

Women and Spinouts: Development Framework for Gender- Inclusive Academic Entrepreneurship

This section focuses on the development of **Knowledge, Skills and Attitudes** (KSAs) and is based on the accounts of successful women spinout founders.

KEY MESSAGES

1. The Framework provides a foundation for inclusive development programmes for spinouts.
2. While there are two critical transition points at which development should be focused, development occurs throughout the spinout journey via a combination of preparation, experiential learning and reflection.
3. There are three broad development areas relevant for women in spinout: **Becoming Entrepreneurial (B1)**, **Building Relationships (B2)**, and **Bridging Research to Business (B3)**.
4. Development areas include references to the composition of the spinout team as well as focusing on the founder as an individual.
5. Women founders can use the Framework to identify their strengths, preferences and areas for development before and during each spinout phase defined as: **Opportunity Recognition**, **Entrepreneurial Commitment**, **Venture Credibility** and **Venture Sustainability**.

CONTENTS

- Commentary – perceptions, research findings, reality
- Reflection points for further discussion
- Actions for researchers, research leaders, TTOs and researcher developers
- Development activities and group discussion

LEARNING OUTCOMES:

Increased awareness of:

The development areas for women researchers, based on the accounts of successful women founders;

How individuals can plan and review their development before and during the spinout journey;

How institutions can support the development of women in spinouts.

SUPPORTING RESOURCES:

- ✓ [Becoming, Building, Bridging: The 3Bs Framework](#)
- ✓ [Development Discussion Cards](#)



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COMMENTARY – PERCEPTIONS, RESEARCH FINDINGS AND REALITY

The *Development Framework for Gender-Inclusive Academic Entrepreneurship* is a strengths-based framework derived from the accounts of successful women spinout founders.

Women founders frequently describe having to ‘learn from experience’, making sense ‘on reflection’, and ‘learning on the job’. Becoming a successful academic founder is a learning journey powered by experiential learning and reflection, and acquisition of new Knowledge, Skills and Attitudes (KSAs). Therefore, the Framework aims to enable women and others in research to make their own journey to a successful spinout. The journey to spinout is not linear, and neither is personal development. The Framework should be viewed as a dynamic and flexible reference for personal development in parallel with the stages and cycles of the spinout journey. Founders can use the Framework to identify development needs and reflect on how they can use their existing knowledge and skills.

‘You have to be very determined, and you have to be willing to bounce back and take a lot of rejection and quite brutal feedback, sometimes, it’s not gentle at all, so to have a determination, and a little bit of that non-stick Teflon, just keep on going... Roll with the punches. That’s easier said than done, I wouldn’t necessarily say it’s a good skill of mine, but I do think it’s a useful skill, and one that is useful to develop if you don’t already have it.’ [Interviewee 4, woman founder]

A spinout is a team venture and depends on successful relationships with a wide range of stakeholders in the institution, in the company and externally. It is not necessary to be an expert in all areas but founders do need to be aware of their own strengths and preferences, and reach out to others with complementary skills and knowledge. Academic women entrepreneurs can begin their spinout journey at any stage in their careers and many of the skills developed in research and management will transfer to the spinout processes, and vice versa.

‘I think I’m much more commercially astute and I just know a lot more about a wider range of things, than I did four years ago, that are of direct benefit back in the university environment.’ [Interviewee 4, woman founder]

We do not envisage that any one person will have all the KSAs set out in our Framework, as spinout is a collaborative team effort: the framework reflects the combined KSAs of a spinout team rather than one individual. However, it can enable women founders to recognise their strengths, preferences and development needs, and consider what complementary KSAs will be needed to bring into the spinout.

‘Building a business team and engaging people that truly buy into your vision is absolutely critical to success. And then of course they’ve got to be the right people and the right people at the right time.’ [Interviewee 8, woman founder]

A ‘mind shift’ to entrepreneurship can take place at any career stage when researchers perceive opportunities from research as new value creation. This is an important transition point. Thereafter competencies for spinout diverge from those for research as the context changes. Where a researcher continues with research and starts the spinout journey, parallel tracks emerge leading to potential career and personal conflicts. To support women in preparing for transitions, we have included spinout career planning as a competency, and have provided more specific information in other ‘Focus on...’ themes.

Being enterprising is a feature of development both as a researcher and academic entrepreneur. For early career researchers, the development of overlapping research and enterprising competencies could be combined, encouraging ‘crossover thinking’¹.

¹ Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers, QAA, January 2018. QAA. (2018). Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers. <https://www.qaa.ac.uk/docs/qaas/enhancement-and-development/enterprise-and-entrepreneurship-education-2018.pdf>



‘I’ve been operating in this... across the two worlds of academia and the spinout for nearly four years. I think it’s a fantastic experience for an academic, if it’s something that interests you.’

