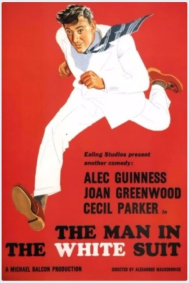
THE BIO OF DR D MIKULIN

Refusing to be constrained by a CV!

SCROLL TO READ OR CLICK FOR THE SUMMARY.

WHY?

CVs are like soundbites. Often without context, they are unrepresentative of all but the simplest of careers. Plus they barely touch on the most important aspect of selecting someone for a job - who they are as a person.
This section shows my journey to get to where I now am.



The Man In The White Suit

The making of an innovator

The black & white movie, one of the Ealing Comedy series was screened on television when I was still single digits old. It is about someone who is driven, someone who is convinced that they can make the world a better place through science and engineering. I believe watching it was one of the pivotal moments that set me off on my career.
If you understand the minds of innovators and entrepreneurs, this snippet of information will tell you more about me than all my roles and education combined. You wouldn't get this on a CV and you would understand much less about what I can do for your company as a result.

The Music Lesson

From coasting to achieving

I was never pushed by my family. At 11 I was simply given a choice - do you want to go to the local school or sit an exam to see if you can get into the great one miles away? I thought "Why not?" and got in. My school had about 100 pupils per year across three classes. In my first couple of years in exams, I would be about 23rd in my class - about 70th in the year. One music lesson our teacher got annoyed at the naughty boys talking at the back of the class and had a little rant. He told us that at the end of the second year, the exams we did would put us into streams that would set the path for the rest of our lives. Did we want to achieve things in life? If so, we had better work hard now and lay the right foundations. In those exams I came 7th in the year and continued in that way ever since. Dear music teacher whose name I now forget, thank you ever so much for what you did.

Destroyer turns Inventor

The path from piles of spare parts to creating things

For someone who says they cannot be labelled, I have put a lot of labels on myself over the years.

When in single digits, I was allowed by my family (for which I will be eternally grateful) to pull things apart (gramophones, immersion heater time switches, tape players, mechanical alarm clocks etc.) and to experiment with hand tools and then power tools.

This phase flowed into the start of creating and mending things to the great relief of my family who had fewer possessions by the day until then. Woodworking, decorating, electronics, brick laying, home renovations, battery powered go-carts, everything became something that could be improved, refined, automated, simplified.

Inventor is a label that stuck for a long time, until I realised that there were no job titles matching it. All of science and engineering was my playground and their boundaries immaterial.

Inventor turns Innovator

The path from creating things to solving problems

Finishing off my doctorate in hard physics, my attention turned to looking for a job. One role I went for they wanted a PhD physicist to check the dielectric breakdown strength of insulation for electrical cables. Yikes! That was a job - to turn the voltage up with a knob until it went pop and write down the voltage it happened at....then to do it again and again.

So I was incredibly lucky to discover technology and product development consultancies where you get paid well to play and solve problems for some of the biggest companies in the world - to invent, create, develop and refine their future products.

It was here I discovered two things. One was that the hardest problems in projects were often not the technologies and inventions needed, but the people - whether co-workers or the clients and that more work needed to be done creating and strengthening relationships compared to the time spent developing the technology. The other was that it was as thrilling to evangelise and enthuse in a selling meeting and get the prospective client excited about a project as it was to actually solve that project technically - quite a revelation for someone who had considered themselves before that to be a bench-scientist.

Innovator turns Entrepreneur

(otherwise known as someone interested in all the roles within a company and how they work together to get the best out of all the employees and offer the best to the customer)

Following a stint in university technology transfer and reading "The Beermat Entrepreneur" by Mike Southon and Chris West, I finally discovered that the label to describe the very odd mix of skills and interests I had was perfectly encapsulated by the tag, entrepreneur.

Of course I could have used that label when I was 16 and making a business out of mending the (Walkman) tape players of fellow students, while simultaneously saddening their parents by building bespoke 100-200W audio amplifiers to plug them into.

I have since started up companies out of Imperial College and Cambridge University, helped hundreds of other startups along their path and directed the same learnings to help large companies in a similar way.

So what am I now?

