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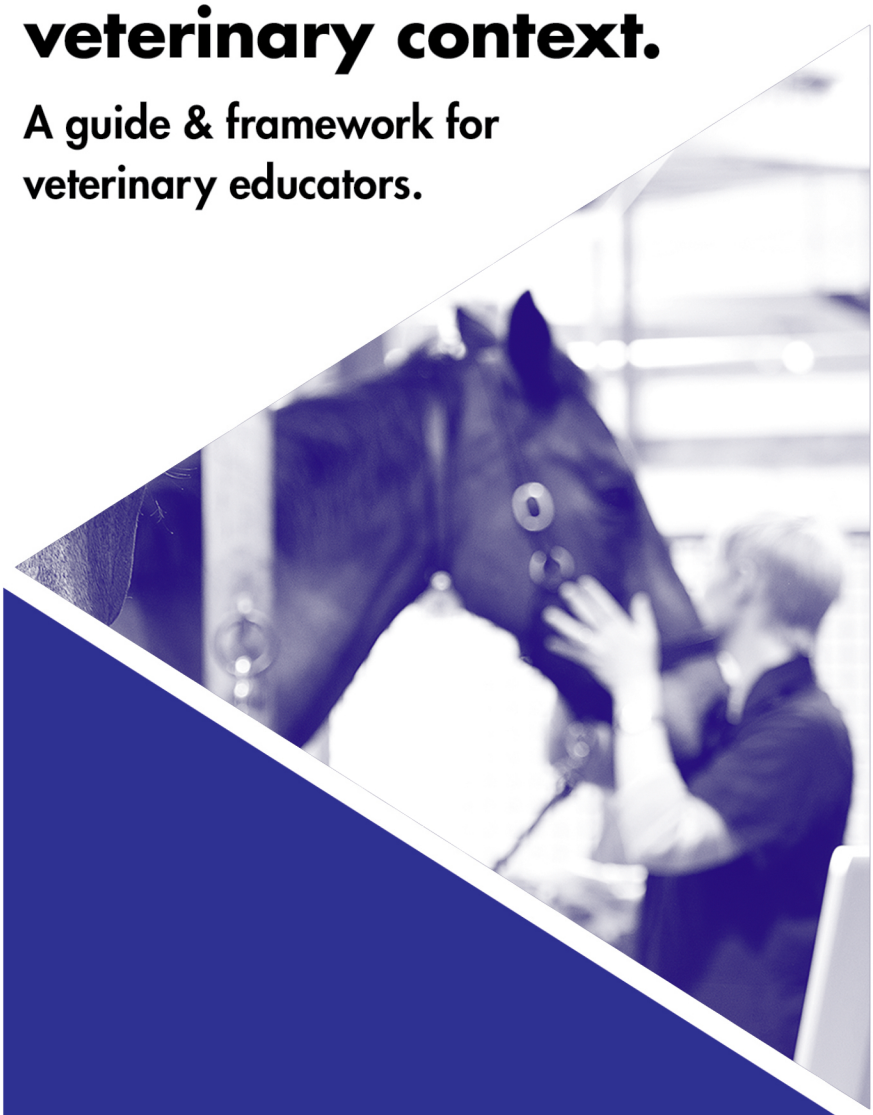
Interpreting employability in the veterinary context.

A guide & framework for veterinary educators.



VetSet2Go
Building veterinary employability

Interpreting employability in the veterinary context:
A guide and framework for veterinary educators

by Martin Cake

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Aims & scope:

The aim of this work is to provide guidance on how to interpret and apply the construct of employability in the context of veterinary education and policy. Since employability has scarcely been examined in the veterinary context despite its emerging importance in higher education, this guide is intended to assist veterinary schools in developing evidence-based employability approaches with an authentic veterinary 'flavour'. It is also intended to provide guidance for accreditors and policy makers, in aligning outcomes towards the capabilities most important to professional success and satisfaction.

Although employability is best approached as a whole–of–career construct, this guide is primarily focused on graduate-level outcomes informing undergraduate pedagogy supporting transition to practice. However we hope that other parts of the profession may benefit from a clearer understanding of veterinary employability, as the basis for professional, organisational, and individual success.

Contents:

The VetSet2Go project:

- The VetSet2Go project (2015-2018) was an Australian Government–funded project to explore what employability means in the veterinary context, to define the capabilities most important for employability and success in the veterinary profession, and create assessment tools and resources to build these capabilities.
- The project was a multi-national collaboration between14 academics across veterinary schools in Australia (Murdoch, Queensland, Sydney, Adelaide), the United Kingdom (Edinburgh, Nottingham) and the United States (Washington State).
- The project was informed by five subprojects exploring the perspectives of employers, new graduates, clients, and other stakeholders through qualitative and quantitative research.
- Additional perspectives were gathered through consultation, advisory groups, a world–first Veterinary Employability Forum, and an expert Delphi process (see Acknowledgements).
- In addition to this report, key outputs from the project include the VetSet2Go framework, evaluation rubrics, capability resource cards, an online self-assessment tool (the Assessment of Veterinary Employability (AVE) tool), quote banks, and other teaching and learning resources.

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VetSet2Go
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Executive Summary:

Defining the breadth of employability

- Employability is much broader and more complex than just the ability to gain employment. It includes the personal attributes, social processes and other factors which enable sustainable success and satisfaction in work.
- Since employability must be of mutual benefit to both employer and employee to be sustainable, it should include factors that promote wellbeing and satisfaction (in work and in life) as well as productivity.
- Conceptual models of employability highlight key roles for the processes of reflection, self-awareness, and identity formation.
- The VetSet2Go project defined employability in the veterinary context as:

"A set of adaptive personal and professional capabilities that enable a veterinarian to gain and sustain employment, contribute meaningfully to the profession and develop a professional pathway that achieves satisfaction and success".

The case for employability in veterinary education

- Employability is likely to continue as a priority area for universities, government, and employers, and as a major driver in higher education.
- Historically, employability has rarely been mentioned in veterinary and healthcare education – though the concepts of professionalism and particularly professional identity formation are closely related.
- Employability is closely related to emerging conceptions in healthcare of professionalism centred around professional identity formation. Recent research in veterinary professional identity has characterised veterinarians as team-based professionals who must balance stakeholder needs in the face of complexity.
- Industry reports have repeatedly warned that the sustainability of the profession is challenged by economic and societal change, requiring new and diverse capabilities in veterinary graduates.
- A focus on employability has the potential to address many contemporary challenges for veterinary education and the profession:
    - clearly flagging the capabilities most important to future success and satisfaction
    - better preparing graduates for the 'make-or-break' period of transition to practice
    - supporting wellbeing and resilience, in the face of known mental health risks
    - balancing the needs and expectations of all stakeholders, including employers, clients, and the graduate/employee themselves
    - broadening and diversifying career opportunities through transferable skills
    - engaging students in professional learning through self-awareness, personal growth and professional identity formation
    - balancing the summative approach encouraged by competency-based education with the more holistic, formative approach based in experiential learning, guided reflection and feedback.

The VetSet2Go framework

- While many veterinary skills and attributes are thought to be important, published evidence supporting their importance in the veterinary context is generally sparse (with the exception of communication skills). Building a strong evidence base for veterinary employability was a major aim of the project.
- The VetSet2Go project explored the expectations of veterinarians, employers, clients, employees and other stakeholders through mixed methods research, including two large surveys and a Delphi process.

- The VetSet2Go framework identified 18 capabilities that were found to be consistently important to veterinary employability, aligned to broad overlapping domains defined by their outcome orientation:
    - Psychological Resources (for the self)
    - Effective Relationships (for others)
    - Veterinary Capabilities (for the task)
    - Professional Commitment (for the mission)
    - Self-Awareness (for the process).
- The project developed an open-access self-evaluation tool and rubric, and other open resources aligned to the framework for learners and educators.

Teaching and learning for veterinary employability

- Employability pedagogy offers both opportunities and challenges for veterinary education.
- Employability may require different teaching and learning strategies compared to traditional curricula based around knowledge, technical skills and competencies.
- Employability should neither replace nor be subsumed into existing competency and professionalism frameworks. Rather, competency, professionalism and employability are better conceptualised as distinct dimensions (or learner 'lenses') of the successful veterinary professional.
- Employability pedagogy requires 'slow' learning approaches, best integrated across the whole of program through multiple reflection cycles.
- Assessment of employability is challenging. Rather than summative, criterion-driven assessment, employability development is better targeted formatively through guided reflection, experiential learning, mentoring, and rich multisource feedback.
- Reflection, self-awareness and identity formation should form the core of employability learning, raising awareness of employability strengths as well as areas for development, and exploring 'job fit'.
- The high extramural and clinical experience requirement in veterinary courses creates valuable opportunities for employability learning.
- Employability offers a solid shared framework for engagement of external partners and mentors in veterinary education.
- Employability should be addressed in programme outcome evaluation and graduate feedback, as well as in curriculum inputs.

VetSet2Go
Building veterinary employability

Murdoch University
The University Of Queensland Australia
The University of Adelaide
The University of Sydney
Washington State University
The University of Edinburgh
The University of Nottingham
United Kingdom · China · Malaysia

1. What is employability?

1.1 The concept of employability, perhaps most simply though incompletely defined as the **ability to gain and sustain meaningful employment** (after Hillage & Pollard 1998, Bennett 2018), has evolved considerably in recent decades as it enjoys increasing attention across many areas of educational research and policy. Scholarly attention within higher education has deepened the theoretical basis for employability as a complex and multi-dimensional construct, but has also drawn attention to its highly contextual and dynamic nature, particularly given the simultaneous evolution of modern employment.

Recent reviews of employability providing a useful synthesis of its conceptual complexity have been published by Williams et al. (2016) and Small et al. (2017).

1.2 The breadth of employability

One useful way to view the conceptual breadth of employability is to break it down into components equivalent to the life stages of a graduate (Hillage & Pollard 1998):

- **initial** employability: finding desired employment after graduation
- **transitional** employability: ease of transition into, and success in, early employment (a.k.a. "work readiness" or "preparedness for practice")
- **sustainable** employability: the renewable ability to remain successfully employed throughout life.

Another taxonomy demonstrating the breadth of employability was outlined by Holmes (2013):

- employability as **possession** - a set of assets, in terms of characteristics, attributes or 'skills' of individuals
- employability as **positioning** - strategic actions of sociocultural positioning and professional enculturation
- employability as **process** - emerging from the dynamic relationship between a prospective employee and employer.

While the compound word *employ-ability* tends to naturally suggest the ability to achieve employment outcomes (***employ***-ability), it has been noted that it equally relates to the capacity to productively employ one's abilities (employ-***ability***)[a]. This view again positions employability at the intersection of inputs, process, and outcomes.

Employability is much broader than just the ability to gain employment, and includes the personal attributes and factors which enable sustainable success and satisfaction.

1.3 Some definitions of employability

Perhaps because of this breadth, complexity and contextuality, no single dominant definition of employability exists (Williams et al. 2016).

Dimensions of employability

A recent systematic review by Williams et al. (2016) identified three dimensions and six sub-dimensions within employability:

Capital *- valuable 'assets' or properties of the individual*	• **Human capital** • **Social capital** • **Cultural capital** • **Psychological capital**	*- knowledge, skills, training* *- social connections, networks* *- social compatibility, job fit, experience* *- confidence, adaptability, resilience*
Career management *- competence in deploying assets in navigating the labour market*	• **Signal management** • **Self-management**	*- job-seeking skills* *- reflective self-awareness, motivation, ambition*
Contextual components *- external circumstances*		

a: attrib. Dawn Bennett, see www.developingemployability.edu.au

Some definitions of employability are framed around the ability to achieve employment outcomes:

> "the capability to gain initial employment, maintain employment and obtain new employment if required."
>
> (Hillage & Pollard 1998)

> "the ability to find, create and sustain meaningful work across the career lifespan"
>
> (Bennett 2018)

Two of the most highly-cited definitions of employability frame it as a set of attributes increasing **success** in employment. Knight & Yorke (2003) defined employability as:

> "a set of achievements - skills, understandings and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy."

Expanding this definition slightly, Dacre Pool & Sewell (2007) formulated a widely-cited definition of employability as:

> "having a set of skills, knowledge, understandings and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful."

The probabilistic 'more likely' clauses in the above definitions recognise the necessary interaction of individual attributes with a work context and broader labour market beyond the influence of the individual – the so-called "duality of employability" (Brown et al. 2003).

Thus employability also relies on the ability to identify and present assets to employers, and to self-sufficiently navigate the labour market to match these to opportunity.

Drawing some of these definitions together, a recent review of employability defined it as:

> "the capacity to be self-reliant in navigating the labour market, utilizing knowledge, individual skills and attributes, and adapting them to the employment context, showcasing them to employers, while taking into account external and other constraints."
>
> (Small et al. 2017)

1.4 Sustainable employability

Dacre Pool & Sewell's (2007) requirement of being **satisfied as well as successful** in a chosen occupation highlights that, in order for employment to be sustainable, work must be both valuable for the worker and valued by the work context (van der Klink et al. 2016). This value, satisfaction, or *meaningfulness* (Bennett 2018) in work must be sustained throughout working life and across fluid careers.

Satisfaction in work further implies compatibility with health and **wellbeing**, and opportunity for self-actualisation and fulfillment through 'meaningful' work.