Interviewee 4, woman founder

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During the spinout journey, a founder’s leadership role changes from leading oneself, to leading others, and finally to leading a company or at least establishing the longer-term leadership for the company. The final phase of spinout, ‘venture sustainability’, is reached when the company grows, diversifies and recruits more staff. This presents another ‘mind shift’ or transition from team player to inclusive leader:

‘I think it’s critical to recognise how a business evolves even after it’s been set up, and recognising that the expertise that you need to build and incorporate in your team also evolves with your evolving business over time. It’s got to be fluid, it’s got to be dynamic, and you’ve got to be constantly looking at it.’ [Interviewee 1, woman founder]

INCLUSIVE DEVELOPMENT FRAMEWORK FOR SPINOUT

This Framework is derived from interviews with successful women founders, and mapped to the generic European *EntreComp*² framework. It outlines the Knowledge, Skills and Attitudes (KSAs) of the spinout team rather than individuals. Each element of the Framework is relevant to all the stages of the spinout journey but as the phases of spinout change so do the performance requirements in each element. An individual does not need to develop in all of these areas to the same extent; they can choose priorities and preferences and plan how to bring in expertise to complement their own preferences.

² *EntreComp*: the Entrepreneurship Competence Framework, JRC Science for Policy Report, European Commission, 2016 Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The Entrepreneurship Competence Framework*. Publication Office of the European Union; Luxembourg, EUR 27939 <https://ec.europa.eu/social/home.jsp?langId=en>



**B1
BECOMING
ENTREPRENEURIAL**
Developing awareness and understanding about oneself

**B2
BUILDING
RELATIONSHIPS**
Developing networks, connections and links

**B3
BRIDGING
RESEARCH TO BUSINESS**
Developing business knowledge, skills and attitudes

B1.1 Understand personal values and recognise opportunities for creating value

B2.1 Prepare research with an entrepreneurial focus and identify key stakeholders

B3.1 Acquire business knowledge, skills and attitudes, create and deliver business plans

B1.2 Develop creative and innovative thinking to respond to challenges

B2.2 Work effectively in teams to create value, collaborate in a coalition of diverse people

B3.2 Understand and manage ambiguity, uncertainty and risk, evaluate benefits and risks, and make business choices

B1.3 Build an inspiring vision that engages others, and guides strategic decision making

B2.3 Prepare for spinout activity, persuade and involve other people

B3.3 Attain commercial, financial, legal, funding and investment literacy

B1.4 Appreciate and assess the value of different ideas to create best value for the spinout

B2.4 Communicate, engage and influence stakeholders effectively

B1.5 Recognise and maintain ethical stance, and act to ensure ethical and sustainable goals are met

B2.5 Develop inclusive leadership capabilities, and be able to adopt different styles, practices and behaviours

B1.6 Undertake entrepreneurial career planning, challenge assumptions, maintain work-life balance

B2.6 Collaborate and work effectively with others, initiate value-creating activities

B1.7 Recognise and use transferable research skills in the spinout process

B1.8 Maintain self-awareness, self-confidence, and self-efficacy through experiential learning and reflection, make the most of strengths

B1.9 Sustain motivation, perseverance and resilience, follow passion to create social and economic value

REFLECTION POINTS FOR FURTHER DISCUSSION

The Framework has been mapped to an established generic entrepreneurial competence framework, *EntreComp*, with two additional features: career planning for spinout (as women founders face additional challenges when balancing their research, spinout and personal lives) and increasing researchers’ awareness and ability to transfer research knowledge, skills, and attitudes to their spinout venture. Additionally, our Framework recognises that the spinout is more than just one individual entrepreneur and includes a team collaboration.

Women founders can use the Framework to identify their priorities and develop an effective team approach to spinout. Institutions can use the Framework to support women in a variety of ways that include, development programmes, mentoring and coaching, enabling relevant networking, self-study, online study, placement, and work shadowing. It will also be of value as a reference in performance review, enabling conversations based on the needs of women founders.



WOMEN FOUNDERS TALKING ABOUT TRANSITIONS

PHASE 1 Opportunity Recognition	PHASE 2 Entrepreneurial Commitment	PHASE 3 Venture Credibility	PHASE 4 Venture Sustainability
<p><i>It's the transition and the balance between the academic and the commercial worlds and pitching for funding and stuff like that, so I would say if you can find someone that's done it... And someone that you trust, so you can speak openly about your concerns or fears and they can speak openly to you about their adverse experiences, then, I think if I had had that, it would have been easier emotionally, if you see that.</i></p>	<p><i>As an academic you have to be used to multitasking all the time. You've got to balance your research group on the one hand, your teaching, your administrative commitments. You have to be so many things, these days more and more you've got to juggle your own finances within your academic group, you have to be planning a year ahead, you have to be planning five years ahead, and all of those things are totally relevant to the sorts of skills that you need to bring to bear on a commercial project.</i></p>	<p><i>Clearly I don't have all of the expertise as an academic sitting within a university, to drive a product from concept through to a product that could be then sold and demonstrated that it's effective across a whole population. Lots of other people are necessary to bring to bear on that project, but nonetheless I think it needs a champion and it needs to be someone that can stand behind it with the overarching vision and say this is what needs to be done with it, and then assemble the team around it that are going to actually deliver on that. So that's really where the control element comes from.</i></p>	<p><i>A spinout needs to have a very clear identity and a very clear vision going forwards, and a spinout also needs to be adaptable. I think there is a strong overlap between two of those things. But I think what you need to add into that, and one of those things that actually leads into both of those elements is strong and visionary leadership across all of the elements that you need.</i></p>



