International Particle Physics Outreach Group

IPPOG Vision and Development Strategy

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IPPOG Development Lead
Outline

- Strategy and Vision
- Communication Strategy
- New IPPOG website
- Fundraising
IPPOG – Evolution till Today and Beyond

- Group of friends → Official scientific collaboration
- Proton-Proton → Particle Physics outreach
- European group initiated by former CERN DG → CERN’s key partner in promoting its mission globally
- Group of friends exchanging ideas → Established collaboration with proper fan-club “IPPOG friends”
- Offering to HS students to become a scientist for a day → Building bridges between science and society
- Inspiring next generation of scientists → Creating ambassadors for science in society
IPPOG – Future Vision and Strategy

Based on and taking into account:

- Global vision (full society beyond PP community)
- Opinion / awareness of science from broad public (decision and opinion makers – UN, politicians, bankers, lawyers, artists, students…)
- Trends recognised in scientific community (EPS, Science March, etc.)
- Trends recognised by ECFA
- Best practices and experiences (working with our audiences)
Now when we are officially established among PP community…

- Define our place and role to play in global world context and framework
- Become important and recognized international player, recognized not only in the PP community but widely in the society!
- Increase the visibility of the importance of PP and science in society

BUILD BRIDGES BETWEEN SCIENCE AND SOCIETY
IPPOG – Future Vision

Why is this perfectly possible?

Story from SDGs to IPPOG…

(see details in presentation on Creating Ambassadors for Science in Society)
It is recognized that science, technologies and innovations are key to meet sustainable development goals, to find solutions to global societal challenges!

Funding of fundamental research is threatened and interest in STEM falling

How can we ensure to bring up new generation of specialists to save the world with new technologies?

CERN representing PP community is the only scientific body with status of observer in General Assembly of UN.

CERN and PP is an unofficial voice of science in society!

IPPOG is key partner of CERN and PP community in promoting their mission globally!

Huge potential, huge responsibility!

We can become: Bridge between science and society!
IPPOG Communication and Development Strategy

IPPOG is now in its new era and needs new branding and marketing of its outreach services so that the vital role of particle physics in society is fully understood by our key audiences and potential partners.

- New website reflecting the IPPOG spirit and broader range of its activities
- New communication strategy and tools
- New partnerships
New IPPOG website

IPPOG website developer

- Write Technical Specification for the Design Development Company
- Follow the procurement process
- Build the new IPPOG website in Drupal 8 based on new design
- Develop the content of the website
New IPPOG website – Technical Specification

> 30 pages document + several annexes

"design specification for new IPPOG website including its implementation in the CERN Drupal 8 theme, and production of graphical elements to be used at IPPOG digital portfolio"

- Design guidelines (Art Direction – Sitemap, Template)
- Compatible with CERN DR8 theme (if not, implement it)
- Graphical elements
New IPPOG website – Technical Specification

The design principles:

• Design for people – structure easy to navigate
• Appealing look – graphical design to create wonder
• Sustainable functionality and maintenance – CERN Drupal 8 web infrastructure
• Reflecting the spirit, values and noble mission of IPPOG – to bring beauty of particle physics to society
• High impact on the user – motivate the user to navigate the website further and to recommend it to his/her peers
• Present the whole picture of IPPOG including all its various activities which are worth telling / showing (including IMC, GlobalCosmics, etc. on the one single platform)
• Reflect and consider the recommendations from IPPOG

New IPPOG website – Technical Specification

Project Steering Group:

- IPPOG co-chair (Steve Goldfarb)
- IPPOG chief developer (Barbora Bruant Gulejova)
- IPPOG advisors (Pete Watkins, Marzena Lapka) - TBC
- CERN web design expert managing CERN websites (Sotirios Boutas)
- CERN web team back-end expert (Eduardo Alvarez Fernandez)
- Contractor’s web design team
  - A dedicated user researcher
  - A dedicated art director
  - A dedicated UX team of 2 people (for wire frames)
  - A dedicated front-end interaction developer
  - A dedicated back-end developer
New IPPOG website – Technical Specification