Along these lines Van der Klink et al. (2016), referencing Amartya Sen's concept of *capability* (human potential), recently stated:

> "sustainable employability means that, throughout their working lives, workers can achieve tangible opportunities in the form of a set of capabilities. They also enjoy the necessary conditions that allow them to make a valuable contribution through their work, now and in the future, while safeguarding their health and welfare. This requires, on the one hand, a work context that facilitates this for them and on the other, the attitude and motivation to exploit these opportunities."

Employability must work both ways to be sustainable – of value to both employer and employee.

1.5 Synonyms of employability

Some commonly encountered partial synonyms of employability, each with limitations, include:

generic skills, basic skills	*though context-free instruction risks being ill-defined and abstracted.*
'soft skills', non-technical skills	*though this risks framing them as secondary to 'hard' technical skills.*
transferable skills	*though transferal of universally-valued skills to new contexts is itself a high-order, metacognitive skill that should not be assumed (Yorke 2006).*
life skills	*though many apply differently in work contexts compared to non-work 'life' contexts.*
lifelong learning skills, enterprise skills, 21st century skills	*though not all are future-oriented.*
core skills, key skills, essential skills	*though designation of such a 'core' is often vague or ad-hoc.*
career development learning	*though this represents only one dimension of employability.*
work-readiness, job-readiness, 'bridging the gap'	*though this narrows the context to initial employment.*
graduate attributes	*though employability is not merely an attribute of a new graduate.*

While these may represent familiar synonyms useful for engaging stakeholders in employability discourse, none capture the breadth and dimensionality of the word ***employability*** itself.

Many of these terms include reference to 'skills', which risks narrowing the scope of employability and should be interpreted in the richest sense (Yorke 2006). In particular, trying to simplify it as a set of 'key skills' denies its complexity, while stripping context as 'generic' or 'transferable skills' denies its dynamic contextuality.

It is particularly important to note that employability is not synonymous with employment – since it more describes the potential capacity to be successful in a job, than the acquisition of the job itself (Yorke 2006).

1.6 Some conceptual models of employability

An early but still influential model of employability, in the narrower sense of career development learning, is the **DOTS** model (Watts 2006):

- Decision learning *(assisting informed decisions)*
- Opportunity awareness *(work opportunities, demands and rewards)*
- Transition learning *(preparing for future transitions)*
- Self-awareness *(understanding unique characteristics and needs)*.

Knight & Yorke (2002) outlined their **USEM** model of employability as consisting of:

- Understanding *(of disciplinary subject matter)*
- Skills or skillful practices *(both subject-specific, and 'generic' or 'life' skills)*
- Efficacy beliefs *(including self-confidence and other self-theories)*
- Metacognition *(including self-awareness, reflection and continual development)*.

Although all elements interact synergistically, the E and M elements are generally given little attention in higher education.

Dacre Pool & Sewell (2007) drew upon both the DOTS and USEM models to construct their **CareerEDGE** model, in which employability is underpinned by:

- Career development learning
- Experience (work and life)
- Degree-specific knowledge and skills
- Generic skills
- Emotional intelligence

In the more directional CareerEDGE model, employability is activated by a process of reflection and evaluation, which in turn develops key psychological resources of self-efficacy, self-confidence and self-esteem.

Bridgstock's (2009) employability model stresses the importance of career management skills, which equip graduates to proactively **navigate the world of work** and self-manage development of their own career through:

- discipline-specific skills
- generic skills (i.e. transferable)
- self-management skills (appraisal & knowledge of self)
- career-building skills (for proactively navigating and advancing career)
- underpinning traits & dispositions

Bennett et al. (2016) identified five themes across employability outcomes:

- develop skills & knowledge *(discipline-specific and generic)*
- develop self *(self-awareness, self-efficacy, possible futures)*
- develop career awareness *(including work experience)*
- interact with others *(including teamwork & communication)*
- navigate the world of work *(including further study and goal-setting)*

Collectively, these models of employability have progressively shifted it from being largely a list of 'skills' desired by employers to include more person-centred qualities, as well as a personal discovery process whereby career– and self–awareness enable strategic development.

1.7 Employability and professional identity

Some authors have noted the close relationship between employability and the development of graduate identity or (pre-)professional identity. This reflects a view that employability and 'graduateness' cannot be measured only by skills acquisition and past performance, since these are also a judgment on whether a person is capable of assuming a future role (Hinchliffe & Jolly 2011). In this sense, employability is the emergent outcome of social process, whereby the 'identity claims' of a candidate or employee are affirmed by others (Holmes 2013). By this account, employability development is less about transfer of key knowledge and skills, and more about a **process of 'becoming'**, fostered through enhanced self-awareness and immersion in a professional community of practice (Jackson 2016).

1.8 A full account of employability

Together, these definitions and models suggest that a full account of employability should include:

- outcomes of **satisfaction and success** in meaningful employment, in addition to 'getting a job' or 'work-readiness'
- success factors spanning the work lifecycle (in gaining initial employment, transition to employment, and ongoing career pathway).
- more than just knowledge and 'key skills', and extend to diverse aspects such as life and workplace experience, career management, emotional intelligence, psychological capital, self-beliefs, and reflective self-awareness
- dynamic social processes such as **identity formation**, as well as more innate 'attributes' or 'qualities'
- factors that mutually benefit both the employer and employee (or balance all stakeholder expectations) to ensure **sustainability**
- factors that ensure **wellbeing** and satisfaction (in life and work) as well as productivity.

1.9 The VetSet2Go definition of employability

Drawing on these definitions and models in the literature, the VetSet2Go project adopted the following working definition of veterinary employability to guide development of an employability framework suitable for use in veterinary education:

> **"A set of adaptive personal and professional capabilities that enable a veterinarian to gain and sustain employment, contribute meaningfully to the profession and develop a professional pathway that achieves satisfaction and success."**

2. Positioning employability in the veterinary education context

2.1 The 'employability agenda' in higher education

Employability is becoming increasingly prominent as an aim of higher education in many countries, including Australia and the UK. This so-called 'employability agenda' is said to be driven by a number of convergent factors (Small et al. 2017), including:

- pressure from employers seeking highly-skilled graduate employees
- consequent pressure on tertiary providers to contribute to economic growth by supplying 'work–ready' graduates to the labour market
- criticisms that universities have failed to prepare graduates by focusing too much on academic knowledge and technical skills, and neglecting 'generic skills'
- rise of the so-called 'knowledge economy', in which businesses increasingly value their employees as a primary source of efficiency, innovation and productivity
- the rapidly changing nature of employment, with a strong trend towards more fluid careers across multiple jobs, necessitating proactive graduates who are self-reliant in traversing the shifting labour market
- the expansion of higher education, weakening the power of higher qualifications to secure employment
- pressure from students, who expect their graduate degree to contribute to their future employability.

These pressures have led to increasing recognition that developing employability in graduates is a **core role of higher education** institutions. Consequently, embedding employability into the core of higher education is likely to continue to be a key priority of higher education providers and their executive leadership, as well as government and employers (Cole & Tibby 2013).

However this also creates potential tensions, in that higher education institutions (or least certainly some academics) see their role beyond meeting the demands of employers (e.g., in fostering scholarly thought and intellectual development), and see their contribution to economic prosperity as driven more through research innovation. There are also concerns around whether academics, who form the bulk of the university workforce, are well enough connected to industry to be equipped to teach employability (Bennett et al. 2016). However these tensions exist more if taking a functional view of employability ('getting a job'), rather than one based around **learning and personal development**.

There have been a number of commissioned reports examining employer views from a national perspective. For example, the Graduate Outlook Survey published by Graduate Careers Australia (Matthews et al. 2016) found the top selection criteria of 638 employers were interpersonal skills and communication, cultural alignment/values fit, emotional intelligence/self-awareness, and reasoning and problem-solving. In the UK, Archer & Davidson (2008) found the most desired attributes of 233 employers were communication, teamwork, character/personality, and 'fitting in'.

Employability is likely to remain a priority area for universities, government, and employers, and a major driver in higher education.

2.2 Employability in the health professions

A scoping review for the VetSet2Go project found that little has been published on employability in the allied health professions. A literature review of the employability skills essential for healthcare (Sisodia & Agarwal 2017) likewise found very scant literature specific to this context. A small body of research around employability exists in the context of physiotherapists, for example Ramli et al. (2010) identified the most relevant employability skills according to employers of physiotherapists:

- applying theory into practice
- keeping up-to-date
- willingness to gain new knowledge
- being honest and knowing their limitations
- establishing rapport with patients
- being responsible and reliable
- ability to work as a team member.

Williamson (2015) identified similar priorities for employers of radiographers: communication, being a team player, motivation, good time-keeping, willingness to learn, smart appearance, ability to prioritise, and problem-solving skills. She also articulated the challenges for integrating employability in healthcare education:

- very full curricula largely prescribed by competency frameworks and professional standards
- largely 'self-contained', practice-based programmes unlikely to integrate with broader institutional strategies for employability
- integral alignment to professions with high initial employment prospects, causing employability to be dismissed as unnecessary.

2.3 Related concepts in health professions

Some health professions have explored aspects of employability under different guises. Gardner et al. (2007) explored the attributes underpinning **'capability'** in nurse practitioners, defined as a holistic attribute making a person more likely to deal effectively with the challenges of turbulent clinical environments. Key elements of capability identified were: knowing how to learn, teamwork, creativity, self-efficacy, and the ability to apply competencies in novel situations.

In medical education, the shift towards competency-based medical education (CBME) and **entrustable professional activities (EPAs)** is being accompanied by calls to foster a holistic professionalism, in particular through **professional identity formation** (Frenk et al. 2010). It is increasingly accepted that the transition of becoming a professional involves more than the acquisition of explicit skills, expertise and behaviours, but further demands transformative development of a professional identity – to **'think, act, and feel'** like a professional (Cruess et al. 2014). This presents the challenge of how to foster professional identity formation in education, since it dynamically involves many uniquely personal and often intangible factors such as reflection, self-awareness, self–beliefs, core values, motivation and commitment, resiliency, and psychosocial identity.

2.4 Employability in veterinary education

Prior to the VetSet2Go project, the specific construct of employability had not been explicitly explored in veterinary education. Nevertheless, veterinary education arguably has a rich history of employability pedagogy, including extensive contact time devoted to authentic professional contexts and work-integrated learning, and competency frameworks focused on 'work-readiness' (as is explicit for example in the title of the RCVS (2001, 2014) 'Day One Competences'). But these efforts have lacked a shared definition, discourse and framework around veterinary employability.

Employability has scarcely been mentioned in veterinary and healthcare education – though emerging conceptions of professionalism and professional identity formation are closely related.

A small body of literature has surveyed the factors perceived to be most important to success in veterinary practice (e.g., Heath et al. 1996, Bristol 2002, Lloyd & Walsh 2002, Lewis & Klausner 2003, Kogan et al. 2004, Rhind et al. 2011). This evidence, as well as empirical evidence measured against relevant success outcomes, has been reviewed specifically for professional (non-technical) veterinary competencies by Cake et al. (2016) (see **3.2.1**).

As part of the VetSet2Go project, Bell et al. (2018) recently advocated the potential benefits for veterinary education of including employability as a top-level outcome alongside competency and professionalism. These comprise a triad of dimensions or 'lenses' representing overlapping capability-sets but different objectives, that together provide a more complete model for educating graduates for career success and satisfaction.

2.5 Veterinary professional identity formation

As in medical education, there have been recent calls in veterinary education to provide clarity around what it means to be an effective veterinary professional, in order to guide professional identity formation of undergraduates (Mossop 2012, Allister 2015, Armitage-Chan et al. 2016).

Armitage-Chan and colleagues (2016) formulated a contemporary, practitioner-led view of veterinary professional identity as:

> "… an interprofessional team member, who makes clinical decisions in the face of competing stakeholder needs and works in a complex environment comprising multiple and diverse challenges."

This view of **balancing multiple stakeholder needs** in the face of dynamic complexity brings professional identity formation rather close to employability development. It has further been suggested that finding congruence between desired and realised professional identity (Armitage-Chan et al. 2016) or career identity (Page-Jones & Abbey 2015) is important to sustained work engagement and satisfaction, self-esteem, and personal wellbeing.

Veterinarians are team-based professionals who must balance stakeholder needs in the face of complexity.

2.6 Veterinary-specific issues and drivers

2.6.1 Industry and workforce trends

Various workforce and 'state of the profession' reports have raised concerns about the sustainability of the veterinary industry. Concerns about oversupply of workforce capacity or new graduates have been raised in Australia (AVA 2013), the UK (Buzzeo et al. 2014), and the US (Dall et al. 2013). In Australia, an unprecedented rise in graduate unemployment at 4 months post-graduation peaked at 21.3% in 2013, though this has since returned to more usual levels (Graduate Careers Australia). In the US, where the workforce may be currently oversupplied (Dall et al. 2013), it has been suggested that while broader societal needs for veterinary services are potentially expanding, these may go unmet because the scope of veterinary training has instead been narrowing (National Research Council 2011).

In the UK, the Vet Futures (2015) report has raised concerns about the number of veterinarians, particularly recent graduates, dissatisfied with their career and opportunities for progression. The report sets a strategic goal to promote "diverse and rewarding careers" in which graduates "emerge equipped with a breadth of skills that enable them to pursue any number of exciting career paths", and flags "a need to review the extent to which veterinary education currently prepares students for the workplace, and also what the workplace provides".

