

Innovate UK

Technology Strategy Board

KTP Associates Conference 2017

Birmingham



UNIVERSITY OF
BIRMINGHAM



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University



Aston University



Employability – more than meets the eye



Innovate UK

Dr. Ann Bicknell - Programme Director

C.Psychol., HCPC Reg (Occ)., AFBPS., FHEA., CIPD., Prince 2., Assoc. IEHF.

Introductions and my background...



*“My other car is a
Fiat 500!”*

Our Practices and Approach



**ILM Level 5
Certificate in
Leadership
and
Management**



Who do we have in the room?

Completed KTP

Year 3

Year 2

Year 1

Not yet started
KTP?



Why you need to be in this session:

1. Hear the loudest gripes from employers
2. Understand why your technical knowledge may not be enough
3. Articulate what else employers are looking for
4. Clarify: What's your 50% in para-professional (leadership) development

5. Action plan – do one thing well!



A thought experiment to kick us off...?

Describe the personal characteristics of the chaps in these two images...

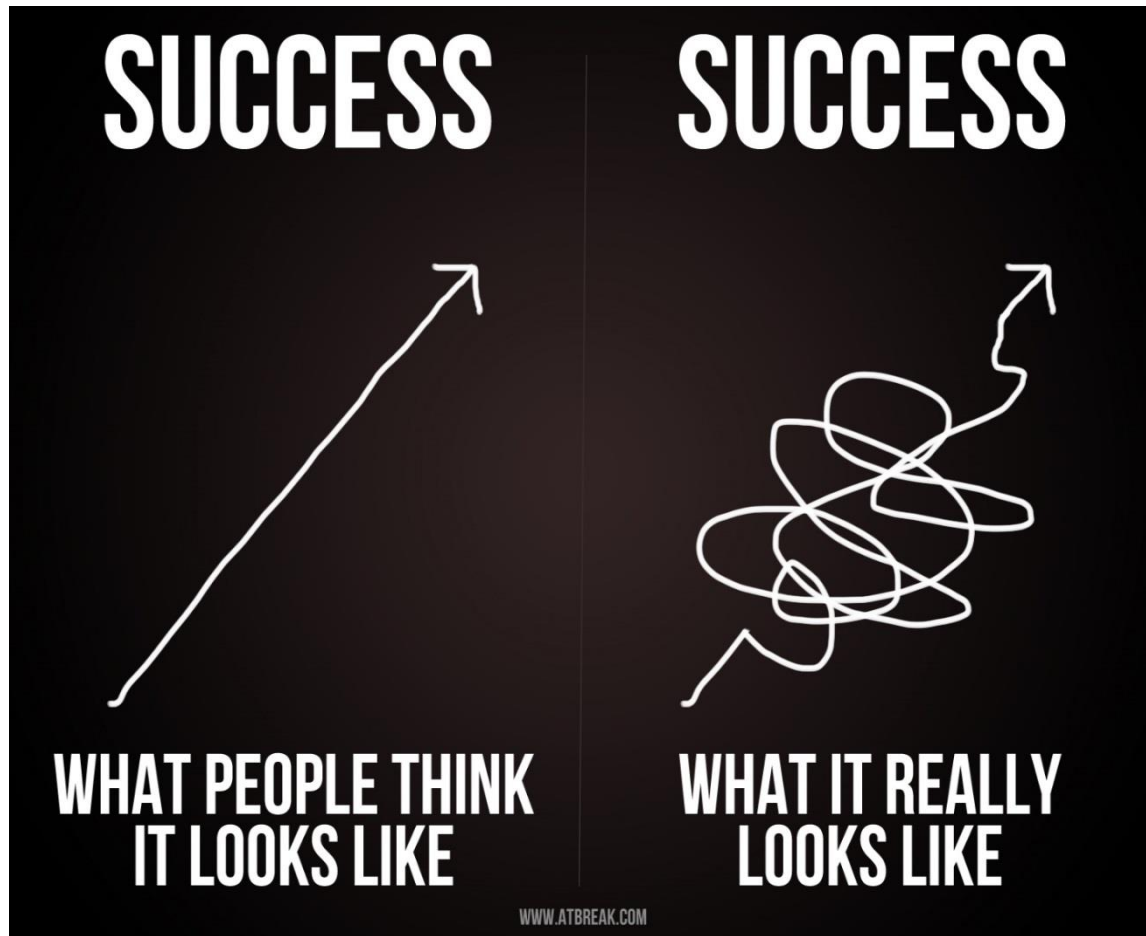
After 3 seconds of exposure...





What do we observe?

How do YOU communicate your characteristics for future success?



Graduate Employer Gripes...



“Rigorous standards are vital but there’s been too little emphasis on the **wider skills and attitudes** that employers demand,” John Cridland, Dir. General of Confederation of British industry



“But employers also want to see young people with a **strong worth ethic**, and “softer” skills like **timekeeping, and communication**, which are fundamental in the work environment.” Dr. Adam Marshall, Dir. Of Policy at British Chamber of Commerce.

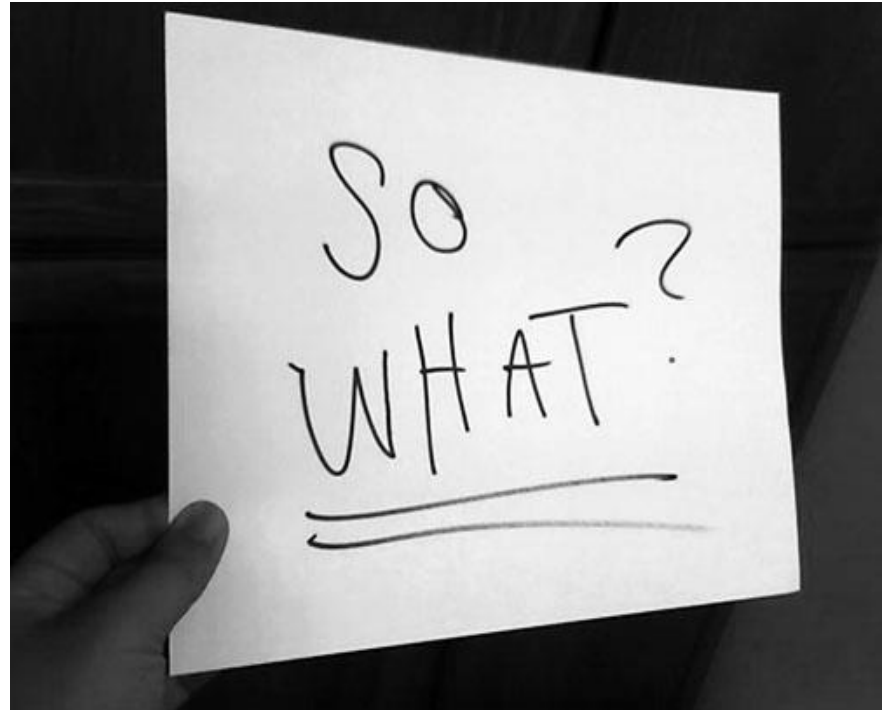
Top Employer Gripes (127 companies surveyed):