Pin a title on a donkey?

Well it is not catchy, but I call myself a "Complex Problem Solver". Whether the issue is one of technology, people, business or innovation, I love getting to grips with it, mashing it around until some possible solutions present themselves and then refining the best solution. (See below for more of an explanation of this.)

I help companies to create and sell new things customers want. I often start by developing a real understanding of the customer, finding a need and translating that into a plan before then working with teams to innovate, develop, make and deliver. Encompassing numerous traditional job titles enables me to efficiently and accurately inspire a clear vision and direction internally while delighting customers with the result.

Recently I have spent much of my time on the earlier stages, which are generally the most challenging, and tend to focus on high-tech-product and technology companies.

I uncover products and services customers want sufficiently that they are happy to pay for them and then deliver it to them, overcoming all the hurdles along the way.

I have done this for companies of all sizes. From the tech side, from the sales side, from the board. With small teams, with large teams of teams and with individuals. Turning round failing companies, growing successful companies, finding adjacent, tangential or entirely new markets for existing and new offerings. Leading, managing, innovating, coaching and mentoring to get to the win-win scenario of having a happy team within the company and a delighted customer.

I hope you enjoyed this journey and that now my CV makes sense and is suitably impressive.

EXPERIENCE

... across a truly wide range of fields, sectors and markets...

Electronics

Sensors
Internet of Things (IoT)
Lithium Battery Technology
Precision Clocks
Electronic Pens
Automatic Cooktops
Laser Printers
VSCELs
Metrology
Anisotropic-Magnetoresistance
Instrumentation
Audio
Wearable computing
Ultra low cost, very large area electronic billboard
Raspberry Pi
Arduino / ESP8266 microcontrollers

Optics

Display Technologies
Liquid Crystal Display
Lasers
Imaging
Machine Vision
Sensing
Laser Marking
Electronic Lenses
Bank Note Validation
Line Scanners
Automotive Windscreens
Solar Photovoltaic
Low cost, high accuracy thermometer

Mechanics

Automation
Robotics
Inspection Rigs
Pumps
Testing
1 handed mint pack
Dynamo Saddle
Micro Casting
Inkjet
Gas Turbine Engines
Automotive
Micron scale novel hole profile laser drilling
National Instruments data acquisition, instrument control and machine vision

Med-tech

Pressure Ulcer Prevention
DVT Prevention
Diagnostics
Wellness
Aerosols Generators
Inhalers
Therapeutic Devices
Diabetic monitoring
Fertility monitoring
Controlled Release Coatings

Digital

Big Data
Genetic Algorithms
Neural Networks
Artificial Intelligence
Machine Learning
Complex Problem Solving
Customer Profiling
LabView (G)
Basic
Visual Basic
Fortran 77
Fortran 90
Python
C
C++
HTML
Javascript

Printing-tech

Industrial Digital Drop-on-Demand
Disc-Pump
Industrial Wide Format Laser Printer
Electrostatic
Piezo

Consumer

Packaging Printing
Sweet Dispensers
Power Tools
Laundry Equipment
Kitchen Equipment
White goods
"Invisible" 2D barcodes

Recruitment tech / HR-tech

ATS
Boolean search
Current ATS Limitations
Effects of the boolean decades in the workplace
Advanced, hybrid, AI - person solution to sourcing and recruitment.

HELP
SUPPORT
ADVICE
GUIDANCE

Trade Marks
Patent
Copyright
Industrial Design
Layout Design
Trade Secret
Intellectual Property

Management

Leadership
Teams
Founder
Board
Strategic - Management
Innovation - Management
Technology - Management
Consultant
Vision
Roadmap
Director
P&L

Coach / Mentor

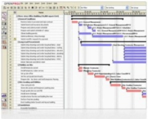
Innovation
Lean Innovation
Business
Entrepreneurship
Startups
Early Stage
Intrapreneurship
Customer Discovery
Team Theory
Guest Speaker
Training Courses

Intellectual Property (IP)

Creation
Patent Protection
Defensive / Offensive Strategy
Valuation
Commercialisation
Technology Transfer
Legal Agreements
Licenses