Delivery schedule – very preliminary

<table>
<thead>
<tr>
<th>Expected Date (months)</th>
<th>Deliverables</th>
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| M0                     | • Contract award  
                         • first PSG meeting - as soon as possible                                                                                                                                                               |
| M1                     | • 3 proposals of prototype of design (art direction: website architecture with sitemap, wireframes, menu & 2-3 graphical elements)  
                         • Price proposal for all 3 prototypes  
                         • Identify additional functionalities / options, including the eventual use of CERN Overwrite (if needed to implement chosen design)  
                         • PSG meeting to present the proposals                                                                                                                                                                  |
| 2 weeks after M1       | • Final chosen prototype to be followed or request for changes/more proposals  
                         • This could be followed by up to 5 iterations to reach satisfactory result                                                                                                                                 |
| M1-M2                  | • User research survey/report based on the IPPOG’s audience                                                                                                                                                  |
| M2-M3                  | • User acceptance testing (UAT) of prototype of temporary menu/tree testing  
                         • PSG meeting  
                         • Adaptation of menu based on the UAT and finalization of design/website architecture                                                                                                                                 |

| M4                     | • PSG meeting  
                         • Agreement on final design, website architecture and technical pathway to implement the design to CERN web infrastructure (using CERN Drupal 8 theme or CERN overwrite theme)  
                         • Final agreement on masterplan: what, how and when will be done                                                                                                                                 |
| M5                     | • Prototype / Template of IPPOG website theme  
                         • PSG meeting  
                         • Testing  
                         • PSG meeting                                                                                                                                                                                          |
| M6                     | • Graphical elements  
                         • Custom modules if needed *  
                         • Options (newsletter…) *  
                         • Final testing  
                         • Final design document and technical guidelines to build Drupal the IPPOG website in Drupal 8                                                                                                           |
| M7 – M31               | Maintenance & Guidance & Training / Consultancy service (the price should be defined in price proposal by hour and this might be a decisive offer in case it is very interesting even though the price of principal supply above is higher) |

* if ordered
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How to get closer to our audiences and society?
Communication strategy, partnerships and tools

- Work WITH and not only FOR our audiences!
- Broaden the portfolio of our stakeholders: Industry and KT
- Partnership with visible recognized partners (EPS, APPEC, IBO, etc.) – organize common projects…
- Organize activities for multidisciplinary groups with specific outcome (Hackathon, etc.)
- Create IPPOG Ambassadors, more IPPOG friends and fans
- Create more IPPOG made materials and programmes… (IPPOG wisdom collection, price, events…)
- Get more resources - fundraising
Working WITH our audiences

- CERN HST IPPOG WGs (since 2017) – 10 HS teachers
- IPPOG FRIENDS – 100 HS teachers

- CREATING AMBASSADORS FOR SCIENCE IN SOCIETY
  - 30 HS students
  - Voluntary WGs TBC

- PARTICLES FOR YOU

Challenged by tasks to work with and for us!
Working WITH our audiences

- CREATING AMBASSADORS FOR SCIENCE IN SOCIETY - 16 years old students
  - It made me a lot more interested in science and made me realize what CERN really does.
  - I learned that Physics can be extremely fascinating and relevant, and I now realized that I actually enjoy Physics, just not what is taught in our school curriculum.
  - Science is not only about what you study in school, there is a whole other side of it.
  - I learned that it plays a huge role in creating new jobs and giving us the fundamental knowledge we have now.
  - Science plays a major role in society. Many people aren't aware that behind all the new innovations, there's science. For example, I wasn't aware of most of the inventions CERN has produced, which are currently essential for our every day lives.
  - The most important thing is to increase the knowledge in STEM subjects everywhere. The focus should be on younger students, because if they build up interest earlier in life, they'll enjoy it more later on, resulting in more people studying STEM. I think, that new projects/ fun activities for kids should definitely be part of that. I would also like to envision collaborations with other scientific programs, in order to reach as many students as possible around the world.
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ECFA recommendations for Slovakia: “Innovative outreach projects are being developed with the intention of reaching a significant fraction of the Slovak society. We encourage the community to explore opportunities for further strengthening these efforts, for example by finding synergies with the above-mentioned successful industry and knowledge transfer activities. One avenue might be to involve the Slovak captains of industry as ambassadors for education in (particle) physics.”

INDUSTRY:
- Companies with specific relation to particle physics, who have produced the applications based on PP or HEP, are concrete examples of how PP gets to the end-user
- Their stories can be eye-openers and mind-openers of otherwise ignorant audience with neutral or even negative image of science
- Partnership with these can be also a part of fundraising

KNOWLEDGE TRANSFER:
- Outreach of Applications of PP for Society
- Write up stories…
- Partner with CERN and PP community KT stakeholders

Negotiations with few in progress…
IPPOG Panel
Maybe new WG?
Communication strategy, partnerships and tools

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IPPOG – New partnerships

EPS
• Young minds – find synergy, common projects (under discussion)

APPEC, LIGO, others…
• through projects (Global Cosmics) etc.