Similarly in the US, earlier economic studies by KPMG (Brown & Silverman 1999) and Brakke Consulting (Cron et al. 2000) warned that major economic and societal changes have created a mismatch between the skillset of veterinarians and those required for career and economic success. The NAVMEC 'Roadmap' report (2011) subsequently promoted the need to address these challenges by graduating "career–ready veterinarians" with "skills that are highly valued by employers and by society in general", with particular emphasis on professional competencies.

Industry reports have repeatedly warned that the profession is challenged by economic and societal change, requiring new skillsets in veterinarians.

2.6.2 Contemporary trends in veterinary education

The same last few decades have also seen progressive changes in the direction of veterinary education. Nevertheless, the recommendations of the influential Pew report (Pritchard 1988) remain very relevant and are yet to be fully implemented. Given the escalation of the required knowledge base but simultaneous redundancy of knowledge,

> "The focus […] must be redirected from excessive emphasis on the accumulation of information to the acquisition of skills on how to find and use information, on problem solving, and on the behaviours and attitudes essential to success as a veterinarian […] Attention must be given to making the professional learning experience more supportive of student's individual psychological needs."
>
> (Pritchard 1988:11)

Numerous reviews have similarly reached the conclusion that veterinary education must "focus on the needs of society, leading to the education of more rounded veterinarians with a breadth of professional skills" (May 2008). This has led to repeated calls (for example, in the NAVMEC (2011) *Roadmap* report) to increase the focus on 'professional competencies'. These were initially framed as the **non-technical skills, knowledge, and aptitudes (SKAs)** 'essential for success' (Brown and Silverman 1999, Cron et al. 2000). However the list of success factors identified by Lewis & Klausner (2003) included many aspirational, attitudinal objectives that

are challenging to translate into undergraduate outcomes. Following the lead of medical education, these have largely morphed into calls to define and teach veterinary professionalism (Mossop 2012), an elusive construct which poses challenges over its exact scope and definition (Lane & Mossop 2017).

At the same time - again mirroring medical education frameworks such as CanMEDS - veterinary education has been shifting from input-based to outcome-based quality assurance processes. This has placed much emphasis on the definition of competencies - the knowledge, skills and attributes underpinning the ability to perform complex professional tasks. The RCVS 'Day One Competences' (2001, 2014) and AAVMC (2018) Competency-Based Veterinary Education (CBVE) framework mark major milestones in these efforts in the UK and US respectively.

However some tension exists between these twin efforts to define and enhance competency and professionalism, since the former's demand for measurement of observable ability is difficult to apply to the latter's internal values, attitudes, and identity. Another limitation lies in the defining purpose of both constructs, typically framed around meeting threshold "expectations of society" or ensuring graduates are "safe to practise", thus concerned more with regulatory assurance (i.e., for accreditation) than with graduate success. While some more holistic frameworks have been constructed through broader stakeholder consultation including employers (e.g., Bok et al. 2011), few have incorporated the expectations of graduate veterinarians themselves, as is inherent from the employability perspective of satisfaction and success.

2.6.3 Limitations of the 'competency' paradigm

While competence has been defined as the "ability to do something successfully" (Bok & Jaarsma 2017), this 'success' is generally taken as exceeding a desired threshold or milestone, thus achieving the state of *competency*. This task-oriented definition places great strain on the language when stretched to accommodate personal qualities such as honesty, integrity, confidence or motivation.

While it is universally accepted that a clinician must be competent, the dominance of the competency paradigm in healthcare education has periodically been criticised (e.g., Talbot 2004, Brooks 2009, Brightwell & Grant 2013), for example that:

- reference to a minimum standard or threshold milestone discourages excellence
- the atomistic and reductionist approach ignores the complexity of healthcare contexts
- the normative, criterion-referenced approach discourages reflective practice
- outcomes of ability or observable behaviour fails to capture the underpinning wisdom, judgments, and values fundamental to expert practice
- it generally fails to capture the most important things that distinguish a 'good doctor' from a merely competent one.

Other definitions of competence expand it to include professionalism, for example Epstein & Hundert (2002) defined professional competence as:

> "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and the community being served."

Although such a definition is more holistic in terms of the personal qualities and processes engaged, these are still harnessed in service of others, rather than more broadly for the **mutual success of all stakeholders**, as in employability.

The predominant heathcare paradigm of competency-based education may not naturally encourage a comprehensive employability approach.

A comparison of the complementary perspectives potentially emphasised by the guiding paradigms of threshold graduate (Day One) competency versus employability (after Bell et al. 2018).

	Threshold Competency	Employability
Guiding aim	Protect the public	Success & satisfaction
Proficiency	Minimum threshold	Scaleable
Time frame	Short-term	Long-term (sustainability)
Endpoint	Fixed at graduation	Continuous across transition
Capability set	Knowledge, technical skills, 'professional skills'	Competency + personal qualities, self-beliefs, metacognition, experience
Main stakeholders	Accrediting & registration bodies	Employers, clients, employee (self)
Assessment	Summative	Formative (feedback-driven)
Standards	Normative	Informative (strengths & weaknesses)
Evaluation	External, aligned to standard	Self, informed by multisource feedback
Self-audit	Recognise limits	Recognise potential

2.6.4 Resilience & wellbeing

Bell et al. (2018) note that it is particularly the inclusion of **the practitioner's own needs** to be satisfied and successful in their work that sets employability apart from the educational paradigms of competency and professionalism. This aligns with increasingly prominent concerns around the mental health and wellbeing of veterinarians. There is consistent evidence that veterinarians suffer elevated risk of burnout, mental distress, and suicide (Hatch et al. 2011), with a proportional mortality for suicide up to four times general population estimates (Jones-Fairnie et al. 2008, Bartram et al. 2009). Some evidence suggests that elevated mental health risk is already present in veterinary undergraduates, particularly females (and is thus compounded by progressive feminisation of the profession) (Strand et al. 2005, Hafen et al. 2008, Cardwell et al. 2013). The period of transition to practice is known to be particularly stressful for new graduates, with elevated mental health risk (Mellanby & Herrtage 2004, Bartram et al. 2009, Gardner & Hini 2006, Hatch et al. 2011).

This transition overlaps what in medicine has been termed 'the professional formation', a crucial and vulnerable period of concurrent personal, moral, and professional maturation (Rabow et al. 2010). Stress, burnout, and professional attrition in this '**make-or-break**' period has been partly attributed to inadequate preparation for the realities of practice, in particular the prevailing educational emphasis on disciplinary knowledge and technical skills, rather than the personal, interpersonal and life skills that are crucial to professional success (Gilling & Parkinson 2009), including many of those consistently identified as key employability capabilities.

A review conducted for the VetSet2Go project (Cake et al. 2017) appraised research and discourse around resilience across contemporary veterinary literature. This review found that a predominant emphasis on mental health problems, particularly stress and suicide, may be obscuring an equivalent understanding of thriving and wellness in veterinary work. The construct of **resilience** was shown to be under-developed in veterinary mental health and education research, despite being identified as a key capability in several competency frameworks (e.g., NAVMEC 2011, RCVS 2014) and its potential to positively reframe and balance approaches to wellbeing in the discipline. Indeed Cake et al. (2015) argued that mental resilience may be the *most* important attribute for a veterinary graduate, on the basis that its absence brings the most severe potential consequences.

Employability must take account of the graduate's own workplace needs to ensure sustainable satisfaction and success – thus must encompass capabilities supporting wellbeing and resilience.

2.7 Success, satisfaction, and meaning in the veterinary context

Several authors have advanced a veterinary-specific definition of 'success'. In a book devoted to the subject, Viner (2010) framed success in veterinary practice as based on two core premises: that (1) success follows "from efficiently providing high quality client and patient care", but that (2) long-term satisfaction is only likely when "there is balance between our personal values and goals and our professional objectives".

Lewis & Klausner (2003) also explored success criteria for veterinarians, and defined six themes:

- personal fulfillment and enjoyment from work
- contributing by helping others
- achieving life balance
- respect of others
- pursuing and achieving personally important goals
- adequate financial compensation.

Cake et al. (2015) reviewed evidence for what motivates and satisfies veterinarians, and found that though not widely studied (e.g., Bartram 2009, Robinson & Hooker 2006), available evidence is largely consistent. The most frequently cited factors include:

- intellectual challenge and variety
- helping clients
- helping animals (in both the individual and collective sense)
- positive interactions with work colleagues.

Since these are principally aligned with meaningful purpose and self-improvement, rather than extrinsic or material rewards, it was suggested that veterinarians naturally recognise wellbeing as more founded in **eudaimonia** than hedonia. Eudaimonia is an ancient concept of achieving one's best possible self, and a term increasingly employed to describe wellbeing derived from living a life that is engaging, meaningful, and deeply fulfilling. In veterinary work, eudaimonic wellbeing may be enhanced by experiences that provide engagement and flow, personal achievement and growth, meaning, and social connectedness (Cake et al. 2015).

These satisfaction factors also align with key workplace characteristics known to promote wellbeing (Warr 2007). Job satisfaction or 'engagement' is in itself protective of veterinarian wellbeing (Hesketh & Shouksmith 1986, Mastenbroek et al. 2014a). This phenomenon is evident in workforce surveys showing that the overwhelming majority of vets simultaneously agree with the statements "veterinary work is stressful" and "veterinary work is enjoyable" (Robinson & Hooker 2006).

2.8 The case for employability in veterinary education

The premise that higher education institutions have responsibility for helping students gain the skills, knowledge and personal attributes required of them in the initial stages of their careers should be uncontentious, and forms part of the compact with students to ensure their education is 'fit for purpose' (Bennett et al. 2016).

Taken together, the above issues confirm that veterinary students are a cohort likely to benefit from greater attention to employability, within a discipline likely to benefit from the clarity of focus and theoretical scaffolding offered by an employability-led approach:

- veterinary students will benefit from clarity around the skills most important to future success, increased career awareness and agency, and alignment with the interests of workplace supervisors
- veterinary graduates will benefit from smoother transition to the workplace,

enhanced wellbeing and resilience, and greater success in the workplace (career opportunities, career mobility, employer and client satisfaction)
- veterinary educators will benefit from clarity of important outcomes as a clear basis for outcomes assessment, and from joining an emerging community of practice
- veterinary colleges will benefit from increased employer satisfaction and enhanced reputation
- the veterinary profession will benefit from reduced attrition (particularly forced or 'bad attrition') and broadened opportunities beyond clinical or 'traditional' veterinary roles ('good attrition'), greater sustainability, and increased stakeholder satisfaction.

2.9 A veterinary account of employability

In summary, a veterinary framework for employability should:

- clearly identify the capabilities most important to success and satisfaction in employment
- extend beyond initial ('Day 1') employment, into successful transition into early career and beyond
- involve a central process of reflective self-awareness, personal growth and professional identity formation
- balance the needs and expectations of all stakeholders, including the graduate/employee themselves
- support employee wellbeing and resilience
- broaden, not narrow, career opportunities through transferable skills
- align to the imperatives identified by the discipline and the profession.

A greater focus on employability has the potential to address many contemporary challenges for veterinary education, and for the profession.

3. Stakeholder evidence around veterinary employability

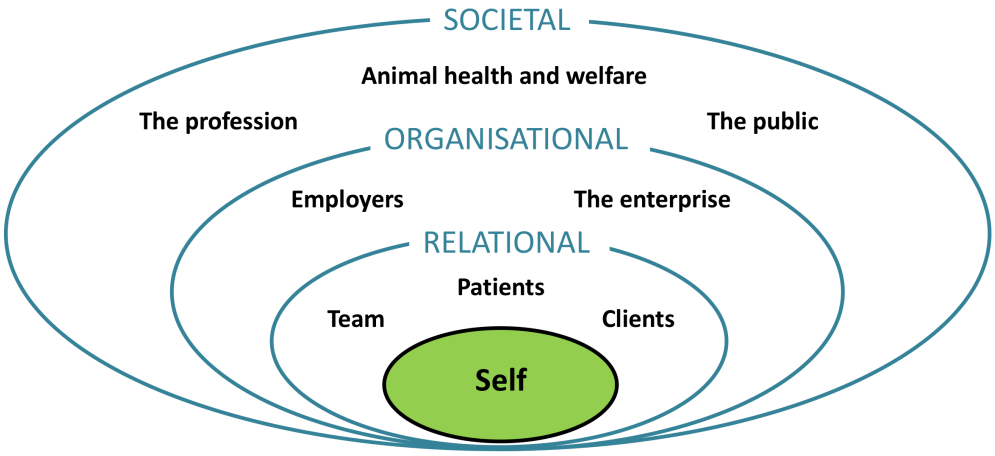
3.1 Stakeholders in veterinary employability

Bell et al. (2018) reviewed existing stakeholder evidence for the capabilities most important to veterinary employability, which had not previously been examined with this specific lens. Key stakeholders in veterinary employability were identified as:

- **Employers:** directly influence employability outcomes in terms of initial and ongoing employment, and also influence (as supervisors and mentors) success and satisfaction in work. It was noted that in veterinary practice 'the employer' could include practice owners, partners, an enterprise, corporation or organisation, or even the veterinarian themselves as a self-employed entrepreneur.
- **Clients:** as the 'customer' and person most directly contracting the services of the veterinarian, client satisfaction must be considered crucial to success in the clinical context.
- **The profession:** through professional associations and accrediting bodies, has a stake in success (of the collective as well as the individual) and clear expectations of the veterinary graduate particularly around competency and professionalism.
- **Veterinary faculty and colleges:** though effectively a 'producer' not a 'consumer' of graduate services, universities influence the employability of their graduates, and share a clear stake in their success.
- **Employee ('the self'):** as the person experiencing the work 'success and satisfaction' central to Dacre Pool & Sewell's (2007) definition, the graduate veterinarian or employee themselves should be considered the central stakeholder in employability. This central positioning for 'the self', interacting with other stakeholders of different social-ecological proximity provides a clear difference between employability and competency or professionalism, which both strongly emphasise the normative expectations of others, the needs of society, or the 'safety' of the public.

