

# Intro to National Engineering Month 2016 for New Event Organizers



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Professional Engineers  
Ontario



ONTARIO  
SOCIETY  
OF PROFESSIONAL  
ENGINEERS



engineers without borders  
ingénieurs sans frontières  
Canada

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OCTOBER 2015

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# Previous NEMs in Ontario



Reach metrics	2015	2014	2013	2012
Events (#)	276	187	142	140
Engaged in-person(#)	30,000	27,100	25,600	22,000
Engaged via traditional media (000,000)	1.66	1.4	0.862	0.665
Engaged via Website (hits)	11,198	6688	3652	4065
Engaged via social media (impressions)	731,000	478,055	269,500	79,394

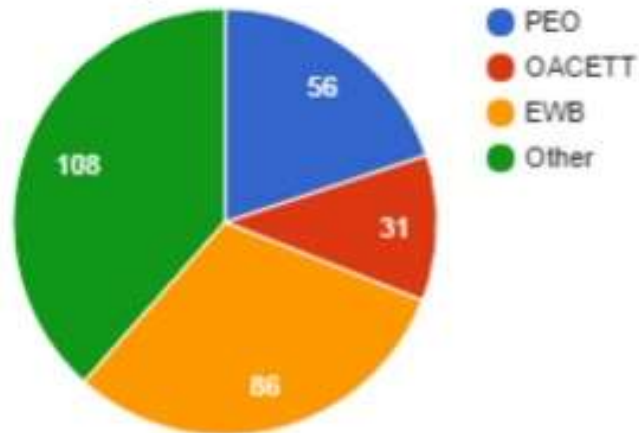
\*based on Scorecard data provided by host organizations and on historical knowledge about event turnout.

# NEM 2014/2015 Host Organizations

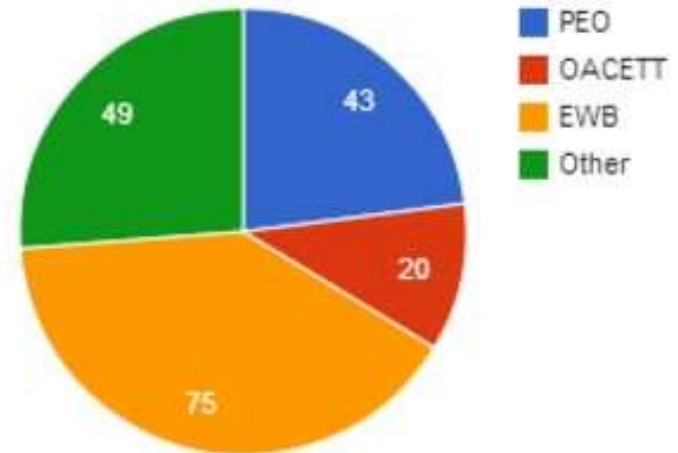


## Hosting Organization

Leadership of NEM 2015 events by host organization



Leadership of NEM 2014 events by host organization



- NEM 2015 was a great year for OACETT, PEO and 'other'.

# NEM 2015: Coalition approach

## Coalition

- Mobilized a large network of inspired professionals and student volunteers to organize, promote, and run events
- Partnerships with sponsor organization
  - Companies that provided financial sponsorship were invited to provide original content and merchandise
  - Partners told stories that synchronized with our themes (Sustainability, Creativity, Future, etc)

Our 2014 NEM coalition included...



Engineering Student Societies'  
Council of Ontario



Girl Guides  
of Canada  
Guides  
du Canada



- NEM 2015 began to leverage like-minded organizations.

