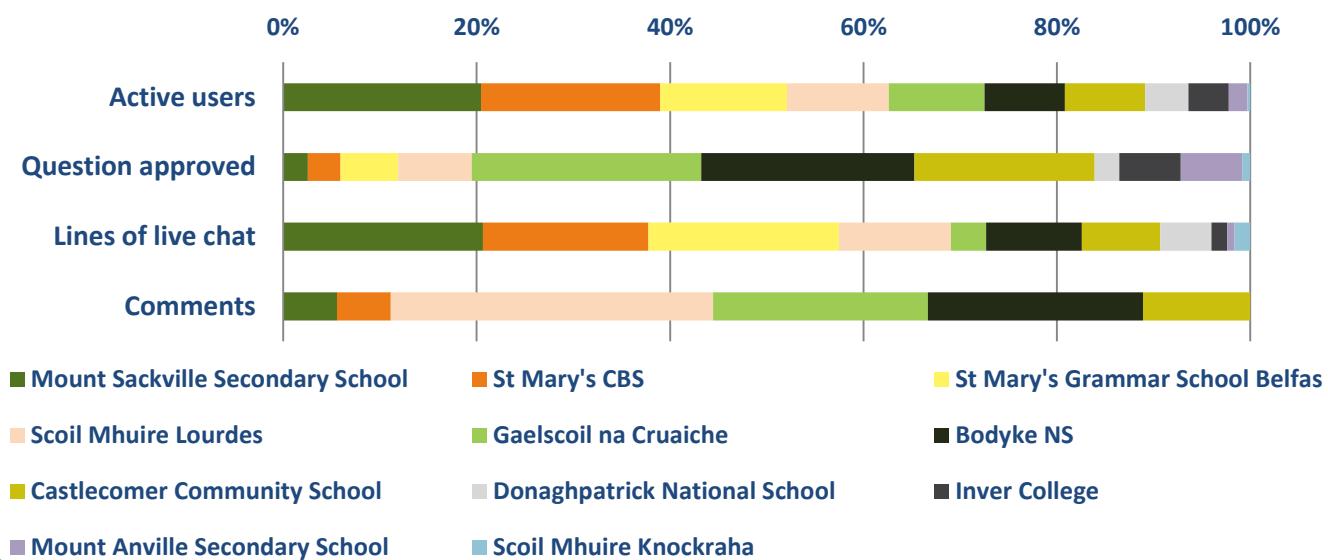




## February 2015

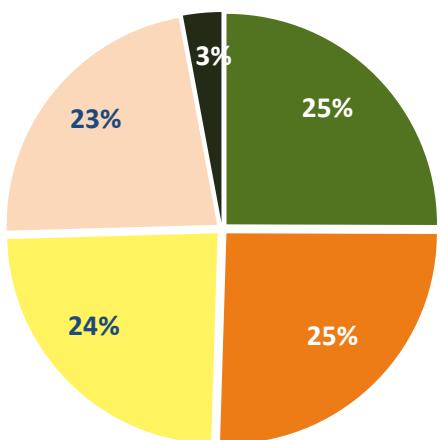
The Boole Zone coincided with Engineers Week in Ireland and it is the third I'm an Engineer zone to involve Irish schools and engineers. In total **377 students** from **11 schools** registered to take part, making this the largest I'm an Engineer zone in the country so far. Overall, there was a high level of engagement from the engineers and the top four answered a similar amount of questions in ASK. Padraic, the zone winner, attended every available CHAT and typed the most lines on average during them (60). It was notable that every engineer attended CHATS after they were evicted.

### School data at a glance

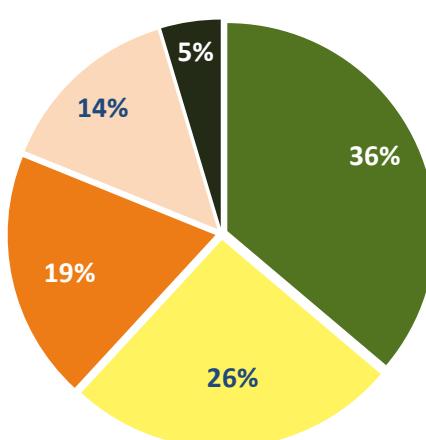


### Engineer activity

#### Answers



#### Lines of live chat



Engineer	Profile views	Position
Padraic	541	Winner
Morrissey	506	2nd
Aislinn	577	3rd
Coghlan	368	4th
Sinead	381	5th
Quirke		
Nathan		
Quinlan		
Fiona		
Edwards		
Murphy		

*Key figures from the Boole Zone, and the average of the November zones*

*Number of page views during the event (plus previous week and following weekend)*

	BOOLE ZONE	NOV '14 ZONES	AVERAGE
<b>Total zone</b>	<b>18,203</b>	<b>13,558</b>	
ASK page	1,494	1,106	
CHAT page	371	1,684	
VOTE page	969	824	

The key figures table illustrates that BOOLE ZONE was above average in several measures when compared to the two previous I'm an Engineer zones in Ireland. Mostly this is due to the increased number of schools, but in particular the **average number of live chat lines was nearly twice that of November**. This indicates that the live CHATS were very busy.

	BOOLE ZONE	NOV '14 ZONES	AVERAGE
Registered students	377	208	
% of students active in ASK, CHAT or VOTE	83%	87%	
Questions asked	621	494	
Questions approved	236	227	
Answers given	511	609	
Comments	32	40	
Votes	261	181	
Lines of live chat	5,519	2,588	
Live chats	14	13	
Average lines of live chat	394	199	
Schools	11	6	

## **Popular topics**

Boole Zone was a general zone and named after mathematician George Boole to join in with the celebrations of the 200<sup>th</sup> anniversary of his birth. The engineers' backgrounds were quite varied which allowed for diverse topics of conversation.