1. *Over two thirds of bosses said candidates cannot handle customers*
2. *Half said university leavers struggle with basic English (and communication skills)*

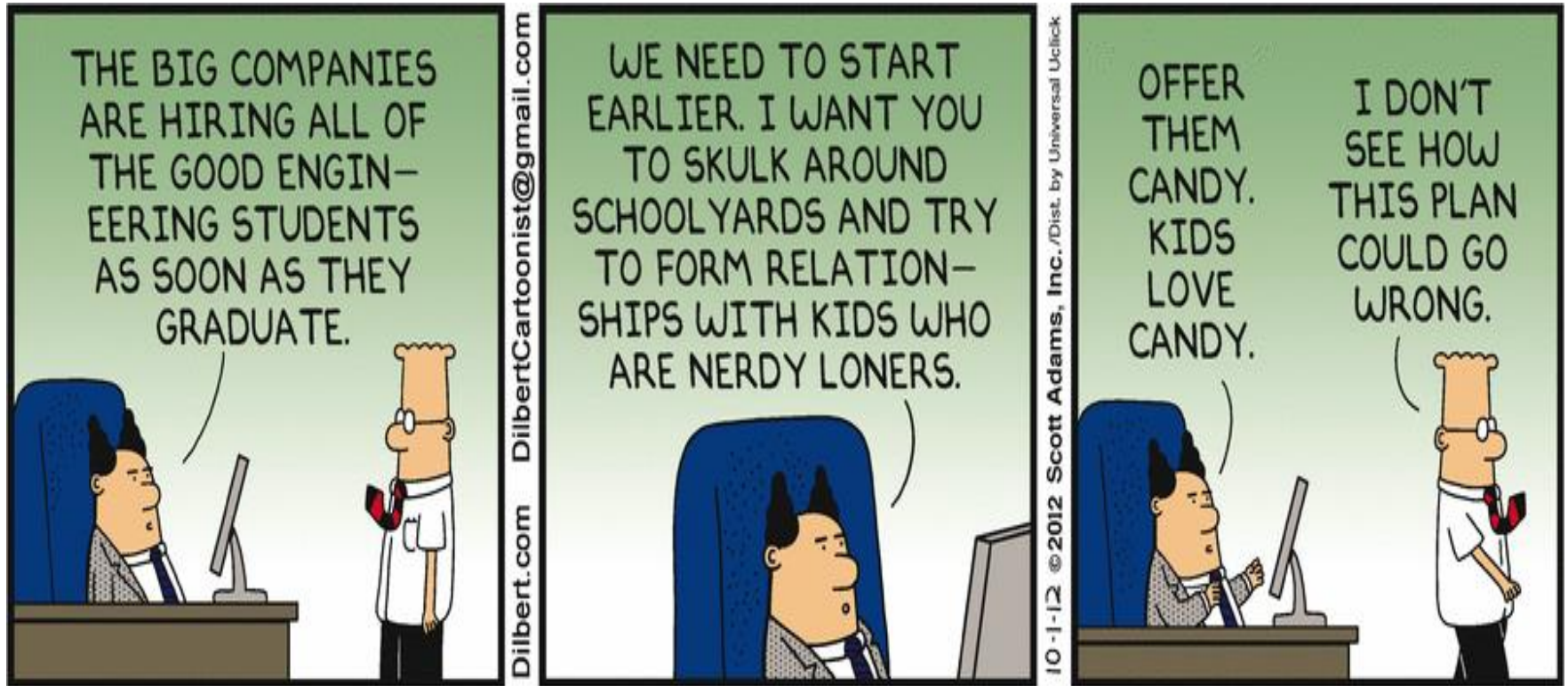


3. *Nearly two-fifths claim graduates cannot do simple maths (finance awareness)*
4. *Employers complained that graduates were more interested in 'what a job can do for them, not what they have to offer an employer'*



Can't I just do my actual (technical/research) job?

The demand....



BUT

Retaining graduates is becoming increasingly difficult ...

...with employers typically losing 16% of their intake in the first two years, which is an increase on the 9% reported last year.



The Association of Graduate Recruiters (AGR) Development Survey 2017 showed that 20% of graduates leave by the end of the first year after completing a graduate development programme, increasing to 46% after five years of

employment.
**Under-rated skills: Stamina; Obligation; Tolerance of
'BAU'**

The challenge...



A survey of 127 companies including Deloitte, HSBC, BT and Tesco has revealed that more than half are having trouble filling graduate vacancies, citing a **lack of basic skills** as the salient reason for the widening gap.



“Employers are significantly scaling-up their apprenticeship programmes in 2017 with hiring expected to increase by 59%.

Intermediate level apprenticeships make up the largest increase (4,492) followed by advanced apprenticeships (3,967) and higher apprenticeships (3,320).”

The reaction...

In 2016 Penguin, Ernst & Young & Price Waterhouse Coopers ditched their requirements for degrees or even A-levels to be part of their selection of candidates. Why?



Penguin's Human Resources Director said
“...growing evidence shows there is no simple correlation between having a degree and future professional success.”

