

1. Develop competency models for the professions of systems and software engineering (metric – number of downloads of definitions including curricula and competency models)

2. Develop competency models for the professions within the field of IT – see Annex 2 for the Definition of the IT Professional (metric – activities completed that make existing product base more maintainable and/or future-proof, number of risk assessment activities used to assess feasibility of business direction)

3.3.2c: Elements of Computing Professions - The IEEE CS will maintain an integrated set of elements of key computing professions as defined in the “model of a computing profession.”

1. Maintain alignment among the core elements (BoK, Curricula, Competency Model and Standards of Practice) supporting each key computing profession by establishing a Configuration Control Board that approves proposed changes to each element (metric – activities completed that make existing product base more maintainable and/or future-proof)

2. Establish sustainable processes, resources and funding for maintaining and updating the core elements of the key computing professions (metric – activities that make existing product base more maintainable and/or future-proof, number of risk assessment activities used to assess feasibility of business direction)

3.3.2d: Bodies of Knowledge – The IEEE CS will develop and maintain bodies of knowledge for key computing professions.

2 A professionally or occupationally competent person has the attributes necessary to perform the activities within the profession or occupation to the standards expected in independent employment or practice.
IEEE Computer Society Strategic Plan 2011

1. Develop bodies of knowledge for the professions in the field of IT (metric – number of web document downloads)
2. Maintain up-to-date IT bodies of knowledge (metric - activities completed that make existing product base more maintainable and/or future-proof)
3. Develop a body of knowledge for the profession of systems engineering (metric – number of web document downloads)
4. Maintain up-to-date systems engineering body of knowledge (metric - activities completed that make existing product base more maintainable and/or future-proof)

3.3.2e: Standards for Professional Practice - The IEEE CS will develop and maintain standards for professional practice defining best practices in key computing professions.

1. Keep the set of Software Engineering standards up-to-date with industry best practice (metric - activities completed that make existing product base more maintainable and/or future-proof)
2. Establish and keep a set of Systems Engineering standards up-to-date with industry best practice (metric – number of web document downloads)
3. Establish and keep a set of Information Technology standards up-to-date with industry best practice (metric – number of web document downloads)

The strategy roadmap for Creating and Maintaining Knowledge (Strategy #3.2) is shown in the diagram below. The expenses, revenues, and operations requirements for Strategy #3.2 are contained in Annex 1.
Strategy #3.2 – Creating and Maintaining Knowledge
Strategy #3.3: Member and Employer Advancement - The IEEE CS will support the advancement of computing professionals and their employers through a program of opportunity so that computing organizations can employ best practices

3.3.3a Training Opportunities - The IEEE CS will provide a respected and globally recognized spectrum of training opportunities

1. Define a long-term strategic plan for training course product development to include the spectrum of topics to be covered, the subject content level knowledge pre-requisites, the product format and its anticipated audience (metric – number of participants in a training program)

2. Work closely with industry to ensure that training opportunities closely match their needs and are recognized by them (metric – number of participants in a training program, corporate engagement in activity)

3. Explore opportunities for offering training around the use of IEEE standards to include, for instance, webinars and on-line tutorials for selected standards (metric – number of webinars downloads, number of downloads of training or educational packages)

4. Review the CS’s existing portfolio and consider future education and training opportunities afforded through new technology infrastructures including that of mLearning (mobile learning) (metric – activities completed that make existing product base more maintainable and/or future-proof)

5. Link conference activity and BoK knowledge areas and from this encourage relevant conference program teams to identify or generate open-content to support education/training activities (metric – STC education membership/activity/outputs, member participation in events)

6. Define new ways to improve the usefulness and price competitiveness of our offerings by increasing personalization of education and training opportunities such as through bundling options and mashups (metric - activities completed that make existing product base more maintainable and/or future-proof)

7. Create expectations for, and recognize achievement of, professional development activities of CS members (metric – influencers participation in events, number of downloads of training or educational packages)

3.3.3b Awards, Recognition & Competitions – The IEEE CS will develop Awards, Recognition & Competitions strategy to ensure that there is good coverage of computing topics and foci across different communities.
1. Seek opportunities to collaborate with others in organizing and supporting competition and reward activity. Potential partners could include government, industry, conferences and other professional societies (metrics – influencers participation in events, number of industrial sponsorship received for events via participation)

2. Identify how we can link competitions and awards with membership opportunities and existing products and services – e.g., winners who are nonmembers could be offered a period of “free membership” and members’ additional opportunities, - e.g., downloads (metric – number of opportunities taken to promote IEEE CS products)

3. Engage regions and sections in award and recognition opportunities, perhaps by cascading awards through sections to increase the number of entrants. For instance, consider offering highly commended certificates by region thereby giving regions more to celebrate, and increasing the number of satisfied participants (metric – participation from each region)

4. Make better use of winners, such as considering winners and/or their mentors as future judges, or for volunteer positions (metric – member participation in events)

5. Use chapters and regions to create competition hierarchies to support engagement and regional rivalry (metric – participation from each region)

6. Deliberately focus competitions at different age groups (metric – potential future member participation in events)

7. Promote Computer Society Awards program through publicity and media by, for example, strengthening the annual awards banquet.

8. Create new awards for new technologies as these technologies emerge (e.g., Smart Grid, Multicore)

9. Raise the importance of the Awards Committee by allowing it to operate as a quasi-board inside the executive committee structure so that the Awards Chair is afforded a seat at the table for all societal decision-making that impacts the Awards program.

3.3.3c Professional Networks and Mentoring - The IEEE CS will create opportunities (including guidelines, procedures and technologies) for communities of practice to support the education, training, and professional development of their members.

1. Promote the STC Education as a forum for engaging new and existing members as potential volunteers, or use initiatives relating to education and training (metric – STC education membership/activity/outputs)
2. Monitor progress of the STC Education membership and other targets including membership, conference activity, levels of engagement in special projects including pedagogic research initiatives (metric – STC education membership/activity/outputs)

3. Seek opportunities to promote the education STC through education-based conferences, including FIE (metric – STC education membership/activity/outputs conference activity/submission/attendance and CS registrations at FIE)

4. Create opportunities and forums whereby researchers can speedily communicate new research outcomes as short courses for professionals (metric – member participation in events, corporate engagement in activity)

5. Create, formally recognize and support networks whereby experienced individuals can act as mentors for less experienced members -- to support their development of either management or technical skills relating to new computing fields (metric – engagement of members from top computing universities)

### 3.3.3d Developing and Emerging Countries

IEEE CS will play specific attention to engaging developing and emerging countries regarding their needs for professional development and training.

