

JULY 2019

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## The Newsletter of the Institute of Inventors and Innovators

III – The home for inventors. A non-profit organization controlled by inventors, supporting inventors.

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### For your diary ...

- ❖ **Dates for our monthly Eureka! Meet** for the rest of the year ... set them aside, attendance is always worthwhile. Details of interesting speakers or events will be confirmed month by month: July 10; August 14; September 11; October 9 and November 13. We take a break in December then start again January 15<sup>th</sup> 2020.
- ❖ **PITP – Pitch it to the Panel** – the next date is Saturday 27<sup>th</sup> July. Do you need confidential advice for your invention? Let our experts share their wisdom with you. Book your place now, don't wait until the last minute!
- ❖ **June was Youth Month** ... did you listen to Lucille Ball/ she said "The secret to staying young is to lie honestly, eat slowly and lie about your age." Good stuff.

### Report back Toli

This company's mission statement is to 'Create impactful solutions, affordably, sustainably and purposefully,' and with this product they have certainly demonstrated their intent.

The **MINI PUT IT OUT FIRE EXTINGUISHER** is an affordable tool that can be used as a first response to small 'class A and B' fires from wood and paper products, most textiles and flammable liquids (like paraffin). It is accessible to everybody, small, lightweight, portable, easy to store and easy to use. Further it is non- toxic and because its contents are not pressurised, it does not need maintenance.

Of course it would be nice if a person didn't *have* to use such a product, but then, when you consider that the financial cost of fires in South Africa is more than a billion rand annually, the need is obvious.



Khayelitsha Informal Settlement Fire 2018

Besides the financial implications, the personal costs incurred of losing everything you own, your home and/or family, personal injury, displacement and more just cannot be computed.

**Toli Altounis, CEO and Inventor of the Put it Out** mini-fire extinguisher, got his inspiration after reading about yet another devastating fire in Khayelitsha. He decided there and then to become part of the solution and to find an 'everyman' answer to fighting fires like these. People die, homes are lost thousands are displaced, life changes so radically that one can't find the words to describe the loss. Unfortunately the Khayelitsha fires are not standalone examples either – many other conflagrations have occurred over many years in other shack cities and places around the country.

Dwellings in these vulnerable and poor communities are most often built with paper-based products and wood ... all flammable, and added to this, the proximity of each shack to the other creates the risk of fires moving rapidly through the area. The aim is to catch the fire before it spreads and with quick thinking and a Mini Fire Extinguisher in your hands it's a possibility.



The **PUT IT OUT** Mini fire Extinguisher is a top-sealed air-tight plastic pouch filled with a clear liquid. Inside this is a small ball filled with a granular substance – sodium hydrogen carbonate. To use it is very simple – you break the seal and open the lid, pop the capsule inside and spray the fire. The mixture formed when you pop the capsule is high in carbon dioxide which sucks the oxygen from the fire and assists in putting it out.

“Our specially mixed formula is made up of Acetic Acid (commonly known as vinegar in the shops) and Sodium Hydrogen Carbon (commonly known as baking soda). Both products have been adapted to suit our use so we don't suggest you try this at home. However, we are very pleased about our recipe – it is non-toxic and safe to use.”

The top causes of fires in the informal settlements are candles, paraffin and cigarettes, and while there are other reasons, these remain steady. This, added to no running water or the availability of other fire- fighting equipment in many places (except maybe a heavy bucket of sand that just takes up space), makes the Put It Out extinguisher a sensible and life-important solution.

And the best thing about it? It is widely available and retails at under R40,00 each.

So there you have the product – but not **the story behind it**. Toli then discussed, with an interested and participative group, the steps he took to get the current product onto the market. He made it sound easy ... but it was obvious that there had been a lot of hard work, perseverance, focus and sheer willpower that would not allow him to give up when his first prototypes didn't work in quite the right way. On the back of many late nights and extensive research into fires and extinguishers and fire- fighting and more (he suggests an inventor's best friend is Google), he had to solve problems of patents, full design and testing of the pouch which had to stand, be flexible, safe and easy to open, the liquid/powder contents which had to be effective and non-toxic; the means of delivery by popping the capsule which had to be easy for all in a panic, and of course the manufacturing, marketing, sales, distribution, government liaison, corporate engagement, staffing and management of the factory and the company. Toli is well on his way - it is obvious that he is passionate about his invention.

