

THE CANADIAN ASSOCIATION OF PHYSICISTS COMMUNICATIONS NEEDS ASSESSMENT

Prepared by Gina Grosenick
April 2, 2016

EXECUTIVE SUMMARY

In November 2015, the Canadian Association of Physicists (the CAP) contracted a communications needs assessment to help facilitate the CAP's 2014-2018 Strategic Plan. The project included a communications review and analysis of the strategic plan, an in-depth audit of the organization's current communication practices and capacities, and analysis and recommendations for moving the 2014-2018 plan forward.

The communications review of the CAP 2014-2018 Strategic Plan identified ten communication goals that support the strategic goals and objectives of the plan and ten different audiences to whom the CAP would need to communicate.

The communications audit revealed an active communications and outreach program on behalf of the CAP. Within this program, the target audiences of non-member physicists, especially physicists working outside of academia, media, high school and cégep educators and students, politicians and funders, and generalized publics were not being adequately engaged to achieve the communication goals. The audit also revealed that the CAP's current communication program with members needs to be reassessed and intensified to position the CAP as the primary source of information among Canadian physicists.

The gaps within the current communications plan can largely be attributed to:

- Lack of strategic communications planning for the organization
- Reliance on volunteer capacities to deliver the communications program
- Limited in-house resources and dedicated expertise to support communications
- Unsupported and outdated website platform
- Non-existent databases and contact lists for a number of key target audiences

The needs analysis found that, to achieve the goals of the 2014-2018 plan, the CAP would be required to:

- Intensify the frequency and timing of communication with current members
- Collect and share member and physics news among multiple target audiences
- Persuade post-secondary student members to become full members
- Communicate with physicists outside of academia and with the organizations hiring them
- Identify news and information needs of physicists working outside of academia and collect and communicate this information
- Increase awareness and support for P.Phys. certification

- Upgrade and re-design the website
- Increase mainstream news media coverage of the CAP and Canadian physics
- Increase industry news media coverage of the CAP and Canadian physics accomplishments
- Educate and increase awareness of physics among generalized publics
- Increase support and engagement for high school and cégep teachers and students
- Assess and plan the CAP's social media engagement in alignment with organizational goals
- Increase engagement with politicians and funders

The communications program required to fulfill these needs are well beyond the CAP's current capacities and, even with increased resources, what can reasonably be achieved before the strategic plan is scheduled to sunset in 2018.

Interviews with the CAP leadership and staff prioritized certain target audiences and goals over others. Based on this feedback, it is recommended that over the next 32 months, the CAP focus on the target audiences that financially support the organization and position the CAP as the voice of physicists and physics in Canada first, and then incrementally introduce and/or lay the foundation for achieving the other goals and communicating with other target audiences outlined within the strategic plan. The following summarizes the recommended plan for 2016-2018:

April 1, 2016 – December 31, 2016

- Create three-year strategic communications plan
- Hire in-house communications staff
- Upgrade website and address database and technical limitations
- Develop capacity for and increase membership communication and membership levels
- Develop capacity and increase non-academic physicist communication and membership
- Create capacity for industry and mainstream media management
- Increase engagement with politicians and funders

January 1, 2017 – December 31, 2017

- Maintain ongoing activities from previous year
- Further increase capacity for non-academic physicist communication and membership
- Develop capacity for and increase the P.Phys. certification among industry
- Create capacity and long range plan for educators
- Further increase engagement with media, politicians and funders

January 1, 2018 – December 31, 2018

- Maintain ongoing activities from previous year
- Further increase capacity for non-academic physicist communication and membership
- Create capacity and long range plan for generalized public
- Further increase engagement with media, politicians and funders

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INTRODUCTION

Highlights:

- The strategic plan identifies a series of goals and objectives that would enable the CAP to improve awareness of the contribution Canadian physics makes and of the CAP
- The CAP needs assessment consisted of three phases:
 - Communications Review of the CAP 2014-2018 Strategic Plan
 - Communications Audit of the CAP's current communications practices
 - Needs assessment and recommendation to move forward

The Canadian Association of Physicists (the CAP) is dedicated to advancing the scientific, educational, public policy, and communication initiative of the profession of physics in Canada. The organization has a committed staff of six full time and part time individuals in Ottawa and active Board and committee participation from across the country. The governance model under which the CAP operates is a hybrid of the “policy” and “working/administrative” models of non-profit governance¹. As such the Board both sets policy and direction of the organization and individual Board members and volunteers are responsible for carrying out many of the activities of the organization, utilizing staff resources as available and required. The Canadian Association of Physicists Foundation (the CAPF) is administered by a Board of Directors appointed by the CAP and has a mandate to raise and provide funding for physics education and physics student activity and programming in Canada.

Following a two year process of consultation and development, in June of 2014, the CAP unveiled the 2014-2018 Strategic Plan. The Strategic Plan defined a series of the goals and objectives that would enable the CAP to “improve the impact of physics and physicists on Canadian society” and “improve the value of the CAP to its member and the broader physics community”.

Recognizing the importance of communication for the facilitation and achievement of the goals of the 2014-2018 CAP Strategic Plan, the CAP issued a request for proposals for a Communications Needs Assessment in the fall of 2015. The contract was awarded to Ottawa-based strategic communications consultant, Gina Grosenick, in November of 2016. Over the last four months, Dr. Grosenick has undertaken a comprehensive review and analysis of the

¹ See Certified General Accounts of Ontario “Grassroots Governance: Governance and the Non-profit Sector” for a description of the various governance models. Available at: http://hrcouncil.ca/hr-toolkit/documents/publication_grassroots_governance.pdf

communications needs of the Strategic Plan, the capacities and practices of the organization as they relate to communication, and what communication activities will be required to move the organization towards the successful implementation of the 2014-2018 Strategic Plan. Extensive research informed the review and analysis, including:

- Evaluating the CAP 2014-2018 Strategic Plan through a communications lens.
- Conducting an in-depth audit of the organization's communication practices and capacities.
- Surveying CAP members to gain insight into how they perceive and value the CAP's communication.
- Conducting a series of interviews with CAP and CAPF leaders and staff regarding their views on the organization's communication practices and their visions and priorities for achieving the Strategic Plan.
- Conducting a gap assessment of the organization's current communication activities and the requirements to achieve or make progress on the 2014-2018 Strategic Plan.
- Defining the management, technical, and capacity needs to address the gap.
- Outlining recommendations related to priorities and actions for the CAP to move communications forward to address the identified gap.

This report constitutes the final deliverable of the contracted service. Two interim reports were previously submitted: *CAP Strategic Plan Review*, submitted January 2, 2016 and *CAP Communications Audit*, submitted February 15, 2016. This *CAP Needs Assessment and Plan, 2016-2018* reports and summarizes all of the activities and information gathering undertaken as part of the project and provides an analysis of CAP communication needs and opportunities to move the organization closer to the goals outlined in the 2014-2018 Strategic Plan over the next two and a half years.

This report is offered as an external, third party communications assessment of the current communication practices of the CAP. The suggestions and recommendations are designed to enable the CAP to more strategically address their communications to align better with the goals outlined in their strategic plan. The discussion and recommendations in this report should not be viewed as a criticism of the current communication activities and practices: Throughout the project it has been extremely evident that the CAP Board and staff are highly cognisant and committed to effective communication practices and manage an extensive suite of communication activities that have been successful in developing and building an excellent and professional reputation for the organization. The project is an opportunity to holistically examine the communications function of the organization and identify ways to more strategically direct the efforts to align with the longer term vision of the organization as outlined in the 2014-2018 Strategic Plan.