1. Fulfill a market desire in India for a certificate program in IT architecture and develop material for a training class (metric – number of downloads of training or education packages)

2. Develop a member-accessible archive of webinars based on the delivery of synchronous, online webinars to emerging countries, featuring Distinguished Visitor Program (DVP) speakers, led by senior volunteers. Initial focus is to develop a roadmap for India.

### 3.3.3e Standards of Practice

The IEEE CS will provide standards of practice for the computing professions that reflect best practices, and provide support for organizations to incorporate these best practices.

1. Perform a gap analysis between current computing industry standards and those required to support the professions, within the field of computing, to include IT (metric – activities completed that make existing product base more maintainable and /or future-proof)

2. Develop, adopt, and harmonize standards of practice in the field of computing, to include IT (metric - activities completed that make existing product base more maintainable and /or future-proof)
IEEE Computer Society Strategic Plan 2011

3.3.3f Certification - The IEEE CS will be a global resource for internationally recognized skill certification valued by employers and professional practitioners

1. Develop certification programs for professions within the field of computing to include IT (metric – number of web document downloads)

2. Carry out a feasibility analysis of linking ‘associate’ membership (membership options for those working in related fields) opportunities to attainment of specific set of CS certification (metric – registration through new membership opportunities)

3. Carry out a feasibility analysis of offering ‘recognition’ for approved technical, industry led, in-house staff development programs (metric – number of industrial sponsorships received for events via participation, corporate engagement in activity)

4. Keep the CSDP exam up to date (metric – number of web document downloads)

5. Keep the CSDA exam up to date (metric – number of web document downloads)

6. Accredit the CSDP/CSDA certification program (metric – number of web document downloads)

3.3.3g Industry Marketing Research - The IEEE CS will actively seek industry input to determine priority computing industry needs, and use this input to prioritize efforts to make available products and services based on the core elements of the key computing professions that contribute to addressing those needs.

1. Establish an advisory committee for the specific fields of the profession including that of IT (metric – number of industrial sponsorships received for events via participation)

2. Conduct surveys, interviews, and research to determine the priority needs of specific fields of the profession including that of IT industry broken down by IEEE regions (metric – STC education membership/activity/outputs)

3. Ensure that the IAB is representative of a broad range of fields of the profession (metric – participation across broad range fields of the profession)

4. Conduct surveys, interviews, and research to determine the priority training and certification needs for the key industries broken down by IEEE regions and disciplinary fields (metric – participation from each region)
The strategy roadmap for Member and Employer Advancement (Strategy #3.3) is shown in the diagram below. The expenses, revenues, and operations requirements for Strategy #3.3 are contained in Annex 1.
Strategy #3.3 – Member and Employer Advancement
Strategy #3.4: Range of Computing Careers - The IEEE CS will support a range of computing careers by leading initiatives that enhance the education and professional development of leaders in adjacent and related interdisciplinary technology fields.

3.3.4a New Directions – where strategic relationships with related disciplines have been formed create opportunities for interdisciplinary educational and training activities so the CS is seen as a leading participant in new interdisciplinary developments.

1. Explore for aligned and interdisciplinary activities the education, training and professional development needs of members of these professions to ensure they have an effective understanding of how computing can facilitate progress within their discipline (metric – activities completed that make existing product base more maintainable and/or future-proof)

2. Define a shared terminology and communities of practice that can lead to new forms of education and professional development initiatives (metric - activities completed that make existing product base more maintainable and/or future-proof)

3. Carry out a feasibility/risk analysis of ‘associate’ membership opportunities for graduates of other disciplines working in careers closely aligned to computing (metric – registrations through new membership opportunities)

4. Develop a software extension to the PMI project management body of knowledge (metric – number of software downloads)

3.3.4b IT Careers – Establish comprehensive support for education and professional development initiatives for those in IT careers.

1. Establish a program to provide non-degreed IT and computer users with continuing CS/IT education as a means to create large CS membership and involvement by practicing IT practitioners (metric – registrations through new membership opportunities)

The strategy roadmap for Member and Employer Advancement (Strategy #3.3) is shown in the diagram below. The expenses, revenues, and operations requirements for Strategy #3.3 are contained in Annex 1.
Strategy #3.4 – Range of Computing
**Strategy #4: Outreach and Engagement Action Plans and Strategy Roadmaps**

The action plans and strategy roadmaps for Strategy #4 are described below.

*Primary Near-term Achievement:* Focus on technology thought leadership for one underserved industry sector. Define two industry problem areas, identify twenty existing CS authors and experts in this sector, and identify five technology thought-leadership opportunities to serve the identified industry. Identify one organization to test drive a set of possible solutions delivered by IEEE. Estimate the additional annual revenue for IEEE CS to deliver these solutions industry-wide.

3.4.1 Strategy #4.1: Industry/Practitioners - Take an industry focus and provide the technology thought leadership to underserved industry sectors. The model for this will be our approach to the military and nuclear industry adoption of IEEE standards for software.

**3.4.1a - Year 1**

1.1. Identify one underserved industry; e.g. maritime and upstream oil and gas
1.2. Define two industry problem areas, identify twenty existing CS authors and experts in this sector, and identify five technology-thought leadership opportunities to serve the identified industry
1.3. Identify one organization to test drive a set of possible solutions delivered by IEEE
1.4. Estimate the additional annual revenue for IEEE CS to deliver these solutions industry-wide

**3.4.1b - Year 2**

2.1. Identify three potential organizations within the underserved industry
2.2. Approach the three organizations with the package of two industry problem area solutions, package research information and papers relating to the problem area solutions from twenty existing CS authors and experts, and propose five technology thought leadership opportunities to the identified organizations
2.3. Bring the three organizations into the IEEE CS fold

**3.4.1c - Year 3**

3.1. Measure the success with the three organizations within the underserved industry and identify plans for continuing to serve those underserved industries with new products and services
3.2. Identify the next underserved industry

The strategy roadmap for Industry/Practitioners (Strategy #4.1) is shown in the diagram below.
Strategy #4.1 – Industry/Practitioners
3.4.2 Academics/Researchers - Reach out to a critical sector of our market (academics/researchers), and define a process to improve cooperation and coordination with CS operational areas addressing timely marketing, distribution, sharing, and validation of scholarly works. Engage academics/researchers and their organizations with value added tools; e.g. Open Scholar, Google Scholar, Zotero.