The story behind this innovative product made this a most enjoyable evening with several suggestions and questions for possible improvements which came in readily from an engaged audience. The evening ended ... but the questions and suggestions kept on coming, many were reluctant to leave! Each member of the audience was given a **Mini-Put It Out** fire extinguisher. Thank you Toli for making the June Eureka! Meet a most enjoyable and edifying evening.

**Just FYI** – Most household fires are categorised as follows: Class A: Solid combustibles, (not metals) like wood, paper, cloth, plastics and rubber. Class B: Flammable liquids like petrol, oil, grease and paints. Class C: Electrical equipment, appliances and wall outlets and Class K: Cooking oils and greases, animal and vegetable fats.

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## The Benefits of attending our monthly Eureka Meets!

The Ill is all about Inventors Helping Inventors and amongst our membership benefits the monthly meeting Eureka! Meet is tops. We search out and provide speakers having first-hand knowledge of innovation in all its forms as well as find other subjects that may just spark off some ideas. Various they speak on different topics from the difficulties in getting from idea to a marketable product, to sharing their own successes and lessons first hand.

Some could share tips on marketing your invention while others could provide information in 'technical' areas such as: protecting your idea, patent fundamentals, building prototypes, model-building, 3-D printing, selling your idea, and funding. Yet others could lead discussions on entrepreneurial skills ... and there is so much more.

**Eureka! Meets** are also good networking opportunities which could be good for business, for solving problems or for just meeting interesting people ... we're a friendly bunch! We take pride in being a trusted resource, and do our best to protect and support members in all sorts of ways.

**At our next EUREKA! MEET on Wednesday July 10<sup>th</sup>** we will be featuring **3-D Printing technology**, an amazing tool with so many uses and applications. Make a date to join us when a specialist on this fascinating subject will talk to us about **Prototyping with 3-D** ... along with introducing us to the many other ways this uber product is being used across numerous areas of industry, commerce and the medical fraternity. **RSVP** - just go to the Ill website [www.iii.org.za](http://www.iii.org.za) and book – **no charge**.



**The venue is 'Made in Workshop',**

65 Maria Street, Fontainebleau –Tel: 083 269 2195 – speak to Henry.

Park in front of the building. Take Republic Road towards Randburg; Maria Street crosses Republic Road just south of the Rabie Road junction or click [Google maps](#)

**Members and visitors are welcome!**

We look forward to seeing you at our meetings, feel free to bring a guest.

### **PITTP – Pitch it to the Panel - a confidential and professional member service.**



- Have you got a smart concept that you think is valuable?
- Do you have a good idea that needs to be defined?
- Has an invention or improvement been lurking at the back of your mind?
- Maybe you just can't get started or, you're on your way but stuck?

If you nodded your head to any of the suggestions above then you can't go wrong by taking advantage of a Pitch it to the Panel meeting for which there is a nominal charge.

At this get together, you will have a chance to speak to a knowledgeable group of professionals, specialists, entrepreneurs and inventors. Furthermore, **confidentiality is assured** as everyone present signs a Non-Disclosure Agreement which means that your idea and invention is treated with the due privacy and respect it requires at this stage of your inventor's journey.

Here too they will give you guidance, assistance and invaluable advice about all the steps to be taken that will get you from idea to invention/product and then to market!

**The next PITTP date is 27<sup>th</sup> JULY 2019** and members can book a **PITTP** session by going to the website and booking online – [www.iii.org.za](http://www.iii.org.za) It's easy and you should do it soon to ensure your place.

## The SANBS Tron Drone to the rescue ...

At the end of May this year the South African National Blood Service (SANBS) launched a new style **blood delivery service** in Sandton (Johannesburg) – **using a drone**.



The **SANBS Tron Drone** has some impressive design features. For instance, the wing shape is suited to maximum efficiency as it allows for long-distance travel using power conservatively. It has a flying range of around 120km at a top speed of 180km/h but if necessary it is also able to fly more slowly at around 60km/h. The Tron lands smoothly (including occasions for emergency reasons) and there is no damage to the drone itself or to its precious cargo – blood.