This *CAP Needs Assessment and Plan* is presented in five sections. First, the communications review of the CAP 2014-2018 Strategic Plan is summarized to provide an overview of the communication needs of the organization related to the Strategic Plan. Next, a summary of the communications audit that was conducted of the CAP's full suite of communication activities is provided. This summary identifies what activities and audiences are currently being served by

the organization's communication practices and provides discussion and analysis surrounding the effectiveness of these practices. The third section offers an analysis of the current communication practices in light of the activities and audiences required to achieve the communication goals and objectives of the 2014-2018 Strategic Plan and identifies any gaps or areas of underdevelopment. The next section articulates the management, technical, and capacity needs required to address the identified gaps. The final section provides options and recommendations for moving the communications of the organization forward in the next two and a half years to address the goals outlined in the Strategic Plan.

COMMUNICATIONS REVIEW OF THE CAP 2014-2018 STRATEGIC PLAN

Highlights:

- Ten communications goals underpin the CAP 2014-2018 Strategic Plan
- Ten target audiences must be engaged to achieve the goals and objectives of the CAP 2014-2018 Strategic Plan.
- Different audiences can be engaged through different forums, however to develop relationships and ongoing engagement with target audiences, sustained communication through multiple forums is recommended.

As a starting point for the project, the CAP 2014-2018 Strategic Plan was reviewed to identify the communications goals, objectives, and audiences required to achieve the plan.

The CAP 2014-2018 Strategic Plan defines four strategic goals: strengthening the profession of physics among physicists, improving the visibility of physics in Canada, advocating for government funding and support of physics, and achieving organizational excellence. In turn, each of the four strategic goals details 3 – 4 objectives. The communications review of the 2014-2018 Strategic Plan analyzed each of the strategic goals and objectives to define communication goals and objectives. Ten communication goals emerged as important to achieving the goals of the CAP 2014-2018 Strategic Plan:

- Positioning physics as a desired career path and persuading more to train in physics.
- Creating a positive image of physics and developing pride in the profession
- Increasing the visibility of the work of physicists in sectors outside of academia
- Educating and increasing awareness of physics to external publics
- Increasing knowledge of physics among high school and cégep educators
- Positioning the CAP as the voice of Canadian physics with politicians/funders
- Advocating for increased support of physics with politicians/funders
- Increasing awareness of the CAP and its activities to non-members
- Increasing communication about CAP and its activities to members
- Positioning the CAP as the primary information source

The communication goals and objectives reveal a strong intention, on behalf of the CAP, to actively promote the organization and the profession of physics among those who are trained as physicists as well as to external audiences. The specific audiences with whom the organization seeks to engage as part of the 2014-2018 Strategic Plan include:

- Physicists working in academia
- Physicists working outside of academia
- Post-secondary students
- Corporations/organizations hiring physicists
- High School and cégep physics and science teachers
- High school and cégep physics and science students
- Generalized public
- Mainstream commercial media
- Industry media
- Politicians and funders

Promoting the organization and profession among those trained as physicists will enable the CAP to financially maintain and grow its organization as well as create tighter networks and communities of support for those working in physics and physics-related careers. A specific objective identified within this area was reaching and communicating to physicists working in non-academic careers and those organizations that hire them. Promoting physics and physics-related careers among high school and cégep teachers and students and external publics will encourage more individuals to train in physics as well as support the organization's efforts to lobby for government funding and support of the profession. A by-product of the external promotional efforts is that it will create increased pride in the profession and with the CAP among those working in physics and physics-related careers, creating added incentive to join and support the organization. All activities will create a positive image of physics and position CAP as the primary information source among physicists and the voice of Canadian physics with politicians and funders.

Achieving the goals and objectives of the CAP 2014-2018 Strategic Plan will be contingent on the ability of the CAP to effectively communicate with its desired audiences. In the communications review, best practices and potential approaches to connect with the intended audiences was discussed. Effective, strategic communication requires defining the most impactful forums to communicate with desired audiences and producing messages that will connect with these individuals and move them to the desired action or understanding. It should be recognized that influencing target audiences through communication is rarely achieved as a result of individual or sporadic messages; thus, for all target audiences of the CAP, to achieve the desired objectives, an ongoing campaign of effective and relevant information that directly connects with individuals through multiple forums will be most successful.

The communications review identified the multiple forums through which the CAP could approach its various audiences. Personal or face-to-face communication remains an effective approach for achieving objectives in which ongoing relationships are being sought, such as membership and media management; however this approach requires the most effort and capacity on behalf of an organization. Published material (either via mail or email) is often more efficient; however requires access to distribution lists of the target audience and, with respect to email, is subject to Canadian anti-spam laws (see page 15 for further discussion). Media coverage can be an effective approach for reaching larger external audiences and to create awareness of the organization among funders and politicians; however, to achieve effective, sustained media coverage, an integrated and sustained campaign of media management is required. Advocacy and political lobbying requires developing ongoing and sustained relationships with politicians and funders and maintaining these relationships over time through multiple messages. Social media, contrary to common understanding, rarely reaches individuals within the generalized public and is often best utilized as a means to sustain current relationships. To achieve connections beyond these audiences, an integrated and in-depth content management campaign is required. Within our contemporary mediascape, individuals connect with information through various forums, thus effective communication strategies require integrated marketing communication (IMC) planning to connect with target audiences on an ongoing and sustained basis through multiple forums.

In summary, the communications review reinforced the existing recognition, on behalf of CAP, that to achieve the communication goals and objectives outlined in the strategic plan, the organization will need to actively and extensively communicate to a wide range of audiences, in a sustained manner, via various forums and approaches.

CAP COMMUNICATIONS AUDIT

Highlights:

- The CAP has an extensive suite of communication practices and outreach activities
- Membership promotional material could benefit from a stronger call to action
- Most communication products are directed to academic physicists and focused on CAP-related activities
- Information on CAP member and Canadian physics accomplishments both in and outside of academia is required to communicate with various audiences
- Non-academic physicists, media, educators, politicians and funders, and generalized publics are not strongly engaged through the current communications program
- Many of the goals and objectives of the CAP 2014-2018 Strategic Plan are not being served by the current communications program

Following the communications review of the CAP 2014-2018 Strategic Plan, a communications audit of the CAP's existing communication activities was conducted. The audit reviewed CAP's current communications program and analyzed its alignment with the goals and objectives of the 2014-2018 Strategic Plan.

Within the audit, all existing communication documents and online activities were reviewed and analyzed to assess their audience reach and efficacy. A survey of members was conducted to gain insight into what communications they found effective and valuable. Interviews were conducted with the CAP and the CAPF leaders to gain insight into their perceptions of the existing communications program and its ability to meet the needs of the 2014-2018 Strategic Plan. Finally, interviews with all the CAP staff were conducted to discuss internal processes, practices, and their perceptions of the CAP's communication activities.

The CAP is extremely active and prolific in its communication activities. The suite of communication products currently produced by the CAP and the CAPF include:

- Membership brochure, Student membership brochure
- Physics in Canada (PiC)
- CAP News Bulletin and member emails
- CAP website
- Facebook/Twitter
- CAP Congress/CAM Conference
- Herzberg Lecture
- Media Releases
- Lecture Tour
- CUPC/University Prize Exam/PPE/CAP student medals
- CAP medals and awards for physicists and educators
- Art of Physics
- Canada Wide Science Fair
- High School Prize Exam
- HoC Finance Submission/MP Advocacy/Bacon and Eggheads

An analysis of each individual communication piece was conducted for issues of content, tone, professionalism and ability to connect with intended audiences to achieve specified goals. Feedback from the members' survey and from interviews conducted with the CAP and the CAPF leadership and staff supplemented the analysis. A full analysis of each of these activities is detailed in the document *CAP Communications Audit*.