3.4.2a - Year 1
1.1. Identify one key issue with our academic community that CS can address
1.2. Define a set of five possible solutions to that issue
1.3. Define a process to improve cooperation within three months of approval of this strategic plan component

3.4.2b - Year 2
2.1. Identify one new issue with our academic community
2.2. Implement two of the five possible solutions identified in year 1
2.3. Formalize the solution process within six months of the approval of this strategic plan

3.4.2c - Year 3
3.1. Get feedback on the process and adjust prior to the middle of the third year after the approval of this strategic plan
3.2. Complete the full instantiation of this process for all academic/researcher outreach and engagement

The strategy roadmap for Academic/Researchers (Strategy #4.2) is shown in the diagram below.
Strategy #4.2 – Academics/Researchers
3.4.3 Strategy #4.3: Computing Professionals - Develop non-traditional information technology professionals, those without an engineering or CS undergraduate degree.

3.4.3a - Year 1
   1.1. Query IEEE membership database for CS all members with non-traditional degrees or no degree
   1.2. Define five online tools to serve these members
   1.3. Suggest one IEEE CS marketing campaign to reach these potential members by December 2012

3.4.3b - Year 2
   2.1. Modify www.computer.org to support two of the five online tools to serve these potential members
   2.2. Execute one IEEE CS marketing campaign to reach these potential members by April 2013

3.4.3c - Year 3
   3.1. Measure the number of and retention of non-traditional members
   3.2. Modify approach to these members to provide an incentive for them to remain an IEEE CS member

The strategy roadmap for Computing Professionals (Strategy #4.3) is shown in the diagram below.
Strategy #4.3 – Computing Professionals

- Analyze all CS members with non-traditional degrees
- Define 5 online tools to serve non-traditional degree members
- Modify Computer.org to support 2 of the tools
- Measure success of attracting and retaining non-traditional members
- Execute 1 marketing campaign
- Define 3 IEEE CS marketing campaigns to attract non-traditional members
- Industry Inputs
- Researcher Inputs

Timeline:
- 2011
- 2012
- 2013 - 2014

Legend:
- Volunteer Led
- CS staff required
Strategy #5: Special Technical Communities Action Plans and Strategy Roadmap

The action plans and strategy roadmap for Strategy #5, Special Technical Communities are described below.

**Primary Near-Term Achievement** - The IEEE CS will evolve Special Technical Communities and will deliver trusted computer science information on an on-demand basis to the community members using the latest technology.

3.5.1 **Strategy #5.1 Formation:** The IEEE CS will empower technically like-minded people to form communities to exchange information and innovate (i.e., expose them to relevant CS IP, equip with modern tools and technologies)

- **Formulation** (Year 1)
  - 3.5.2.1 **Successful Pilots (~6)**
    1. Attract the capable leaders who will bring the community together
    2. Demonstrate value to the members: technical, IP, collaborative tools, etc
    3. Understand detailed needs and requirements of new communities

- **Understand Relationship to Other CS entities**
  1. Support CS education activities
  2. Grow publication support: feeds to CN, newsletters, online magazines
  3. Support standards development and professional development.
  4. As opportunities arise, transform current technical member engagement and growth to include additional deliverables: publications, standards, virtual journals, professional activities, training assets, case studies, and public policy. This may be accomplished by making STC platform and tools available to Technical Committees to augment their existing activities.

- **Formalize Processes and Procedures**
  1. Transfer dynamism and elasticity into formal processes
  2. Maintain reputation despite the speed of execution (Klout, impact factor)
  3. Enable sufficient budget and its distribution (PIFs, revenue generation)

- **Manual Customization (Initial) at the STC Level**
  1. Define the inputs and outputs model (feeds and pipes) that will apply to STCs
  2. Offer some free IP applications for STCs
  3. Charge for membership
  4. Create list of personalization applications and services
IEEE Computer Society Strategic Plan 2011

3.5.2 Strategy #5.2 Growth: The IEEE CS will enable communities to organically grow from informal ones to those with events, newsletters, magazines, transactions as well as to downsize as technology matures

- Growth (Year 1) (~30 communities, a few in the mid-pyramid)
  3.5.2.1 Technical Contributions and Results – enable leading results in selected areas growing primarily from communities (metric - aggregate impact factor of community members v. CS members)
  3.5.2.2 Recognition Beyond CS – build relationships with top organizations in the field (specific ACM SIGs, IFIP, etc.) (metric - # of cross members with other key societies)
  3.5.2.3 Demonstrated Elasticity – champion new technologies and reduce/exit the declining ones (metric - sustained impact factor in new technologies)
  3.5.2.4 Customization & Personalization - deliver personalized content and service

3.5.3 Strategy #5.3 Financial Sustainability: The IEEE CS will encourage and support communities to become financially sustainable to foster new business models

- Financial Stability - Long term > 3 years (>100 communities, a few at the top of pyramid)
  3.5.3.1 Broad Model Deployment and Application (growth) – be visible, popular and place to go to for most recent technologies (metric - # visits, videos, tweets, posts, etc)
  3.5.3.2 Grow Usage Beyond CS - engage with other societies (growth), and attract students and professionals across CS and IT industry areas (metric - #members, #recruited CS & IEEE members)
  3.5.3.3 Demonstrate Financial Sustainability – enable increasing support in terms of collaboration within and outside of community (funding newsletters, magazines, conferences, eBooks)
  3.5.3.4 Improved Customization, Personalization – automated, self-service
Strategy #5.1 STC Formation

1. Attract capable leaders
   - 1.1 Recruit experts

2. Demonstrate value
   - 2.1 Offer technical content
     - 2.1.1 Successful pilots
     - 2.2 Generate IP
     - 2.2.1 Internal requirements

3. Requirements
   - 3.1 Support EAB
     - 3.1.1 Educ. STC workshop
     - 3.1.2 Feed to CN
   - 3.2 STC chairs workshop
   - 3.3 SysCouncil workshop

4. Standards, PAB
   - 4.1 Maintain reputation
     - 4.1.1 Use Klout
     - 4.2 TCSE

5.1 Formation
   - 5.1.1 Successful pilots
   - 5.1.2 Relationship to other CS entities
   - 5.1.3 Formalize processes and procedures
   - 5.1.4 Manual customization

1.1 Attract capable leaders
   - 1.1.1 Offer technical content
     - 1.2 Generate IP
     - 1.2.1 Internal requirements

2.1 Demonstrate value
   - 2.1.1 Successful pilots
   - 2.2 Generate IP
     - 2.2.1 Internal requirements

3.1 Requirements
   - 3.1.1 Support EAB
     - 3.1.1.1 Educ. STC workshop
     - 3.1.2 Feed to CN
   - 3.2 STC chairs workshop

4.1 Standards, PAB
   - 4.1.1 Maintain reputation
     - 4.1.1.1 Use Klout
     - 4.2 TCSE

5.1.1 Successful pilots
   - 5.1.1.1 Offer technical content
     - 5.1.2 Generate IP
     - 5.1.2.1 Internal requirements