# NEM 2015: Social Media



- We saw significant growth in social media last year
- Effort to mobilize a youthful audience through online engagement and social media
  - e.g. blogs, articles, images



<http://nemontario.ca>



<http://facebook.com/nemontario>



<http://twitter.com/nemontario>



<http://instagram.com/nemontario>

- Social media will be utilized again in 2016

# NEM Ontario: Our approach



## Clear and deliberate messaging based on research

- Change public perception of engineering and technology
- Break stereotypes, raise awareness, enhance profile of eng/tech professions
- Deliver purposeful, positive, and impactful messages
- Create and support inclusivity in engineering

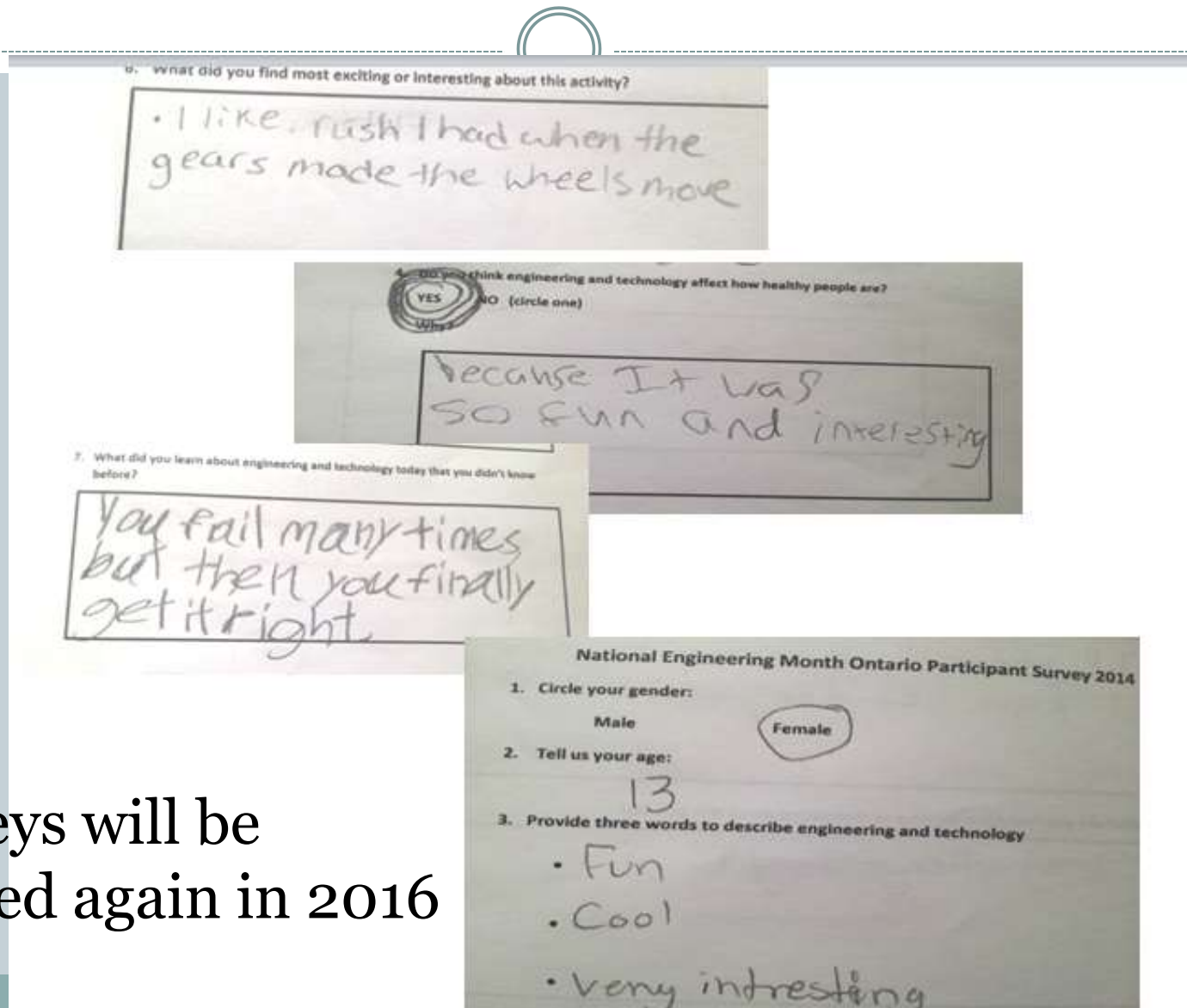
## What are effective messages?