Overall, the audit found that CAP membership promotional material is informative and comprehensive but could benefit from a stronger call to action. There is widespread support for the revised News Bulletin, which provides excellent information and news to current members on issues related to physics and the CAP activities. The PiC was felt by some to provide interesting and useful information on physics scholarship and activity in Canada and is regarded as a tangible member benefit. The most meaningful content of PiC was the conference program, the listing of Ph.D. thesis, and the highlights of physics activity and scholarship in Canada. The content of PiC related to promoting the CAP activities was often not sourced or utilized. The website provides an excellent archive of CAP programs and news but is largely perceived to be outdated and difficult to navigate. The membership survey revealed that members almost exclusively use the website for membership and congress registration. There is little content or appeal on the website for non-academic physicists, high-school and cégep educators and public audiences. The Facebook and Twitter feeds provide interesting information in an appealing format, however the reach of these forums is not extensive, nor are they actively used by the larger membership base. The Congress provides an excellent opportunity for the CAP to engage with varied and multiple audiences and for audiences to network with others in the profession. The Herzberg Lecture is a program that provides CAP with an opportunity to generate earned media coverage for the organization, although at this point the CAP is not fully utilizing this opportunity. The organization's press release activities have, to date, not attracted the large-scale interest of mainstream media. The Lecture Tour and student engagement and outreach activities provide multiple opportunities for the CAP and the CAPF to support young scholars and post-secondary physics education. Overall, these programs are well received but there is little ability to measure their impact on membership. Similarly, activities and programs for high-school and cégep educators and students are effective ways to connect with individuals at the high-school level around physics and physics education, but more evaluation is required to understand the reach of these programs and the degree to which they influence young people to train in physics. The CAP awards program is a good way to recognize and highlight the work of physicists in Canada. Finally, for the organization's advocacy activities, the engagement with politicians surrounding budget consultations helps to position the CAP as the voice of physicists in Canada; but there is little subsequent effort to maintain and reinforce these relationships.

The ability of the communications program to engage with the target audiences and achieve communication goals outlined in the 2014-2018 Strategic Plan revealed areas of strong and weak engagement. Within the current communications programming, the CAP has focused the majority of its engagement with current members and academic physicists. Due to the lack of contact lists for non-academic physicists and the organizations and companies outside of

academia that employ them, engagement with these important and desired audiences is currently very weak. There is some direct engagement with politicians, although to achieve the organization’s advocacy goals, this engagement should be more frequent. Finally, engagement with external publics and media is generally underdeveloped with communication pieces intended for these audiences not receiving widespread attention. Table 1 below summarizes the analysis showing areas of direct (X) and weak (W) engagement with target audiences.

Table 1:
Current communication practices: Direct (X) and weak (W) engagement with target audiences

Communication Item	Audiences												
	Physicists Academic		Physicists Non-academic		Post-secondary students		Industry/Corporate	Politicians & Funders	General public	Mainstream Media	Industry Media	High school and cégep Students	High school and cégep Educators
	M	NM	M	NM	M	NM							
Membership Brochure		X		X									
Student Brochure						X							
P.Phys Brochure													
PIC	X	W	X	W	X	W	W						
CAP News Bulletin/President’s Message/Emails	X	W	X	W	X	W							
Website	X	W	X	W	X	W	W						W
Twitter/Facebook	W	W	W	W	W	W	W						W
CAP Congress/CAM Conference	X	X	X	X	X	X	X			X			W
Herzberg Lecture	X	X	X	W	X	X			X				
Media Release											W		
Lecture Tour	X	X	X	W	X	X							
CUPC					X	X							
University Prize Exam/PPE					X	X							
CAP Medals and Awards Physicists & Educators	X	W	X		X	W							W
CAP Medals & Awards Students	X	W	X		X	X							
Art of Physics	X		X		X							X	X
Canada Wide Science Fair									W			X	X
High School Prize Exam									W	W		X	X
HoC Finance Submission	X		X		W			X					
Bacon & Eggheads/MP Mtgs								X					

The CAP’s communication program intersects with the communication goals for the 2014-2018 Strategic Plan to varying degrees. As illustrated below in Table 2, many of the communication pieces support the goals of creating a positive image of physics and physicists, communicating to members about the CAP and CAP activities, and positioning the CAP as the primary information source among physicists. Drawing from the findings from above, it should be noted that positioning the CAP as a primary information source is largely only being achieved among current member physicists and those already connected with the organization. Less supported through the current communications program are the communication goals related to educating external publics about physics and physicists, increasing the visibility of physics outside of the academic sector, and increasing knowledge of physics and physics-related careers among educators and students. For these goals, while there may be communication

programming that is intended to achieve these goals, like the website or media releases, the frequency and efficacy of these activities is often weak (W) or indirect, due to an inability of the organization to directly connect with intended audiences. The table below summarizes the analysis showing areas of strong (X) and weak (W) alignment between the various communication items produced by the CAP and the communication goals of the 2014-2018 Strategic Plan.

Table 2:
Current communication practices: Strong (X) and weak (W) alignment with communication goals

Communication Item	Communication Goal									
	Position physics as desired career path and persuade more to train	Create positive image of physics & develop pride in profession	Increase visibility of work of physics outside academic sectors	Educate & increase awareness of physics to external publics	Increase knowledge of physics among HS & C educators	Position CAP as voice of Cdn physics with politicians /funders	Advocate for increased support of physics	Increase awareness of CAP to non-members	Increase comm about CAP to members	Position CAP as primary info source among physicists
Membership Brochure		X						X		X
Student Brochure		X						X		X
P.Phys Brochure		X	X					X		
PIC		X	X						X	X
CAP News Bulletin/President's Message/Emails		X							X	X
Website		X		W	W			W	X	X
Twitter/Facebook		X	W					W	X	X
CAP Congress/CAM Conference		X			W			W	X	X
Herzberg Lecture	W	X		X				W	X	X
Media Release				W						
Lecture Tour		X							X	X
CUPC	X	X						X	X	X
University Prize Exam/PPE	X	X	W					W	X	X
CAP Medals and Awards Physicists & Educators		X			W			X	X	X
CAP Medals & Awards Students	X	X						X	X	X
Art of Physics		X	X	W	X				X	
Canada Wide Science Fair		X		W	X					
High School Prize Exam	X			W	X					
HoC Finance Submission						X	X		X	
Bacon & Eggheads/MP Mtgs						X				

The communications audit highlighted an active and prolific communication program for the CAP. The deeper analysis revealed that the program is heavily weighted to communicating with current members and academic physicists. Many of the other target audiences identified in the 2014-2018 Strategic Plan are under-served, with weak or negligible engagement. The CAP's current communication program is making some impact related to the goals of the 2014-2018

Strategic Plan in its ability to promote and communicate the CAP's activities and programs, Canadian physics news, and member accomplishments to current members, academic physicists and post-secondary students. The program has less impact for increasing public and external knowledge of physics, advocating for physics funding, and positioning the CAP as the voice of Canadian physics among politicians and funders.

COMMUNICATION GAP ANALYSIS

Highlights:

- To achieve the goals and objectives outlined in the CAP 2014-2018 Strategic Plan, the organization would have to address a number of gaps
- There are gaps in the frequency of communication to members, the ability to communicate timely news about physics and Canadian physicists, the relevancy of the P.Phys. certification, and in what type of news would engage non-academic physicists
- The CAP has little direct and effective engagement with mainstream and industry media
- The CAP has little direct and measurable engagement with high school and cégep educators and students
- The CAP has few opportunities to engage and educate generalized publics
- The current lobby program is insufficient to develop ongoing and sustained relationships with politicians and funders
- The gaps are largely a result of planning, capacity, and technical contexts in which the CAP is currently operating

This section identifies and discusses key aspects of the CAP 2014-2018 Strategic plan that are not addressed through the current communication program and the structural, technical, and capacity issues that give rise to these gaps. The discussion draws from the previous analysis and is supplemented with information gathered from the interviews with the CAP and the CAPF leaders and staff related to their views on the current communication practices and approaches and what they feel is required to achieve the 2014-2018 Strategic Plan.