Online magazine

2011 (8 STCs, ~20members) 2012 (20 STCs, 100members) 2013 (50 STCs, 500 memb) 2014

- 1.1 Introduce feeds, pipes
- 2.2 Offer free IP, SSO
- 3.3 Membership fees
- 4.4 Personalization

<table>
<thead>
<tr>
<th>Expenses</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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4. Strategic Planning Timelines

The five strategic objectives are intended to remain unchanged for three to five years. Having a firm and unchanging focus on the main strategic objectives allows for progressive steps to be undertaken leading to an organized development of new capabilities, services, and products. However, the intermediate milestones and achievements necessary to accomplish the strategic objectives may undergo revision to optimize the sub-strategies leading to the main strategic objective. Revisions to the action plans may result from changing market conditions, better understanding of consumer/user needs, and anticipated capabilities failing to materialize. The changes to the detailed strategies are reflected in the annual revisions to the strategy roadmap activities. Funds necessary to complete the roadmap activities are provided by the IEEE CS Program Initiative Funds (PIFs).

The timeline to coordinate the yearly strategic planning cycle and funding of strategic roadmap activities with PIFs are outlined below:

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<th>Period</th>
<th>Who</th>
<th>Planning &amp; Deployment Activity</th>
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<tbody>
<tr>
<td>4Q YR #n-1</td>
<td>ExCom for #n</td>
<td>Familiarize strategic objectives and strategies and roadmaps for year #n to begin formulating candidates for 1Q year #n PIFs.</td>
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<tr>
<td>1Q YR #n</td>
<td>Staff</td>
<td>Year-end review of #n-1 Operations Plan and carry-over status to #n</td>
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<td></td>
<td>ExCom VP</td>
<td>Submit 1Q PIFs for strategy roadmap activities to establish priority &amp; approval to get staff assigned to initiative activities</td>
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<td></td>
<td>PlanCom, FinCom</td>
<td>Review and approve 1Q PIFs to verify that commitment for funds and IEEE CS staff support</td>
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<tr>
<td></td>
<td>ExCom VP</td>
<td>Deploy projects to Board committees</td>
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<td></td>
<td>Staff</td>
<td>Deploy projects to Staff via Operations Plan</td>
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<tr>
<td>2Q YR #n</td>
<td>ExCom</td>
<td>Develop larger 2Q PIFs for #n+1 budget</td>
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<td>PlanCom, FinCom</td>
<td>Review 2Q PIFs to verify that commitment for funds and IEEE CS staff support for a multi-year projects.</td>
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<tr>
<td>3Q YR #n</td>
<td>FinCom, BoG</td>
<td>Approve #n+1 budget</td>
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<td>PlanCom</td>
<td>Revise the strategy roadmaps with new ideas or direction based upon results obtained from trial efforts from 1Q PIF project.</td>
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<td></td>
<td>Staff</td>
<td>mid-year Operations Plan review</td>
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IEEE Computer Society Strategic Plan 2011

<table>
<thead>
<tr>
<th>4Q YR #n</th>
<th>PlanCom</th>
<th>Revise the strategy roadmaps based upon approved 2Q PIFs and any new ideas developed by the Boards and Committees.</th>
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<tbody>
<tr>
<td>BoG</td>
<td>Approve revisions to Strategic Plans</td>
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<tr>
<th>Quarterly</th>
<th>ExCom VP</th>
<th>Review prior roadmap activity and results to determine continued support. If not, then take actions to revise the roadmap to reflect the new direction. Include roadmap / PIF activity and results in report to BoG Agenda</th>
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<tbody>
<tr>
<td>Staff</td>
<td>Update Balance Score Card (BSC) measurement trends</td>
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<tr>
<td>BoG</td>
<td>Receive VP reports on roadmap projects status including those funded by PIFs and BSC measurement trends</td>
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# Annex 1: Expenses, Revenues, and Operations Requirements – Strategy #3.1, #3.2, #3.3, and #3.4

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</table>

**PIF** - approved PIF exists that provides funding for that year  
**Unfunded** - no approved PIF exists and funding incremental to current budget is required from Computer Society  
**Operations** - all funding required is expected to be allocated from base operations funding  
**Other Unit** - some other organization outside the Computer Society is expected to provide funding
Annex 2: Definition of the IT Professional

EXTRACT OF SECTION 2 – ELEMENTS OF THE IT PROFESSION
ELEMENTS OF THE IT PROFESSION

Various types and forms of technologies are covered within the technical scope of Information Technology and the list of technologies is continually changing. The list of technologies is vast, from computing devices, application software, communications technologies, to computing services.

However the committee declares that a complete view of the IT Profession (and the IT Professional) includes more than the actual technology components. The profession of Information Technology must include everything needed to allow a professional (practitioner) to assume responsibility for all aspects of computing technology itself (such as specification, development, testing, operation, support and maintenance of the technology) as well as the application and management of such technology.

Responsibility for performance of these activities, as they apply to information technologies, defines the scope of responsibility for the IT practitioner. Given the breadth of these activities, an individual practitioner is typically assigned responsibility for a related sub-set of these activities through a defined job role. Each job role therefore carries competency requirements defined by the knowledge and skills required to competently perform the activities associated with the job role. The exception would be a CIO (Chief Information Officer) who may be responsible for the complete set of IT activities.

A robust IT profession will provide the means for an IT practitioner to gain and maintain required knowledge and skills associated with defined job roles. Certification and licensing provides a means to demonstrate the attainment of competencies.

Figure 1 below depicts some of the important elements of a (generic) profession.

Figure 1 - Elements of a Profession

Note that different elements of a profession are required by a professional at various points in his/her professional development. While one can define any one element such as a Syllabus (via a sub-model perhaps) in detail, it is important to recall that the formation and maintenance of a professional within a professional regime requires the integration of all of these elements – they must align and be consistent with each other; i.e. the sub-models do not stand in isolation. An organization seeking to build or establish a true “IT profession” must be aware of all of these elements and ensure that they are aligned.

Figure 2 shows some of the relationships between elements of a profession that must be kept in alignment.
Definitions
The required elements of an IT profession include:

Professional Societies
- Existence of professional organizations that support the advancement of the profession.
- Sufficiency and sustainability of employment in the profession.
- There are active research efforts to advance the state of the profession’s knowledge

Code of Ethics
- Common code of ethics to all IT sub-disciplines
- A code of ethics which specifies appropriate professional conduct to engage in the profession.

Activities
IEEE Computer Society Strategic Plan 07

• Specification, development, testing, operation, support and maintenance of information technologies as well as the application and management of such technologies.

