Survey of FIAP members for Strategic Planning

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Presentation to Communities Subcommittee June 29, 2018



Agenda

- 1. Overview of survey
- 2. Top 12 desired services
- 3. Comments on industrial lectures at Univ
- 4. Other 17 services

Overview of survey

- 1. Survey about 29 possible services that APS could offer to industrial physicists
 - A. Possible ratings: Great idea, Good idea, So-So idea
- 2. Survey sent to:
 - A. All FIAP members
 - B. Past FIAP Exec Comm members
 - C. Industrial Physics Advisory Board
 - D. People who attended APS Industrial lunches
- 3. 320 responses, 20 of whom did not complete all the questions
- 4. Last question was about work status. Could check more than one box, statistics next page



Who responded?

| primary | | |
|---------|-------|---|
| work | | |
| status | total | Can select more than one option, so total is higher |
| 164 | 186 | Working in the private sector + Entrepreneur |
| | 23 | Entrepreneur ** |
| 40 | 42 | National lab |
| 19 | 34 | College or university faculty or staff |
| 9 | 10 | Postdoc |
| 17 | 23 | Graduate student |
| 1 | 3 | Undergraduate student |
| 36 | 53 | Retired |
| 14 | 18 | Other (please specify) |
| 20 | 20 | didn't finish survey |
| 320 | 412 | |
| | | **16 of 23 also checked "private sector" so I |
| | | included Entrepreneur in Private Sector |
| | | |

- 1. >50% respondents in target audience of physicists working in the private sector
- 2. Tabulated all responses + most interest groups above



Services ranked in top 12

| present work status | Private Sector | National Lab | Univ faculty/ staff | Postdoc | Grad student | All |
|--|---------------------------|-----------------|---------------------------|---------|-----------------|-----|
| avg number of responses | 160 | 39 | 19 | 9 | 17 | 299 |
| | Rank for proposed service | | | | | |
| Industrial lectures at local universities and vice versa | 1 | 5 | 1 | 5 | 8 | 2 |
| Student events about industrial careers at section (three year cycle) and national meetings | 2 | 2 | 1 | 1 | 1 | 1 |
| Employment listings | 3 | 1 | 8 | 1 | 1 | 3 |
| Joint topical meetings with other related societies (IEEE, ACS, OSA, | 4 | 15 | 4 | 5 | 8 | 5 |
| Webinars on industrial physics topics | 5 | 13 | 9 | 1 | 16 | 7 |
| Local Links | 5 | 3 | 1 | 1 | 4 | 4 |
| Meetings/workshops to facilitate development of industry/academic partnerships | 7 | 6 | 4 | 5 | 4 | 6 |
| Up-to-speed online tutorials (à la Ted Talks) | 8 | 10 | 10 | 5 | 8 | 8 |
| Periodic industrial physics publication (à la Industrial Physicist) | 9 | 10 | 12 | 18 | 1 | 9 |
| Mid-career events at section and national meetings (resume writing, networking, career planning) | 10 | 4 | 4 | 5 | 15 | 10 |
| Archival journals – suitable for industrial contributions | 11 | 22 | 4 | 18 | 23 | 13 |
| Periodic general physics publication (à la Physics Today) | 12 | 12 | 12 | 5 | 24 | 12 |

- 1. Rank of services rated "Good" or "Great" by each interest group
- 2. In order of Private Sector preference



Observations

| present work status | Private Sector | National Lab | Univ faculty/ staff | Postdoc | Grad student | All |
|--|---------------------------|-----------------|---------------------------|---------|-----------------|-----|
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| Webinars on industrial physics topics | 5 | 13 | 9 | 1 | 16 | 7 |
| Local Links | 5 | 3 | 1 | 1 | 4 | 4 |
| Meetings/workshops to facilitate development of industry/academic partnerships | 7 | 6 | 4 | 5 | 4 | 6 |
| Up-to-speed online tutorials (à la Ted Talks) | 8 | 10 | 10 | 5 | 8 | 8 |
| Periodic industrial physics publication (à la Industrial Physicist) | 9 | 10 | 12 | 18 | 1 | 9 |
| Mid-career events at section and national meetings (resume writing, networking, career planning) | 10 | 4 | 4 | 5 | 15 | 10 |
| Archival journals – suitable for industrial contributions | 11 | 22 | 4 | 18 | 23 | 13 |
| Periodic general physics publication (à la Physics Today) | 12 | 12 | 12 | 5 | 24 | 12 |