3.2 Key evidence from the veterinary literature

Though employability has not specifically been addressed previously in the veterinary literature, related success outcomes such as initial employment, smooth transition to practice, stakeholder satisfaction, job satisfaction, etc., may provide relevant proxies.



A social-ecological map of the key stakeholders in veterinary employability, with 'self' at the centre of a web of increasingly proximate interactions (from Bell et al. 2018).

3.2.1 Systematic review

A recent Best Evidence in Medical Education (BEME) review by Cake et al. (2016) addressed a closely related research question, of 'which professional (non-technical) competencies are most important to the success of graduate veterinarians'. This systematic review found that the only competency to be strongly supported by current evidence from competency frameworks, stakeholder perceptions and empirical evidence is communication skills, though some empirical evidence also supports the importance of empathy, relationship-centred care, self-efficacy, and business skills. Awareness of limitations, resilience, professional values, critical thinking, and collaboration were perceived to be relatively more important in stakeholder surveys; while such perceptions are not necessarily evidence-based, it can be argued these views have the potential to be self-fulfilling in the employability context. However the point highlighted most strongly in this review was the relative dearth of evidence (except for communication skills) that exists regarding the importance of professional competencies which, it should be noted, might be expected to comprise many but not all of the competencies influencing employability.

The professional (non-technical) competencies perceived to be most important for the success of graduate veterinarians, from a meta-analysis of 20 published surveys (Cake et al. 2016)

- effective communication
- awareness of limitations
- professional values
- critical thinking and problem-solving
- collaboration and teamwork
- resilience

3.2.2 Evidence from employers

- **Graduate recruitment:** In a survey of 258 Australian employers, the most important attributes for selecting a new graduate employee were the ability to gain the respect and confidence of clients, skill in handling people, ability to work as part of a team, preparedness to seek help when needed, and communication skills (Heath & Mills 2000).
- **Employer satisfaction:** In a survey of 75 US employers of new graduates, non-technical skills explained significantly more of the variance in global employer satisfaction than technical skills. Key non-technical skills included interpersonal skills (communication and teamwork), business skills and problem-solving (Danielson et al. 2012).
- **Importance of training:** Problem-solving and critical thinking, diagnosis and treatment of disease, communication skills, and animal handling were rated by 384 US employers as the most important areas for veterinary schools to provide formal training. A positive work attitude, ethical judgment, initiative and motivation, and empathy were rated highly for success in any veterinary position (Kleine et al. 2002).
- **Essential attributes:** Thirty Australian employers rated honesty, the ability to gain the respect and confidence of clients, and knowing limits and being willing to ask for help as the most essential personal and professional attributes for a newly graduated veterinarian to possess (Schull et al. 2012).

3.2.3 Evidence from clients

- **Client satisfaction:** A US survey of 319 small animal clients found that client-rated communication and affective care were stronger predictors of client satisfaction than interactions involving the pet. However, clients rated the care of their pets (medical and affective) as more important than their own experience, suggesting they were unaware of the main influences on their overall satisfaction (Case 1988). In a US phone survey of 258 university hospital clients, the ability to provide a clear explanation, and being 'professional and personable' were most important to client satisfaction (Greenberg et al. 1992).
- **Choosing a veterinarian:** A widely-cited industry report found that the most significant factors for pet owners when

choosing a veterinarian are that the veterinarian is kind and gentle, respectful and informative (Brown & Silverman 1999).

- **Client expectations:** Aspects of communication including client education, providing choices, initiating discussion of costs, listening and respectful partnership were a key area of expectation for Canadian client focus groups (Coe et al. 2007, 2008). In a survey of what constitutes a 'good vet', a sample of 407 UK clients rated knowledge about veterinary medicine and surgery, being good with animals, compassion for patients, cleanliness, good practical skills, honesty, confidence, awareness of limitations, and communication skills as most important (Mellanby et al. 2011).
- **Client satisfaction with consults:** In an analysis of 64 Australian client interactions, client satisfaction was associated with the use of empathic statements, friendliness and warmth of tone, and interactivity (McArthur & Fitzgerald 2013).
- **Client adherence:** In a survey of 2000 US clients, communication skills played "by far the most crucial" role in forming a strong vet-client bond, which in turn was associated with seeking a higher level of care. Clients who believed their vet is a good communicator were more likely to follow recommendations (Lue et al. 2008). A Canadian study of 83 consultations found that a relationship-centred approach (client-centred talk) and providing a clear recommendation had a major effect on client adherence to dental or surgical recommendations (Kanji et al. 2012).

3.2.4 Evidence from employees

- **Graduate perceptions:** Australian veterinary graduates in their second year of work rated gaining the respect and confidence of clients, being able to communicate ideas, confidence, problem-solving, skill in handling animals and people, and honesty and integrity as the most important characteristics of 'a successful veterinarian' (Heath et al. 1996). Communication skills, diagnostic skills, and practice management skills were most frequently nominated as the 'most important skills needed for success in veterinary practice' by 514 alumni of one US college (Bristol 2002).
- **Ease of transition:** Communication with clients, communication with colleagues, recognising limitations, listening skills, practical skills, ability to cope with pressure, and problem-solving skills were most highly rated as important for 'easing the transition' from student to clinician by 90 UK graduates (Rhind et al. 2011).
- **Graduate difficulties:** Evaluating their own performance, gaining commercial awareness, making case management decisions, coping with the volume of work, and managing time were rated the most difficult aspects of work by 132 UK graduates (Riggs et al. 2001)
- **Work engagement:** In Dutch graduates, personal resources including self-efficacy and proactive behaviour, and job resources including opportunities for professional development and skills latitude were positively correlated to work engagement, whilst workload, exhaustion and work-home interference were predictors of burnout (Mastenbroek et al. 2014a, 2014b).
- **Veterinarian satisfaction with consults:** Clinician satisfaction with companion animal visits is correlated to lower verbal dominance (i.e., listening), self-esteem, and degree of empathic concern (Shaw et al. 2012).

Published stakeholder-led evidence around employability particularly highlights the importance of communication and relational skills, confidence, problem-solving, and awareness of limitations.

3.3 The VetSet2Go evidence

The VetSet2Go project established a series of stakeholder-based subprojects to supplement and update research evidence around veterinary employability, through a combination of wide-reaching quantitative surveys and richly qualitative interview-based studies. The findings from each subproject were presented and synthesised at a Veterinary Employability Forum (48 delegates) in February 2017, and further refined through an expert Delphi panel.

3.3.1 Employers – graduate selection

(D Schull, E King, W Hamood, A Feakes)

This qualitative study conducted for the VetSet2Go project explored through semi-structured interviews the conceptions of, and the rationale and criteria used by, employers in relation to selecting new graduate veterinarians for employment. Eighteen Australian employers were interviewed either face-to-face, by telephone or via Skype. Data were analysed using thematic analysis, within the context of a social constructivist lens.

Twenty selection factors were identified, within four broader themes: (1) personal attributes (or intrapersonal characteristics) - those factors linked to the personality and character of the candidate, as viewed and appraised through the employer's lens; (2) interpersonal skills – those factors associated with the way candidates interacted with others; (3) veterinary capabilities – reflecting the candidate's vocational-specific knowledge and skills, including those related to animal handling and problem-solving; and (4) job match – which highlights the interaction between the candidate's personal attributes, interpersonal skills and veterinary capabilities and the specific job requirements, workplace characteristics and employer's needs and priorities.

Findings from this subproject emphasised the role that employer circumstances and needs can play in the selection of new graduate veterinarians, and the influence of perceptions of candidate job suitability, and employee-workplace match. The findings highlights a role for higher education in helping students to develop: (a) self–awareness—an awareness of their own personal and professional skill set including strengths and potential deficits, and how they may be viewed/appraised by others including potential employers; (b) an awareness of the vocational, workplace attributes they seek for their first job following graduation, and possibly some broader or more long term career goals; and (c) an ability to effectively appraise the needs of a specific job, employer and workplace to determine if the union is likely to be suitable for all parties involved.

3.3.2 Client expectations

(S Rhind, L Mossop, K Hughes, K Cobb, M Cake)

The aim of this VetSet2Go subproject (Hughes et al. 2018) was to identify factors that contribute to client satisfaction around their interactions with vets, with a focus on underpinning capabilities.
This study consisted of three phases, each informing the next, in a mixed-methods approach: (1) a literature review informing key themes around client satisfaction; (2) thematic analysis of client focus groups and interviews (n=46 UK clients) to establish key capabilities and indicators; and (3) an international online client survey (n=1275 completed surveys from 1599 respondents; 46% from Australia and 50% from UK) to validate the framework.

Graduate selection factors important to 18 Australian employers (Schull et al., submitted for publication)

Personal attributes	Interpersonal skills	Discipline capabilities	Job match
• amicable personality • confidence • initiative • teachability • diligence • flexibility • resilience • physical qualities	• general communication aptitude • client relations • teamwork	• veterinary knowledge • veterinary skills • animal handling • business sense • problem-solving	• realistic expectations • job suitability • cultural fit • likely retention

This process established and validated a **client expectations capability framework**, with all of the six capabilities rated as very important overall. When asked to choose up to three that they most valued, respondents rated 'Commitment to Animal Welfare', 'Commitment to Quality and the Profession' and 'Client Relationships' most highly. The data suggested a 'client hierarchy of needs' akin to Maslow's pyramid, which emphasises the fundamental importance of commitment to animal welfare and veterinary capabilities to the client experience.

Client Expectation Capability Framework
(Hughes et al. 2018)
(highest rated capabilities and indicators listed first):

- **Commitment to Animal Welfare:** Compassionate, prioritises animal wellbeing; confident and careful animal handling; adapts to animal's specific needs; shows a genuine interest in animals.
- **Commitment to Quality and the Profession:** Committed to high quality care and excellence; gives confidence in skills; committed to learning from mistakes; seeks advice from colleagues; open about knowledge gaps; keeps up-to-date; continuity of care; committed to good aftercare, follows up; prepared.
- **Decision Making and Problem Solving:** Good veterinary knowledge; proactive in treating cause; decisive; empowers informed decision-making, explains options; balances animal's and client's needs.
- **Professionalism:** Open and honest, realistic; transparent about cost; hygienic work environment; calm, manages own emotions; professional in appearance and approach, punctual; fair; equality of approach.
- **Communication Skills:** Clearly explains diagnoses, treatment, and costs; active listening, seeks client viewpoint; asks open questions; considerate and tactful approach; good non-verbal communication; tailors language.
- **Client Relationships:** Educates about care; recognises the human-animal bond; 'checks in'; patient; friendly, approachable, courteous; builds rapport and trust; respectful; compassionate & kind; empathic; accommodating and flexible.

Qualitative comments from the client survey and focus groups reveal added nuances to these expectations, for example:

- the importance of mutual trust
- that competence and professionalism should be balanced with humanity and empathy
- the need to tailor for client differences, for example in balancing consultation with decisiveness
- honesty about limitations can be valued when addressed through follow-up learning or referral.

The full results of the client expectations survey are shown in **Appendix 1**.

A hierarchy of veterinary client needs (Hughes et al. 2018)

3.3.3 Success in career transitions

(M Bell, M Cake, C Mansfield)

This VetSet2Go subproject investigated the factors contributing to success in the transition from veterinary student to practising veterinarian, from the perspectives of recent Australian graduates and their employers (n=9 pairs). The semi-structured interviews focused upon three distinct phases: the initial 'getting a job', transition to practice (first two years), and longevity in the profession. Two focus groups (employers, and employees) supplemented the data.

Employers and employees largely shared similar views on a majority of the themes associated with success for that graduate. The importance of themes changed with the phase of employment. In particular, those themes associated with long-term success in the profession were very different to those contributing to success in getting a job and

transition to practice, confirming that sustainability is supported by work-life balance and continual learning.

3.3.3.1 Perceptions of teamwork and confidence

(J Lee, R Ho, M Bell, M Cake)

This qualitative study further explored employer and student perceptions of two important employability capabilities, teamwork and self-confidence. Semi-structured interviews with Australian employers (n=10) and 4th year students (n=10) explored how these capabilities are defined and recognised by each group.

In contrast to students who used generic 'textbook' definitions of teamwork, employers defined teamwork around specific altruistic behaviours (e.g., "answering the phone when everyone else is busy") and emotional intelligence (e.g., self-awareness, social awareness, equality and respect). During recruitment, teamwork is normally inferred from conversation, personality, and outside interests (volunteer work, sports, etc.).

Confidence was dually characterized as both knowing one's abilities, and the courage to ask for help. Decisiveness was highlighted as an important dependent outcome of confidence. Confidence was viewed as an important but not necessary attribute in new graduates as confidence can be developed over time; the majority of employers felt that an excessive amount of confidence may be more detrimental to both the patient and to the reputation of the clinic. Employers seek graduates that are 'confident but not overconfident', but if pressed would prefer to employ an underconfident graduate than an overconfident one. Confidence can be built through experiential learning in a supportive environment, and self-reflection.

