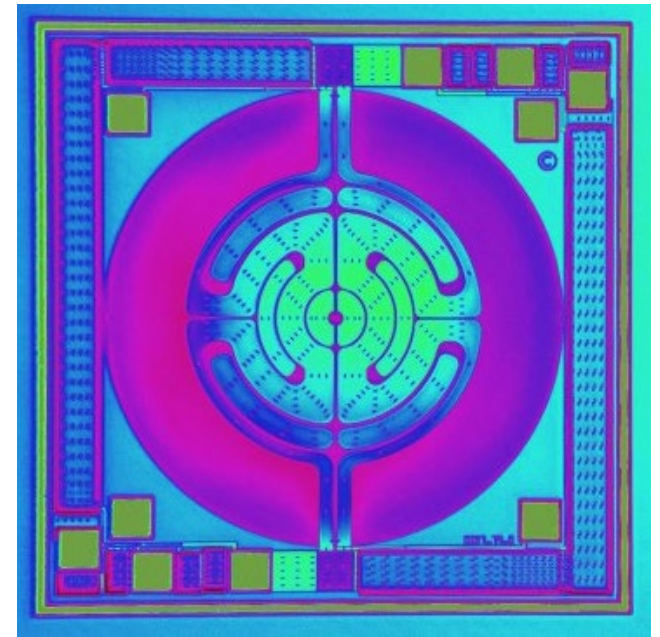


Story of a founder

Florin Udrea

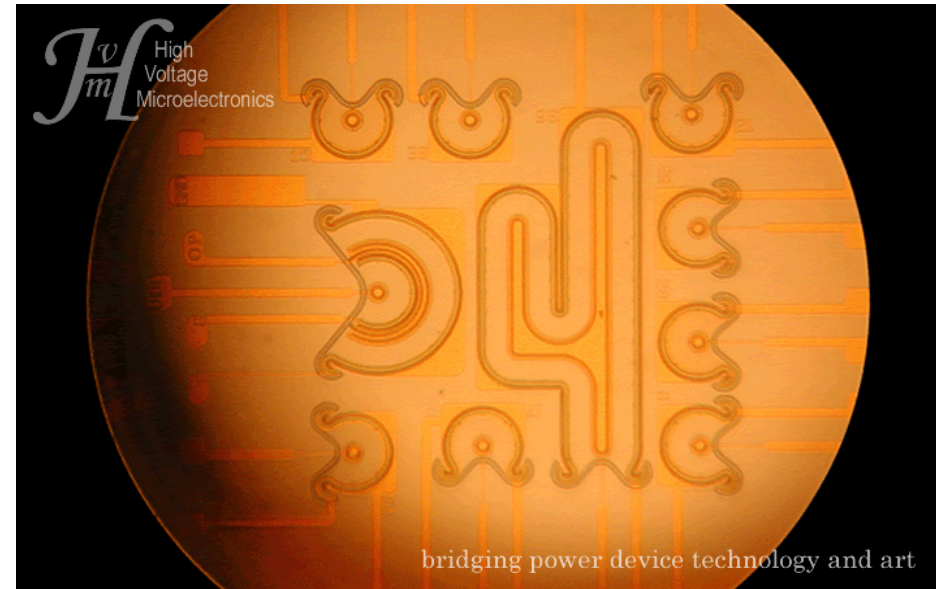
Cambridge University

October 2022



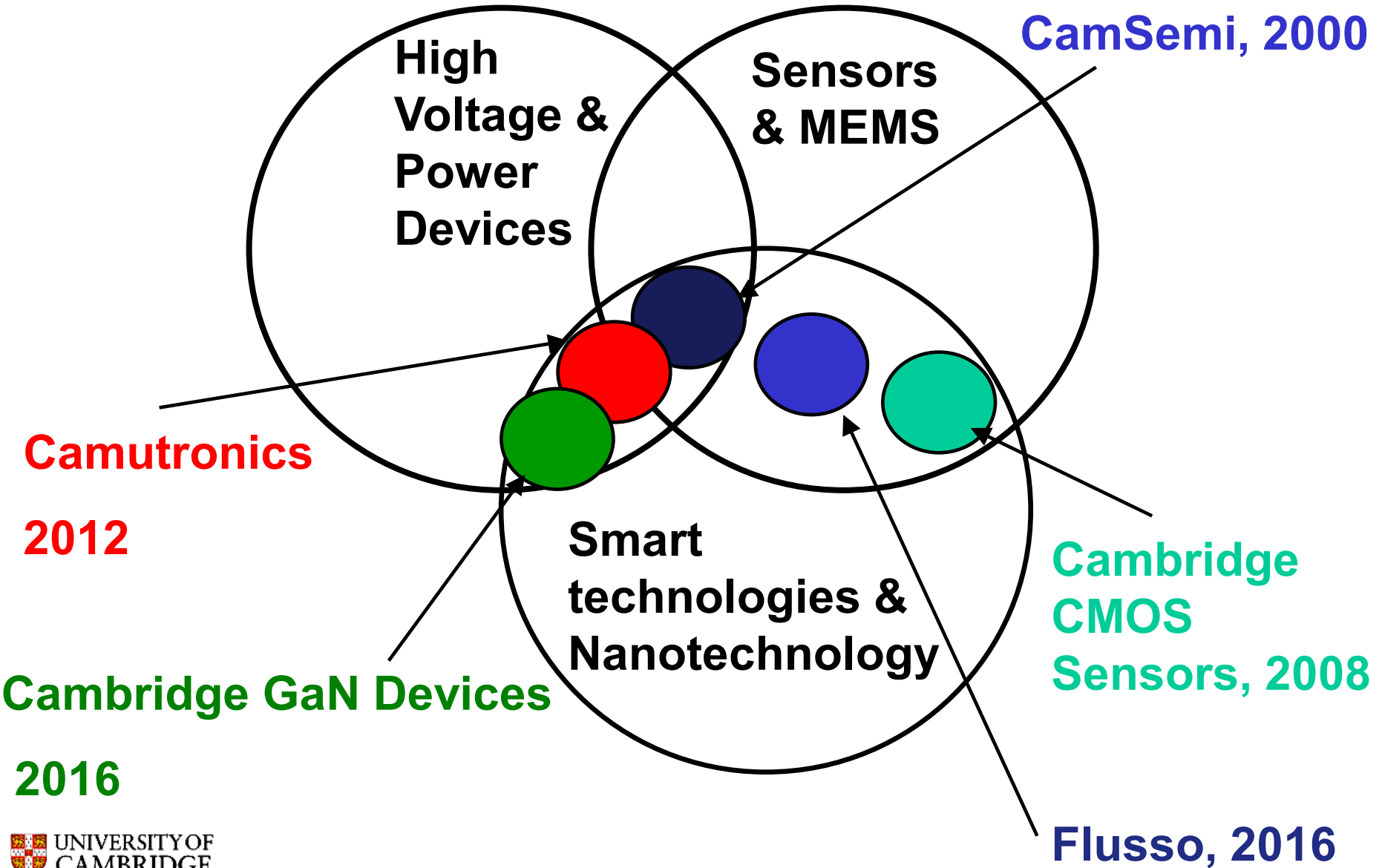
High Voltage Microelectronics and Sensors (HVMS) at Cambridge University

- Dedicated to power devices and sensors
- 15-20 members including PhD students, postdocs and fellows
- Over 600 journal and international conference papers over past 10 years (IEEE, IEE, Phys. Rev, JAP, APL, ISPSD, IEDM).