Standards of practice
• Application of current best practice
• Means to track evolving technologies, methods
• Standards that specify techniques, methods, procedures and performance norms, agreed to by the profession, which supports the best in professional practice.

Competency definitions
• Comprehensive competence architecture in place
• Ongoing maintenance regime for the competence architecture

Body of Knowledge
• Clearly defined core body of knowledge
• Specialized bodies of knowledge beyond “core”
• Supporting knowledge areas such as technical management, etc
• A description of the knowledge, methods, and practices that define the content of the profession.
• Consensual validation of the knowledge.
• A rational and scientific foundation for the knowledge.

Curriculum
• Defined by recognized, authoritative bodies
• Curriculum models that support the establishment and improvement of educational programs.

Accreditation criteria
• Aligned to certification regimes
• An accreditation system that assures the quality and suitability of the preparatory education.

Preparatory Education
• Readily available programs that comply with curriculum and accreditation criteria
• The education and training necessary to be employed in an entry level position in the profession.

Skills
• The ability to influence things; to take what you know and apply it so as to cause a real effect to occur.
• A certain amount of knowledge is a prerequisite of skill; you can't be skillful without first being knowledgeable; however, you can easily be knowledgeable without being very skillful.
Professional Development
- Multiple means to maintain and advance skills and knowledge
- Education, training and experience necessary to keep current and advance in the profession.

Certification
- Standard and recognized certification regime
- Consistent with body of knowledge
- Mechanisms for certification (to prove competence) that do not require compliance with education requirements
- Defined means of re-certification/CPD & de-certification
- Includes professionalism aspects
- Includes demonstration of competency through practice (apprenticeship / experience)
- Mechanisms to support specialist competence areas
- Validation, by a community of peers, that an individual possesses the knowledge and competence of a professional.

Licensing
- Implemented by other authoritative bodies
- Supported by clear body of knowledge, certification standards, competency standards, code of ethics and a clear boundary of a licensed discipline
- Validation, by a community of peers, that an individual possesses the knowledge and competence of a professional.

Job Roles
- A type of position in an organization characterized by the responsibilities for performance of activities assigned to the position
- Level of responsibility varies between job roles
- Job roles should be clearly defined in terms of responsibilities and the competencies required

Career Paths
- The series of jobs a person holds in their life is their career.
- A career path is a pre-defined series of job roles where experience in previous job roles is relevant to subsequent job roles.
## RECOMMENDED REVISIONS OF SP-6 GOALS FOR 2011

<table>
<thead>
<tr>
<th>SHORT TERM GOAL</th>
<th>2010 GOAL</th>
<th>2011 GOAL</th>
<th>REASON FOR CHANGE, DELETION, OR ADDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term Goal 1</td>
<td>SP-6/S Goal 1. Industry professionals and their employers will value the IEEE Computer Society as a major resource to achieve success through the identification of practitioner focused initiatives, products or services.</td>
<td>No change</td>
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<tr>
<td>Short Term Goal 2</td>
<td>SP-6/S Goal 2. The IEEE Computer Society will improve the professional competencies of students and professionals through education and evaluation programs valued by employers and professionals.</td>
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<tr>
<td>Short Term Goal 3</td>
<td>SP-6/S Goal 3. The IEEE Computer Society will provide a global forum for the world’s computing professionals, provided through online personalized access to expertise, products, and services.</td>
<td>No change</td>
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<tr>
<td>Short Term Goal 4</td>
<td>SP-6/S Goal 4. The IEEE Computer Society should identify, document, and foster interoperability among stakeholders, both within and outside the Society.</td>
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<tr>
<td>Short Term Goal 5</td>
<td>SP-6/S Goal 5. The IEEE Computer Society will focus on controlled planning and internal restructuring; it will make measurable improvements to advance the Society and reposition it for growth and renewal.</td>
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<tr>
<td>Short Term Goal 6</td>
<td>SP-6/S Goal 6. Each initiative, product, or service, newly proposed or already engaged, should target a clearly identified and delineated community. In addition, prior to approval, the proposal should describe all planning activities, expected returns on investment (ROI), and measures of success.</td>
<td>No change</td>
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</table>
### STRATEGIC LONG TERM GOAL CHANGES – 2010 REVISION

<table>
<thead>
<tr>
<th>Big Audacious Goal</th>
<th>2010 Goal</th>
<th>2011 Goal</th>
<th>Reason for Change, Deletion, or Addition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Be the vital global resource to the world’s computing professionals and be universally recognized as the leading facilitator of technical expertise as well as products, and services supporting technology professionals.</td>
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<td>No Change</td>
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<tr>
<td>Long Term Goal 1</td>
<td>SP-6/L Goal 1. The IEEE Computer Society will establish a relationship (contact channel along with individual opt-in) with every relevant professional in the world.</td>
<td></td>
<td>No change</td>
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<tr>
<td>Long Term Goal 2</td>
<td>SP-6/L Goal 2. The IEEE Computer Society will implement a program for ongoing contact with our global professional community that facilitates participation without annoyance.</td>
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<td>No change</td>
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<tr>
<td>Long Term Goal 3</td>
<td>SP-6/L Goal 3. The IEEE Computer Society will develop personalized profiles of participating professionals, presenting them with the most relevant information, communities, networking opportunities, information exchanges, and materials.</td>
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<td>No change</td>
</tr>
<tr>
<td>Long Term Goal 4</td>
<td>SP-6/L Goal 4. The IEEE Computer Society will develop a transparent advertising business model that provides alternate revenue streams for the IEEE CS.</td>
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<tr>
<td>Long Term Goal 5</td>
<td>SP-6/L Goal 5. The IEEE Computer Society will expand and leverage our IEEE relationship.</td>
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</tbody>
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APPENDIX D

FIRST QUARTER PROJECT INITIATIVE FORM

<table>
<thead>
<tr>
<th>Proposed New Initiative</th>
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<tbody>
<tr>
<td>Initiative Name</td>
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<tr>
<td>Initiative Number</td>
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<tr>
<td>– Date Submitted</td>
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<tr>
<td>– Volunteer Leader</td>
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<tr>
<td>– Contacts E-Mail</td>
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<tr>
<td>– Addresses</td>
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<tr>
<td>– Staff Support Contact</td>
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</tbody>
</table>

**IMPORTANT**

Please submit this form to the chair of the CS Planning Committee before February 15.

For additional information or questions regarding this process contact your staff liaison or the chair of the CS Planning Committee

Please complete the form below describing your proposed Initiative

1. Provide a description of the proposed Initiative. Do not exceed 100 words.

Use this space for the description of the proposed Initiative.

2. Describe briefly and succinctly the desired outcome / deliverables / time frame of an investment in this Initiative. Please be brief and specific. Do not exceed 300 words.