3.3.4 Stakeholder perceptions survey

(M Bell, M Cake, L King, C Mansfield)

The VetSet2Go project conducted a large online survey to explore stakeholder perceptions of key veterinary employability capabilities, using survey items created from preliminary data collected in interviews and focus groups within other subprojects.

The survey was distributed electronically through various agencies in Australia, New Zealand, the United Kingdom, and parts of the United States and Canada, in addition to the VetSet2Go website. Respondents were asked to align to a stakeholder group (recent graduate employee veterinarian, employee veterinarian, veterinary employer, non-veterinary employer, team member (nurse, support staff), veterinary academic or member of a professional organisation, and non-veterinary member of a professional organisation).

Success factors in career transitions, from interviews of Australian veterinary employers (n=9) and their graduate employees (n=9) (Bell et al., submitted for publication)

	Getting a job	Transition to work	Longevity in profession
Employers	• Interpersonal skills • Previous experience Technical skills & knowledge • Communication skills • Confidence • Willingness to learn	• Communication skills • Support • Technical skills & knowledge • Confidence • Resilience • Diligence	• Continual learning • Work-life balance • Business acumen • Goals
Employees	• Teamwork & team fit • Enthusiasm & passion • Previous experience • Technical skills & knowledge • Job fit • Diligence & reliability	• Support • Communication skills • Work-life balance • Confidence • Technical skills & knowledge	• Work-life balance • Continual learning

Responses were received from 1413 people, with 1094 completing the survey. An open statement component yielded 5455 statements briefly describing what employability means to the respondent. In the quantitative part of the survey, respondents first rated the relative importance of 67 items from 11 capability themes, then broadly ranked these 11 themes.

The results broadly show that communication (clients and colleagues), teamwork, and working behaviour (e.g., honest, ethical, hard-working, reliable) are the themes perceived to be most important to employability in the veterinary context. Other individual capabilities rated as particularly important included knowing when to ask for help, and willingness to learn. Few difference were noted between stakeholder groups, or by geographical location of the respondent.

Business skills were generally rated lower by respondents, suggesting they are not perceived to be important to veterinary employability. While some aspects of veterinary business were rated as important (discussing financial aspects, charging appropriately), abilities aligned more to 'practice management' were rated as less important (e.g., managing staff, managing stock, financial planning).

The full results of the stakeholder perceptions survey are shown in **Appendix 2**.

3.3.5 Modified Delphi process

(M Bell, M Cake, C Mansfield, L King)

In order to refine and balance the evidence from different stakeholder perspectives, the VetSet2Go project coordinated a modified Delphi process with a panel of 32 experts in veterinary education, employment and policy. This process involved round-by-round voting to reach consensus on the capabilities considered most important to veterinary employability. Panel members were supplied with an information package consisting of definitions and models of employability, a relevant literature review (Cake et al. 2016) and data from the 5 VetSet2Go sub-projects. A short-list of 47 capabilities was resolved from the above data and panellists were asked to choose 25 to 35 of the most important

Stakeholder Perceptions of Employability

(Bell et al., in preparation; see also Appendix 2)
(highest rated domains and capabilities listed first):

- **Communicating with clients:**
  Communicating effectively, gaining trust, appreciating client perspectives, resolving difficult situations, kindness and compassion, clear explanations, breaking bad news, communicating costs, guiding client decision-making.
- **Communicating with colleagues:**
  Communicating case information, respect, concise and accurate records, communicating with non-vet staff.
- **Teamwork:**
  Working collaboratively, helping others, getting along, considerate of others, fitting workplace culture, working for common goals, managing conflict, willing to do menial tasks to help team, using humour.
- **Working behaviour:**
  Honesty, ethical behaviour, positive attitude, hard-working, punctual and reliable, proactive, time management, remaining calm, personal dress and appearance.
- **Technical skills and knowledge:**
  Animal welfare, good knowledge base, animal handling skills, keeping up-to-date, technical skills including surgery.
- **Motivation:**
  Finding meaning in work, loving the job, setting goals.
- **Resilience:**
  Strategies for managing stress, persistence, self-compassion, not taking complaints personally, 'bouncing back' from difficult situations, awareness and management of emotions, performing euthanasia without personal burden.
- **Personal efficacy:**
  Knowing when to ask for help, reflective practice, takes responsibility, decisiveness, confidence without over-confidence, willingness to try new things, confidence to charge appropriately.
- **Work-life balance:**
  Time for family and friends, ability to balance competing demands, having outside interests and hobbies, ability to mentally switch off.
- **Self-education:**
  Willingness to learn, motivation for self-improvement, commitment to continuing education.
- **Business skills:**
  Discussing financial aspects of care, charging appropriately.

capabilities for veterinary employability in three rounds of voting over a 3-month period. In a qualitative component of the process, panellists were invited to comment on the process, add capabilities, or clarify or change the wording of items.

A consensus level of >85% agreement was eventually reached on 21 capabilities important to veterinary employability:

- accepts responsibility
- adaptability
- animal-handling skills
- awareness of limitations
- commitment to animal welfare
- diligence & high standard of care
- effective communication – clients (including reflective listening)
- effective communication – colleagues (including reflective listening)
- emotional intelligence
- empathy & compassion
- keen to learn, teachable (including open-mindedness)
- proactive, uses initiative
- problem-solving
- professional standards of behaviour
- professional values (honesty, integrity, ethics, etc.)
- reflective, open to feedback
- resilience & wellbeing (including self-compassion, self-care, perseverance and personal support networks)
- self-awareness
- teamwork (including assertiveness and negotiation skills)
- technical knowledge & skills
- workflow management (including time management, organisation, attention to detail)

3.3.6 Resilience subproject

(M McArthur, S Matthew, S Zaki, M Cake, C Mansfield)

The VetSet2Go project included a major subproject investigating the nature of resilience in the veterinary context, particularly for early-career veterinarians. This multi-faceted study initiated a number of research projects around resilience, some of which will extend beyond the funding period of the VetSet2Go project.

The study was guided by a complex conception of resilience as simultaneously a capacity, a process and an outcome; that is, a dynamic and multi-faceted **process** in which individuals draw on **personal and contextual resources**, and utilise specific **strategies** to navigate challenges and work toward **adaptive outcomes** (after Mansfield et al. 2016). This conception makes it clear that resilience is not a trait-like ability, nor is it the sole responsibility of an individual; nevertheless, it is a capability that can be strengthened through development of resources (e.g., motivation, social support) and a toolkit of active strategies (e.g., life balance, mindfulness, reflection).

Resilience is a dynamic and complex construct that is simultaneously a capacity, a process, and an outcome.

3.3.6.1 Resilience literature review

A scoping literature review by Cake et al. (2017) aimed to appraise how resilience is portrayed in the contemporary (1995-2016) research and education literature around veterinary mental health (n=59 sources). The review found that a predominant emphasis on mental ill-health (particularly stress and suicide) has left the construct of resilience underdeveloped in the veterinary literature.

The review provided a preliminary synthesis of the key themes around resilience factors mentioned in the veterinary literature:

- emotional competence
- motivation
- personal resources
- social support
- organisational culture
- life balance
- wellbeing strategies

3.3.6.2 Veterinary career motivations

The VetSet2Go project explored the motivations for pursuing a veterinary career, which are not well studied in the literature. An initial exploratory study (Cake et al. 2018)

qualitatively analysed the responses of Australian graduates (n=43) to a Ten Statements Test, as well as follow-up interviews of a subset (n=10). Results showed that while animal-related motivations are important, many non-animal themes also emerged, including both intrinsic motivations (e.g., love of learning, challenge and problem-solving, variety, social relatedness) and extrinsic motivations (e.g., helping people, social contribution, career opportunity). Interviews revealed that some graduates struggled to articulate their personal motivations, while for others these evolved after graduation.

These findings informed development of a six-factor Veterinary Career Motivations scale (Cake et al., *in preparation*), which was validated in samples of early career (n=51) and experienced (n=306) veterinarians. Together, these studies suggest the motivations underpinning veterinary work are varied, and span a mix of intrinsic and extrinsic motivations including (in approximate order of importance):

- animal orientation (e.g., love of animals; wanting to help animals)
- challenge and learning (e.g., love of learning and problem-solving; variety)
- identity (e.g., childhood dream)
- social purpose (e.g., wanting to make a difference to society)
- people orientation (e.g., client interactions; wanting to help people)
- career affordances (e.g., decent income; status and respect; career opportunities).

3.3.6.3 Resilience in veterinary students

This study examined some capacities known to be related to resilience in Australian veterinary students who had completed at least two weeks of extramural studies or worked in a veterinary clinic. Data was gathered via a cross-sectional online survey method with validated psychometric measures such as the Brief Resilience Scale, the Five-Facet Mindfulness Questionnaire and the Self-Compassion Scale. Results suggested that 34% of students reported low resilience and only 6% of respondents reached the 'highly resilient' threshold. Non-judgmental and non-reactive mindfulness and self-compassion were predictive of resilience. Both mindfulness and self-compassion can be viewed as both personal resources and strategies to enhance resilience, and thus are capacities which can be learned by veterinary students to support their resilience.

3.3.6.4 Longitudinal study of resilience in early-career veterinarians

This study recruited participants at the point of graduation from Australian veterinary schools, into a mixed-methods longitudinal study of their resilience in the early years of their veterinary career. Data was gathered via a quantitative survey at the point of graduation, six and 18 months post-graduation, and will also be collected at 3 years. Several validated psychometric measures were utilised at each time point including the Brief Resilience Scale, the Veterinarian Resilience Scale (Matthew et al., *in preparation*), the Brief COPE, The General Self-Efficacy Scale, and the Veterinary Career Motivations scale. Semi-structured interviews were conducted at all time points, aside from the point of graduation. The full outcomes from this longitudinal study will be delivered outside the lifetime of the VetSet2Go project, but preliminary findings include:

- a theme of self-criticism with learned self-compassion in the face of adversity
- challenges with goal-setting following graduation from veterinary school
- strategies to develop resilience included social networks, self-care in the form of exercising, ensuring healthy eating habits and quarantining time for meal breaks
- communication in the workplace was both a contextual resource for building resilience and at the same time, hindered resilience
- resilience is both the responsibility of the individual and those within the context, in this case the veterinarian's workplace.

4. VetSet2Go: A Veterinary Employability Framework

4.1 Developing the framework

A major aim of the VetSet2Go project was to develop a framework for veterinary employability, defining the capabilities most important for employability and success in the veterinary profession.

This framework consists of three main elements:

- A list of **capabilities** important to employability in the veterinary context, based on evidence from the literature and from VetSet2Go research subprojects. The term *capability* was used in preference to alternatives (e.g., skill, factor, attribute, trait, etc.) to signal their potential, contextually interpreted nature.
- A guiding **rubric** describing how a person might recognise these capabilities in themselves and how they might be recognised by others, based on real examples from VetSet2Go research and interviews.
- A domain-level **model** of veterinary employability, comparable to generic employability models found in the literature (e.g., USEM, CareerEDGE model etc. - see **1.6**). Models can be particularly useful when seeking to not only define a concept, but also to then articulate this to a range of audiences from academics to professionals to students (Cole & Tibby 2013).

4.2 Underpinning principles

Development of the framework was guided by a conception (after Armitage-Chan et al. 2016) of the successful veterinary professional as one capable of navigating and balancing the (sometimes competing) needs and expectations of multiple stakeholders: employers, colleagues, clients, patients, the broader profession – and importantly, the veterinarian themselves. This in turn defined an approach similarly balancing multiple stakeholder expectations, a synthesis performed initially through the expert consensus provided by the modified Delphi process and finally by the VetSet2Go project team. This need for balance framed success criteria partly based on the **expectations of others** around work **efficacy**, and partly by the **expectations of self** around **sustainable satisfaction**. This balance in turn matches a conception of success as "being good at what you do, and enjoying doing it".

Further, an employability framework for success and satisfaction must balance psychosocial **'human' aspects** including psychological needs, as well as task-oriented work outcomes. The identified capabilities included multiple examples that are not abilities or 'competencies' in the conventional sense, but rather indicate internal attitudes, mindsets, and self-beliefs. These include attitudes to self (e.g., confidence) and attitudes to work, in the sense of both the immediate **task** and the broader professional '**mission**' (e.g., commitment).

Finally, a useful employability framework should not only include qualities or 'assets' (Holmes' (2013) 'employability as possession'), but also the dynamic **process** by which they are developed and activated. The VetSet2Go project identified several processes as central to veterinary employability – reflective awareness of self (i.e., strengths, vulnerabilities, values, ideals, goals), and finding 'fit' or congruence between self and work opportunity, and thus between personal and professional identity.

4.3 The veterinary employability 'crystal'

Taking into account these principles and the mix of important capabilities, five broad overlapping domains were identified, defined by their outcome orientation: **Psychological Resources** (for the *self*), **Effective Relationships** (for *others*), **Veterinary Capabilities** (for the *task*), and **Professional Commitment** (for the *mission*), all activated by a central element of **Self-Awareness** (for the *process*). These domains form a 'crystal' model in which the domains blur across indistinct boundaries; for example, veterinary communication is both a 'soft' relational skill and a 'hard' clinical skill.

The VetSet2Go 'crystal' model of veterinary employability, consisting of five overlapping domains.