The Tron drone is controlled by a 'pilot' but it also has an auto-pilot function. A series of pre-flight tests and security checks ensures that it is ready to fly and after these standards have been met it takes off. During the flight the Tron relays streaming HD-quality video to the control 'tower' so that the flight is monitored all the time and safe landing is achieved.

**SANBS CEO Dr Jonathon Louw** said that the project has been born from a crucial need to help people in rural areas who were not served adequately by primary health care centres or similar; and that the SANBS had been in active discussion with the Department of Health for some time. Further, after a rigorous process of selection lasting some 6 months, **Quantum Systems** were appointed to partner with SANBS on the project.

When designing the drone, there were seven criteria that needed to be considered:

- ✓ **Speed** – in medical emergency, it had to be fast to ensure 'on-demand' delivery.
- ✓ **Distance** – to ensure as wide an area be served, it had to be able to fly long distances.
- ✓ **Capacity** – at least 2kg (4 units) of blood needed to be safely transported per trip.
- ✓ **Physical properties** – external conditions such as temperature or flight principles such as G-force had to be considered so blood integrity would not be affected.
- ✓ **Safety precautions** – The drone had to be autonomous and able to land 'softly' in emergency situations using a parachute as required.
- ✓ **Return journey** – Quick turnaround time was required for transporting blood and blood samples both ways ... 'hospital' blood there, patient's blood back (for tests and matching).
- ✓ **Cost** – once employed, this service needed to be financially viable and design features had to consider this aspect. Currently an SANBS drone flight can be done for as little as R10 one way.

The SANBS is waiting for the Civil Aviation Authority to grant the necessary licences and in the meantime will continue to conduct test runs thus refining the Trone. Right now it's only available in Gauteng but as soon as possible, other provinces like KZN, the Western Cape and the Eastern Cape will follow as it is rolled out into the rest of South Africa.

Louw said the "SANBS is incredibly excited by the opportunities that this new drone delivery system offers patients in need. We believe this will be a milestone in the history of blood transfusion, not only in South Africa, but in the entire world."

## Turning Stars into Holograms? Makes a person think.

Big stars and other people don't die anymore – they come back as holograms to give 'live' concerts thanks to BASE Hologram, a company that 'Fuses Advanced Holographic Digital and Laser Technology with Live Theatrical Stagecraft to Create Worldwide Concert Tours and Transformative Entertainment Experiences.' They also talk in capitals. A hologram is a photograph and/or video of light wave interference which is not projected onto a screen. There is no projector.



Technically, holograms are reconstructions of the light that reflected off the subject at a filmed 'a live' concert which included the full spectrum of colours. First Roy Orbison, then Maria Callas had sell-out hologram performances and now Whitney Houston's hologram is soon to be presented on stage with a live orchestra and band

... 'It's a revolutionary new form of live entertainment artistry that fuses extraordinary theatrical stagecraft with innovative digital and laser technology to bring true music legends back to the global stage in a state-of-the-art hologram infused theatrical experience.' So there you have it

### Simon Sinek said it ...

**"What good is an idea if it remains an idea?  
Try. Experiment. Iterate. Fail. Try again.  
Change the world."**



### DYK? Did You Know?

It's possible, but not certain, that the **first white lines** ever used on roads were painted on Adderley Street in Cape Town in 1922 International road engineering authorities record that white lines first appeared on US roads only later in the 1920s and on British roads in 1935



Source: Great South African Inventions by Mike Bruton  
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There are different ad sizes, positions, time periods and styles that are available. Our current click rate is around 2000 a month (and counting!) and while still developing, the exposure is good for a selective audience who need the services and products you have to offer.

### From Here to There - Have you invented something? Brought it to Market?

Please tell us about it. Opportunities exist for you to promote your invention/s through 'OUR SHOP' on the [www.iii.org.za](http://www.iii.org.za) website. It is a service available to members initially at no charge until **1 January 2020**. Talk to us, and we'll send you information on how to get your product in front of interested eyes, the sooner the better, we would be pleased to support you. Email [info@iii.org.za](mailto:info@iii.org.za)



**THE NEXT EUREKA! Newsletter will be out by 5 August ... look out for it.  
Greetings to you all.**

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