Your data:

Sample: $n = 32$

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5 KTP Associates

15 'Other'

- *Data and Systems Analyst*
- *Behavioural Psychologist*

Engineers:

- *Structural; Mechanical;*
- *Sensor; Design; Materials*



Your definition of employability:

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- Employability is the quality of being successful in being employed.*
- Developing the right set of professional and personal skills to appeal to the right employer at the right time.*
- Value creation and skills acquisition through continuous improvement to improve an individual's probability of selection for employment.*
- The easiness of finding a job in your area of expertise*
- Having the necessary skills required to be successful in the recruitment process of a specific*

Your definition of employability 2:

- The sum benefit of employing a person for a company.*
- Having the ability to apply skills and expertise in organisations to help them meet their objectives and maximise profitability.*
- Being able to sell my abilities and knowledge.*
- Being able to demonstrate the correct skill-set to an employer that will give you a competitive edge over others.*
- Possessing the skill set needed by employers.*
- Having the technical, interpersonal skills and clarity of purpose to get a job done.*

Employability – definitions to play with:

Employability is “the ability of a graduate to get a satisfying job, job acquisition should not be prioritized over preparedness for employment [staying employed!]. ...it is not a set of skills but a range of experiences and attributes developed through higher-level learning, thus employability is not a “product” *but a process of learning*. (Prof. Harvey, 2017)

Employability can be defined as “doing value creating work, getting paid for it and learning at the same time, enhancing the ability to get work in the future”

Goshal, S.(1997). London
Business School

Your unique value proposition:

- Having several different niche knowledge [domains].*
- I have experience of both industries and academia.*
- It's hard to give a single experience as I feel that I'm learning many valuable experiences.*
- I have a tendency to stand out and think in an out-of-the-box manner.*
- My work-break method is statistically the most productive.*
- I don't think that I have one. ...People generally seem to like me for some reason and I tend to respond well...*

Where is the UVP here?

Employers should capitalise on the scientific-structured process when approaching a problem/topic. From personal experience, there have been a distinct separation and lowering of researchers' adaptability and relevance to the commercial environment.

A researchers' USP (structured approach & inquisitive curiosity) should be a source of strength. This should be tempered with honest entrepreneurial spirit to create a product/process that is loved by all parties including the consumer.



**E
XAM
INE YOUR
ASSUMPTIONS**

Your unique value proposition:

-Ability to manage a full-cycle project from conception to post-go live.

-I am an award winning ... specialist fully qualified in architectural technology and construction management.

-Trustworthy. Commitment and hard work.

-Ability to work in complex projects with multiple partners, under tight deadlines, applying core skills...

Employability includes:

Explicit skills

Implicit skills



Can you articulate both in a compelling manner?

Recent job advert requirements:



‘Principal Engineer’ “Excellent interpersonal skills...”

‘Senior Engineer’ “Above average interpersonal skills...”

‘Graduate Engineer’ “Acceptable interpersonal skills ...”

Activity: What does this 'look like'?



What would you be *doing differently* at each of these job levels?

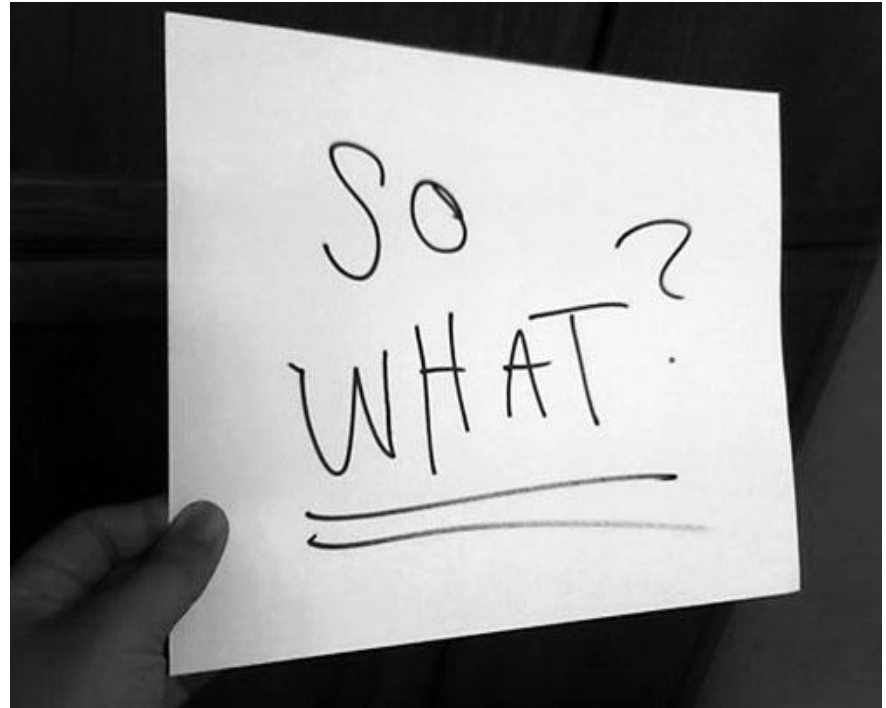
Recent job advert requirements:



‘Principal Engineer’ “Excellent interpersonal skills...”

‘Senior Engineer’ “Above average interpersonal skills...”

‘Graduate Engineer’ “Acceptable interpersonal skills ...”



Can't I just do my actual job?

Your development trajectory should include:

Leading Self; Leading Others; Leading Business



Why should specialists be interested in leadership and management skills?

Key Q: Do managers matter?

Google – Project Oxygen

With high performing knowledge workers?

Multi-year research initiative – granular analytics

Manager quality = less turnover, high satisfaction with innovation, work-life balance and career development



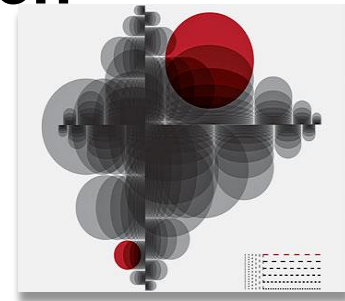
Garvin,D.*HBR*: How Google sold its engineers on management. (Dec 14)

What Google's best managers do: 8 key behaviours

A good manager:

1. **Is a good coach**
2. Empowers the team and does not micromanage
3. Expresses interest in and concern for team members' success and personal well-being
4. Is productive and results-oriented
5. Is a good communicator—listens and shares information
6. Helps with career development (of others)
7. Has a clear vision and strategy for the team
8. Has key technical skills that help him or her advise the team

