40 years on and microfluidics is now commercial – what took so long?

Dr. Erol Harvey¹

1. CEO, MiniFAB Pty Ltd, AUSTRALIA

It was the late 70's when some of the pioneering commercial work using microfluidics was conducted by researchers at ICI Winnington Research labs in the UK. Yet only recently have we begun to see the emergence of high volume applications for the technology it enables. It was not technical difficulty that slowed this process down, but rather a complex set of mismatches. For example the materials and manufacturing methods employed poorly matched the slow growth-rate of the commercial market for these disruptive devices. This was also one of the first fields of academic research to be dominated by the now-pervasive "patent-before-publishing" dogma, yet in retrospect it is unclear whether this helped or hindered the rate of commercialization. As the market starts to grow, it is those business models with optimal integrated design and manufacturing strategies that will succeed, as well as those that seek to exploit the data generated by these lab-on-a-chip devices.