1. Engineering and technology solutions to a diverse set of 21st century challenges require a diversity of thinkers. There's a place for you in engineering and technology!
2. Engineering and technology shape the world around us: yesterday, today and tomorrow.
3. Engineering and technology apply creativity and imagination to turn ideas into reality.
4. Engineering and technology are essential to the safety, health, happiness, comfort, and efficiency of our friends, family and distant neighbors. Locally and globally, people working for people. Engineers and technologists make a world of difference.

Reference: [National Academy of Engineering's Changing the Conversations campaign](#)

- NEM 2016 will continue to use quality messaging.

# Your commitment: Use participant surveys to gain instant measurement of your event effectiveness



- Surveys will be utilized again in 2016



# Your commitment: Use event checklists to create a well-run & organized event

## EVENT PLANNING CHECKLISTS

BEFORE EVENT	DURING EVENT	AFTER EVENT
Have meeting with your team in February Review scorecard and record:	Check in on event day, before event Discuss with team:	Meet after event day Review scorecard and record:

<b>Basics:</b>	Have we got a plan to deliver our intended messages?		
	Is someone taking charge of the surveys? Bringing pens/pencils as necessary?	Have we got copies of the survey and pens/pencils on hand for participants? Who is going to distribute, explain and collect them?	What did surveys say?
	How many people are we expecting? From what age/demographic?	Is someone taking a headcount?	How many came?
	Do we have enough space, food, supplies, prizes, materials, etc?		
	How are we tracking toward our budget?		How much did we spend?

<b>Other logistics:</b>	Have we checked our online event listing and supplied any missing information?	Have we completed our event setup?	Have we paid venue, vendors?
	Confirmed the venue?		

- Event checklists will be available in 2016

# Your commitment: Submit a completed scorecard to us no later than April 15<sup>th</sup> 2016



## National Engineering Month Ontario Event Scorecard

Scorecard Legend

Entered value - please key in

Pre-populated value

Calculated value

Organizing Group and Contact Name Boys and Girls Club, Jennifer Tomato and Jonathan Carrot

Event Title and Venue Address Engineering Fair, 22 Desmond Way, Barrie, Ontario

Event Date March 7 2015

		Basics				
		Description	Before (Plan)	After (Actual)	Score	Out of
<b>Messaging Notes</b>		<b>Messaging</b>	A, C, D, F	A, C, D, F	18	20
Before (plan) comes from your funding application, question 13. After comes from your survey results. Score comes from the rubric below)		<b>Attendance</b>	50	46	15	15
		<input type="checkbox"/> Grades 1-8	30	30		
		<input type="checkbox"/> Grades 9-12	10	12		
		<input type="checkbox"/> University/College	0	0		
		<input type="checkbox"/> Young Professionals	0	0		
		<input type="checkbox"/> Established Professionals	5	3		
		<input type="checkbox"/> General Public	5	1		
<b>Scoring Rubric</b>		<b>Budget</b>	\$810.00	\$1,000	8	15
Audience reported all intended messaging +20 points		<b>Media</b>	A, B, C, D	A, B, C, D	10	10
Audience reported no intended messaging 0 points		<b>Improvement over last year (if applicable)</b>				10
Audience reported some intended Unintended messaging (negative) -4 points		<b>Total</b>			51	70
Unintended messaging (from guide) +2 points						
<b>Messaging Key</b>						
Shape the world around us:						

- Scorecards will be emailed to you in Jan 2016

March is National Engineering Month!

The background of the slide features a complex, abstract pattern of overlapping circles and lines in various shades of gray and black, creating a sense of depth and movement. The circles vary in size and opacity, some appearing as solid outlines while others are more faint. The lines are thin and intersect to form a web-like structure.

**THERE  
IS A PLACE  
FOR YOU**

Same theme for all NEM  
campaigns across Canada  
in 2016

# NEM 2016: This is a Place for You



- Offer #1: Apply for NEM funding
  - Regular event funding and Outreach Innovation funding offered
- Offer #2: Join the community of outreach enthusiasts
  - Monthly newsletter featuring best practices and outreach successes
  - <http://nemontario.ca/engineering-outreach-resources>
- Offer #3: Access support for your outreach events
  - New webinar series to be offered for 2016 (details to follow)
  - Workshop design services and other help (request on funding forms)
  - Measurement tools + Messaging guidelines (emailed to you and available for download at <http://nemontario.ca> – professionals portal)