Google – Project Oxygen

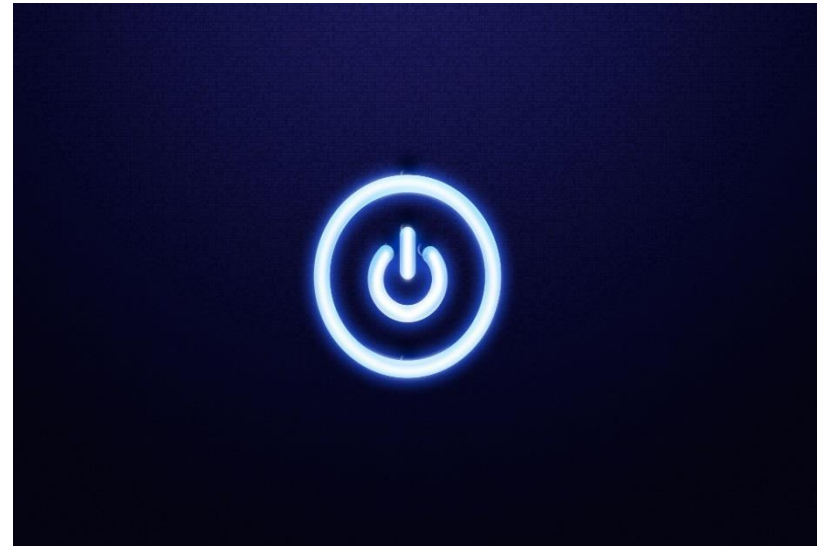


What is your leadership brand?

1. *What consistent messages do you give?*
2. *What stories do you tell?*
3. *What examples do you talk to?*



Look for feedback opportunities...



Narrating your brand story:

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-I was a mature student when beginning University...

Having built a career in ...industry I started again from scratch to work my way through college and Uni to where I am today.

Yet to develop: What 'soft skill' are you already aware of that would make you more effective at work?

Activity: Write a short description of this now...



How can you ...?



Never mind just how to get this job....

Think about what it takes to get **the next one?**

How do all of your knowledge, skills, abilities, experiences and attitudes **work together to help you?**

Does the KTP help with this? Your learning:

- I found the techniques: work breakdown structure (WBS) and stakeholder analysis ...very valuable.*
- Being able to effectively communicate specialist knowledge/concepts in layman terms between the 2 partners has been a very critical skill to master.*
- How to manage a project efficiently, to complete objectives within a required time-frame. This included moments of man-management, which was a new experience.*
- ... that planning is the way to the success.*
- Juggling expectations from both ...partner*
- Be consistent!*

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Most valuable learnings:

-The gap between research and commercial objectives and operations. Bridging this gap is challenging but interesting.

-How nasty is the industry sector!

Under-rated skills: Stamina; Obligation; Tolerance of 'BAU'

The logo for Innovate UK, featuring the text "Innovate UK" in white on a purple rectangular background with a curved bottom right corner.

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Support from Innovate UK for more effective KTPs - Your data:

-Inter-departmental rivalry

-Role clarity

The company culture

That it wasn't going to be easy?

-The attitude of the company Director

-Company expectations

-My workload!

-The entire business process.

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What do we conclude?



Top tip...



**KEEP CALM
AND
CHOOSE YOUR
BATTLES
WISELY**



What advice would you give to someone just starting?:

-Go for it!

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-Bring the most adaptable version of yourself to the table, wear your thickest skin and do not pretend to know more than you do - you're not a Messiah!



What's your 50%? 6-step Action Plan for Success:

1. Identify your strengths (& stories)
2. Identify your areas for development
3. Observe examples of 'professionalism'
4. Integrate these into your behaviours
5. Capture evidence of 'impact' and 'value' e.g. Customer feedback
6. Articulate this awareness and aptitude for learning to (future) employers



Top tip – Identify a Mentor? And study them.



Why? Because you don't know what you don't know!

What else?

Greater visibility of Innovate UK with tri-partite Partner relationships

More support with line management, briefing, clarity, hands-on feedback and logging support or feedback at half-way point

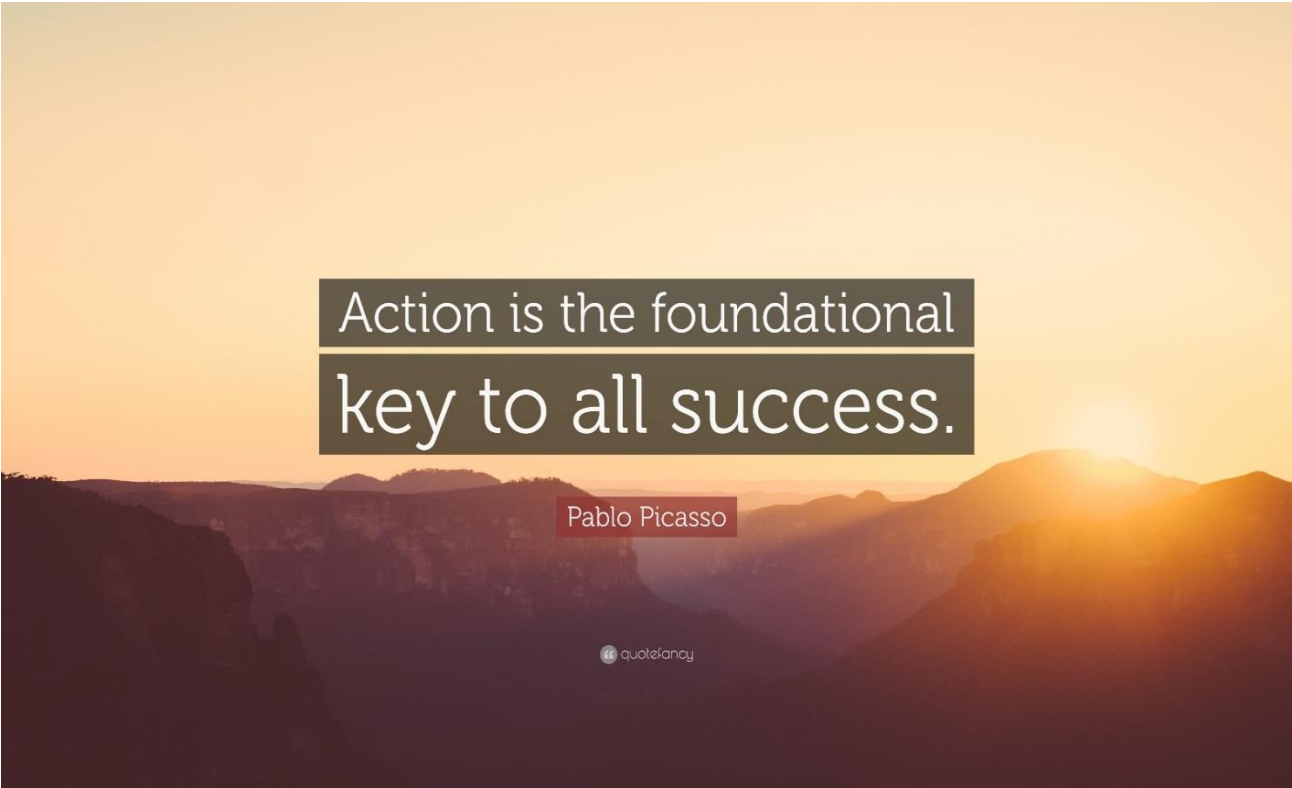
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In terms of learning to articulate your employability brand and stories...