INCLUSIVE DEVELOPMENT: **ACTIONS FOR ALL**

Researchers

Use the Framework for your career development planning through preparation, experiential learning and reflection, to clarify your personal development objectives and to plan how to develop an effective team approach to spinout.

Research Leaders

The Framework will be a useful reference for performance review with researchers who are combining research with spinout, and encourage conversations around achievements, development needs for spinout as well as research.

Technology Transfer Office

The Framework will be a useful reference for discussing the development needs of founders and for considering the knowledge, skills and attributes needed to make an effective team.

Researcher Developers

The Framework is a reference for designing development programmes for researchers involved in spinout, especially at critical transition points where development support is most important. The Framework recognises the phases of spinout development, and we recommend that programmes are matched to the development needs for each phase of the spinout. Development programmes do not necessarily need to be training programmes but a combination of training, mentoring and network support, matched to the needs of the founder and phase of spinout development. The Framework can be a useful tool when considering spinout teams and inclusive leadership development. Researchers should be given opportunities to consider how their current knowledge, skills and attitudes can be applied in the spinout journey.

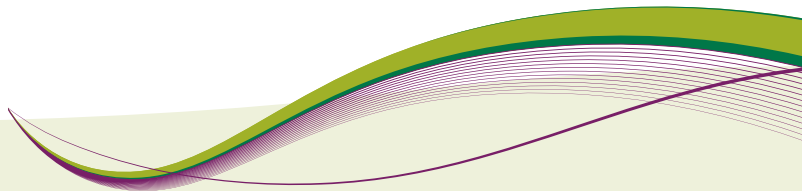
ACTIVITY 1

Becoming a woman founder and building relationships



Here are some examples of the personal characteristics mentioned by women founders in our interviews. Note in the table an occasion when you displayed this characteristic, and then decide your strongest characteristics and those that you would like to improve.

Personal characteristics described by women founders	Give an example of how you have demonstrated this characteristic, either in work or outside of work e.g. an occasion when you have been 'flexible'?
Flexible	
Agile	
Adaptive	
Collaborative	
Cope with 'different'	
Develop new skills	
Expert in research	
Inclusive	
Influencer	
Leader	
Manage risk	
Negotiate	



Open to ideas	
Opportunity spotter	
Persuasive	
Persistent	
Resilient	
Self-confident	
Tenacious	
Visionary	

What are your top three characteristics?

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How would you do this?

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Which three characteristics would you like to improve?

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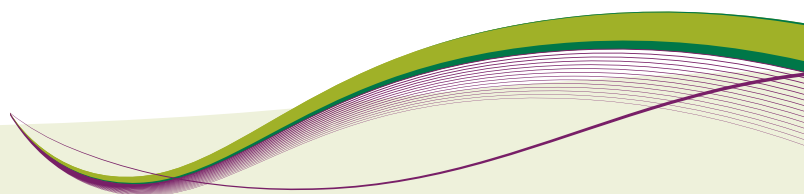
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How would you do this?

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ACTIVITY 2

Developing business Knowledge, Skills and Attitudes (KSAs)



This activity asks you to engage directly with the ‘Bridging research to business’ (B3) element of the Framework. The first task is to think about your current Knowledge, Skills and Attitudes (KSAs) and rate them on a scale from 1 to 5, with 1 being ‘low’ and 5 being ‘high’.

B3
BRIDGING RESEARCH TO BUSINESS

(✓) Tick the number on the scale that best applies to you.

B3.1 Acquire the business knowledge, skills and attitudes to create and deliver business plans

1		2		3		4		5	
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B3.2 Understand and manage ambiguity, uncertainty and risk. Evaluate benefits and risks, and make business choices.

1		2		3		4		5	
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B3.2 Attain commercial, financial, legal, funding and investment literacy e.g. understand finances, IP, licensing, partnership, contracts, market place.

1		2		3		4		5	
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Reflecting on your answers, which areas do you need to prioritise for development?

What you will do in the next year to enhance your skills in these areas?

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How might you go about doing this? You might consider training programmes, mentoring, networks, self-study, online study, placement, work shadowing – be innovative in your thinking.

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