# Support to Event Organizers for 2016



## Top support requests from Event Organizers

1. Effective messaging
2. Promotion
3. Recruiting
4. Help me Plan

## Other requests

Letter from NEM supporting the activity

Help find a larger venue

Help identify good guests/speakers for event

NEM's presence as a booth

# Regular Event Funding



Professional Engineers  
Ontario



engineers without borders  
ingénieurs sans frontières  
Canada

## National Engineering Month 2016 | Event Organizer Funding Application

*Thank you for celebrating National Engineering Month 2016!*

You can secure funding for your chapter event or activity by completing this form and emailing it to National Engineering Month (NEM) Ontario at [nemontario@ewb.ca](mailto:nemontario@ewb.ca)

- Applications must be received by Monday, November 13, 2015 @ 5 pm.
- Events and activities will only be considered for funding if open to the public.
- Maximum funding is \$700 per chapter and cannot exceed 50% of event budget.
- In the case of joint events, the maximum \$700 funding will be split between the organizing groups (e.g. 2 organizing groups will receive \$350 each for one event)
- Please submit one form for every event or activity.
- Insert your answers in the spaces provided or attach further documents as necessary.

### Contact Information:

1. Organizer Name: \_\_\_\_\_
2. Organizing Group/Chapter: \_\_\_\_\_
3. Address<sup>1</sup> (Street/City/PC): \_\_\_\_\_
4. Contact Telephone #: \_\_\_\_\_
5. Contact Email: \_\_\_\_\_

<sup>1</sup> Funding cheques and any NEM merchandise you order will be sent to this address. Do not provide PO boxes and please ensure this address is **complete**.

6. Contact info: Publish my name only; do not publish my contact information [  ]  
(If left unchecked, your information will appear on the [nemontario.ca](http://nemontario.ca) event listings. We encourage organizers to make contact information public to allow sponsors and volunteers to contact you.)

### Event Description:

7. Name: \_\_\_\_\_
8. Date(s): \_\_\_\_\_
9. Venue Name: \_\_\_\_\_
10. Venue Address: \_\_\_\_\_
11. Describe your event or activity: \_\_\_\_\_

### Target Audience:

12. Identify [X] your event target audience(s); choose all that apply, and estimate how many attendees of each target demographic

Students: [ ] _____ Grades 1-8 [ ] _____ Grades 9-12 [ ] _____ University/College	Engineering and Technology Community: [ ] _____ Young Professionals [ ] _____ Established Professionals	[ ] _____ General Public
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### Event Details:

13. What message(s) will your event or activity deliver about engineering and technology to the target audience(s)? Nationally, the theme for NEM 2016 is: 'There is a place for you'. Check all that you plan to deliver:

- [  ] Engineering and technology shape the world around us: yesterday, today and tomorrow.  
 [  ] Engineering and technology are essential to the safety, health, happiness, comfort, and efficiency of our friends, family and distant neighbors. Locally and globally, people working for people. Engineering and technology make a world of difference.  
 [  ] Engineering and technology provide solutions to the diverse set of 21<sup>st</sup> century challenges and require a diversity of thinkers. There's a place for you in engineering!  
 [  ] Engineering and technology apply creativity and imagination to turn ideas into reality.

14. How will your outreach activity/event deliver the message selected in question 14 to your target audience(s)? Check all that you plan to use:

- [  ] Signage at the event  
 [  ] Volunteers' explanation  
 [  ] Integrated into event design  
 [  ] ~~Writeup~~ Writeup in local media or blogs  
 [  ] Other; please specify: \_\_\_\_\_

15. NEM Ontario encourages engagement with local media to expand your target audience. Are you planning on implementing any of these best practices? Check all that apply.