The spaces between events...is where the magic happens!



Action is the foundational
key to all success.

Pablo Picasso

 quoteFancy



References:

Ghoshal, Sumantra (December 1997). "The Individualized Corporation: An Interview with Sumantra Ghoshal". European Management Journal. 15 (6): 625–632. [doi:10.1016/S0263-2373\(97\)00046-7](https://doi.org/10.1016/S0263-2373(97)00046-7).

Harvey, Lee. ["On Employability"](#) (PDF): 3. Retrieved 20 February 2017.

Harvard Business review (2016-17 multiple papers)

<https://www.youtube.com/watch?v=8kXdgrjHpyM>

<https://www.youtube.com/watch?v=xlGEt4NKkwo>



What is an entrepreneurial mindset?



**Carolyn
Keenan**
BSEEN
Project
Manager



**Sandra
Benbow**
BSEEN
Enterprise
Consultant



**Leadh
Woolley**
BSEEN
Project co-
ordinator



European Union
European Regional
Development Fund



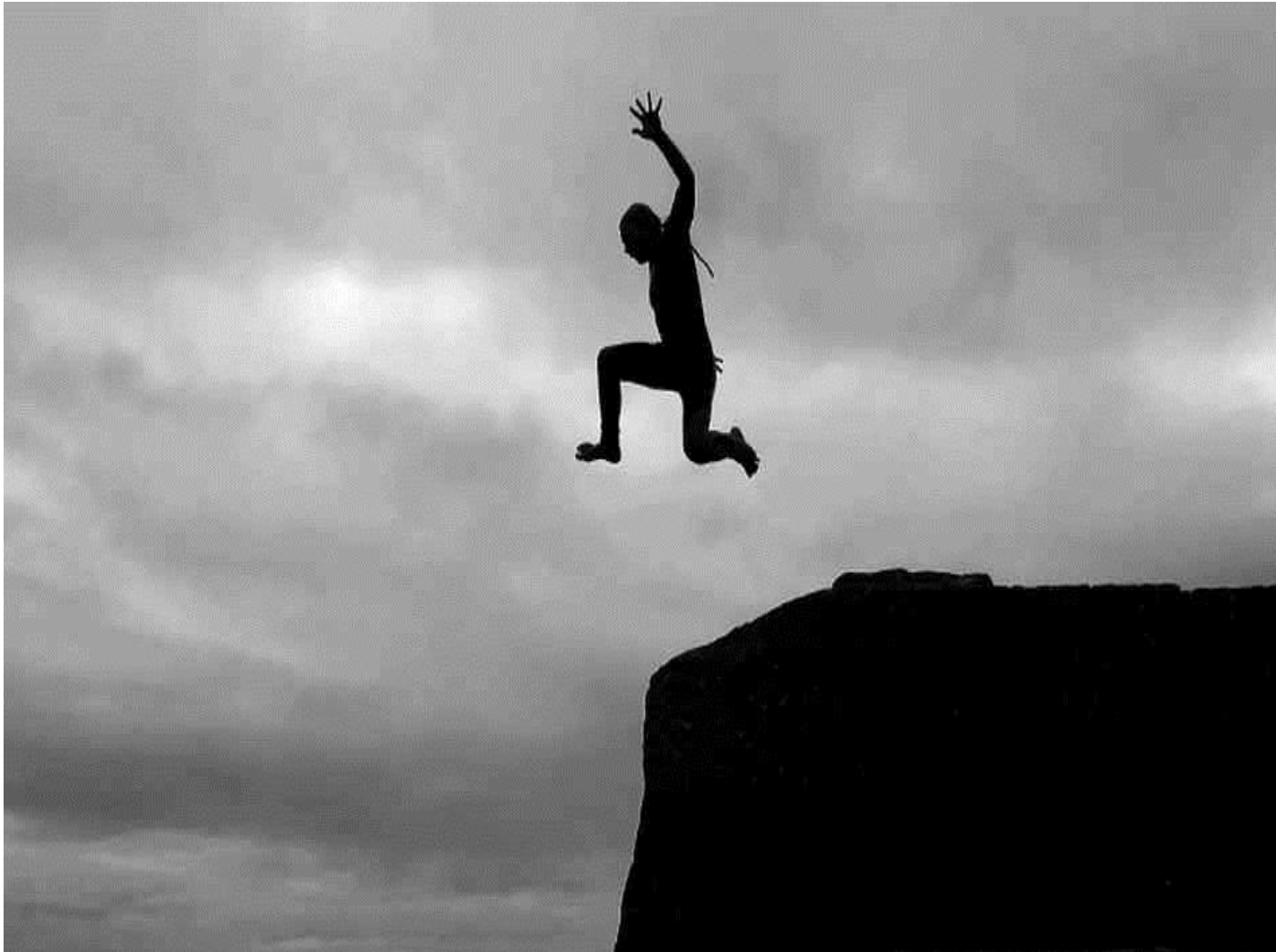


Entrepreneurial Mindset

Intentional Curiosity/Alerttness



Action/Risk Taker



Self Directed Learning



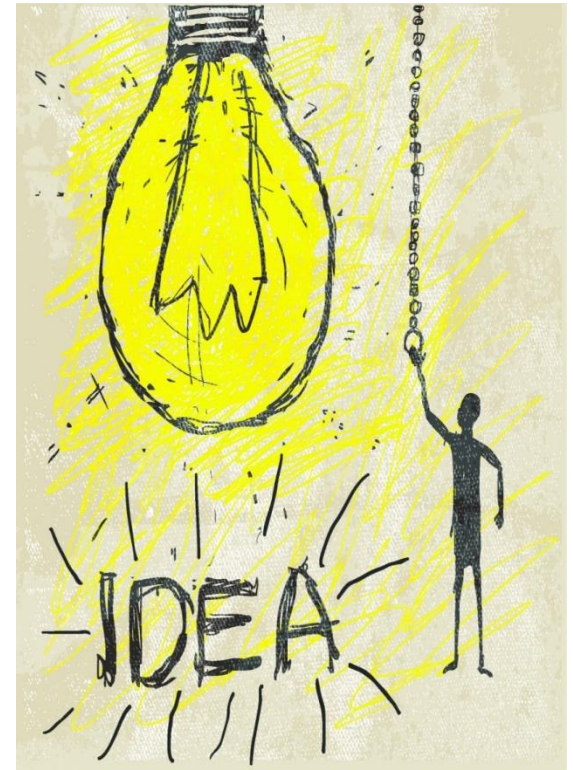
Continuous Reflection












Entrepreneurship is the discovery and development of business opportunities for profitable gain