Web/Apps

SaaS
A-B Testing
Lean Innovation
Education Software
WordPress

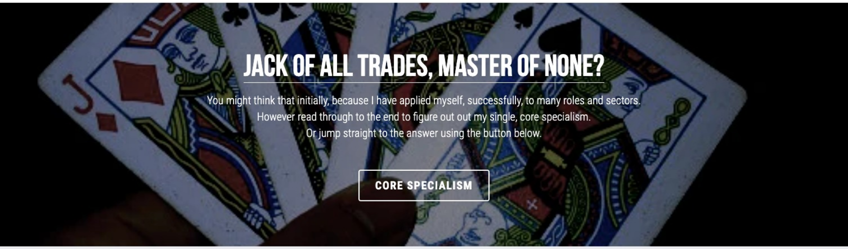


Customer / Product Management

Innovation
Lean
Customer-Development
Opportunity Analysis
Market Analysis
Unarticulated- Unmet-Needs
Segment Creation
New Business- Development
User experience
Marketing
Sales

Project Management

Agile
APM
Programme- Management
Research & Development
New Product Development
New Product Introduction
Innovation - Management
Contract negotiations



JACK OF ALL TRADES, MASTER OF NONE?

You might think that initially, because I have applied myself, successfully, to many roles and sectors.
However read through to the end to figure out out my single, core specialism.
Or jump straight to the answer using the button below.

CORE SPECIALISM

CV

Not full of acronyms and TLAs that make it easy to scan in 6 seconds, but interesting none-the-less.

(For a downloadable copy, click on Download on the menu)

Profile

A creative and innovative manager, I have a background of technology, science and engineering with a combination of technical, commercial and business experience across several industries.
A problem-solver, my career has progressed from technology developer and project management to strategy, people and business management.
I have the ability to manage and inspire people and have the valuable ability to properly understand the customer to deliver better products and services.

Business highlights

- Strategy planning
- Business model creation

- Business plan generation and realignment
- Customer development
- Leader, entrepreneur, mentor and coach

Commercial highlights

- Product roadmap generation
- New product introduction
- Understand the customer
- Business development & Sales
- Customer / product / business model innovation

Project / Technical highlights

- APM & PRINCE 2 project/programme management
- People management and mentoring
- Led teams / groups of 2 - 50+
- R&D and NPD with budgets of 4-8 figure value
- Lean innovation and agile development
- Intellectual property protection and exploitation

Tinnoco - Consultant across Innovation, Strategy, Management. Coach and Mentor

Some examples of work done through Tinnoco:
Dovetailed, Cambridge - Human-Interaction and User Experience Consultancy.
Interim Head of Business Development
Ignite accelerator, Judge Business School, University of Cambridge:
Mentor – intensive course to turn ideas into successful business ventures.
Next Business Generation business incubator, BioCity, Nottingham:
Coach – coaching a wide range of companies, many digital, in the lean innovation methodologies centred on finding customers problems.
Granta Design, Cambridge:
Interim Global Sales Manager & Mentor – combined SaaS sales management, global marketing, business development.

ArjoHuntleigh - Strategic Innovation Manager

Created the innovation plan and roadmaps for future product and services. Worked closely with product managers, R&D, marketing and sales.

OptiSynx - Founder, CEO, Director & Manager

Startup company developing high precision oscillator for telecoms and datacoms markets. Created business model, value proposition, IP strategy.
Developed awareness of and interest in the company with all major telecoms companies. Full P&L responsibility. Created and maintained an enjoyable and productive company culture.

Silicon Cells (now called Nexeo'n) - Founder, Business Developer

Set up the company which is now amongst the most successful in Imperial College's history.

Imperial College Innovations - Deputy Head of Engineering & Physical Sciences

Working as a senior technology transfer executive & licensing executive.
Lead Carbon Trust Incubator executive.
Raising public and private sector funding.

The Technology Partnership - Senior Technology Consultant

From bench scientist to project, then programme manager, worked across many fields and industries. Led many technologically demanding R&D, NPD, NPI projects for global clients.

Sharp Labs of Europe - Research Scientist

Investigated a measurement technique for liquid crystal displays.