Use this space to describe the desired outcome, deliverables, and time frame of the investment.

3. Describe the advantages and benefits of this Initiative. Do not exceed 100 words.

Use this space to describe the Initiative’s advantages and benefits.

4. Check the specific Computer Society Goal(s) that the Initiative will address. (Check all that apply.)

<table>
<thead>
<tr>
<th>STRATEGIES</th>
<th>SUBSTRATEGIES</th>
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</thead>
<tbody>
<tr>
<td>1. Future Technologies</td>
<td>1.1 Smart Grid</td>
</tr>
<tr>
<td></td>
<td>1.2 Cloud Computing</td>
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</tbody>
</table>
5. Check the specific IEEE Goal(s) that the Initiative will address. (Check all that apply.) More information about IEEE’s goals are found at the following URL. http://www.ieee.org/about/corporate/strategy/index.html

☐ Goal A — Profession: Industry and Practitioners - Industry professionals and their employers will value IEEE as a major resource to achieve success.
☐ Goal B — Profession: Education - The IEEE will improve professional competencies through shaping the education of students and professionals.
☐ Goal C — Public: Global Advocacy - IEEE will increasingly be valued by the global community as a catalyst for a balanced dialogue on technology-related issues.
☐ Goal D — Public: Image of IEEE and the Profession - The public will increasingly value the role of IEEE and technical professionals in enhancing the quality of life and the environment; IEEE will fulfill its requirement to serve the public good.
☐ Goal E — Organization: Members and Volunteers - IEEE members will increasingly find value and enjoyment through their involvement in the organization.
☐ Goal F — Organization: IEEE the Association - IEEE will operate as a model global association, with aligned purpose, energy, and infrastructure that facilitates the development and execution of coordinated strategy.
☐ None of the above. Please explain below.

Use this space to explain why “none of the above” is selected

6. Provide a description of the following issues to accomplish this Initiative.

a. List any technologies associated with this project and the level of confidence in using the technologies. Will research be required to develop any of the technologies?

Use this space to list technologies and level of confidence in using the technologies.

b. Describe the risks and uncertainties related to this project.

Use this space to describe the risks and uncertainties.

c. People participating:
i. Provide the names of the people that will be involved in this Initiative including the project manager, volunteers, staff, contractors and consultants.
   - Project manager:
   - Volunteers:
   - Staff:
   - Contractors or consultants:

ii. Provide an estimate of the number of volunteer and staff hours required to fulfill the requirements of this proposal.
   - Volunteer hours:
   - Staff hours:

8. Identify other Computer Society boards that could participate in this Initiative. Check all that apply.

- Educational Activities
- Publications
- Technical and Conference Activities
- Standards
- Professional Activities
- Membership and Geographic Activities
- Other Computer Society – Identify:
- Other IEEE entities — Identify:

9. Please indicate the estimated funding required and the anticipated duration (maximum funding is one (1) year) of this Initiative.

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<tr>
<th>Budget:</th>
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<td>1</td>
<td>Anticipated Revenue (if known)</td>
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<tr>
<td>2</td>
<td>Anticipated Expenses</td>
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Initiative Net: Rows 1-2 $0

Revenue Explanation: Justify the potential revenue sources by providing a list of potential users/customers. If the new Initiative involves non-financial returns of some kind, identify the users/customers.

Use this space to explain the Initiative's anticipated revenues.

10. Champion of the Proposal

Name:
The Champion may use this space to make comments on the proposal.

---

The information provided in items 1-10 will be used by the Planning Committee to evaluate the alignment of the proposal with Computer Society Short and Long Term Goals, and to make recommendations to the Finance Committee regarding the relative priority and funding of the proposal. The Finance Committee will determine the final resolution of the request.
APPENDIX E

NEW PROJECT INITIATIVE FORM

<table>
<thead>
<tr>
<th>Proposed New Initiative</th>
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<tbody>
<tr>
<td>Initiative Name</td>
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</tr>
<tr>
<td>Date Submitted</td>
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<tr>
<td>Volunteer Leader</td>
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<tr>
<td>Contact and email</td>
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<tr>
<td>Alternate Volunteer</td>
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<td>Contacts and email</td>
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<tr>
<td>Staff Support Contact</td>
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<td>and email</td>
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</table>

**IMPORTANT**

Please submit this form to the chair of the CS Planning Committee before the end of the June Board of Governors meeting.

For additional information or questions contact your staff liaison or the chair of the CS Planning Committee.

Please complete the form below describing your proposed Initiative

1. Provide a description and scope of the proposed initiative. Do not exceed 100 words.

   Use this space for the description of the proposed Initiative.

   - 2. Describe briefly and succinctly the desired outcome / deliverables / time frame of an investment in this Initiative. Please be brief and specific. Do not exceed 300 words.

   Use this space to describe the desired outcome, deliverables, and time frame of the investment.

   - 3. Initiative’s Objectives—Describe the specific objectives of this proposed Initiative. Do not exceed 100 words.

   Use this space to describe the Initiative’s objectives.
### 4. Check the specific Computer Society Goal(s) that the Initiative will address. *(Check all that apply.)*

<table>
<thead>
<tr>
<th>STRATEGIES</th>
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<tbody>
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<td></td>
<td>1.2 Cloud Computing</td>
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<td>1.3 Life Sciences</td>
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<td>1.4 Future Processing Technologies</td>
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<tr>
<td></td>
<td>1.5 Machine Learning</td>
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<tr>
<td>2. Knowledge Creation</td>
<td>2.1 Innovative Publishing Process</td>
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<tr>
<td></td>
<td>2.2 Innovative Engineering Practice</td>
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<tr>
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<td>2.3 Engage Other Disciplines</td>
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<tr>
<td>3. Education and Professional Development</td>
<td>3.1 Future Professionals</td>
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<td></td>
<td>3.2 Creating and Maintaining Knowledge</td>
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<td>3.3 Member and Employer Enhancement</td>
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<td></td>
<td>3.4 Range of Computing Careers</td>
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<tr>
<td>4. Outreach and Engagement</td>
<td>4.1 Industry/Practitioners</td>
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<td></td>
<td>4.2 Academics/Researchers</td>
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<tr>
<td></td>
<td>4.3 Computing Professionals</td>
</tr>
<tr>
<td>5. Special Technical Communities</td>
<td>5.1 Formation</td>
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<td>5.2 Growth</td>
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<td>5.3 Financial Sustainability</td>
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<td>5.4x</td>
</tr>
</tbody>
</table>

### 5. Check the specific IEEE Goal(s) that the Initiative will address. *(Check all that apply.)*

More information about IEEE's goals are found at the following URL. [http://www.ieee.org/about/corporate/strategy/envisioned_future.html](http://www.ieee.org/about/corporate/strategy/envisioned_future.html)

- **Goal A — Profession: Industry and Practitioners**
  Industry professionals and their employers will value IEEE as a major resource to achieve success.