Convert
an idea
into a
business
model



The Business Model Canvas

<i>Key Partners</i> 	<i>Key Activities</i> 	<i>Value Proposition</i> 	<i>Customer Relationships</i> 	<i>Customer Segments</i> 
	<i>Key Resources</i> 		<i>Channels</i> 	
<i>Cost Structure</i> 			<i>Revenue Streams</i> 	



Group Activity

Get into groups

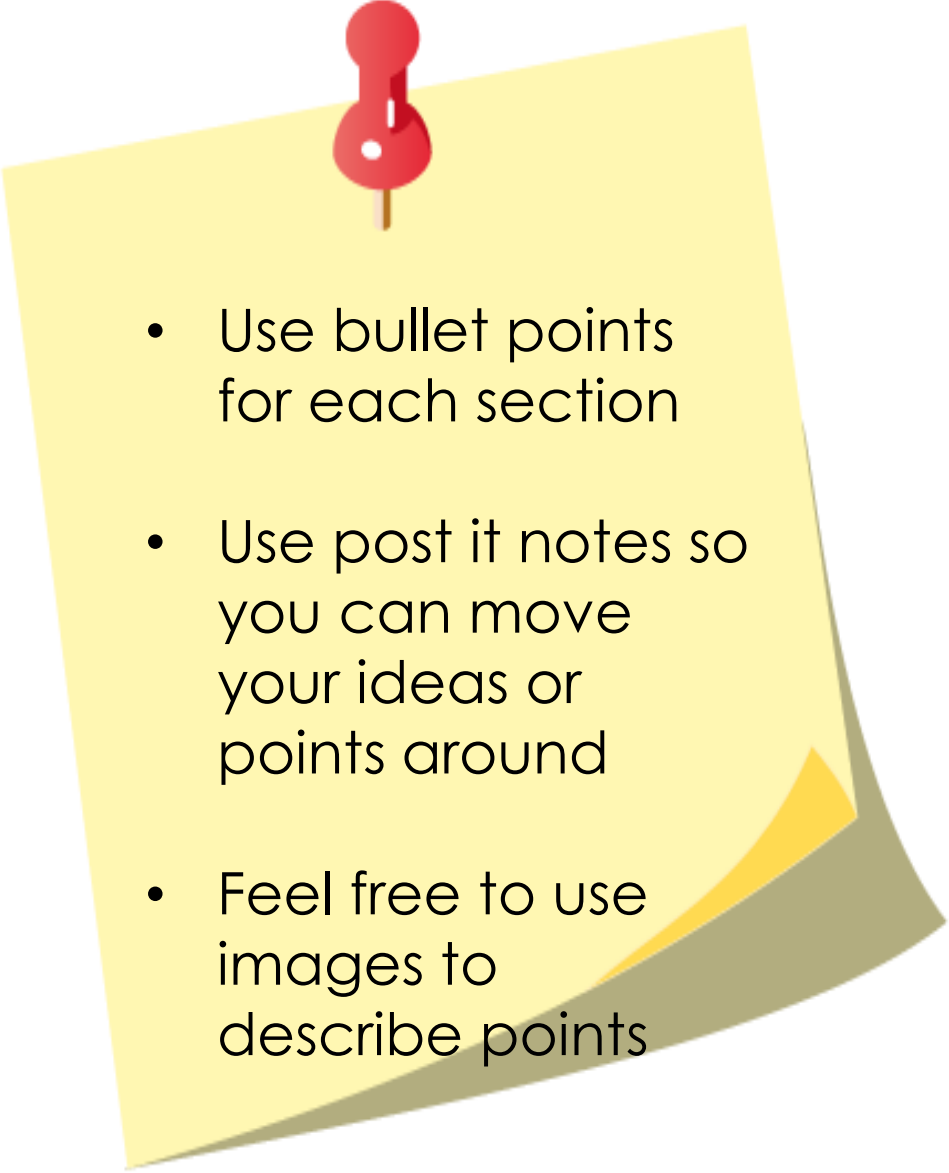
Complete a business model canvas for one of these businesses



UBER



Be prepared to present
OR your KTP business
back one key area of your
business model canvas

- 
- Use bullet points for each section
 - Use post it notes so you can move your ideas or points around
 - Feel free to use images to describe points

Great idea? Make it a reality

Like the sound of being your own boss?

We can offer you the support to make your business idea or social enterprise a reality including:

- Five day intensive start-up session and business registration
- A business grant to kick start your business
- Tailored mentoring to suit your business needs
- Free work space at Innovation Birmingham Campus
- Lots of great networking opportunities.