Rolls-Royce (Aerospace) - Management Trainee

An integrated training course across every company function.

DISTINCTIONS

Just for once, I'll blow my own trumpet

Invited Mentor

University of Cambridge, Judge Business School, CfEL Ignite course: regular invited mentor

Keynote Speaker

ArjoHuntleigh: Key-note speaker on Innovation at international conferences

Rapid Rise

ArjoHuntleigh: Rose to be in top 100 of 4500 employees within 6 months of joining
Became "go to" person for innovation and hosting brainstorms at technology consultancy company.

Professional Coach & Mentor

Mentor and/or supervisor to dozens of companies, growing companies & student groups.
100% success rate at evaluating success of early stage ventures.
Rescued patent due to be dropped and turned it into one of most successful companies in Imperial College's history.

Personal inventions worth £ M

Personal inventions alone while at TTP were worth £4M in development fees (not including the additional x*£M in IP licensing and resulting company valuations increasing >£50M)
Invention and innovation core throughout career. For example invention in OptiSynx for example converting it from approx £100k to £1B idea.

The Inventor Unknown

Inventor behind many patent applications/patents through work as a consultant and mentor. Some notable highlights:
Ultimate therapeutic mattresses
Ultra high precision molecular optical oscillator
Sensor for consumer computer input device
Development of high resolution, high repeatability manufacture-ready casting process
Customised ICT products for education sector
Novel, high accuracy, low cost thermometry
Nurse aid for improved care giving
New lithium battery geometry with 10* capacity
Very large area, low cost display
Cooktop cooking automation sensor
Micron scale laser drilling of novel profile holes
"Invisible" 2D bar-coding system

Stand Out Presentations

PhD: prizes for best presentations at international conferences
Cambridge University Cavendish Labs: Invited Lecturer

Stand Up Presentation

Received a standing ovation for a presentation at industry conference while presenting OptiSynx.

Awards & Distinctions

ArjoHuntleigh Top 100.
Imperial Tanaka MBA Entrepreneur Technology Venture FellowshipPrizes for best talk & paper at academic conferences.
Sponsored by Sharp for PhD.
National Young Engineer for Britain prize for "The Unidex Writing System" for stroke victims.
Won university prizes for physics.
Gained place on prestigious Rolls-Royce integrated training scheme.
Sponsorship by Rolls-Royce for BSc degree.
Travel scholarship to be "British Ambassador" to Czechoslovakia.
School prizes for physics, chemistry, CDT.

Chartered Physicist & Member of the Institute of Physics.
Former member of the Institute for Engineering and Technology.
Former member of the Society for Information Displays.

Giving Back & Paying It Forward

Pro bono mentoring at Cambridge University Entrepreneurs / Startup Loans / BizBritain for selected early stage companies / founders.
Judge at "Cambridge University Entrepreneurs business pitch challenge".
Mentor for Imperial Tanaka business school MBA and EMBA students - my teams won all the business competition prizes that year.
Industrial representative at Institute of Physics "World of Work" for degree & PhD students.
Presenter at "Physics at Work" for pre-GCSE children.
Presenter at "Insight into Engineering" for disaffected children.
Mentor & supervisor for several "Year in Industry" students.
Mentor & supervisor for Engineering Education Scheme - A-level students developed my Dynamo-bike-saddle.
Judge at "Yomp (Yomping the Nation)"
Invited speaker at Perse Girls School 6th form engineering problem solving day.

EDUCATION

Just so you can see it is all consistent...

Doctorate at the University of Exeter

PhD in study of ferroelectric liquid crystals with artificial intelligence (AI) and neural networks.
Modelled 55 dimensional, non-orthogonal space to match liquid crystal tensor profile to theoretical model to elucidate the molecular structure within a cell.
Completed in under two and a half years. Various papers published in Liquid Crystals and Ferroelectrics journals. Presenter at two conferences.
"Characterising liquid crystal cells by fitting half-leaky guided mode data using genetic algorithms."

Degree at the University of Durham

BSc Honours in Applied Physics, 2:1 Honours
Final year research project: "Wide Gap Window, Heterojunction, Amorphous CdS/CdTe Photovoltaic Cells."