While the following discussion focuses on what is not being accomplished within the existing communications program, it should be recognized that the CAP staff and leadership are strongly committed to effective communications and to achieving the goals of the strategic plan. It should not be overlooked that the CAP has developed many effective and professional communication pieces and programs that support current members and academic physicists and has many positive interactions with identified target audiences. Many of the gaps identified below are, as discussed later in this section, a reflection of the finite manpower of the organization and volunteers and some of the limited resources available for communication and communication planning.

The following practices of CAP communication are, at this time, not yet fully or effectively achieving the goals and objectives outlined in the CAP 2014-2018 Strategic Plan:

Frequency and timing of communication with current members: In the 2014-2018 Strategic Plan, there is a strong focus on maintaining and strengthening membership in the organization. To do this, CAP must maintain its relationship and interaction with members through frequent communication. While the CAP does communicate regularly with members in a professional and well received manner, many among the CAP and the CAPF leadership felt that

communication with members was too infrequent or inconsistent². One respondent stated: “Some members pay their annual dues and come to the Congress and in-between there’s not a great deal of communication”. There were also comments made that the CAP is often not able to deliver communication in a timely fashion and this results in some of the information that is being communicated being obsolete. To achieve the goals of “increasing communication to members” and “positioning CAP as a primary information source among physicists” more frequent communication with current members is required.

Collecting and sharing of member and physics news. The CAP has identified as a primary strategic goal a desire to “improve the visibility of physics and physicists in Canada” as well as “enhance peer and public recognition of achievements in Canadian physics and of CAP members”. CAP currently does not have a system that effectively collects news about member and physics accomplishments. As stated by one interview respondent: “One thing we’re not good at is communicating what we are doing. We have 1700 members. Every week or at least every month somebody has discovered something. And lots of times it’s quite amazing”. This information when collected can be utilized by the CAP and shared with all of its target audiences to help position CAP as the primary information source among physicists as well as educate and increase awareness of physics and physicists to educators, funders, and generalized publics via various forums.

Persuading post-secondary student members to become full members after graduation. The CAP, largely through the CAPF, has a number of communication programs to support undergraduate and graduate students. Yet these programs have not had a high success rate for transitioning students into full members after graduation, especially if they move into careers outside of academia (see below). In many cases, the CAP loses its connection with undergraduate students after they no longer engage with professors who are CAP members and with graduate students after they lose their university connections and institutional emails. Transitioning post-secondary students into full members will contribute to the membership goals outlined in the 2014-2018 Strategic Plan as well as increase pride in the profession and among physicists working outside of academia.

Communicating with physicists outside of academia and with the organizations hiring them: The CAP currently has very limited communication with physicists working outside of academia and with the corporations/organizations hiring them. As one interview participant stated: “the major sector we are missing is non-academic. The majority of our graduates are members in industry, we lose track of them if they just leave at a BSc level and we don’t engage them enough as members. That would double or triple our membership if we could do that. It also makes for a healthier CAP.” In large part the lack of communication is due to an inability for CAP to identify or connect with physicists working outside of academia that are not members.

² It should be noted that the survey of members overwhelmingly stated that the amount of communication that they receive from the CAP is “the right amount”, this finding likely was primed by the long list of communication products they were presented with prior to answering this question. 10% of the respondents responded that the communication was not enough or not the right information

Communicating with this target audience is fundamental to the CAP realizing many of the goals and objectives outlined in the 2014-2018 Strategic Plan.

Limited news and information relevant to physicists working outside of academic and to the organizations hiring them: In addition to the limited communication with physicists working in industry, there is little news and information communicated that would be relevant to this key target audience. A common theme among interview participants was that the information shared by CAP is largely directed to academic physicists and does not take into account the information needs of those working outside of that group. One respondent said: “The communication has to better reflect the diversity of membership that should exist out there. The organization is focused on academic physicists and we have a different perspective. Even the non-academic scientists in government don’t feel that they have a place so much.” Another said: “The whole communication focus/perspective is sort of from a university standpoint”. The CAP 2014-2018 Strategic Plan prioritizes the engagement of non-academic physicists as members and to showcase the diversity of career options available with physics training and consequently the diversity of contributions that physics makes to Canadian society. This engagement will be highly contingent on the ability of the organization to communicate information about physics and physics-related issues that is relevant to them and aids them in their careers and daily activities.

Limited industry knowledge and support for the P.Phys. certification: Strengthening the recognition and status of the P.Phys certification is a specified objective of the 2014-2018 Strategic Plan. Increased adoption and use of the designation will help to position physics as a profession with unique capabilities and create pride in the profession among those in the field. This program is most relevant to non-academic physicists. As one respondent shared: “The P.Phys. designation is almost irrelevant to academics. I got one just because I thought I should”. Currently, the CAP seeks to qualify graduating post-secondary students as future P.Phys. designates before leaving their institution. What has not yet been achieved is adoption and recognition of the designation within industry and among employers. Without a communications plan to inform industry about the value of and help drive this recognition the demand for the designation will remain limited.

Website that does not provide usable, accessible content for all intended target audiences. The CAP website currently does not have, or has content that is difficult to access, for many of the target audiences outlined in the 2014-2018 Strategic Plan and to whom it is intended to communicate. The website primarily acts as a repository of documented information related to the administration and management of the organization. There is little content that supports the information needs of, or promotes the organization to, its various audiences. Some interview respondents shared a vision of wanting the website to be the “go-to” place for industry and public to learn about the latest physics information in Canada. Another saw it as forum to promote careers in physics with an interactive “database of possible careers you can have after an undergraduate physics degree with stories of people that have physics degrees and where they are now”. Mainstream media also rely on industry websites as an information source for the latest information on issues that they are reporting on. In our current media

scape, websites are heavily relied upon as information sources for generalized publics and are often the first impression that individuals have of an organization. An unwelcoming, uninformative website can undermine the ability of the CAP to engage key target audiences and share the desired knowledge as outlined in the 2014-2018 Strategic Plan.

Limited engagement with mainstream media. Creating and maintaining a public profile for physics in Canada requires a directed and sustained media management program. Media coverage can also support lobby and advocacy efforts with politicians and funders as well as create pride in the profession among physicists. Currently, CAP has little sustained effort in this area and that which has been attempted has not resulted in media coverage for the organization. A search of the Canadian Newstand Complete database using the search terms “Canadian Association of Physicists” or “CAP” revealed only six news stories published between 2001 and 2015: three were related to the Congress and three were local stories about winners of the high school prize exam. This coverage is insufficient to create knowledge of physics and physicist related activity to external publics and to help to create pride in the profession among those working as physicists.

Limited engagement with industry media. Engagement with, and profiling the organization in, industry and science media can assist the CAP in creating awareness of the organization and of physics with physicists working outside of academia. As one respondent stated: “Who I want looking at this are science journalists. I’d like them to look at us and see what we’ve got to say”. Currently, CAP has dedicated little effort to this communications area.

Educating and increasing awareness of physics among generalized publics: The CAP 2014-2018 Strategic Plan calls for increasing the public recognition and awareness of the achievements of Canadian physics and of CAP members. Public education about physics and the role of physics in society will encourage more to consider physics as a career and will support all of the other goals and objectives in the Strategic Plan. As one respondent stated “Raising that profile is very important. At the end of the day the profession is only of value if it is helping society and to help society we need to communicate that to our public. So that’s our challenge”. Currently the CAP relies on its web presence and social media to communicate with members of the public, resulting in little reach or impact.