Domain	Oriented to	Key capabilities:
Effective Relationships	Effective interactions with **others**	Collaboration, interpersonal skills, trustworthiness, empathy, respect
Veterinary Capabilities	Efficacy on work-related **tasks**	Effective communication, confident technical expertise, problem-solving, managing workflow
Professional commitment	Achieving the broader organisational and professional '**mission'**	Commitment, diligence, sustainable engagement, continual learning
Psychological Resources	Supporting the **self** for satisfaction and wellbeing	Motivation, resilience, adaptability, emotional competence
Self-awareness	Supporting the metacognitive **process** of personal and professional development	Reflective self-evaluation, confidence, self-efficacy, personal and professional identity

The Key Capabilities for Veterinary Employability

		A veterinarian who:
VETERINARY CAPABILITIES / EFFECTIVE RELATIONSHIPS	**Collaboration & Teamwork**	• Fits into and supports an effective veterinary team; works with others collaboratively towards shared goals; is friendly and personable
	Trustworthiness	• Builds trust through honesty, transparency, integrity
	Empathy & Respect	• Is attentive to others feelings, perspectives and concerns; is non-judgmental, respects diversity of opinion and worldview
	Relationship-centred Care	• Bases healthcare approaches in human relationships and decision-making in partnership; respects the human-animal bond
	Effective Communication	• Is a clear and effective communicator (verbal, non-verbal, written); listens and seeks understanding; confidently discusses difficult issues including financial aspects of care
	Application of Expertise	• Inspires confidence through compassionate animal handling, sound practical skills, and application of specialised knowledge
	Problem-solving	• Evaluates evidence in support of clinical reasoning and problem-solving; can make decisions despite incomplete information; uses good judgment and 'common sense'
PROFESSIONAL COMITMENT	**Managing Workflow**	• Is self-organised in their work; manages priorities and uses time efficiently and productively; uses initiative; is independent
	Continual Learning	• Is keen to learn, open to feedback, and strives for improvement and best practice
	Commitment	• Is committed to the veterinary mission, including quality care and welfare, and to organisational goals; takes responsibility
	Diligence	• Is hard-working, persistent, reliable; gives attention to detail and quality assurance
PSYCHOLOGICAL RESOURCES / PROFESSIONAL COMITMENT	**Sustainable Engagement**	• Sustains an energetic connection with their work; balances and refreshes their interest, passion and enthusiasm for work with other needs; is self-sustaining
	Motivation	• Finds motivation and purpose in their work; is self-motivated and intrinsically driven
PSYCHOLOGICAL RESOURCES	**Resilience**	• Deals with pressure and adversity; draws on personal and contextual resources, and utilises strategies to navigate challenges and sustain wellbeing
	Adaptability	• Is flexible in dealing with change, uncertainty, and shifting priorities; is open-minded
SELF-AWARENESS	**Emotional Competence**	• Is able to navigate emotional situations and self-regulate emotional responses; remains calm
	Reflective Self-evaluation	• Is aware of their own strengths and limitations, reflective and learns from experience; is self-aware of emotional responses and behaviours
	Self-confidence & Identity	• Has positive self-esteem and self-belief, anchored in a professional self-concept based on personal values, beliefs, and goals

4.4 The key capabilities for veterinary employability

EFFECTIVE RELATIONSHIPS

Collaboration & Teamwork

A vet who fits into, and supports, an effective veterinary team; works with others collaboratively towards shared goals; is friendly and personable.

Perceived by you:	Perceived by others:
• You understand how you work in teams and can 'fit in' • You enjoy working in teams and social situations • You are a 'team player' – you help others to get the job done together • You are always mindful of how you impact on others • You treat others as equals	• Good 'interpersonal skills' ensuring 'team fit' • A 'team player' who 'pitches in' and does things that aren't necessarily their job • Commits to shared goals • Friendly, personable and considerate • Humility

Teamwork and collaboration skills are universally valued as employability capabilities including in the veterinary context (Heath & Mills 2000, Danielson et al. 2012, Cake et al. 2016), and were prominent in the VetSet2Go project. The benefits of teamwork are well studied in healthcare including enhanced clinical outcomes as well as staff motivation, satisfaction, and productivity. Similarly, team effectiveness has been shown to significantly influence staff satisfaction and burnout in veterinary clinical practice (Moore et al. 2014). Teamwork is particularly important to veterinary practice given the interprofessional nature of veterinary healthcare teams.

> "She was a good team player. She would jump in and do things to help other people … she could look at the whole team and see what was required, and not just focus on herself." (Employer)

EFFECTIVE RELATIONSHIPS

Trustworthiness

A vet who builds trust through honesty, transparency, integrity.

Perceived by you:	Perceived by others:
• You are always honest and open, and tell the truth even when it might come at personal cost • You are reliable and always keep your word • You are trusted by others (e.g. they confide in you, value your recommendations, etc.) • You trust others and value mutual trust	• Truthful, credible, accurate, consistent (e.g. not erratic or fickle); reliable, upholds commitments and promises • Open and transparent manner; answers even difficult questions honestly • Calm and comfortable body language, easy eye contact, active listening • Trusted motives and personal ethics (e.g. not self-interest or financial gain) • Professional in their actions (e.g. respects confidentiality)

Trust is a fundamental element of all human relationships, and is equally fundamental to developing and sustaining effective client-practitioner relationships, and high-functioning veterinary teams. Employers and colleagues place a high value on effective teams, which depend on trusting, open relationships. Trust is central to both effective clinical care and the veterinary business, particularly through its influence on client compliance and uptake of recommendations.

Trust inspires confidence through two major elements, character and competence. However, since clients are rarely in the position to fully judge either character or competence, they must interpolate these from the veterinarian's behaviour and interactions with them (i.e., perceived 'trustworthiness'). The VetSet2Go project found that trust was pivotal in building an effective vet-animal-client relationship. Client comments also showed the importance of the vet-animal relationship to establishing client trust; the importance of mutual trust and respect; and the role of time and continuity of care in building trust.

> "I can't stress enough how important it is to me to build a trusting relationship with my vet." (Client)

EFFECTIVE RELATIONSHIPS

Empathy & Respect

A vet who is attentive to others feelings, perspectives and concerns; is non-judgmental, respects diversity of opinion and worldview

Perceived by you:	Perceived by others:
• You actively listen to others' feelings, perspectives and concerns • You find it easy to read other people's emotions • You respond to emotional cues, including acknowledging animal wellbeing and the human-animal bond • You can respond to other's emotions helpfully, without getting burdened by them yourself • You maintain respectful relationships, even when you disagree with people	• High emotional intelligence • A 'people person' • Gentle, caring, compassionate • A good listener • Approachable; open body language • Takes a genuine interest in clients and their animals • Non-judgmental and respectful of diversity

Empathy (the ability to appreciate, and respond to, the feelings of others) is a key element of emotional intelligence, and is important for establish trust and respect. Empathy is a powerful social skill fostering understanding and effective relationships. The VetSet2Go project found that empathy and respect are important in many aspects of veterinary practice including compassionate care, establishing collaborative client relationships, building a positive working environment, and promoting satisfaction of the client as well as the veterinarian themselves. Empathy and respect are thus foundational to other capabilities including effective communication, relationship-centred care, teamwork, trustworthiness, emotional competence, and resilience.

> "I think that although professionalism is important, it should not override empathy for animal or owner"
> (Client)

EFFECTIVE RELATIONSHIPS

Relationship-centred care

A vet who bases healthcare approaches in human relationships and decision-making in partnership; respects the human-animal bond.

Perceived by you:	Perceived by others:
• You feel like you and the client are a team, working together for the best outcome • You work to build rapport and trust with clients • You are good at social chat or 'small talk' as well as clinical communication You are sensitive to people's differences and can tailor your communication accordingly	• Approaches animal care as a joint venture with the client • Good 'people skills' for building effective, trusting relationships • Clients feel that you value their perspectives as a partnership, and genuinely care about them and their animal(s) • Sensitive and responsive to client differences • Presents all options and works with a client to find the best choice under the circumstances

Relationship-centred care is a clinical philosophy with origins in human healthcare, that stresses partnership, careful attention to relational process, shared decision-making and self-awareness (Suchman 2006). In the veterinary context, relationship-centred care is about involving the client in a shared decision-making process, taking into account their perspectives and the human-animal bond, in order to produce the optimal outcomes for the animal and build a trusting and long-lasting relationship that facilitates quality care. The notion of relationship-centred care emerged strongly in the VetSet2Go project, with both clients and veterinarians reporting that joint decision-making was essential for good client relationships and trustworthiness. Relationship-centred care is also more efficient than the traditional approach to case management in that it allows for more accurate data gathering, greater patient and physician satisfaction, and more adherence, ultimately resulting in better health outcomes

and reducing malpractice risk. Effective communication, empathy and respect, and trust are central components to relationship-centred approaches.

> "The two-way conversation is extremely important to me. I live with my dog. I see him every day. I know what is normal for him and what is not … so I think it would be ridiculous for a vet to dismiss an owner's observations or to neglect asking questions [...] the partnership feeling is very important — part of maintaining that is good communication." (Client)

VETERINARY CAPABILITIES

Effective communication

A vet who is a clear and effective communicator (verbal, non-verbal, written); listens and seeks understanding; confidently discusses difficult issues including financial aspects of care

Perceived by you:	**Perceived by others:**
• You are confident with all aspects of communication (verbal, non-verbal, listening, writing) and enjoy talking to people • You can harness your communication skills to drive optimal clinical outcomes, e.g. accurate histories, client concordance, smooth hand-overs, etc. • You feel confident managing difficult scenarios, e.g. breaking bad news, euthanasia, admitting mistakes, animal welfare, financial aspects, conflicts, difficult interactions with clients • You can adjust your language for different situations • You rarely encounter problems (disputes, errors, etc.) as a result of poor communication	• Harnesses good 'people skills' as a clinical tool • Appears emotionally intelligent, is a 'people person' • Actively listens, is empathic and approachable • Communicates clearly and concisely; is able to get the point across (e.g. case handover) • Modifies language according to the situation; pitches at an appropriate level • Gets positive feedback from colleagues and clients

The ability to communicate effectively is an essential skill for veterinary practitioners, and a cornerstone of employability in many contexts. Being able to both transmit and receive accurate information is a vital element of all interactions with clients and colleagues. Enhanced communication skills lead to more effective and efficient interactions, better coordination of care, reduced complaints and improved outcomes, including the satisfaction of all stakeholders and improved safety of patients (Adams & Kurtz 2017). The influence of communication on veterinary success outcomes is supported by multiple lines of empirical evidence (reviewed by Cake et al. 2016), such as its role in client adherence (Lue et al. 2008, Kanji et al. 2012).

Unsurprisingly, the VetSet2Go project found that both clients and employers value communication skills very highly, as central to an effective veterinarian-client relationship, as well as the relationships within the practice team. Importantly, the communication of more challenging issues, such as confidently discussing the financial aspects of care, emerged as a strong employability skill. Communication underpins trust, demonstration of empathy, collaboration and teamwork, and relationship-centred care.

> "Number one thing we always look for is communication skills, so the ability to be clear and concise and listen well ... I think because it's a really big area of client complaint, so being able to get your point across." (Employer)

VETERINARY CAPABILITIES

Application of expertise

A vet who inspires confidence through compassionate animal handling, sound practical skills, and application of specialised knowledge.

Perceived by you:	Perceived by others:
• You are confident with the routine knowledge and skills expected in your role, relative to experience (i.e. animal handling, surgical basics (e.g. speys and castrations), procedural skills (e.g. IV catheters, taking blood), anaesthesia) • You know the level of skills and knowledge expected by the workplace, and can prepare yourself accordingly to confidently deliver a professional service	• Inspires confidence through compassionate animal handling, sound practical skills, and application of knowledge

While specialised technical knowledge and skills are undoubtedly important influences on success in the workplace, employers often view discipline-specific expertise as a *prerequisite* for employment, rather than being scrutinised during candidate selection. In the VetSet2Go project, veterinary employers said they *assume* graduates to have good technical knowledge and skills (since that is what universities focus on), but more important is the graduate's ability to *apply* this expertise in 'real-world' situations, such as in diagnosing and managing the complexities of clinical cases. The project found that employers typically value confidence with routine, entry-level ('Day One') skills above more specialised (but rarely required) knowledge.

In contrast, clients rated 'good knowledge about veterinary medicine and surgery' as the *most* important quality they expect in their veterinarian. However, since clients are rarely able to judge expertise directly, this can be taken to indicate the importance that the client has *confidence* in the skills and expertise of their vet, and feels their animal is 'in safe hands' and receiving the best care. Clients also told the project that they use animal handling skills or stockmanship as a proxy for judging the abilities of the veterinarian, making these skills particularly important for gaining the confidence of clients (and thus employers). However, both employers and clients told the VetSet2Go project that they do not expect veterinarians, particularly recent graduates, to be experts in everything. Rather, they value vets who honestly admit gaps in their knowledge or expertise, but promise to follow these up by doing further 'homework' in a process of continual learning.

> "[The] vet must be able to give the client confidence in their ability." (Client)

Core 'entry-level' knowledge and skills expected by employers interviewed for the VetSet2Go project:

Knowledge:

- basic applied anatomy & physiology
- pharmacology for treatment planning & routine anaesthesia
- preventative healthcare & vaccinations
- general husbandry advice
- production industry knowledge & agricultural economics
- basic computer software/IT
- basic day-to-day veterinary business economics

Skills and Application:

- confident but gentle animal handling
- thorough clinical examination
- routine consults and history-taking interpretation of lab/pathology results
- triage and problem-solving
- routine procedures (e.g., injections, catheters, medicating)
- routine surgery (e.g., de-sexing, wounds)
- maintaining medical records
- preparing estimates and bills

VETERINARY CAPABILITIES

Problem-solving

A vet who evaluates evidence in support of clinical reasoning and problem-solving; can make decisions despite incomplete information; uses good judgment and 'common sense'.