BSEEN intakes in September 2017

September: 11th, 12th, 13th, 18th & 19th

Graduates up to 5 years living in Birmingham and Solihull

LEP region.

bseen



European Union
European Regional
Development Fund

Contact Us



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#bseenstartup



/bseenprogramme



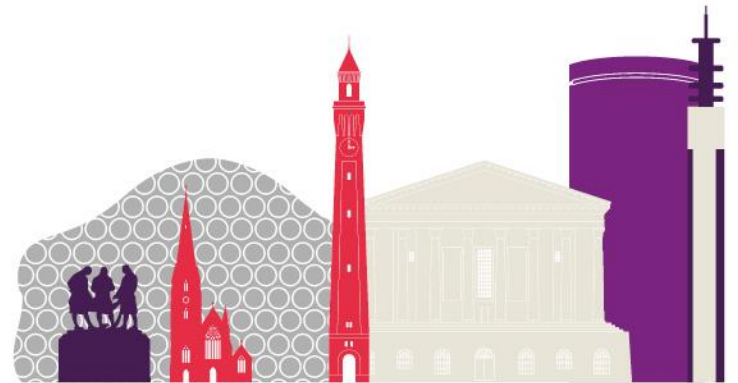
/BSEEN

bseen@aston.ac.uk

www.b-seen.biz

Old tricks for new dogs

Raquel Gil-Cazorla



My background

- **DOO, MSc, PhD**
- **Teaching + practicing**



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Develop further



2 years postdoc



**3 years postdoc
(Juan de la
Cierva)**



**3 years postdoc
(KTP project)**



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What is a Knowledge Transfer Partnership?



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What is a Knowledge Transfer Partnership?

Knowledge Transfer Partnerships (KTP) is a UK-wide programme that has been helping businesses for the past 40 years to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK Knowledge Base.

A Knowledge Transfer Partnership serves to meet a core strategic need and to identify innovative solutions to help that business grow. KTP often delivers significant increased profitability for business partners as a direct result of the partnership through improved quality and operations, increased sales and access to new markets. Social enterprises see improved results, too.



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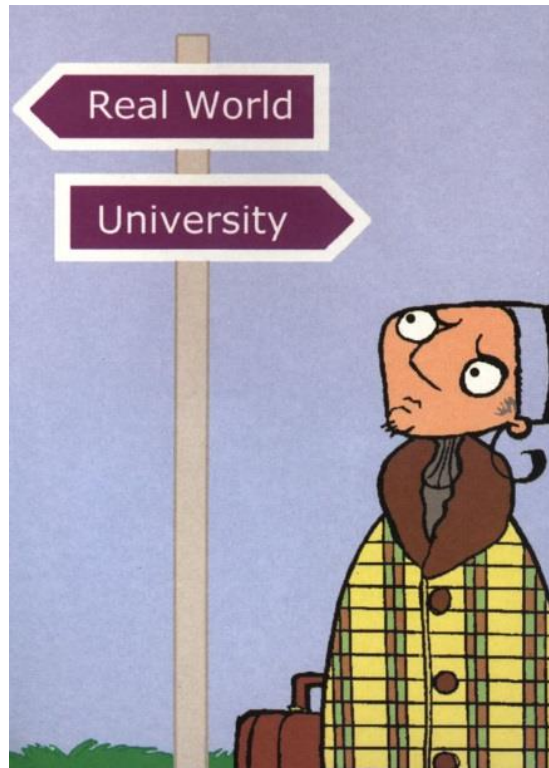


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Knowledge Transfer Partnership



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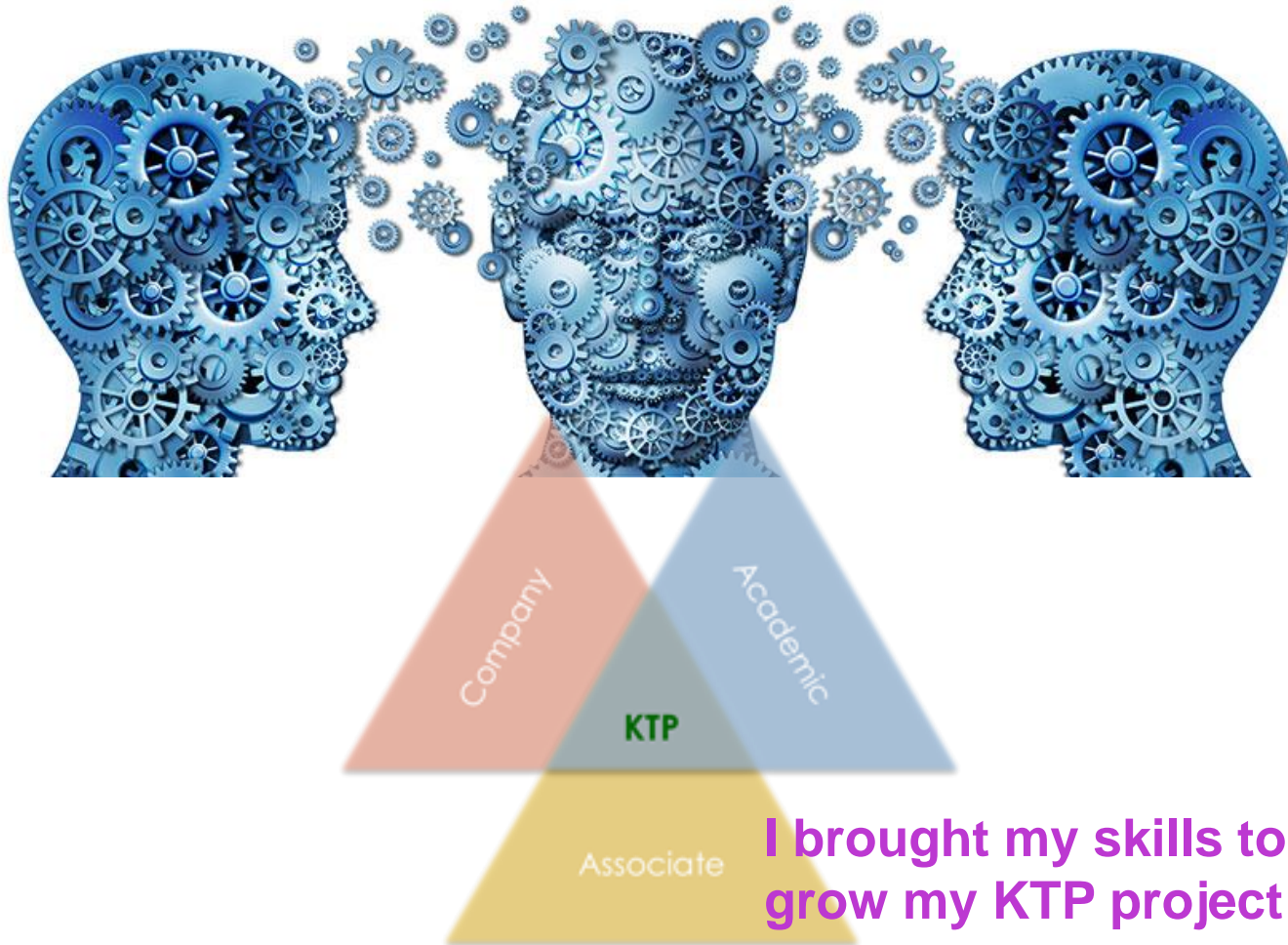
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The KTP application process