Engagement with high school and cégep teachers and students: The CAP 2014-2018 Strategic Plan sees a value in communicating information about physics and physics-related careers to high school and cégep teachers, which can be disseminated in classrooms, creating increased interest among young people (and their parents) to consider a career in physics. The CAPF has programs directed at high school and cégep teachers but does not connect with these audiences directly, thereby limiting the opportunities for communication and the reach of the communication.

Social media reach and engagement: Social media is a common forum for sharing of information among networks. Social media can support many of the communication objectives identified in the 2014-2018 Strategic Plan, and most directly provide an additional forum for

sharing of information about physics and the CAP members to physicists and audiences with whom the CAP has, and seeks to develop, ongoing relationships. The CAP currently manages a social media presence, but this content and activity is at this point, limited. As noted by one respondent: “It would be nice if all of our members, both our institutional members and our individual members with their social media posts pushed those to us so that we could have a stream of Canadian physics information.” The CAP has also identified opportunities for engaging with target audiences on a professional level through LinkedIn.

Engagement with politicians and funders. Ongoing and sustained engagement with politicians and funders to ensure ongoing support of physics and physics-related industry is clearly articulated in the CAP 2014-2018 Strategic Plan. As one respondent stated. “People want to know that CAP is being active on promotion of physics on their behalf. They would want to see an organization that is active and aware of what is going on at a national level and make sure that physics is visible especially when there are hot button that pop ups.” The CAP currently engages with politicians around budget deliberations and with some limited lobbying activity. A more sustained program of ongoing engagement with politicians and funders will be required to achieve the objectives outlined in the Strategic Plan.

The gaps in the current communication program are the result of internal and external organizational contexts and practices. These include a lack of strategic planning for communications, limited resources and capacities dedicated to the communications program, and technical and functional limitations surrounding chosen forums for communication and connecting with key or targeted audiences

Strategic Communications Planning: The current communication activities of the CAP are largely approached and budgeted as individual projects and are not coordinated within a larger communications plan and budget that strategically defines, plans, and schedules the organization’s communication activities and financial resources to ensure adequate and appropriate communication with defined target audiences to achieve organizational goals. Without strategic communication planning, available resources and capacities are not being dedicated in the most efficient manner and key aspects of the 2014-2018 Strategic Plan are not being addressed. Moreover, without a strategic plan, there is no evaluative mechanism to assess the current activities and their ability to meet the long term needs of the organization. It also should be noted that the CAP and the CAPF, each responsible for meaningfully contributing to the 2014-2018 Strategic Plan, have not yet fully defined the day-to-day working relationships and delineation of authority surrounding funding and facilitating of the educational component of the plan. This currently influences the manner in which projects are being considered and facilitated within the organization.

Capacities and resources: The CAP’s communication program is, in most cases, defined and delivered by a volunteer committee and volunteer leadership, with facilitation by the CAP staff. Currently the only dedicated staff person for communications is a part time intern who primarily is tasked with overseeing the social media management for the organization. Volunteers are tasked with the planning, design, writing and editing of the individual

communication pieces, with input from the Executive Director and/or Program Manager. Thus, many of the communication activities are reliant on busy individuals contributing to the organization in their spare time and who do not have a strong background in communication strategy, planning or execution. The CAP management staff recognizes the value of professional strategic communications and the Program Manger has a background in communication; however, these individuals are currently working at full capacity and cannot add another function to their activities. Overwhelmingly, the interviews with the CAP and the CAPF leadership identified the lack of dedicated, professional staff to communications as the primary driver needed to achieve the goals outlined in the 2014-2018 Strategic Plan and to move the organization forward. While the CAP has a strong history and reliance on volunteer engagement and contribution, and while the CAP Communications Director and committee has contributed greatly to the communications efforts of the organization, the needs of the CAP are beyond what volunteers and volunteer committees can reasonably achieve.

Technical and functional limitations: In addition to planning and capacity issues, there are a series of technical and functional contexts that limit the CAP's ability to meet the needs of the 2014-2018 Strategic Plan. The current website platform has little flexibility, is no longer technically supported and is quickly becoming obsolete. This significantly impacts the ability to design and update the website in a way that meets the needs of the organization.

There are also a number of functional limitations experienced by the CAP related to connecting with target audiences: Currently, the CAP has no way to identify or connect with non-academic physicists as there is no defined contact list for physicists working outside of academia. Moreover, graduating post-secondary students often lose their physics identity and their association with CAP after graduation. There is a similar lack of ability to directly connect with high school and cégep educators. The CAP has not developed nor maintains a list of mainstream or industry media, and relies on its industry partners to distribute any press releases that it produces. Finally, the contact database that is used by the CAP for membership and for Congress registration does not define individuals by target audience, thus CAP is not able to identify within their current connections or generate a database for some of these illusive target audiences over time. The CAP has identified Canadian Anti-Spam Law as a limitation for developing and using contact lists of individuals not yet connected with the organization. The current law allows for some communication with unsolicited audiences and would not exclude communication with past members or Congress attendees.

In summary, due to existing planning, capacity and technical realities, there are important areas within the 2014-2018 Strategic Plan that are not being addressed. The next section explores these areas in more depth and provides a discussion surrounding the tactics and resources required to achieve the goals.

CAP COMMUNICATIONS NEEDS ASSESSMENT

Highlights:

- To achieve expanded communications goals, the organization will require expanded communications capacity
- The website requires redesign and redevelopment
- The organization needs to redesign and redevelop its database collection and management
- Members can be better served with more frequent and expanded information
- The CAP will need to undertake a concerted effort to identify, relate and communicate with non-academic physicists
- The CAP will need to better engage with mainstream and industry media
- The CAP will need to develop a suite of materials to better support high school and cégep educators and students
- The CAP will need to more frequently engage with politicians and funders

The gap assessment and analysis revealed a suite of needs for CAP to achieve the goals and objectives outlined in the 2014-2018 Strategic Plan. The following summarizes these needs, as well as a discussion surrounding the recommended approach and resources for each requirement. It should be noted that the recommended tactics were identified based on what is needed and/or what is felt to be reasonable and achievable by the organization based on organizational size, approach, values, mandate, etc. The recommended tactics, especially for those related to specific audience or goal achievement, represent only some of the range of tactics that could be undertaken to address the need and should be viewed as a starting point for developing a communications plan that meets the needs of the organization.

This assessment first looks at needs related to communication planning and management, then at technical requirements, and finally at campaign-related needs associated with the various target audiences identified by the CAP.