IBO
• curriculum of all international high schools worldwide
Communication strategy, partnerships and tools

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IPPOG Friends - How to make them alive?

Part of the new IPPOG website (contributions, photos, articles, quotes…)

Offer them some work, give some task, how to contribute

- Ask them to contribute to new resource database, translate the existing resource to their language, review DB articles
- Create hashtag IPPOG friends at our IPPOG Twitter account, and launch some challenge asking IPPOG friends to bring IPPOG to their work and report to us about it… they can start by just sending pictures at work and introduce themselves as new IPPOG friend.. they just must do something, at least one Tweet to prove that they are IPPOG friends..

Recognition/Motivation:

- In exchange offer to publish their names on the website (place for our best/most active contributors from IPPOG friends)
IPPOG Friends Representative

Afnan Alostaz

• Amazing HS teacher from Palestine
• IPPOG Friends Representative
• Volunteered to:
  - Make IPPOG friends more alive
  - Launch Social Media Campaign
IPPOG Ambassadors

Who else could be IPPOG Ambassadors?

- You
- PP community
- IPPOG friends
- All who participated in our programmes
- Companies
- Partners…

Ask them to be our ambassadors!
Communication strategy, partnerships and tools

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IPPOG – made materials, programmes…

Create our own identity, our own mark…

- IPPOG newsletter, brochure, flyers…
- Working on collection of IPPOG wisdom – tool for PP community how to explain PP complex issues to lay audience and more…
- Stories for society - outreach of PP applications, industry…
- Try to create emotions – tell stories?
- Create new IPPOG content for the IPPOG database
- New IPPOG programmes: competition, price?
- European Strategy for Particle Physics input – respect and visibility
Communication strategy, partnerships and tools

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IPPOG Fundraising Strategy

A bit of history and legal framework

MEMORANDUM OF UNDERSTANDING
Establishing
The International Particle Physics Outreach Group (IPPOG) Collaboration

ARTICLE 8
FUNDING

Funding sources

8.1 The IPPOG Collaboration shall be funded by annual membership fees, other contributions, grants, subsidies, donations and sponsorship support, including in-kind contributions (collectively “Support”), which shall all be recorded in writing.

Space for funding beyond membership fees…
Possible resources “beyond membership fees”

- Companies – perhaps quickest and easiest option
- Foundations - national and international Foundations, Funding Agencies and Bodies
- EC funding - long term and more complicated
  - IPPOG could form consortium with one coordinator of proposal
  - Horizon 2020 calls like “science with and for society”
- National bodies / ministries / high schools / museums etc…
IPPOG Fundraising Strategy

First step: Prepare Tools to Raise Funds

- Marketing Material
- Elevator pitch of IPPOG
- Professional Brochure with information to “sell the product”

- Who are we?
- Why do we need money?
- What do we offer?
- What are the benefits for society?
- What are the benefits for the sponsor? (logo?)

Using:
- Statistics
- Testimonials
- Our website
- Short videos

Inspirations from: CERN and Society Foundation Science Gateway
IPPOG Fundraising Strategy

Products to finance

- All IPPOG activities
- New common projects
- Simply do something good for the society, new generation
  - “Impact investing”, Corporate Social Responsibility
- Increase the visibility of the company, tell their success story worldwide
- International network
IPPOG Development Lead

Strategy and Vision Developer
• Help IPPOG Chairs in:
  • Development of IPPOG vision and strategy – mission, communication, fundraising
  • Propose and create strategic partnerships and synergies

IPPOG website main Developer
• Write Technical Specifications for the Design Development Company
• Follow the procurement process
• Build the new IPPOG website in Drupal 8 based on new design
• Develop the content of the website

Fundraising Coordinator
• Development of fundraising strategy
• Identify the best fundraising partners
• Negotiate with potential fundraising partners

Communication Coordinator
• Development of Communication Strategy
• Planning and Development of Content
• Maintenance and Development of Platforms
• Implementation of Communication Plan based on Strategy

(Social Media Coordinator)
• Develop Strategy
• Establish Goals, Audiences, Messages, Policy
• Create Network of Contributors
• Coordinate Activities