1 => Enthusiasm about industry-academic partnerships

2 → Careers focus

3 → Engage with other professional societies



Comments on industrial lectures at Univ.

| Industrial le | ctures at local universities and vice versa | Affiliation |
|---------------|--|---------------|
| Great idea | A must | Pivate Sector |
| Great idea | As long as industry gets notifications!!!! | Pivate Sector |
| Great idea | Deans at, say, Case or Carnegie Mellon would welcome this. | Pivate Sector |
| | This could be nice for students' exposure to industry, and a industry's networking with future employees, as | |
| Great idea | well as letting industrial physicists hear some current basic physics research. | Pivate Sector |
| Great idea | Careers and technology talks would both be beneficial | Pivate Sector |
| Great idea | Yes. It also promotes netowrking for student and talent attractions for industry. | Pivate Sector |
| Great idea | Academia needs to hear from industry since most of their products (students) go into it | Pivate Sector |
| Great idea | Faculty and grad students need to learn about what goes on in industry | Pivate Sector |
| Great idea | This is going to be tricky but could pay off greatly | Pivate Sector |
| Great idea | Getting local universities to reach out more to industry would be very helpful, I would think. | Pivate Sector |
| | Both groups present information differently, but there is enormous shared interest between them. We had a | |
| Great idea | lecturer from a university come in where I work and it was a tremendously positive experience. | Pivate Sector |
| Great idea | More interships of academics in industrial and federal labs are needed | National lab |
| Great idea | Applid physics has much application | National lab |
| Great idea | Hence, the distinguished lectureship award. Like the idea of expanding a travelling lecture program | Retired |
| Great idea | Cheap and will make industrial careers more interesting. | Retired |
| Great idea | good way to broaden the contacts of both audiences | Retired |
| Great idea | Students need to see what opportunities await outside of industry. | Federal Agend |
| Good idea | Expand existing ex-officio efforts. | Pivate Sector |
| Good idea | You keep using that word, "Industry" | Pivate Sector |
| So-So idea | What is an industrial lecture? | Pivate Sector |
| So-So idea | Not a good idea. Universities do an excellent job of this on their own. | Pivate Sector |
| | Travel, cost and having to take time-off from work throw a monkey-wrench in being able to take advantage of | |
| So-So idea | such venues. | Pivate Sector |
| So-So idea | Time commitment and (mis)alignment of interest/need is hard. | Pivate Sector |
| So-So idea | We are already well connected to our local university, so we would rather meet new people | Pivate Sector |
| So-So idea | VERY hard to curate. Worst outcome is discouraging people from open-mindedness in future | Retired |
| So-So idea | In my experience they are poorly attended, the academics don't see value and so don't attend | NGO |

Lower ranked services

| Private Sector | National Lab | Univ faculty/ staff | Postdoc | Grad student | All |
|---------------------------|---|---|--|---|--|
| 160 | 39 | 19 | 9 | 17 | 299 |
| Rank for proposed service | | | | | |
| 13 | 8 | 12 | 5 | 4 | 11 |
| 14 | 7 | 22 | 5 | 8 | 14 |
| 15 | 9 | 15 | 5 | 20 | 15 |
| 16 | 18 | 25 | 18 | 16 | 17 |
| 17 | 19 | 18 | 5 | 4 | 16 |
| 18 | 15 | 15 | 18 | 16 | 18 |
| 19 | 14 | 27 | 18 | 25 | 19 |
| 20 | 22 | 17 | 29 | 8 | 21 |
| 21 | 17 | 11 | 26 | 19 | 20 |
| 22 | 24 | 28 | 18 | 21 | 25 |
| 23 | 26 | 20 | 5 | 8 | 22 |
| 24 | 21 | 21 | 25 | 8 | 24 |
| 25 | 19 | 23 | 5 | 26 | 23 |
| 26 | 25 | 19 | 27 | 22 | 26 |
| 27 | 29 | 26 | 5 | 28 | 28 |
| 28 | 27 | 24 | 18 | 27 | 27 |
| 29 | 28 | 29 | 27 | 29 | 29 |
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