Communication Planning and Management		
Need	Recommended Tactics	Required resources
3-year communications strategy and yearly communication plan	<ul style="list-style-type: none"> • Create a 3 year communications strategy and yearly communication plan that coordinates and schedules communication activities in alignment with the goals and objectives of the CAP 2014-2018 Strategic Plan, drawing from the recommendations of the <i>CAP Communication Needs Assessment</i> and Board and Committee input 	<ul style="list-style-type: none"> • Committee and Board input • Experienced communication staff or consultant to develop three-year strategy and yearly plan • Committee and Board review and evaluation of strategy and plan
Budget for facilitation of communications plan	<ul style="list-style-type: none"> • Define budget for communication based on identified plan 	<ul style="list-style-type: none"> • Personnel to research and develop budget • Committee and Board approval • ED and Board oversight and evaluation
Experienced in-house communication staff to facilitate the communication plan	<ul style="list-style-type: none"> • Define job description(s) and needs based on communications plan • Hire and assign staff and resources as required 	<ul style="list-style-type: none"> • ED to identify personnel needs and redeployment • ED to hire/arrange for required staffing • ED to manage staffing
Redefine the role of the Communications Director and Committee	<ul style="list-style-type: none"> • Redefine Communications volunteers' roles • Identify revised processes for communication plan oversight based on redefined role and communications strategy and resources 	<ul style="list-style-type: none"> • Communications Director and ED to define committee and staff roles and responsibilities. • ED, within input from the Communications Director, to define reporting and approval structures for communication programming

Communication Forums and Technologies		
Need	Recommended Tactics	Required resources
Website redesign	<ul style="list-style-type: none"> • In alignment with the proposed communication strategy, identify the audiences and requirements for a revised website • Redesign website and content to meet the needs of the communication strategy 	<ul style="list-style-type: none"> • Personnel to define and recommend website strategy • Personnel to write content • Personnel to facilitate and oversee new website development • Ongoing update and maintenance of information on the site
Website upgrade	<ul style="list-style-type: none"> • Research website platforms and contractors that will meet the needs of the website design • Purchase and contract platforms and services required to achieve the website upgrade 	<ul style="list-style-type: none"> • Personnel to research and request proposals • Personnel to review proposals • Personnel to oversee and manage website upgrade
Social media plan	<ul style="list-style-type: none"> • Define social media plan requirements and platforms in alignment with the communications strategy, plan and budget • Develop social media policy for the CAP 	<ul style="list-style-type: none"> • Personnel to develop and recommend social media plan • Committee and Board approval of the social media plan • Personnel to develop social media policy and communicate it within the organization
Identify and implement any additional technical requirements	<ul style="list-style-type: none"> • Research additional technical platforms required to meet the needs of the communications plan (e.g. webinar platforms, video editing and production systems, etc.) 	<ul style="list-style-type: none"> • Personnel to research and identify most appropriate platforms and systems • Training personnel on the use of platforms and systems
Evaluate and upgrade database and contact list system as required	<ul style="list-style-type: none"> • Review and analyze effectiveness of the current database system to serve the needs of the communication plan • Redesign or upgrade the database to meet the identified needs of the communication plan • Review and understand the opportunities and limitations available to the CAP for communicating directing with potential stakeholders via contact information received from various sources in accordance with the Canadian anti-spam law 	<ul style="list-style-type: none"> • Personnel to analyze and recommend data base upgrades or redesign requirements • Personnel to conduct and manage the data base redesign requirements and or implementation of new systems • Personnel to understand and monitor contact lists and unsolicited communication to ensure alignment with anti-spam law.

CAP Communication Needs– Physicists		
Need	Recommended Tactics	Required resources
Identify timely physics and member (academic and non-academic) news for communication	<ul style="list-style-type: none"> • Register for all relevant industry news and information list-serves and forums • Sign up for post-secondary institutional and relevant industry organization news releases • Sign up for news aggregation service (e.g. Google Alerts) with relevant key words • “Like” and “follow” leading physicists and institutions on social media • Encourage staff, leadership and members to forward news and information 	<ul style="list-style-type: none"> • Personnel to identify and sign up for all news information sources • Personnel to scan and review all information sources • Personnel to identify and repackage relevant news for distribution through email and social media networks • Oversight and review of activity by ED/Committee
Increase frequency and relevancy of email communication with current members	<ul style="list-style-type: none"> • Publish CAP Bulletin monthly; ensure content needs of both academic and non-academic members is included • Create a “CAP News Flash” for email communication of breaking or timely information as it happens • Regularly include and highlight information on industry applications and members • Regularly communicate lobbying and funding activity 	<ul style="list-style-type: none"> • Personnel to create publication and editorial schedule for email communication to be approved by management/committee • Personnel to collect, write, coordinate and distribute content • Oversight and review of activity by ED/Committee
Evaluate, define and execute additional opportunities to communicate with members	<ul style="list-style-type: none"> • Evaluate all existing communication and outreach in alignment with coms plan • Evaluate new opportunities to communicate with members in alignment with coms plan 	<ul style="list-style-type: none"> • Personnel to review and make recommendations on current and additional opportunities to communicate with members • Personnel to create, manage and distribute the required communication products
Maintain and grow social media communication	<ul style="list-style-type: none"> • Sign up for HootSuite or similar platform to schedule and share information • Promote social media networks regularly to members • Re-tweet and @/tag members and physicists in social media content 	<ul style="list-style-type: none"> • Personnel to create publication and editorial schedule to be approved by management/committee • Personnel to collect, write, coordinate and distribute content • Oversight and review of activity by ED/Committee

CAP Communication Needs– Physicists (cont'd from previous page)		
Need	Recommended Tactics	Required resources
Persuade non-member academic physicists to become members	<ul style="list-style-type: none"> • Create persuasive membership case for support for academic membership • Identify academic non-members and create database of potential contacts • Facilitate membership campaign to promote membership through case for support and peer recommendations • Invite existing academic institutions' physics departments to put CAP link on their website 	<ul style="list-style-type: none"> • Personnel, working with membership committee, to revamp case for support and create campaign plan • Personnel to identify academic non-members through Congress registrations and institutional websites • Personnel to coordinate membership campaign and activities • Oversight and review of activity by ED/Committee
Identify physicists working outside of academia	<ul style="list-style-type: none"> • Tap into networks of existing and new industry and non-academic members to identify potential members and create database • Have conference registrants and information inquiries identify "industry sector" and add non-academic individuals to data base • Create LinkedIn group for Canadian physicists and actively invite connections of physicists working in industry • Encourage undergraduate student members to join LinkedIn while still students • Create CAP display and participate in industry trade shows and events to collect names and promote membership 	<ul style="list-style-type: none"> • Personnel to create, manage and update database on an ongoing and regular basis • Personnel to drive and manage networking with current non-academic physicists • Personnel to activate and manage LinkedIn account • Personnel to manage the creation of the CAP display • Personnel to identify and participate in industry trade shows and events • Oversight and review of activity by ED/Committee
Persuade non-member non-academic physicists to become members	<ul style="list-style-type: none"> • Continue work of non-academic membership advisory committee • Create persuasive membership case for support for non-academic membership • Promote non-academic membership through social media, LinkedIn and at industry trade shows and events • Advertise CAP membership in industry-related media 	<ul style="list-style-type: none"> • Personnel, working with membership committee, to revamp case for support and create membership campaign plan • Personnel to coordinate promotion of membership campaign through various venues • Personnel to create and place advertisements • Oversight and review of activity by ED/Committee

CAP Communication Needs– Physicists (cont'd from previous page)		
Need	Recommended Tactics	Required resources
Create support for P.Phys. program	<ul style="list-style-type: none"> • Create promotional materials to encourage industry recognition of the P.Phys. designation • Regularly scan job aggregator sites for organizations hiring individuals with physics degrees and create contact database of industry organizations hiring physicists • Create campaign that educates and promote adoption of the P.Phys. designation on an ongoing and sustained basis with employers. • Identify employers who are recognizing the P.Phys. campaign and promote among membership • Create campaign that encourages members to seek and maintain certification 	<ul style="list-style-type: none"> • Personnel to create promotional materials for P.Phys. designation • Personnel to create, manage and update database on an ongoing and regular basis • Personnel to create, manage and coordinate campaign to promote the adoption of the P.Phys. designation with employers. • Personnel to promote the adoption of the P.Phys. designation by employers to members and students and encourage members to seek and maintain the designation. • Oversight and review of activity by ED/Committee