- **Originally for a PhD student (salary)**
- **5 candidates**
- **3 GOC registered**
- **2 with PhD**
- **Publications**



Knowledge Transfer Partnership



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Previous KTP experience

- ❑ Second project by the Academic supervisor
- ❑ Previous Associate was a runner up in the Business Leader of Tomorrow by InnovateUK
- ❑ Won best new project at Aston KTP awards
- ❑ Best established project at Aton KTP awards
- ❑ Project was graded **VERY GOOD**

No Pressure!!!



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My project

Aim:

To develop treatment models based on patient pathways, treatment regimens and outcomes for presbyopia and laser cataract surgery within a private ophthalmic surgical centre.



What does success mean?



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What does success mean?

- ❑ Final independent review
- ❑ Ordinal scale (Outstanding, very good, good, satisfactory, unsatisfactory)
- ❑ Handful gets outstanding, the majority gets very good or good



What does success mean in terms of KTP partnership?

Key Attributes for Successful Knowledge Transfer Partnerships

Commissioned by the Technology Strategy Board
and the Research Councils

Philip Ternouth, Cathy Garner, Laurie Wood and Peter Forbes

August 2012

Final Version



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What does success mean in terms of KTP partnership?

Key Attributes for Successful Knowledge
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August 2012
Final Version

- Outstanding partnerships should overachieve:
 - Business objectives
 - Academic results
 - Associate development



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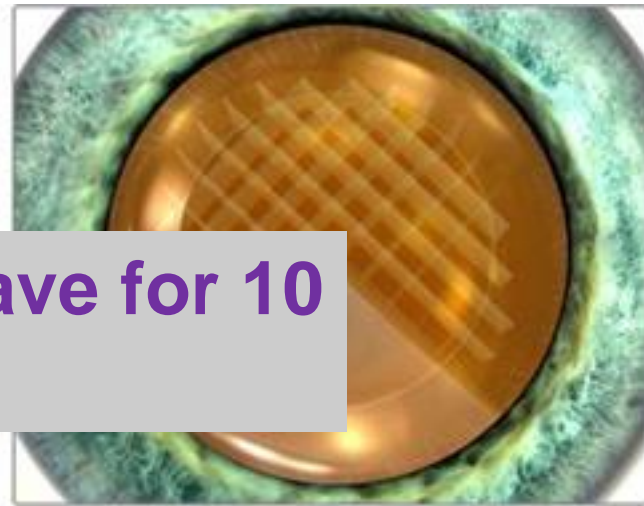
My project...

Aim:

To develop treatment models based on patient pathways, treatment regimens and outcomes for pres~~by~~opia and laser cataract surgery within a private ophthalmic surgical centre.



Capsulotomy



Lens Fragmentation

Maternity Leave for 10 months



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How would you grade my project?



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My project has been graded

OUTSTANDING



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What does success mean in terms of KTP partnership?

Business objectives

The business outcomes should demonstrate long term results for the business partner in the form of “a sea change” in development such as an embedded approach to innovation which could not have been obtained by consultancy or contract R&D.



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What does success mean in terms of KTP partnership?

☐ Business objectives

We focused on cataract surgery, additional research, training, project run without me (maternity leave)



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What does success mean in terms of KTP partnership?

❑ The Knowledge Base Partner

The Knowledge Base Partner should be seen to take their research into new areas or modes of application, for example the development of PhD programmes or setting up of new research activities



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What does success mean in terms of KTP partnership?

□ The Knowledge Base Partner

3 Projects, 2 grants (Marie Curie), 4 papers, 1 book chapter, 20 conferences, new knowledge



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What does success mean in terms of KTP partnership?

The Associate

Training and development are a key part



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What does success mean in terms of KTP partnership?

□ The Associate

2 Memberships, 1 fellowship, 10 conferences, 4 papers, 1 book chapter, humanitarian aid, 78 days spent in formal training

Project won Best new project at Aston KTP awards

Awarded Outstanding by Innovate UK

Lectureship in Aston University



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Old tricks for new dogs?

- Associate is the vehicle between Academia and Company
- Regular meetings with Academic and Company supervisors
- Become an embedded company resource
- Inform who you are and what your project is about



Old tricks for new dogs?

– Bear in mind:

- Research + profit
- Original Project plan (although it can change and evolve)
- Business case (compare the original and actual profit during and after the project)



Old tricks for new dogs?

- Embed knowledge from the beginning
- Manual, videos, handouts...
- Associate training (courses, PhD, conferences, fellowships...). PDR
- Record everything (achievements, courses, conferences...) with dates



Old tricks for new dogs?

— LMC

- Keep your own record of expenses
- Review financial statement and forecast before LMC
- Budgets (vire money)
- Advisor role



Old tricks for new dogs?

- Final report
 - Reflective learning
 - Project achievements
 - Show success in:
 - Business outcomes
 - Academic supervisor
 - Associate development



In conclusion

My experience managing a KTP:

- Hard work
- Challenging
- Even harder if you have to do a PhD
- Expanded my knowledge of the business aspects
- Boosted my career (Lectureship)
- Networking



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KTP Associates Conference 2017 Birmingham

*Any
Questions?*



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