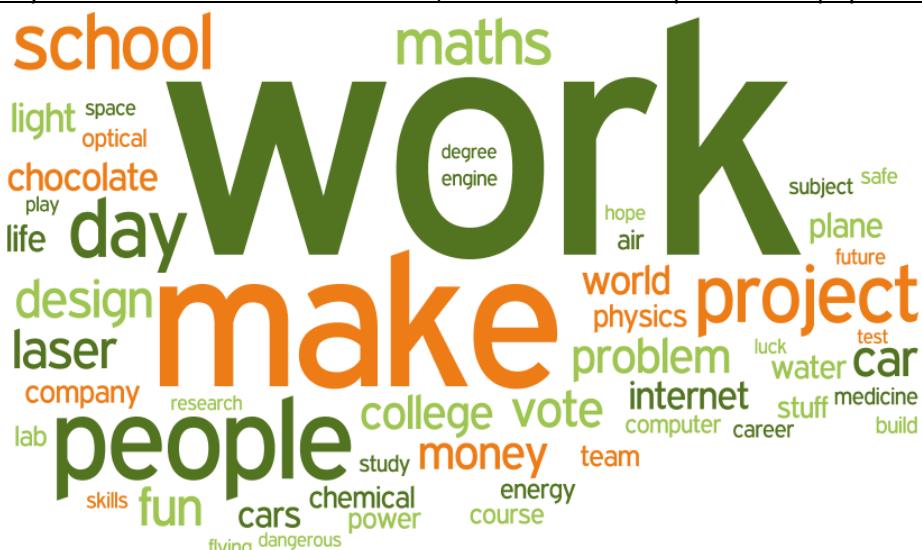
Most questions concerned **specifics of the engineer's jobs, career advice for students, and the highs and lows of engineering**. Students also often asked for explanations for how things worked and in addition there was an interest in the personal lives of the engineers.

Padraig's work with small **lasers** was very popular and he answered questions ranging from their use in the internet to speculating on how many could fit in a school bus. He also discussed his love of video games and sports. Sinead was often asked to further explain her job due to its less practical nature. She was also asked many questions about **aeroplanes** and flying in general, and more than once about her opinion on the recent well-publicised disappearances of long distance flights.

Aislinn's previous job at a **chocolate factory** was very interesting to the students, and she fielded some interesting ethical points about **drug research** and **animal testing**. The students picked up on Nathan's academic knowledge of engineering and physics to ask him general questions about **engineering science**, whilst Fiona's proposed plan for the prize money meant that **robots** was a common theme for her questions.



Keywords from live chats in the zone, size of the word represents its popularity



Keywords of questions asked in the zone, length of bar represents frequency of use



# **Example Questions**

(click for links)

***“Do you get any breaks during the day or is your job very busy?”***

# ***“How do lasers burn stuff? I am in junior infants”***

***“Do you ever  
worry about not  
being able to solve  
the problem laid  
out for you?”***

# *"How does fuel make cars move"*

***“What was the first object that you've made?”***

## ***“What Is Your Most Favourite Electrical Device”***

***“Do you think it's hard for a woman in the field of engineering?”***

***“How many points  
in the leaving cert  
do you need to  
become an  
engineer?”***

## Examples of good engagement

All engineers were good at explain difficult concepts to the right level. They were also happy to talk about areas that weren't necessarily their field of expertise in both ASK and CHAT. This gave them an opportunity to expand on engineering as a profession and the human nature of engineers:

*"What happens if you make a bad drug and you test it on someone and it goes wrong, what would happen to you?" – Jake, student*

*"Hopefully it wouldn't even get that far if it was dangerous to patients. In a clinical trial, if anyone starts to get bad side effects it would be pulled from use immediately. The law changed in recent years to hold the engineer in charge personally responsible if the process they own hurts anyone. This means that if an engineer was running a process and something went wrong, they could be sent to prison." – Aislinn, engineer*

*"In more mundane jobs, when lives are not at risk, engineers are very conscientious and careful, and generally want to do the best job they can. They work in teams, check each other's work, make constant efforts to do their job better. If an engineer is negligent or careless of course s/he will be in trouble. But ordinary mistakes are not a big deal – engineers make mistakes all the time, like all humans, but the mistakes get caught by the system, everybody learns a bit, and there's no shame in it." – Nathan, engineer*

## Engineer winner: Padraic Morrissey

Padraic's plans for the prize money: "As 2015 is the International Year of Light, I think it is fitting to use the prize money to further outreach activities in the area of optical engineering. I plan to buy Photonics Explorer kits for schools, which allow students to experience optics engineering hands on. The kits contain some really nice interactive experiments that students can do by themselves or in pairs. Listening to the students questions has also given me a few ideas for making some interesting optics demos for outreach activities....". Read Padraic's thank you message [here](#).



## Student winner: Sinead, Castlecomer Community School

For great engagement during the event, Sinead will receive a €25 iTunes voucher and a certificate.

## Feedback

We're still collecting feedback from teachers, students and engineers but here are a few of the comments made during the event...



Bodyke N.S.  
@bodykens

@Padraic\_M #IAEIE  
congratulations on your win and  
thanks again for a super live  
chat...we have a school full of  
engineer wannabes now :-)

*"I think I speak for all of the engineers in saying that we're really going to miss answering your questions!" – Padraic, engineer*

*"I'm enjoying it immensely - there is a great positive energy to it." – Sinead, engineer*