

FBE, Creation, Achievements & Benefits

FBE was created, in 2007, to commercialise the consulting and research & development work of the SA Biomedical Engineering department at Flinders Medical Centre.

FBE's major achievements are:

- Capacity building for Malaysian biomedical engineering provider, Radibems, 2008-2012. FBE built and operated biomedical engineering departments in two of Malaysia's major public hospitals – Hospital Kuala Lumpur (HKL) and Hospital Selayang. During the course of the project, FBE mentored local staff and management and gradually transferred responsibility for the biomedical engineering departments to Radibems staff over the term of the project. At the end of the project, responsibility for the departments was fully transferred to Radibems and the departments were widely recognised as the best in the country.
- Commercialisation of the Intraheat portable biological intravenous fluid warmer. FBE developed the fluid warmer after the Flinders Biomedical Engineering department proved the concept. Development has included international patenting and trademarking, clinical trialling, journal publication, TGA approval and licencing to a manufacturer in Melbourne.
- Commercialisation of AirGuards. The Flinders Biomedical Engineering department designed AirGuards to prevent Air/Oxygen misconnections with the medical air flowmeters used at FMC. FBE created new universal AirGuards, which work with all medical air flowmeters, and created supply relationships with medical device retailers around the world. To February 2020 FBE has sold 33,500 AirGuards around the world.
- Commercialisation of pipette calibration at FMC.
- New Royal Adelaide Hospital commissioning. FBE recruited and supplied qualified biomedical engineers and technicians, at short notice, to commission the hospital's biomedical engineering equipment in 2017.

FBE's current activity is:

- FBE–India: consolidating endoscope services, and expanding to other biomedical engineering services (eg. biomedical equipment support, new hospital planning & commissioning).
- Pipette and burette calibration services in Australia.
- Biomedical engineer and technician supply to Australian hospitals.
- Intraheat biological fluid warmer: Refine production and quality control; Establish customer base in Australia and internationally; Finalise patent activity in USA, India & Thailand; Finalise trademark activity in Canada, Europe, India, Indonesia, Japan, Korea, Thailand & USA.

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FBE is beneficial to SA Health, Flinders Medical Centre (FMC) and Flinders University in many ways:

SA Health staff gain valuable skills and experience, whilst seconded to FBE projects.

- Establishment of endoscope servicing, for FMC Endoscopy department, was only possible with the skills & experience gained by staff whilst seconded to FBE for work in Malaysia.

New biomedical engineers (principally Flinders University graduates) gain valuable experience, when funded by FBE to fill temporary vacancies, when existing SA Health staff are seconded to FBE projects.

By funding staff to conduct FBE projects and fill temporary vacancies, while SA Health staff are seconded to FBE, FBE generates a pool of qualified staff available to SA Health for project work and to fill vacancies.

- As at January 2020, 12 SA Biomedical Engineering employees are former FBE employees.

FBE is able to supply qualified biomedical staff to SA Health, at lower hourly rates than external labour hire organisations, at short notice to meet critical operational needs (eg new RAH equipment commissioning, hospital accreditation tasks, filling temporary staff vacancies).

Equipment purchased and calibrated by FBE for National Association of Testing Authorities (NATA) calibration of pipettes and burettes, is used by SA BME, for in-house calibration of balances and thermometers for Flinders University and Flinders Medical Centre.

FBE commercialises the engineering inventions of SA Biomedical Engineering, enabling them to reach the market, and return finance to FBE, Flinders Foundation and SA Health, to support healthcare, research and development. Inventions commercialised by FBE include:

- Intraheat™ portable biological intravenous fluid warmer. By licencing manufacture and distribution to industry collaborators, royalties will be received.
TGA approved gained October 2019. Publication and ARTG listing early 2020.
- AirGuards.