Perceived by you:	Perceived by others:
• You can confidently apply your knowledge, skills and experience to solve complex medical problems • You can logically and efficiently work through problems • You can adapt to novel situations and 'think on your feet' • You ask for, or establish, the correct information necessary to solve problems • You are comfortable making decisions in the face of incomplete information • You are calm and pragmatic in an emergency situation as you are able to quickly process information and make decisions	• Uses evidence in support of clinical reasoning • Follows a logical process • Can make timely decisions, without being paralysed by incomplete information • Able to prioritise and triage • Shows good judgment and 'common sense' • Considers the 'big picture' of client, as well as patient, factors when solving clinical problems • Asks for help when required in order to progress through a complex situation

Problem-solving is a key capability highlighted in the broader employability literature as well as veterinary evidence including stakeholder surveys (Brown & Silverman 1999, Cake et al. 2016), employer satisfaction (Danielson et al. 2012), and graduate success (Heath et al. 1996, Riggs et al. 2001, Bristol 2002, Rhind et al. 2011). Armitage-Chan et al. (2016) characterised the contemporary veterinary professional identity as a professional who solves problems and makes decisions in the face of complexity, thus problem-solving is in effect the core work of a veterinarian.

Good problem-solving skills engender a trusting relationship between client and vet. The VetSet2Go project found that clients require a vet to be able to work through whatever complex issues their animal has, and that in some situations where immediate decisions are required they wanted "straight–talking" and decisive actions. However, on other occasions, where problem-solving yields a number of options, the process needs to be slower and to involve the client at all stages, so that they can solve the problem together and get the right outcome for all.

> "Good decision-making and problem-solving skills instil a high degree of confidence that the practitioner is giving you the best advice in a particular situation." (Client)

VETERINARY CAPABILITIES

Managing workflow

A vet who is self-organised in their work; manages priorities and uses time efficiently and productively; uses initiative; is independent.

Perceived by you:	Perceived by others:
• You know how to manage your time to work efficiently and productively • You can flexibly juggle priorities and multi-task • You can work independently and set your own schedule • You usually feel 'in control' of your workload, not overwhelmed • You find it easy to keep to schedule	• Productive, 'gets on with it' • Good time management, finishes everything on time • Doesn't hold up others; 'easy to work with' • Decisive (doesn't stall or procrastinate)

For new veterinary graduates, coping with the volume of work and managing time effectively can be particularly challenging (Riggs et al. 2001). The ability to efficiently manage workflow requires skills such as time management, organisational skills and planning, and multi-tasking. Since veterinary work in unpredictable, workflow management also requires a mix of careful planning and quick, flexible decision-making to best prioritise urgent work without neglecting important 'loose ends' such as

following up cases and client communication. Efficiency must be balanced against work quality and effectiveness; clients told the VetSet2Go project that while they appreciate a vet who efficient and punctual with appointments, they also do not like to feel rushed during consults. Successfully managing a challenging workflow creates a sense of achievement and a state of 'flow', and a sense of collegiality within a team. Conversely, poor workflow patterns can be stressful or frustrating, and may contribute to prolonged work hours and poor work-life balance.

> "So she likes to do one job, do it well, and then move onto the next job. And she does do it well; she does a brilliant job. The trouble is with mixed practice you've often got five million things coming at you at once and you've got to change tack all the time…" (Employer of a recent graduate)

PROFESSIONAL COMMITMENT

Continual learning

A vet who is keen to learn, open to feedback, and strives for improvement and best practice

Perceived by <u>you</u>:	**Perceived by <u>others</u>:**
• You are committed to continually improving your knowledge and skills • You can identify your own gaps and take the initiative • You like to push yourself 'outside your comfort zone' to grow • You are open-minded and responsive to feedback • You view challenges as learning opportunities	• Keen to learn • Interested, asks questions • Seeks and listens to feedback • Strives for improvement through reflection on practice • Sets development goals • Develops special interests • Evidence of continuing professional development

Continual learning in the employability sense describes not only the process of lifelong learning and inquiry, but also the attitude and mindset of being keen to learn. In the VetSet2Go project, employers and colleagues often spoke of valuing 'love of learning' – keenness to learn, and thirst for knowledge and self-improvement. Employers recognise continual learners as those who appear interested in what's going on, who are happy to try something new, who ask questions, and aren't afraid to ask for help or guidance. The tone and nature of their response to feedback can indicate whether someone has a learning attitude, versus an 'I already know everything I need to know' attitude. Some employers described actively filtering out applicants based on overconfidence or a lack of commitment to continual learning. Similarly, clients told the VetSet2Go project that they value a veterinarian who is honest about gaps in their knowledge, but is happy to go away and pursue further learning on their behalf. Aside from ensuring that high standards of veterinary care are maintained, continual learning contributes to maintaining motivation, job satisfaction and wellbeing.

> "Yeah it's the preparedness to learn, the preparedness to go that extra mile to work the case up, to try and find options on a difficult case … Those sort of graduates turn out to be good vets, because you can see the willingness to gather skills together." (Employer)

PROFESSIONAL COMMITMENT

Commitment

A vet who is committed to the veterinary mission, including quality care and welfare, and to organisational goals; takes responsibility

Perceived by <u>you</u>:	**Perceived by <u>others</u>:**
• Your goals and values are strongly aligned with those of the profession and the practice / organisation • You have a sense of personal responsibility for achieving this 'mission' • You are eager and willing to take on more responsibility • You are prepared to put the job ahead of your own needs 'when duty calls' • BUT: you aren't overburdened by responsibility, and can 'leave work at work'	• Committed, dedicated, dutiful • 'Goes the extra mile' when completing tasks or handling cases • Will voluntarily take on tasks or extra responsibility for the benefit of the organisation • Willing to accept a certain amount of sacrifice for the job • Fully engaged (not 'clock-watching', online, texting, etc.)

Commitment was identified by the VetSet2Go project as an important element of employability for many stakeholders. Commitment describes dedication to a cause, in the dual sense of feeling both a personal bond (i.e., devotion, allegiance) and an obligation to it (i.e., responsibility, duty). In the context of veterinary employability, commitment describes dedication to the greater veterinary 'mission', and taking responsibility or 'ownership' for contributing to this mission. The nature of this greater cause or mission will vary depending on the work context, but may include commitment to:

- animal health and welfare
- quality or excellence
- 'best practice'
- 'doing your best' for a patient or client
- continual learning and improvement
- the success of the practice or organisation
- the success of the broader profession
- 'making a difference' to animals, to people through their animals
- contributing to society

For many vets, this mission aligns with their underlying motivation and their sense of their chosen profession as a vocation or 'calling'. Alignment of personal commitment with the goals of the organisation is important for personal satisfaction and wellbeing. These aims are contextual, and often a moving goalpost. For example, pursuing 'quality care' or 'best practice' will often mean being informed by the ideal or 'gold standard' approach, but modifying this to achieve the best outcome for that particular patient, client and situation. Best practice can thus be viewed as a balance of the most effective approach (i.e., producing optimal outcomes) and the most efficient approach (i.e., optimal cost:benefit ratio) – that is, what 'works best' in a particular workplace and situation (Viner 2010). It is also not a fixed standard, since it implies striving for continual improvement to get even better.

Employers told the VetSet2Go project they recognise commitment from multiple cues, for example: enthusiasm; eagerness to take responsibility; a balanced understanding of 'best practice'; being prepared to 'go the extra mile' (e.g. staying back to help with a difficult or novel case); willingness to accept a certain amount of sacrifice for the job; viewing it as 'not just a job'; not 'clock–watching' and working until the job is done. Committed veterinarians bring value to their practice or organisation, work harder and more diligently, continue to learn and improve, and accept more responsibility for achieving outcomes. Clients also expect their vets to be strongly committed to the veterinary mission, in particular prioritising animal welfare and high quality care. An important caveat is that over-commitment may predispose to burnout, thus commitment needs to be balanced by self-care, such as taking lunch breaks, work-life balance, etc. to optimise employability.

> "The most employable new graduate is someone who is going to be able to have sound veterinary knowledge, good animal skills and excellent communication skills, and, at the end of the day, understand the importance that the pets play in the role of our clients and be really dedicated to making a difference to those animals and be willing to sometimes put their job first"
>
> (Employer)

PROFESSIONAL COMMITMENT

Diligence

A vet who is hard-working, persistent, reliable; gives attention to detail and quality assurance

Perceived by you:	Perceived by others:
• You feel that every task or case deserves your best effort, within the constraints of the situation • You have a disciplined approach to work that is thorough and deliberate • You are hard-working and conscientious, with a good 'work ethic' • You take pride in your work and your professional identity • BUT: you're not a perfectionist, and can let go when 'gold-standard' is not achievable	• Diligent, hard-working, industrious, good 'work ethic' • Conscientious, thorough; pays attention to detail and follows things up • Focused, strives to do their best • Punctual and reliable; gets to work on time and does not feign 'sick leave' • BUT NOT: perfectionist or obsessed with unachievably high standards

Diligence has been defined as 'careful and persistent work or effort' and 'constant and earnest effort to accomplish what is undertaken'. The VetSet2Go project identified diligence, often referred to as 'work ethic', as an important capability for employability in multiple contexts:

- Diligence in general approach to work: being neither too sloppy/casual, nor too controlling/perfectionistic
- Diligence in approach to tasks: being organised, thorough and deliberate with surgeries and clinical skills (e.g., taking a thorough history, doing a thorough physical exam, working up a case methodically)
- Diligence in attitude: aspiring to do the best possible job, within external constraints such as equipment and finances, etc.
- Diligence in workflow: following instructions and protocols; being focused, engaged and professional, even when 'caught on the hop'
- Diligence in seeking further information: looking things up or trying to work things out first, but also knowing when to ask questions or seek help, without worrying about 'looking stupid'.

Diligence promotes employability by ensuring work is done carefully and to a high standard, and influences other outcomes including team dynamics, trust, and workflow. Interestingly in the VetSet2Go project responses gathered from new graduates, employers, veterinarians and experts were all similar regarding the importance of diligence for veterinary employability, dispelling the myth of the generational divide between new vets and employers. However, stakeholders also told the project that it is possible to be 'over-diligent', for example: asking the boss about every little thing; panicking about outcomes (e.g., surgery) if you feel things are not going perfectly; lying awake at night worrying; being overly concerned with recriminations (e.g. board complaints); being too focused on 'gold standards' and not having the capacity to take client financial constraints into consideration; thinking in 'black and white' and therefore not coping when things aren't 'textbook'.

> "Just trying to do as good a job as I can and, if things happen, then they happen, as long as I know that I couldn't do anything more than that." (Recent graduate)

PROFESSIONAL COMMITMENT

Sustainable engagement

A vet who sustains an energetic connection with their work; balances and refreshes their interest, passion and enthusiasm for work with other needs; is self-sustaining

Perceived by you:	Perceived by others:
• You are aware of the balance in your life, and feel satisfied and in control of it (not overwhelmed) • You can keep a sense of perspective about what's important • You can mentally 'switch off' from work to recharge • You have energy left for all parts of your life • You can balance or reprioritise competing demands in your life, including work	• Sustainably engaged, motivated, energised – 'keeps the fire going' • Healthy work-life balance • Can draw boundaries and 'leave work at work' • Has outside passions, interests, hobbies • A 'multi-faceted' or 'broad' person; not defined only by their work

In examining the factors underlying success as a veterinarian, Lewis & Klausner (2003) identified balancing work, family, community, and professional obligations as a key success indicator. However, the same study also identified achieving this balance as a key challenge for veterinarians, because of their unpredictable work hours and workload, and willingness to make sacrifices for their role. Excessive workload and long work hours are also well-known risks for poor mental health and burnout, highlighting the crucial need to balance commitment to work against other important life needs. Keeping the commitment to work sustainable through a healthy work-life balance is therefore a key element of employability from the perspective of both the employee and the employer. As noted by the VetFutures (2015) report, this balancing act is often termed 'work-life balance' but is perhaps better referred to as 'life balance', since work can and should be an enjoyable and rewarding part of life.

Since employability is concerned with success and satisfaction in work, it includes by default those capabilities that support work satisfaction, and ensure the long-term sustainability of work engagement. The VetSet2Go project identified a cluster of related psychological resources as important to employability, including resilience, emotional competence, motivation and sustainable engagement. In particular, the capacity to ensure life balance was identified as a key element of resilience in the veterinary context.

Fortunately, many employers and workplaces recognise the importance of life balance and sustainable engagement, making this an important employability skill from the perspective of both the employer and the employee. Employers told the VetSet2Go project that they actively seek employees with a balanced approach to work, strong social supports and active interests outside of their job. While employers value commitment, diligence and a good work ethic, they equally recognise that this needs to be sustainable over the longer term, and look for employees with habits and strategies that enable this such as workflow management and boundary-setting.