- Over 200 international patents granted
- £10M of funding in the last 10 years with £1.5M still active



5 Spin-out companies formed to commercialise research. Recently three of the companies, Cambridge Semiconductor and Cambridge CMOS Sensors have exited with tens of million pounds evaluation

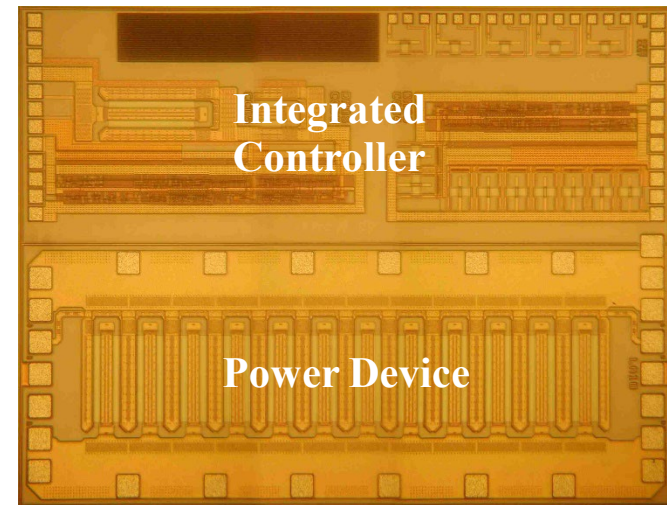
Spin-offs HVMS group



1, Cambridge Semiconductor (Camsemi)