- [  ] Designating a media coordinator  
 [  ] Promotion through social media  
 [  ] Designated photographer  
 [  ] Inviting local media (newspapers, magazines, blogs)  
 [  ] Inviting local dignitaries or personalities  
 [  ] Other; please specify: \_\_\_\_\_

# Regular event funding



16. Has this event been hosted in previous years? (Y/N)

If "Yes", what are your goals for improving this event? Check all that apply:

- Larger in-person audience
- Higher quality of messaging
- Better execution on event budget
- Improving attendee engagement
- Greater event impact through tradition or social media
- Other; please specify:

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**Promotional Material:**

17. Please fill in the following table for your requested quantity of NEM promotional material:

*Free material*

Promotional Material <sup>1</sup>	Number of units
Official NEM souvenir (from Engineers Canada)	
<b>Event Posters*</b>	
i) Youth (Grade 1-12)	
ii) University/College	
iii) Public/Professional	
*Sponsor-branded merchandise*	

1: Note: We have limited quantity of promotional materials, applications that are submitted on time will be given priority for material requests.

2: Please specify the quantity for each type of posters: i) Youth (Grade 1-12) ii) University/College, iii) Public/Professional

3: Note: limited quantity and unspecified merchandise

*Subsidized Material*

Promotional Material	Number of units	Total Cost (\$)
NEM Ontario T-shirts <sup>1</sup> (3\$/unit) - SMALL		
NEM Ontario T-shirts <sup>1</sup> (3\$/unit) - MEDIUM		
NEM Ontario T-shirts <sup>1</sup> (3\$/unit) - LARGE		
NEM Ontario T-shirts <sup>1</sup> (3\$/unit) - X-LARGE		

1: Please include total cost of t-shirts in your budget tables below.

2: Note: Requests of up to 15 t-shirts per event will be subsidized at \$3 and guaranteed. For orders of more than 15, please contact [alanham@ewb.ca](mailto:alanham@ewb.ca) for more details.

**Additional Event Support:**

18. What type of support do you want from the NEM Ontario coordination team?

- Help me recruit volunteers!
- Help me plan my activity!
- Help me with effective messaging!
- Help me promote my event!
- Other; please specify:

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**Event Budget:**

19. Please complete your anticipated event expenses and sources of revenue. Insert more rows in the tables below or attach a separate budget if necessary.

*Description of Expenses*

Item	Amount (\$)
1.	
2.	
3.	
4.	
<b>Total Expenses</b>	

*Description of Revenue*

Item	Amount (\$)
1. NEM Ontario Funding Request	
2.	
3.	
4.	
<b>Total Revenue</b>	

(NOTE: Total expenses must equal total revenue)

Amount of NEM Ontario funding requested:

(NOTE: this amount cannot exceed 50% of event budget to a maximum of \$700.)

I acknowledge that I have read and agree to abide by the conditions listed in the funding guidelines. I hereby verify that the event for which the funding is requested is covered by my organization's liability insurance.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

We look forward to working with you during National Engineering Month!

# Regular Event Funding



## Key dates for the NEM 2015 campaign:

**Monday November 13<sup>th</sup> 2015** – Completed funding applications due to [nemontario@ewb.ca](mailto:nemontario@ewb.ca)

**December 2015**– Funding decisions communicated via email, event listings updated

**January 15<sup>th</sup> 2016** – Scorecards and first funding payment will be distributed

**February 15<sup>th</sup> 2016**– Merchandise shipped to main organizer

**March 2016** – All events held, scorecards completed and sent to [nemontario@ewb.ca](mailto:nemontario@ewb.ca)

**April 10<sup>th</sup> 2016**– Second funding payment will be distributed to all event organizers who have returned their scorecards.

**May 2016** – Second funding payment will be distributed to all event organizers who return their scorecards from April 10<sup>th</sup> to May 1<sup>st</sup> 2016. The second funding payment will not be distributed for scorecards received after May 1<sup>st</sup> 2016.



# Outreach Innovation Funding



## National Engineering Month 2016 | Outreach Innovation Funding General Application

*Thank you for celebrating National Engineering Month 2016!*

You can apply for innovation funding for your chapter event or activity by completing this form and emailing it to National Engineering Month (NEM) Ontario at [nemontario@ewb.ca](mailto:nemontario@ewb.ca)

- Outreach Innovation Funding is an additional source of funding, and applications must be submitted in addition to the Funding Assistance form
- Applications must be received by Friday, November 13, 2015 @ 4pm

### Eligibility

Outreach Innovation funding is only available for new events. Regular events such as Bridge-Building, Mathletics or school presentation do not qualify unless they have a special innovative component built into them. See categories of innovation for further explanation.