CAP Communication Needs– Mainstream & Industry Media		
Need	Recommended Tactics	Required resources
In-house media management capacity and story development	<ul style="list-style-type: none"> • Assign responsibility for media management development and response, key messaging, story pitching and crisis communication response to in-house communications staff • Ensure media training for ED and key leadership 	<ul style="list-style-type: none"> • Personnel with expertise and proven track record in media management • Ongoing professional development for assigned communications personnel • Oversight and review of activity by ED/Committee
Develop media contacts	<ul style="list-style-type: none"> • Develop media contact list of mainstream and industry media • Actively develop professional relationships with key science and industry journalists 	<ul style="list-style-type: none"> • Personnel to research, develop, and maintain media contact list • Personnel with expertise and proven track record in media management to develop relationships • Oversight and review of activity by ED/Committee
Monitor media coverage	<ul style="list-style-type: none"> • Conduct weekly mainstream media search using keywords to monitor coverage of physics news and the CAP • Subscribe to and monitor ongoing coverage of physics news and the CAP in industry and science publications 	<ul style="list-style-type: none"> • Personnel to conduct, analyze and report mainstream and industry and science news media coverage of physics news and of the CAP and adapt information into media planning • Oversight and review of activity by ED/Committee

CAP Communication Needs– High school and Cégep Teachers and Students		
Need	Recommended Tactics	Required resources
Create curriculum support for high school and cégep teachers	<ul style="list-style-type: none"> • Create special section of the CAP website for high school and cégep curriculum support (see Canadian Nuclear Society as example) • Maintain and expand Art of Physics competition • Create plan to identify and develop video and written content that high school and cégep teachers can utilize in their classrooms • Maintain educators award and Congress program for educators 	<ul style="list-style-type: none"> • Personnel to create content for and maintain special section of website • Personnel to create campaign to encourage educators to incorporate Art of Physics competition into curriculum • Oversight and review of activity by ED/Committee
Promote CAP support of high school and cégep teachers	<ul style="list-style-type: none"> • Create and maintain a contact list of high school and cégep physics teachers • Promote CAP high school and cégep support at science fairs and teachers conventions and collect contacts to add to contact list • Promote CAP high school and cégep support via educational social media accounts 	<ul style="list-style-type: none"> • Personnel to research, create and maintain a database of educators • Personnel to identify, manage and promote educator program at science fairs and teachers conventions • Personnel to identify, create messaging and connect with educators via educational social media accounts • Oversight and review of activity by ED/Committee
Promote diversity and value of physics-related careers	<ul style="list-style-type: none"> • Create a speakers bureau of physicists to speak in high school and cégep science classrooms • Create videos of members talking about their jobs to share via the educators portion of the website to highlight diversity of careers • Promote CAP support for high school and cégep teachers 	<ul style="list-style-type: none"> • Personnel to create, manage and coordinate speakers bureau and speaking engagements • Personnel to create plan for and facilitate member videos and post on the website • Oversight and review of activity by ED/Committee
Encourage high school and cégep teachers to recognize excellence in physics and encourage future training	<ul style="list-style-type: none"> • Maintain and expand reach of high school physics exam • Create campaign to encourage high school and physics teachers to promote physics education to students • Campaign to encourage nominations for HS Teachers Awards from across Canada 	<ul style="list-style-type: none"> • Personnel to create, manage and facilitate campaign to regularly communicate with high school and cégep educators to promote physics training to students • Oversight and review of activity by ED/Committee

CAP Communication Needs– Politicians & Funders		
Need	Recommended Tactics	Required resources
Increase engagement with politicians	<ul style="list-style-type: none"> • Create database of key politicians and regularly share CAP and physics news with them • “Follow” and “like” key politicians social media accounts and periodically @/tag them to encourage them to follow the CAP feeds • Seek opportunities to present at science and policy consultations • As issues arise, create position papers and send them to politicians • Invite key politicians to make keynote speeches at CAP events • Maintain engagement with Bacon & Eggheads 	<ul style="list-style-type: none"> • Personnel with understanding of the public policy government relations process to identify opportunities as they emerge • Personnel to monitor relevant committee processes and identify opportunities to present • Personnel to prepare position papers and briefing notes • Personnel to create, update and facilitate distribution lists and communication • Personnel to present and coordinate lobbying activities • Oversight and review of activity by ED/Committee
Increase engagement with policy-makers	<ul style="list-style-type: none"> • Create database of key public service personnel that have influence over science and technology public policy, programs and funding and regularly share CAP and physics news with them • Identify senior bureaucrats for programs, policy and funding related to physics and send quarterly or biannual updates on CAP policy positions. • Respond to all invitations for information and engagement 	<ul style="list-style-type: none"> • Personnel with understanding of the public policy government relations process to identify opportunities as they emerge • Personnel to create, update and facilitate distribution lists and communication with policy makers • Personnel to present and meet with policy makers as the opportunities arise • Oversight and review of activity by ED/Committee
Increase engagement with funders	<ul style="list-style-type: none"> • Create database of key funder contacts and regularly share CAP and physics news with them • Maintain regular meetings with funders to discuss physics-related issues • Seek opportunities to participate in funding reviews and committee appointments 	<ul style="list-style-type: none"> • Personnel with understanding of funding opportunities and funders to identify opportunities as they emerge • Personnel to create, update and facilitate distribution lists and communication with funders • Personnel to present and meet with funders as the opportunities arise • Oversight and review of activity by ED/Committee

CAP Communication Needs– Generalized Public		
Need	Recommended Tactics	Required resources
Create awareness of CAP and its members' accomplishments	<ul style="list-style-type: none"> • Actively pursue media coverage of CAP and its member accomplishments • Share media coverage of CAP and member accomplishments across all public forums and to politicians • Explore opportunities to promote the CAP at public science institutions 	<ul style="list-style-type: none"> • Personnel with an understanding of media to identify potential stories about CAP and member accomplishments and pitch to journalists • Personnel to share coverage of CAP through other forums • Personnel to identify opportunities to communicate/promote CAP at science related institutions • Oversight and review of activity by ED/Committee
Educate generalized publics on the value of physics	<ul style="list-style-type: none"> • Actively pursue mainstream media coverage and features that shows the value of physics in society • Create section of the website dedicated to educating publics about physics • Create content for the website and that can be pushed through social media and partners that interactively educates about physics • Explore opportunities to educate about physics at public events. 	<ul style="list-style-type: none"> • Personnel with an understanding of media to identify potential stories about physics and value of physics to Canadian society and pitch to journalists • Personnel to create, maintain and update special section of the website that educates publics about physics. • Personnel to regularly share CAP educational material through public social media feeds and partners • Personnel to identify opportunities to educate publics about physics and public events. • Oversight and review of activity by ED/Committee

NEXT STEPS AND RECOMMENDATIONS

Highlights:

- The requirements to achieve the goals and objectives of the CAP 2014-2018 Strategic Plan are beyond what the organization can reasonably achieve in the next 32 months
- There is little increased capacity for communication that can be achieved without hiring experienced, dedicated staff to the function
- Supporting members and increasing non-academic physicist membership, along with lobbying politicians and funders and increasing media engagement are the most important strategic goals, according to the CAP leadership interviews
- A plan to move these goals ahead while laying the foundation for achieving some of the other goals through a longer-term process is the recommended next step for the CAP

As the above discussion illustrates, the communication activities required to achieve the goals and objectives of the 2014-2018 Strategic Plan are extensive and well beyond the CAP's current capacities and activities. It would be unreasonable to expect that all aspects of the strategic plan could be achieved by the time that the 2014-2018 Strategic Plan is set to sunset: in 32 months. Many of the goals of the Strategic Plan were highly aspirational and required engagement with audiences with whom the CAP has yet to develop relationships. In these cases, the 32 month time frame is not sufficient to identify, create, plan, execute and sustain widespread engagement with new audiences that require extensive preparatory and relationship building, over time, and through multiple forums. It also should be recognized that it is difficult for any non-profit organization to absorb and facilitate the level of change that would be required to fully achieve the goals and objectives of the 2014-2018 Strategic Plan within the identified time frame without creating undue stress and damaged relationships among staff and leadership.