Masters

Imperial College: Applied Optics MSc-in-a-week course

Diploma at the University of Derby

Diploma in Foundation Engineering

School Qualifications

A Levels: 3*A, 1*B
O Levels / GCSEs: 8*A, 2*B

Innovation

BioCity Nottingham: Lean Innovation
Pure Insight, Dick Lee: Value Innovation Master Class

Entrepreneurship & Startups

University of Cambridge: Judge Business School, CfEL Ignite course
Imperial Business School MBA Entrepreneurship Programme, VC, Start-ups, Corporate Venturing (won a fellowship to do this course)
E-Synergy Investment Readiness Workshop

General Professional Training

Leadership Management UK: Foundations of Success
Chris Croft Training: Project Management course: APM & PRINCE2 (ERAS)
Claire Jackson: Effective Recruitment and Selection course
Personal Development Alliance: Personal Development in Selling course
Excel Communications: Presentation Skills course

THE STUFF THAT FELL OFF THE CV TO SAVE SPACE

Just in case you want to know even more about me!

More detailed profile - what I really wanted to tell you if I didn't feel the need to make everything into tiny bullet points

Responsible for creating businesses and, through consulting, helping many other companies to do similar. The guiding force behind realigning & even flipping companies in pursuit of commercial success.
Created, and mentored the creation of, business models and business plans across the spectrum of technology from fundamental science through to digital and beyond, including two of his own.
Having taught lean innovation methodologies, combined them with his experience to enable their application in any situation and for any product or service.
Run projects and programmes in every role he has had from four to eight figures in value and led teams with direct, matrix and geographically distributed reports.

I did quite a bit at Arjo, but didn't want to overly bias the CV

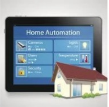
Recruited to bring innovation and vision back to this multinational, $B, med-tech organisation that had stagnated after a decade of focusing purely on supply-chain optimisation.
Created an innovation strategy and roadmaps for future product and services. Worked with the board to develop change management reorganisation strategies. Widened innovation strategy to encompass technical (NPD, NPI, R&D), process, business model, marketing, customer engagement and organisational.
Re-focused ongoing development projects to meet actual customer needs rather than the engineers interests and comfort zones. Working closely with product managers, R&D, marketing and sales, brought in new methods to evaluate the customer. Showed how to move from a product-selling to a solution-providing company.
Created a complete front-end innovation process to deliver validated concepts to the existing product development process eliminating its early stage-gate failures and delays.
Created new business models to address changing customer purchasing dynamics of health economics. Advised on supply-chain product failure-on-delivery issues.
Provided leadership and focused vision. Seat on the Portfolio Board. Laid the foundations to create a culture of innovation throughout the company.

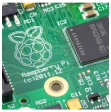
OptiSynx was an amazing journey, cut short by bad timing, ironically

Closed two funding rounds to take a theoretical concept of a precision atomic clock through to a working demonstrator, whilst building a team of 13 and raising the valuation of the company from £1 to £4M in under 2 years through business angel / VC / grant funding.
Created business model, value proposition, IP strategy & company culture. Addressable markets included £700M in telecoms and £multi-billion in datacoms.
Implemented a robust intellectual property (IP) offensive and defensive strategy that would exclude others from the entire field, not just our specific embodiment.
In business development, within a year all major telecoms companies, with whom strong links and collaborations had been developed, were closely following our progress to solving their severe synchronisation problems.
Set up the legal, financial, HR frameworks, created the web site and was the business developer / marketer for the company. Full P&L and company accounts responsibility.
Created and maintained an enjoyable and productive company culture. Received a standing ovation for a presentation at industry conference.

ACTIVITIES AND INTERESTS

Do anything other than solve complex business problems?





JACK OF ALL TRADES ....AND MASTER OF ONE

In breadth of knowledge and experience comes strength, flexibility, adaptability, competence, empathy and above all else, the ability to solve complex problems by approaching them holistically from many angles simultaneously, rather than being restricted by narrow experience.