Successful applicants will be asked to submit a Post-Event Report. This allows NEM Ontario to showcase successful outreach practices for future event coordinators.

### Goals of Innovation Funding

NEM Ontario aims to improve public understanding of engineering and technology. Outreach Innovation Funding enables organizations to tap into additional funding to design and implement brand new events and activities during NEM 2016 to engage the public in meaningful and creative ways. Engineering is about constant innovation – our outreach should reflect that!

### Types of Innovation Funding:

NEM Ontario recognizes innovation in the following categories:

- **Global and/or social context**
  - Educate the audience about their potential for improving the lives of others on a large scale. Show the human side of engineering and its impact on society.
  - Success Story: Engineers Without Borders Toronto Professional Chapter's Water for the World presentations in 2014.  
<http://nemontario.ca/2014/03/11/water-for-the-world-2014/>
- **New partnerships or collaborations**
  - Engage with one or multiple organizations with likeminded objectives. Form new relationships with organizations who also care about inspiring future changemakers and innovators. Create a large coordinated activity with clear and appealing messaging.
  - Success Story: Girl Guides' "Mission to Mars" workshop in 2014.

<http://nemontario.ca/2014/03/18/the-faces-of-nem-pt1/>

- **Public space engagement**
  - Create a direct experience of engineering for the public using eye-catching visuals, a hands-on component and a well-messaged theme. Draw attention in a crowd in order to engage a large number of people – in a mall or other public place. Create a booth 'recipe' that other chapters can use at future events!
  - Success Story: OACETT Grand River's Button maker  
<http://nemontario.ca/2014/04/15/wws.ef/>
- **Promote emerging or underrepresented engineering or technology disciplines**
  - Explains and illuminates disciplines that are recently emerging (e.g. software, biomedical, systems, nano) and/or disciplines that are less often represented in outreach activities, especially to youth. Expand their understanding of engineering beyond the traditional favourites.
  - Success Story: PEO Etobicoke's 2014 Engineering Idol Competition: Bioreactors  
<http://vimeo.com/88030362>

### Is my event/activity 'innovative'?

Does the event/activity aim to:

- **challenge** the public's perception of engineering and technology?
- **create** a lasting and memorable experience?
- **question** the role of engineering and technology in the changing world?
- **explore** new teaching methods?
- **inspire** passion for engineering and technology?
- **encourage** a diversity of thinkers within engineering and technology professions?
- **excite** interest in engineering and technology professions from prospective students?

### Want to design a new event/activity but unsure where to start?

Contact [nemontario@ewb.ca](mailto:nemontario@ewb.ca) with your ideas and we can help turn your idea into reality!

### Contact Information:

1. Name: \_\_\_\_\_
2. Organizing Group/Chapter: \_\_\_\_\_
3. Address (Street/City/PC): \_\_\_\_\_
4. Contact Telephone #: \_\_\_\_\_
5. Contact Fax #: \_\_\_\_\_
6. Contact Email: \_\_\_\_\_

### Event Description:

7. Name: \_\_\_\_\_
8. Date(s): \_\_\_\_\_
9. Venue Name: \_\_\_\_\_
10. Venue Address: \_\_\_\_\_

# Outreach Innovation Funding



**Questionnaire:**

11. What does 'innovation' mean to you, and how will you implement it in your event/activity?

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12. What message about engineering and technology do you want to instill in your audience?

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13. How will you decide if your event was a success?

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**Funding:**

14. Amount of Outreach Innovation Funding requested:  \$

15. How will this funding enable you to host an innovative event or activity?

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# What do you mean, innovation?



## WHAT IS IT?

NEM Ontario aims to improve public understanding of engineering and technology. Outreach Innovation Funding enables organizations to design and implement new events and activities during NEM 2016 to engage the public in meaningful ways.