- **Goal B — Profession: Education**
  The IEEE will improve professional competencies through shaping the education of students and professionals.

- **Goal C — Public: Global Advocacy**
  IEEE will increasingly be valued by the global community as a catalyst for a balanced dialogue on technology-related issues.

- **Goal D — Public: Image of IEEE and the Profession**
  The public will increasingly value the role of IEEE and technical professionals in enhancing the quality of life and the environment; IEEE will fulfill its requirement to serve the public good.

- **Goal E — Organization: Members and Volunteers**
  IEEE members will increasingly find value and enjoyment through their involvement in the organization.
**Goal F — Organization: IEEE the Association**
IEEE will operate as a model global association, with aligned purpose, energy, and infrastructure that facilitates the development and execution of coordinated strategy.

**None of the above. Please explain below.**
Use this space to explain why “none of the above” is selected

### 6. Provide a description of the following issues to accomplish this Initiative.

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
</table>
| b. | Describe the project’s scope and objectives.  
Use this space to describe the project's scope and objectives.  |
| c. | How will you measure actual performance against the stated objectives?  
Use this space to identify the measures of actual performance  |
| d. | List any technologies associated with this project and the level of confidence in using the technologies. Will research be required to develop any of the technologies?  
Use this space to list technologies and level of confidence in using the technologies.  |
| e. | Initiatives should add value to the Computer Society’s treasury of products, processes, volunteer and staff investments of time, and opportunities for growth. How would you justify an investment in this Initiative? Note: *Keep in mind that initiatives can be justified on quantitative or qualitative basis. The quantitative generally are associated with products and processes; the qualitative with member services or benefits to the general public.*  
Use this space to explain or justify a Computer Society investment in this initiative.  |
| f. | Describe the risks and uncertainties related to this project.  
Use this space to describe the risks and uncertainties.  |
| g. | People requirements:  
i. Provide the names of the people that will be involved in this Initiative including the project manager, volunteers, staff, contractors and consultants.  
  - Project manager:  
  - Volunteers:  
  - Staff:  
  - Contractors or consultants:  
ii. Are new full-time hires required to fulfill the expectations of this proposal?  
  NO  |
- YES, please specify the number, general qualifications, and expected time of hire after the availability of funding. Use this space to specify the number, general qualifications of new hires, and anticipated date of hire.

### iii. Are new part-time hires required to fulfill the expectations of this proposal?

- NO
- YES, please specify the number, general qualifications, and elapsed time of hire from availability of funding. Use this space to specify the number, general qualifications of new hires, and anticipated date of hire.

### iv. Provide an estimate of the number of volunteer and staff hours required to fulfill the requirements of this proposal.

- Volunteer hours:
- Staff hours:

### v. Identify any scheduled projects or other work that will be delayed or cancelled if this project is approved.

Use this space to describe the opportunity costs and what work will not get done.

---

- h. If the project involves a period that extends into the next budget year, describe the plan for maintaining continuity and identify the sustaining costs for the following three years.

Use this space to describe the plan for continuity and sustaining the activity the following three years.
7. Please respond to the following questions.

a. Describe the features, advantages, and benefits of this Initiative.

   **Features** — what is really new and innovative?
   Use this space to explain features

   **Advantages** — what are the advantages of this Initiative over current practices?
   Use this space to explain advantages

   **Benefits** — what are the specific benefits and who are the recipients?
   Use this space to explain benefits

b. In developing your request, you very likely considered alternatives. Please discuss those alternatives and indicate why you rejected them.

   Use this space to discuss the alternatives you considered.

c. Identify other Computer Society boards that could participate in this Initiative. *Check all that apply.*

   - [ ] Educational Activities
   - [ ] Publications
   - [ ] Technical and Conference Activities
   - [ ] Standards
   - [ ] Professional Activities
   - [ ] Membership and Geographic Activities
   - [ ] Other Computer Society — Identify:
   - [ ] Other IEEE entities — Identify:

e.

f.

g.
8. Please indicate the estimated funding required and the anticipated duration of this Initiative.
   a. Estimate the funding by year and identify potential sources of revenue. Justify the potential revenue sources by providing a list of potential users/customers. If the new Initiative involves non-financial returns of some kind, identify the users/customers.
   b. When considering human resources, please estimate the “fully-loaded” cost. (“Fully-loaded” cost includes direct plus all indirect costs, including infrastructure/overhead.)
   c. Identify ongoing costs for sustaining this Initiative as part of Computer Society operations after three years.

Duration of Initiative:
- 1 Year
- 2 Years
- 3 Years
- More than 3 Years

Budget: To complete, Double Click on the Spreadsheet to enter data.

<table>
<thead>
<tr>
<th>Budget Item</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
<th>Initiative Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipated Revenue</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Anticipated Expenses</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>(less HR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipated HR Costs</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Initiative Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Revenue Explanation: Justify the potential revenue sources by providing a list of potential users/customers. If the new Initiative involves non-financial returns of some kind, identify the users/customers.

Use this space to explain the Initiative's anticipated revenues.

9. Estimated life cycle/budget impact costs: Identify the ongoing costs for sustaining this Initiative as part of the Computer Society operations at the conclusion of the Initiative period. Please discuss the life-cycle funding for the proposed project and indicate when, how much, from whom and for what purpose any additional funding will be available after the Initiative money expires.

Use this space to identify the costs and funding sources after all New Initiative funding expires.
<table>
<thead>
<tr>
<th>10. Champion of the Proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
</tr>
</tbody>
</table>

The Champion may use this space to make comments on the proposal.