Vertical specialists are crucial in business, but business crucially needs broad generalists to succeed.
I've been called an innovator, an entrepreneur, a leader, a manager, scientist, engineer. However there is a common thread running through all these labels.

I am a "Complex Problem Solver" or "Adaptive Expert"

Whether the issue is one of technology, people, business or innovation, I love getting to grips with it, mashing it around until solutions present themselves and then refining to the best solution.

I am as happy running high-tech development teams creating the latest technologies as I am doing deep learning about what the customers would actually pay money for and feeding that into the corporate development strategy.

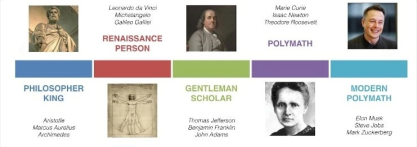
How Jeff Bezos, founder and CEO of Amazon describes people like me:

"talented experts with a beginner's mind and a long-term orientation"

Quoted in an article on solving US healthcare problems: Inc.com, BusinessInsider.com, Businesswire.com

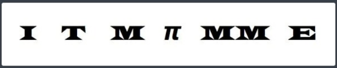
Another name for an expert generalist - a polymath or adaptive expert..

"Polymaths make connections that are otherwise ignored and they have the advantage of a unique perspective."
&
"Adaptive experts can be characterised as being capable of drawing on their knowledge to invent new procedures for solving unique or fresh problems, rather than simply applying already mastered procedures."



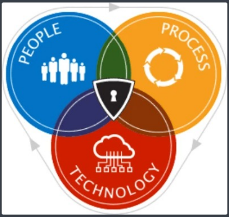
According to recent 2018 article, rather than being something to be avoided, the most successful business people, entrepreneurs and scientists have all been polymaths.

See article in The Mission on medium.com

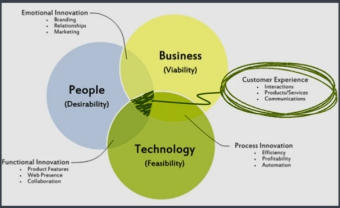


Quiz: What shape am I?

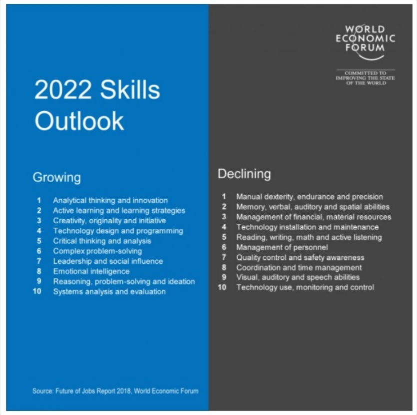
Read this interesting Linkedin article by Esin Akay and email me your thoughts!
Hint: I am not I or T shaped.



The key to business success is in the overlap between functions



Alternatively from the customer perspective, the experience is everything



WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD

2022 Skills Outlook

Growing

1. Analytical thinking and innovation
2. Active learning and learning strategies
3. Creativity, originality and initiative
4. Technology design and programming
5. Critical thinking and analysis
6. Complex problem-solving
7. Leadership and social influence
8. Emotional intelligence
9. Reasoning, problem-solving and ideation
10. Systems analysis and evaluation

Declining

1. Manual dexterity, endurance and precision
2. Memory, verbal, auditory and spatial abilities
3. Management of financial, material resources
4. Technology installation and maintenance
5. Reading, writing, math and active listening
6. Management of personnel
7. Quality control and safety awareness
8. Coordination and time management
9. Visual, auditory and speech abilities
10. Technology use, monitoring and control

Source: Future of Jobs Report 2018, World Economic Forum

A scan through this bio will show all ten of the "skills that are growing in need" are fully covered.

DROP ME A NOTE

I'm in the market for employment.
This CV is just one example of my innovative nature. Imagine what I could do for your business.
Consider me for a permanent position, or a temporary consulting contract, the choice is yours.

Name

Email

Message

☐ By continuing, you agree to our Terms & Conditions and Privacy Policy

SUBMIT

Based in Cambridgeshire, United Kingdom

but Virtually Global

mikulinnovation@gmail.com

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Below you can download my CV in more conventional format or view my Linked In profile.

CV

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