



# Science, Technology and Education News from Australia, February 2016

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## 1. Switzerland in Australia

### 2000-Watt Delegation in Australia

(Visit of delegation: February 17<sup>th</sup> to February 26<sup>th</sup> 2016)

A Swiss delegation – Martina Blum (Energy Advisor City of Zurich), Roland Stulz (Co-founder of 2000-Watt society) and Andreas Luzzi (CEO LAROS Technologies) - travelled around Australia to exchange knowledge and to have discussions with Australian officials and the broader public about energy efficiency with a special focus on the 2000-Watt society concept. The visit was planned around the exhibition ‘Watt d’or’. This award given by the Swiss Federal Office of Energy recognizes outstanding and inspiring Swiss energy projects that aim to build a more sustainable future and thus offer a significant benefit for society.

The delegation attended events in Melbourne, Canberra and Sydney, such as meetings with the University of Melbourne Sustainability Advisers and the ANU Solar Energy Research group as well as participated in a 2000- Watt society public event at the ANU and the Sydney Sumer Study on Energy Productivity.

For further information regarding the 2000-Watt society listen to this [ABC Radio interview](#) with Martina Blum.

### Foundation Alumni Chapter of University of Zurich in Sydney

On February 8<sup>th</sup> 2016 the 12th international association for University of Zurich (UZH) alumni was established in Sydney with the aim to intensify the contact between Zurich and Australia. The inspiration for this gave UZH alumnus Mario Bassi, a well-travelled legal scholar who previously set up an alumni chapter in Singapore. In 2015, together with UZH economics graduate Pablo von Siebenthal, Mario Bassi started looking for former students of the UZH in Australia. They were supported by both the Alumni UZH (umbrella organization for UZH alumni associa-



tions) as well as the Swiss Australian Academic Network (SAAN) and contacted around 50 alumni interested in setting up a chapter in Australia via social media. It is planned to hold monthly meetings, which will also be open to exchange students and members of the UZH community who are traveling in Australia, be it for business or pleasure. Click [here](#) for the article.

The inaugural meeting at the Consulate General of Switzerland in Sydney was attended by Consul General Ernst Steinmann and Ambassador Marcel Stutz from the Embassy of Switzerland in Australia. Click [here](#) for pictures of the opening event.

## 2. Science and Technology developments

### Bat super immunity to lethal disease could help protect people

(February 23<sup>th</sup> 2016)

Bats are a natural host for more than 100 viruses, some of which are lethal to people, such as the Middle Eastern Respiratory Syndrome (MERS), Ebola and Hendra virus. However, interestingly bats do not get sick or show signs of disease from these viruses. Researchers examined the genes and immune system of the Australian black flying fox, with surprising results: Unlike people, who activate their immune systems only in response to infection, bats keep their immune systems switched on 24/7. Scientists believe this could be the key for protecting people from deadly diseases, as they are convinced that if other species' immune responses could be redirected to behave in a similar manner to that of bats, then the high death rate associated with diseases, such as Ebola, could be a thing of the past.

Click [here](#) to learn more about these findings.

### Aussie innovation helps hunt down gravitational waves

(February 12<sup>th</sup>, 2016)

The discovery of the gravitational waves by the Advanced Laser Interferometer Gravitational-wave Observatory (LIGO) in the USA, proofed Einstein's 100 years old prediction and opened a new window into the cosmos. The discovery was possible due to two giant detectors that are four kilometers long and 4000 kilometers apart, housing the most sensitive equipment ever made.

Scientists from Australian universities and CSIRO are celebrating their part in the discovery of the waves: In order to aid the hunt for gravitational waves, LIGO recently received \$200 million worth of upgrades - one of the major components of this being ultra-high-performance optical mirrors coated by researchers from CSIRO. According to Dr Cathy Foley, Science Director of CSIRO Manufacturing, the upgrade of the LIGO detectors increased the sensitivity of the system by around tenfold and thus played a crucial role in the discovery.

Read more about this technology [here](#).

### Research helps understand what makes entrepreneurs tick

(February 4<sup>th</sup>, 2016)

A new research that helps to give insights into what drives entrepreneurs was made publicly available. The data has been collected by the QUT Business School with support from the Department of Industry, Innovation and Science, the Australian Research Council and the National Australia Bank. The Chief Economist Mark Cully states that this is 'Australia's most comprehensive research project on business start-ups and how they fare over time. It



will yield valuable insights into what makes entrepreneurs tick and when and how they succeed.' The project involved four waves of surveys between 2007 and 2013, which asked people if they were thinking about starting a business and then followed them over time to see how they were progressing and what challenges they had faced.

The understanding of what drives start-ups is crucial for Australia as the latest innovation system report showed that start-ups added 1.4 million jobs to the economy from 2006-2011. Moreover, innovative businesses account for around 70 per cent of total employment despite representing less than half of all employing businesses in the economy. The findings from this study will be used in further policy discussions on how to foster innovation.

Click [here](#) for the article.

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