Instead, it would be more reasonable for the CAP to identify short-term critical, medium-term required, and long-term desired priorities associated with the communication goals of the 2014-2018 Strategic Plan and create a strategy that introduces changes to the communication program incrementally and in a way that can build a foundation for addressing and achieving the goals and relationships required over a longer time frame.

The CAP and the CAPF leadership and staff were invited to share their priorities for communication and for the 2014-2018 Strategic Plan as part of the interviews that were conducted. While there was recognized value in all aspects of the 2014-2018 CAP Strategic Plan, there was overwhelming consensus that the most important priorities for the CAP were to maintain and expand communication with current members, engage non-academic physicists and persuade them to become members, and increase lobby activity and engagement among politicians and funders. Making the organization's website more dynamic and user friendly and increasing the CAP's public profile via media coverage were identified as foundational elements of these priorities. The priorities related to educating and engaging with generalized publics, developing recognition of the P.Phys. designation, and activities related to supporting high school and cégep educators and students were not has highly prioritized.

When asked about the best way to facilitate the communication activities required to achieve the priorities of the strategic plan, there was recognition that the part time and volunteer resources that currently direct and facilitate the communication programming would simply not be sufficient to make satisfactory or lasting impact on any of the priorities. While everyone recognized the financial constraints of the organization, there was tremendous support for “finding the resources” to hire professional communication staff dedicated to moving the key priorities of the strategic plan forward. It should be noted that should the CAP dedicate increased staff and resources to communications to achieve the priorities of the strategic plan, increased revenues for the organization should naturally follow.

Professional, dedicated staff resources for communication can take many forms and the CAP may wish to utilize different resources for different aspects of the plan. Typically, experienced non-profit communications managers have communications training and 7 – 10 years of progressive responsibility and expertise in communication and have well-honed capacities and abilities for strategic communications planning and oversight, including government lobbying and fundraising, can manage and facilitate all aspects of a communication plan, have media management expertise and experience and are able to adeptly manage and work with communication staff and committees. The salary range for individuals with this experience and responsibility is \$ 70,000 - \$ 90,000 per annum. Experienced non-profit communications coordinators also have communications training and 3-5 years of progressive responsibility and experience in non-profit communication and have the ability to plan, oversee and evaluate communications programming, have some media monitoring and management experience and are able to adeptly work under the direction of management and with volunteer committees. Typically they have less experience in government and policy monitoring but could help with the writing of policy briefs and position papers. The salary range for individuals with this experience and responsibility is \$ 45,000 - \$70,000 per annum, dependent on the range of experience they bring. Non-profit communication consultants can bring directed, project-based expertise to specific communication needs and projects and typically charge \$45-\$60 per hour or a defined contract fee based on the scope of work. Website design, development and migration is a specialized communication skill and is typically outsourced to a firm or consultant specializing in this area, responding to a RFP initiated by the organization hosting the website.

The following strategy is offered as a basis for discussion as to how the CAP could move forward over the next 32 months. It addresses the identified communications needs, incrementally, focusing on the critical communication needs and priorities identified by the CAP and the CAPF leadership and staff, while at the same time laying the foundation for or initiating relationships related to some of the other needs not able to be addressed in the time frame left in the 2014-2018 Strategic Plan. Recommended actions are outlined within a timeframe that correlates with the CAP fiscal year and the sunset of the current strategic plan.

April 1, 2016 to December 31, 2016

Recommended Activities

- Hire a consultant to work with the ED and relevant Board/Committee members to create a three-year communication strategy and 2016 communication plan and budget to December 31, 2016
- Hire an experienced non-profit communications coordinator to facilitate the communications plan and outsource technical and expertise requirements as needed
- Continue the engagement of the part time intern/student to help with social media
- Redefine the communication committee role and processes for approval
- Redesign and relaunch the website in line with the communication plan
- Define social media plan and policy in alignment with communications strategy
- Define data base requirements and update systems as required
- Set up process to monitor and collect physics and member news
- Increase the News Bulletin to monthly
- Send 3 – 4 “News Flash” email communications to members
- Explore the feasibility and benefit of reducing the PiC to two issues per year (see recommendation made in Communications Audit)
- Create a non-academic membership case for support
- Initiate database of non-academic physicists and seek to identify 100 potential members through networks of existing and new industry members
- Promote non-academic membership via solicitation and industry-related media
- Seek to increase non-academic physicist membership by 25 members
- Create LinkedIn network for physicists and drawing on social media plan, make 250 new connections across all platforms
- Initiate process of regular mainstream media and industry media monitoring
- Initiate database of journalists for mainstream and industry media
- Generate 2 - 3 stories in mainstream media surrounding physics and physics-related issues
- Write/generate 1-2 articles in industry media surrounding physics and physics-related careers
- Maintain existing programs for educators and high school and cégep students
- Create database of key politicians related to science policy
- Initiate 4 meetings with key politicians related to science policy
- Develop 1 -2 briefs on issues related to physics to share with politicians and funders
- Have bi-annual meeting with all key funders to discuss physics-related issues

January 1, 2017 to December 31, 2017

Recommended Activities

- Create and approve yearly communication plan and budget
- Maintain all ongoing activities from previous year
- Identify and define additional opportunities to communicate with members
- Create academic membership case for support

- Seek to increase academic physicist membership by 25 members
- Further develop database of non-academic physicists and seek to increase by 100 potential members
- Create display for the CAP to promote organization and programs at industry forums
- Seek to increase non-academic physicist membership by 40 members
- Create case for support for P.Phys. designation for industry
- Initiate database of industries and contacts who hire physicists
- Build social media networks and grow social media plan by 250 new connections across all platforms
- Continue process of regular mainstream media and industry media monitoring
- Maintenance of the journalist database and develop professional relationship with 8 – 10 journalists
- Generate 4-6 stories in mainstream media surrounding physics and physics-related issues
- Write/generate 2-3 articles in industry media surrounding physics and physics-related careers
- Initiate and develop a database of educators
- Create long range plan for educators section of the CAP website and speakers bureau
- Supplement database of key politicians related to science policy with key bureaucrats
- Initiate 6 meetings with key politicians related to science policy
- Participate in 2 policy consultations and/or committee meetings
- Develop 2-3 briefs on issues related to physics to share with politicians, bureaucrats and funders
- Have bi-annual meeting with all key funders to discuss physics-related issues

January 1, 2018 to December 31, 2018

Recommended Activities

- Create and approve yearly communication plan and budget
- Maintain all ongoing activities from previous year
- Seek to increase academic physicist membership by 75 members
- Further develop database of non-academic physicists and seek to increase by 150 potential members
- Seek to increase non-academic physicist membership by 75 members
- Develop promotional campaign to promote P.Phys to industries and physicists
- Build on social media networks and grow social media plan by 250 new connections across all platforms
- Continue process of regular mainstream media and industry media monitoring
- Maintenance of journalist database and increase professional relationships with journalists to 15 key journalists
- Generate 4-6 stories in mainstream media and 1 – 2 in-depth features surrounding physics and physics-related issues

- Write/generate 3 -4 articles in industry media surrounding physics and physics-related careers
- Maintenance of and increase database of educators
- Initiate long range plan and content required for educators section of the CAP website
- Maintenance of and expand database of key politicians and bureaucrats
- Initiate 6 meetings with key politicians related to science policy
- Participate in 3 policy consultations and/or committee meetings
- Develop 2-3 briefs on issues related to physics to share with politicians, bureaucrats and funders
- Have bi-annual meeting with all key funders to discuss physics-related issues
- Create long range plan for educating and creating public awareness of the CAP and physics.