Cambridge Semiconductor sold more than 1bn units of Power ICs in power supplies

- Founded by Profs. Florin Udrea and Gehan Amaratunga in 2000 as the first Engineering Department spin-off.
- Listed as among the top 3 Cleantech companies in Europe 2010 by Guardian
- Carbon Trust award in 2010
- In 2013 was the fastest growing UK company in UK in semiconductors with annual revenue in excess of £10M.
- **Sold to Power Integrations in Jan 2015 for \$20M**



SOLD

CamSemi's Impact

- It shipped 1bn chips for power supplies. Camsemi had offices in UK, Taiwan, China, Hong-Kong and US.
- In 2015 it had intelligent chips in 25% of all Nokia Phones.
- Throughout the life of the products the efficiency saved was equivalent to 5% of a nuclear power station
- Today Camsemi still exists as Power Integrations Cambridge with around 20-30 people and expanding.
- It raised our profile as Number 1 academic group in the world. Camsemi was the first University spin-off worldwide in the power devices field. It became an inspiration and a model for many other spin-offs.

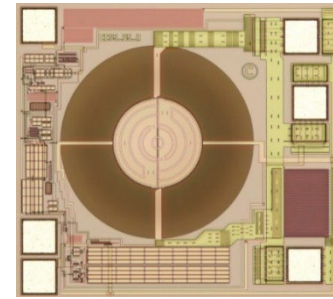


Florin Udrea and Gehan
Amaratunga, Camsemi, 2003

2. Cambridge CMOS Sensors (CCMOSS)

Cambridge CMOS Sensors enables Air Quality monitoring through miniature multi-sensing devices

- Founded by Profs. Florin Udrea, Julian Gardner and Bill Milne in 2008
- **First company to deploy gas sensors in mobile phones and smart homes**
- Indoor Air Quality (IAQ) monitor to detect a wide range of indoor air pollutants
- A range of prizes and awards for the technology developed and the founders, In **2018 the founders received the prestigious Mullard Award from Royal Society and F. Udrea received the University of Cambridge Vice-Chancellor award for the impact.**
- **Sold to Austria Microsystems (ams) in June 2016 for £XXM + earn-out giving 3.5X to 5X to investors**



SOLD

CCMOSS

- No preferences ! All based on a flat structure of ordinary shares.
- Organic growth
- Cambridge Enterprise (the venture arm of the University) present in the board with a director.
- Founders stayed in the board. I was the CEO for 5 years (and CTO for the remaining two years).
- Close relationship with the University of Cambridge
- Early engagement with partners.
- Very active in European projects

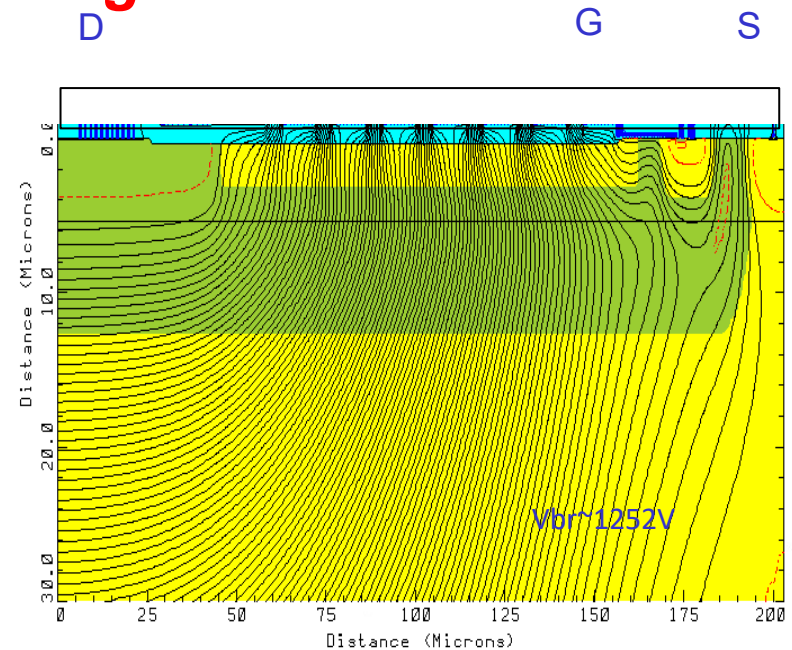


Bill Milne, Julian Gardner and Florin Udrea
CCMOSS, 2008

3. Cambridge Microelectronics (Camutronics)

Cambridge Microelectronics is a worldwide leader in consultancy high voltage technologies