The information provided in items 1-10 will be used by the Planning Committee to evaluate the alignment of the proposal with Computer Society Short and Long Term Goals, and to make recommendations to the Finance Committee regarding the relative priority and funding of the proposal. The Finance Committee will determine the final resolution of the request.
## APPENDIX F

### ANNUAL PLANNING CALENDAR

<table>
<thead>
<tr>
<th>EVENT</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff works with new leaders to familiarize them with the goals and</td>
<td>1 Jan</td>
</tr>
<tr>
<td>initiatives of their boards from the current year, and funds available</td>
<td></td>
</tr>
<tr>
<td>for first quarter projects</td>
<td></td>
</tr>
<tr>
<td>New Board of Governors and Executive Committee is seated</td>
<td>1 Jan</td>
</tr>
<tr>
<td>Schedule and call for CS board/officer recommendations to Nominations</td>
<td>Feb issue</td>
</tr>
<tr>
<td>Committee (NomCom) in <em>Computer</em></td>
<td></td>
</tr>
<tr>
<td>Committee/board heads review current year goals, status and budget,</td>
<td>By 1 Feb</td>
</tr>
<tr>
<td>and with staff assistance, reports goal-related initiatives via</td>
<td></td>
</tr>
<tr>
<td>Balanced Scorecard.</td>
<td></td>
</tr>
<tr>
<td>**First BOARD OF GOVERNORS MEETING, Renaissance Long Beach, Long</td>
<td>1-3 Feb</td>
</tr>
<tr>
<td>Beach, CA, USA (BoG Caucus/ExCom Meeting 2 Feb; BoG meeting 3 Feb)</td>
<td></td>
</tr>
<tr>
<td>Committee/board heads may submit First Quarter Project Initiation</td>
<td>By 15 Feb</td>
</tr>
<tr>
<td>Forms (PIFs) requesting budget additions/changes in current year, to</td>
<td></td>
</tr>
<tr>
<td>Planning Committee (PlanCom).</td>
<td></td>
</tr>
<tr>
<td>PlanCom determines alignment of new PIF requests to current short-</td>
<td>By 22 Feb</td>
</tr>
<tr>
<td>and long-term goals. Passes recommendation to FinCom.</td>
<td></td>
</tr>
<tr>
<td>FinCom (in consultation with ED) reviews and approves/rejects new PIF</td>
<td>By 27 Mar</td>
</tr>
<tr>
<td>requests</td>
<td></td>
</tr>
<tr>
<td>Annual Operations Plan is finalized and distributed, including new</td>
<td>By 31 Mar</td>
</tr>
<tr>
<td>projects approved by FinCom.</td>
<td></td>
</tr>
<tr>
<td>Recommendations from membership for board/officer nominees mailed to</td>
<td>15-May</td>
</tr>
<tr>
<td>NomCom</td>
<td></td>
</tr>
<tr>
<td>NomCom slate of Computer Society officer and board candidates due to</td>
<td>22-May</td>
</tr>
<tr>
<td>Board of Governors</td>
<td></td>
</tr>
<tr>
<td>Last day for board/officer petition candidates to be submitted to</td>
<td>5 June</td>
</tr>
<tr>
<td>Board secretary</td>
<td></td>
</tr>
<tr>
<td>Committee/board heads review/revise their short-term goals and related</td>
<td>By 11 June</td>
</tr>
<tr>
<td>initiatives to take effect in current year, and long-term goals to</td>
<td></td>
</tr>
<tr>
<td>begin in next year.</td>
<td></td>
</tr>
<tr>
<td>**Second BOARD OF GOVERNORS MEETING, Renaissance Seattle, Seattle,</td>
<td>11-15 June</td>
</tr>
<tr>
<td>WA USA Including approval of Periodical page budgets, prices and</td>
<td></td>
</tr>
<tr>
<td>board/officer candidates     (BoG Caucus/ExCom Meeting 14 June; BoG</td>
<td></td>
</tr>
<tr>
<td>Meeting 15 June)</td>
<td></td>
</tr>
<tr>
<td>Committee/board heads submit to PlanCom PIFs for budget additions/</td>
<td>11-15 June</td>
</tr>
<tr>
<td>changes for next year’s new initiatives.</td>
<td></td>
</tr>
<tr>
<td>Last day for 2011 IEEE Division VIII Delegate-Director-Elect petition</td>
<td>22 June</td>
</tr>
<tr>
<td>candidates to be submitted to IEEE</td>
<td></td>
</tr>
<tr>
<td>PlanCom determines alignment of PIF requests to strategic goals.</td>
<td>6 July</td>
</tr>
<tr>
<td>Passes recommendation to FinCom, and consideration for the subsequent</td>
<td></td>
</tr>
<tr>
<td>budget.</td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>FinCom (in consultation with ED) reviews and approves/rejects PIF requests, and if approved, budgeted initiatives become part of next year’s budget.</td>
<td>20 July</td>
</tr>
<tr>
<td>Board-approved slate and call for petition candidates published in <em>Computer</em></td>
<td>July Issue</td>
</tr>
<tr>
<td>FinCom presents next year’s budget to ExCom and BoG</td>
<td>By 7 Aug</td>
</tr>
<tr>
<td>Candidate statements/biographies published in <em>Computer</em></td>
<td>Aug Issue</td>
</tr>
<tr>
<td>Executive Committee Telecon to receive the 2013 Staffing Plan</td>
<td>6 Aug</td>
</tr>
<tr>
<td>Board of Governors Telecon to approve the 2013 Operating and Capital Budgets</td>
<td>7 Aug</td>
</tr>
<tr>
<td>CS Ballots mailed</td>
<td>6 Aug</td>
</tr>
<tr>
<td>CS Ballots returned and tabulated</td>
<td>8 Oct</td>
</tr>
<tr>
<td>PlanCom reviews current set of short- and long-term strategic goals and revises and consolidates as necessary – to become effective in the next year.</td>
<td>By Oct 15</td>
</tr>
<tr>
<td>PlanCom submits new/revised goals to BoG for approval. PlanCom documents changes to goals, revises the current year’s “handbook,” and issues next year’s revised handbook.</td>
<td>By 5 Nov</td>
</tr>
<tr>
<td>Third BOARD OF GOVERNORS MEETING, Hyatt Regency, New Brunswick, NJ, USA (BoG Caucus/ExCom Meeting 5 Nov; BoG Meeting 6 Nov)</td>
<td>5-6 Nov</td>
</tr>
<tr>
<td>CS Election results published in <em>Computer</em></td>
<td>Dec Issue</td>
</tr>
</tbody>
</table>
APPENDIX G

GOALS FROM THE IEEE STRATEGIC PLAN

- A4 – Improve the identification of and increase IEEE activities in new and emerging technologies where innovation is occurring
- B5 – Expand IEEE's role in developing model curricula with an emphasis in new areas
- B6 – Expand IEEE's role in developing accreditation bodies around the world
- B7 – Increase the breadth and market penetration of IEEE products that use new educational delivery methods
- C1 – Improve IEEE's capacity to address global issues
- C2 – Increase collaboration with other professional societies on issues of common interest
- D1 – Increase public perception of IEEE as a contributor to the enhancement in the quality of life and the environment
- D4 – Improve public understanding of the value of technical professionals
- E4 – Improve IEEE volunteer and leadership training at all levels
- F5 – Improve collaboration between IEEE staff and volunteers

For additional information see http://www.ieee.org/about/corporate/strategy/index.html.