NEM Ontario recognizes innovation in the following categories:

- **Global and/or social context**

- Educate the audience about their potential for improving the lives of others on a large scale
- Success Story: Engineers Without Borders Toronto Professional Chapter's Water for the World presentations in 2014. | [More >>](#)

- **New partnerships or collaborations**

- Engage with one or multiple organizations with likeminded objectives
- Create a large coordinated activity with multiple stakeholders
- Success Story: Girl Guides workshop "Mission to Mars" in 2014. | [More >>](#)

- **Public space engagement**

- Draw attention in a crowd in order to engage a large number of people
- Success Story: OACETT Grand River's Button maker | [More >>](#)

- **Promote emerging or underrepresented engineering or technology disciplines**

- Explains and illuminates disciplines that are recently emerging (e.g. software, biomedical, systems, nano) and/or disciplines that are less often represented in outreach activities, especially to youth
- Success Story: PEO Etobicoke's 2014 Engineering Idol Competition: Bioreactors | [2014 Video Recap >>](#)

# What do you mean, innovation? (part 2)



## Is my event/activity 'innovative'?

Does the event/activity aim to:

- **challenge** the public's perception of engineering and technology?
- **create** a lasting and memorable experience?
- **question** the role of engineering and technology in the changing world?
- **explore** new teaching methods?
- **inspire** passion for engineering and technology?
- **encourage** a diversity of thinkers within engineering and technology professions?
- **excite** interest in engineering and technology professions from prospective students?

# Highlights from NEM 2015 Innovations



Chapter	Innovation Type	Description of Innovation
PEO Oakville	Type 3	Students talk to variety of engineers + Design Challenge + Lunchtime activities
Science Expo	Type 2	Workshops + Networking Event
Engineers Without Borders Toronto Professional Chapter	Type 3	New Contest: Paper Contest (added onto Water for the World event)
PEO Lake Ontario	Type 2	New event: Coding Workshops + Parent Engagement
Rose Almond/Girl Guides	Type 3	New Program + Creation and Expansion of Engineering + Technology Challenge for Girl Guides (Mission to Mars)
<b>Total Innovation Funding Awarded</b>	<b>\$4,440</b>	

# Highlights from NEM Innovations



# Regular vs. Innovation Event Funding



- Regular event funding: \$700 per event, payable in two instalments (before and after event) for standard events, subsidizes up to half the costs
- Innovation event funding: allocated funding depends on applications received, for NEW events only

In both cases:

- T-shirts, posters and NEM merchandise are included
- A Scorecard is required
- Workshops/webinars, an outreach resource library and other support is provided
- NEM Ontario Steering Committee evaluates and awards funding on the basis of information provided by chapters

# Timeline for NEM 2014



- Friday November 13<sup>th</sup> – Completed funding applications due to [nemontario@ewb.ca](mailto:nemontario@ewb.ca)
- December 2014 – Funding decisions communicated via email, event listings updated on [nemontario.ca](http://nemontario.ca) Webinar listings distributed
- January 15<sup>th</sup> 2015 – Scorecards and first funding payment will be distributed
- February 15<sup>th</sup> 2015 – Merchandise shipped to main organizer
- March – All events held, scorecards completed and sent to [nemontario@ewb.ca](mailto:nemontario@ewb.ca)
- April 10<sup>th</sup> – Second funding payment will be distributed to all event organizers who have returned their scorecards.
- May 1<sup>st</sup> – Scorecards are due!
- Up to June 15<sup>th</sup> 2015 – Second funding payment will be distributed to all event organizers who return their scorecards from April 10<sup>th</sup> to May 1<sup>st</sup>

**IMPORTANT:** The second payment **will not be distributed for scorecards received after May 1<sup>st</sup> 2015.** Thanks for your prompt submission!



# Questions or comments?



NEM Ontario Co-ordination Team, Engineers Without Borders Canada

**Erica Lee Garcia P.Eng.**, Venture Lead, [ericaleegarcia@ewb.ca](mailto:ericaleegarcia@ewb.ca)

**Alan Ham**, Venture Strategist, [alanham@ewb.ca](mailto:alanham@ewb.ca)

We coordinate NEM in Ontario on behalf of several organizations who share the objective of ensuring a supply of bright, inspired and talented youth to the engineering and engineering technology professions.

We invite you to join us in March! [nemontario.ca](http://nemontario.ca)