- Founded by Dr. Tanya Trajkovic, Prof. Florin Udrea, Dr. Nishad Udugampola, Dr. Vasantha Pathirana and Prof. Gehan Amaratunga in 2012
- Over 30 granted patents in high voltage lateral technologies including LIGBTs and LDMOSFETs
- Expert consultancy in power devices field ranging from IGBTs to Diamond devices and power electronics systems
- Path finder from CE (£12k) but Seed Fund decline investment
- **Self sufficient with profitable revenue ~ 500k-1M/year.**

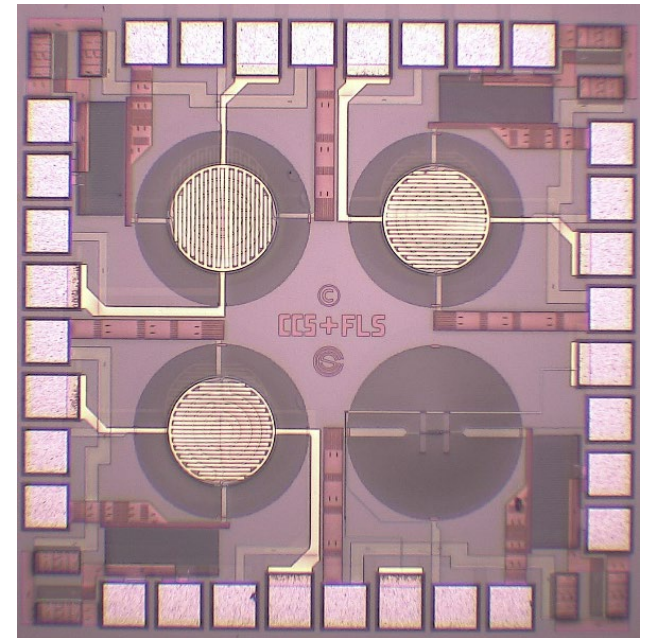


www.camutronics.com

4. Flusso

Flusso aims to be a fabless IP company in flow, pressure and temperature sensors

- Founded by Dr. Andrea De Luca and Prof. Florin Udrea (main founders) in 2016
- Products in Flow sensors. New emerging products in gas sensors
- 15 patent applications
- Raised 5M in seed funding + round A
- Office close to Business Park, 28 employees
- **Sold for £28M to a global player in sensors**



Fabricated sensor array, Flusso 2018



<https://flussold.com/>

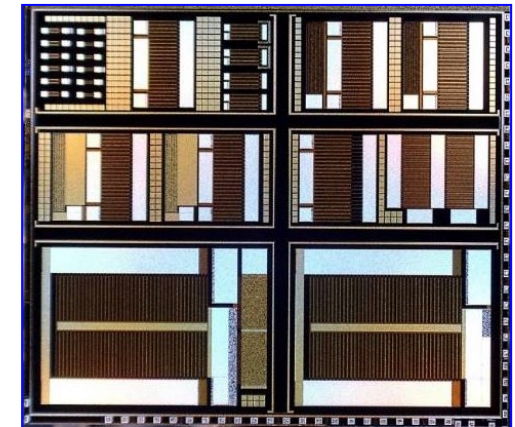


5. Cambridge GaN Devices (CGD)

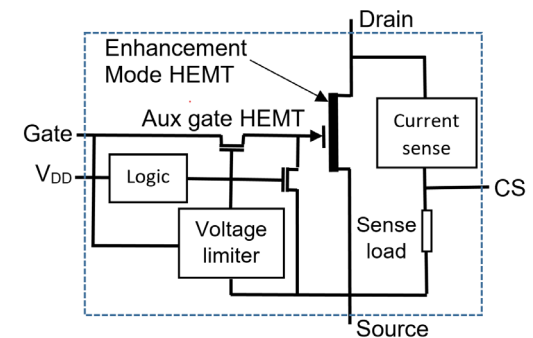


Cambridge GaN devices aims to be a fabless company in power devices offering a disruptive technology for efficient energy transfer

- Founded by Dr. Giorgia Longobardi and Prof. Florin Udrea in 2016
- 28 patents (distinctive inventions)
- 3 Innovate UK projects, 32 employees
- Raised 9M in seed funding + series A
- Established contract with top supply chain.
- Products out (ICeGaN) with design-ins with outstanding efficiency performance
- Office in St John Innovation Centre



Fabricated CGD chip 2019



ICeGaN CGD products 2022