> "Hobbies and sporting interests are also another thing that we put a lot of emphasis on. I think you can tell a lot about people by how they choose to spend their spare time. And we find too, that as much as the work skills are important, being able to have an outlet or an alternative – having your life outside being a vet – is really important to how well people settle into the community. And ultimately how long they stick around as vets." (Employer)

PSYCHOLOGICAL RESOURCES

Motivation

A vet who finds motivation and purpose in their work; is self-motivated and intrinsically driven

Perceived by you:	Perceived by others:
• You enjoy or feel stimulated by veterinary tasks and challenges • You feel a passion or 'love' for veterinary work • You have a sense of vocational 'calling' or meaningful purpose • You have a strong belief in the veterinary 'mission': helping animals, helping people, contributing to society • You feel your work is valuable or rewarding	• Energised, enthusiastic, passionate • Interested, engaged, 'switched on' • Consistent drive to succeed and achieve • Self-motivated without need for direction or inducement; sets goals for themselves • Positive relationship with work

Motivation is a combination of the reasons for doing something, and the willingness to perform well or succeed in doing it. It is an internal energy or drive that affects the initiation, direction, intensity, and duration of the effort put into a task or goal, or more generally into work. Motivation cannot be observed directly, so must be inferred from behaviour.

Motivation theory holds that there are two types of motivation: intrinsic and extrinsic. Intrinsic motivations are inherently rewarding for their own sake (interest, enjoyment, etc.), while extrinsic motivations relate to outcomes or incentives separable from the activity itself. While there is no 'right' sort of motivation and everyone is different, intrinsic motivations or extrinsic motivations that are more autonomous (i.e. self-regulated and congruent with self) are generally more likely to predict wellbeing and growth. The VetSet2Go project found (Cake et al. 2018) that vets typically stated multiple and diverse motivations for their choice of career, including:

Intrinsic

- passion for animals
- love of learning or science
- challenge and problem-solving
- varied and interesting job
- interacting with people
- enjoyment and satisfaction
- childhood dream

Extrinsic

- help animals and animal welfare
- help people through their animals
- contribute to society and community
- job opportunities
- outdoor / non-desk job
- status and respect
- decent income

The diversity of these motivations shows that, although animal-related motivations are commonly stated (e.g., love of animals; helping/healing animals), motivations related to human interaction and helping people and society are also important. Many vets are also motivated by the problem-solving challenges of their work and love of continual learning. Importantly, many of these motivations align with job characteristics known to promote job satisfaction, meaningful work, and wellbeing (Warr 2007). Intrinsic and autonomous motivation has been shown to be a key factor supporting psychological wellbeing and resilience. In the longer term, sustaining motivation is important for job satisfaction, and preventing exhaustion and burnout.

> "My motivation from day-to-day is just that people are really thankful when you do fix their animals, or you provide a solution for something that they have dealt with for years ... just knowing that you're helping people is a good motivator every day." (Recent graduate)

PSYCHOLOGICAL RESOURCES

Resilience

A vet who deals with pressure and adversity; draws on personal and contextual resources, and utilises strategies to navigate challenges and sustain wellbeing

Perceived by you:	**Perceived by others:**
• You can navigate the stresses, emotions, and competing demands of the veterinary workplace • You are confident you have the resources and tools to rise to challenges • You feel motivated and energised to 'keep going', hopeful and optimistic • You can positively reframe challenges, and persevere in the face of frustration and failure • You can recognise the signs of stress and take proactive steps to mitigate	• Confident, motivated • 'Bounces back' quickly from stressful events • Tackles problems positively • Persistence, tenacity; goes back after failure to try again • Has good support networks • Has positive/adaptive coping strategies

Resilience is often simply characterised as the ability to 'bounce back' from a challenge, or to maintain equilibrium and continue to thrive in the face of adversity. However, resilience is not only a personal capacity, since contexts may also promote resilience through positive workplace culture, policies and practices, collegial support, and strong relationships. Under a more comprehensive definition, resilience is a dynamic and multi-faceted process in which individuals draw on personal and contextual resources, and use specific strategies to navigate challenges and to work toward adaptive outcomes (Mansfield et al. 2016). Personal resources include emotional competence, motivation, mindfulness and self-compassion, while contextual resources include relationships and support networks with family, friends and colleagues. Strategies for building resilience include problem-solving, professional development, humour, life balance, reflective practice and support services. The outcomes of resilience include wellbeing, job satisfaction, engagement and enjoyment in work (Cake et al. 2017).

Resilience is particularly important for veterinarians since their job is often characterised as stressful (albeit rewarding), and vets are known to be at elevated risk of negative mental health outcomes such as stress, depression, anxiety, and suicide. Yet there are signs that resilience may be under-developed in those entering the profession; for example, Australian research found that about a third of surveyed vet students showed low resilience, and few reached the threshold for high resilience (McArthur et al. 2017). Safeguarding mental health and resilience has been identified as a key priority for the profession. Since employability includes being *satisfied* as well as successful in work, capabilities supporting life satisfaction, mental health and wellbeing are—by definition—key elements of employability.

Veterinary employers and workplaces increasingly value resilience as an element of employability. Employers told the VetSet2Go project they look for evidence that potential employees have good support networks; can balance work and leisure; are not too self-critical or perfectionist; have a suite of coping strategies; and can function well under pressure.

> "It's just a matter of knowing it's okay to make mistakes and knowing there is always someone to talk to, whether it be at work or outside of work." (Recent graduate)

PSYCHOLOGICAL RESOURCES

Adaptability

A vet who is flexible in dealing with change, uncertainty, and shifting priorities; is open-minded

Perceived by you:	Perceived by others:
• You are flexible and resourceful, and can adapt quickly to change • You are comfortable with change and ambiguity, and can adjust 'on-the-go' • You have a 'can-do' attitude, and are open to new roles and experiences • You can deal with sudden shifts in schedules or priorities • You relish variety in your work	• Comfortable with change, 'not fazed' • Willing to adapt to changing needs or new situations, even if it means changing how they work • Rises to challenges with a solution-focused approach • Flexible and open to new ideas; not dogmatic

Adaptability is the capacity to respond to a changing environment or circumstances in a way that meets a desired outcome. It is often considered a key enabling meta-competence for employability, from multiple perspectives including flexible movement between jobs, readiness to adapt to change, willingness to learn, and personal adaptability (optimism, willingness to learn, openness, self-efficacy, proactivity, etc.). It incorporates both the *readiness* and the *resources* necessary to respond to change - in other words being willing and able to change.

In the shorter term, adaptability is a key part of coping with uncertainty and ambiguity, which is often the norm in the veterinary clinical environment. Individuals who are comfortable dealing flexibly with competing demands, abrupt changes, shifting priorities, and incomplete information are more likely to thrive in veterinary practice. Fortunately, recent graduates often told the VetSet2Go project that these same challenges form part of their motivation for becoming a vet — the intellectual stimulation and challenge of clinical problem-solving, and the daily variety of veterinary work (Cake et al. 2018). This shows that the challenging, unpredictable and variable nature of the veterinary environment can be a positive and motivating aspect of work, if approached flexibly and optimistically. In the longer term, the ongoing need to respond to new circumstances and novel situations during the life of their career requires a veterinarian to demonstrate plasticity and innovation in order to thrive. This future-proofing ability to "function within a continually changing physical, technological, economic, and societal environment" was defined as a core competency of veterinarians in the NAVMEC (2011: 61) *Roadmap* report.

> "Open mindedness, and also willingness to explore different paths and experiencing and learning new stuff that haven't been previously taught thoroughly before. It was just an openness, open mindedness and also positive outlook into the new stepping stone." (Recent graduate)

PSYCHOLOGICAL RESOURCES

Emotional competence

A vet who is able to navigate emotional situations and self-regulate emotional responses; remains calm

Perceived by you:	Perceived by others:
• You are comfortable dealing with emotions, in yourself and others • You feel confident dealing with emotionally-challenging situations • You understand and can manage your own emotional triggers • You can remain calm, civil and respectful during difficult situations	• 'Emotionally intelligent', excellent 'people skills' • Able to 'read' a situation and other people • Calm and stable in emotional situations • Can manage emotionally-difficult encounters and diffuse disputes

For the purposes of the VetSet2Go project, emotional competence was defined as the capacity to navigate emotional situations and self-regulate emotional responses. It was also taken to imply the ability to recognise and respond constructively to the emotions of others, an essential precursor for empathy. The importance of emotional competence emerged strongly in the VetSet2Go project. Since emotions are ever-present in the veterinary environment, employers look for veterinarians who can readily navigate emotional situations.

Emotional competence is a subset of the broader construct of *emotional intelligence*, often described as one of the key factors contributing to success in the workplace. Emotional intelligence has been defined as the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional meanings, and to reflectively regulate emotions so as to promote both better emotion and thought (Mayer & Salovey 1997). Emotional intelligence as an interpersonal skill is foundational to building successful relationships and effective communication (Timmins 2006). The VetSet2Go project found that new graduate veterinarians harness their emotional intelligence to navigate the challenges they faced in veterinary practice, including finding a starting position, responding to stressful events, build and strengthen relationships with clients and colleagues, and communicating effectively.

> "Another thing I was looking for was someone who's emotionally stable ... Do they seem like they're really up and down all the time, or are they emotionally distraught about very basic things, or do they sort of take that in their stride generally? (Employer)

> "Yes, professionalism is important, but too much can make a vet come across as cold and unfeeling. A calm vet is good, but showing emotions to me is not the sign of an unprofessional vet." (Client)

SELF-AWARENESS

Reflective self-evaluation

A vet who is aware of their own strengths and limitations, reflective and learns from experience; is self-aware of emotional responses and behaviours

Perceived by you:	**Perceived by others:**
• You are comfortable reflecting on your own thoughts, actions, habits • You can 'take a step back' from experiences to understand and learn from them • You are aware of your strengths and limitations, and can play to your strengths and develop your weaknesses • You know you limits, and feel comfortable asking for help or advice • You are able to learn from failures and mistakes to improve your practice	• Shows insight – their self-assessments matches the perceptions of others • Aware of their own strengths and limitations • Reflective and learns from experience • Self-aware of their behaviours and impact on others • Willing to give things a go, but aware of their limits and happy to ask for help

Reflective self-awareness is not only a valued employability asset in its own right, but is also a 'master key' driving the development and activation of other employability capabilities. Self-awareness allows activation of employability strengths and well as awareness of limitations; promotes 'job fit'; encourages personally meaningful learning and identity formation; enhances emotional intelligence, communication skills, and relationships; drives continual learning; and enables articulation of employability assets, such as during a job interview. Reflection and critical self-awareness thus form the absolute core of employability learning. The VetSet2Go project similarly concluded that self-awareness, reflection, and identity formation form the core of veterinary employability development, since these build and activate employability 'assets' through knowledge of employability strengths as well as areas for development, drive personal learning and agency, and enable exploration of identity congruence and 'job fit'.

Reflection is recognised as a key professional competence in healthcare, and has been described as 'the essence of professionalism'. It is expected of professionals such as veterinarians that they:

- monitor the quality of their performance and outcomes
- continually strive for improvement and evidence-based best practice
- learn from their past experiences & mistakes, and seek opportunities to address deficiencies
- are aware of their own strengths, weaknesses, and limitations, and are comfortable asking for help when required
- show a high level of professional, personal and emotional self-awareness.

The VetSet2Go project found that while awareness of *limitations* is consistently identified as important to employability, as well as being a fundamental element of veterinary professionalism specified in the guidelines of veterinary accrediting bodies such as the RCVS, awareness of *strengths* is just as important for employability (see **5.6**).

> "You know, things like emotional resilience ... For me, that's kind of tied up in the whole awareness of self, and awareness of what your abilities are and what your limits are, and what your wants and needs and desires and those kind of things are." (Employer)

SELF-AWARENESS

Self-confidence & identity

A vet who has positive self-esteem and self-belief, anchored in a professional self-concept based on personal values, beliefs, and goals

Perceived by <u>you</u>:	**Perceived by <u>others</u>:**
• You believe in yourself and what you can achieve • You can 'back yourself' to make decisions • You can project confidence to reassure others, e.g. clients • You are confident to 'have a go', without becoming overconfident or reckless • You have a good concept of 'who you are', personally and professionally	• Positive self-esteem and self-belief • Confident to 'have a go' • Can gain and maintain clients' confidence • Mature, confident professional identity based on self-awareness of abilities, beliefs, values • BUT NOT: reckless, 'cocky', egotistical, overbearing, boastful, etc.

Like reflection, self-confidence is both a valued employability attribute and an enabling 'master key' driving the process of employability development. Confidence is a prominent element of employability models, variously represented as *psychological capital* (Williams et al. 2015), efficacy beliefs (the E of Knight & Yorke's (2002) USEM model), and as literally the unlocking 'bit' of Dacre Pool & Sewell's (2007) CareerEDGE 'key' model (in which reflective self-awareness builds self-efficacy, self-confidence and self-esteem). Confidence is also flagged in the veterinary literature as important to success (Cake et al. 2016), and has been linked to outcomes including income (Cron et al. 2000) and work engagement, performance, and reduced risk of burnout (Mastenbroek et al. 2014a, 2014b). The VetSet2Go project likewise found that self-confidence is important for veterinary employability, and found that confidence in the professional sense is linked to maturation of professional identity. Employers value self-confidence because it allows graduates to gain the all-important respect and confidence of clients (Heath & Mills 2000, Schull et al. 2012), and fosters independence, proactive behaviour, initiative, and willingness to learn. Underconfidence impairs the ability to make decisions, which in turn inhibits workflow. However overconfidence is also viewed negatively by employers. Overconfident graduates are considered to be less reflective, harder to teach and mentor, and a risk to team function. Both overconfident and underconfident animal handling is associated with risks and can compromise safety. Thus there is a 'sweet spot' for confidence, often described as being 'confident without being overconfident'.

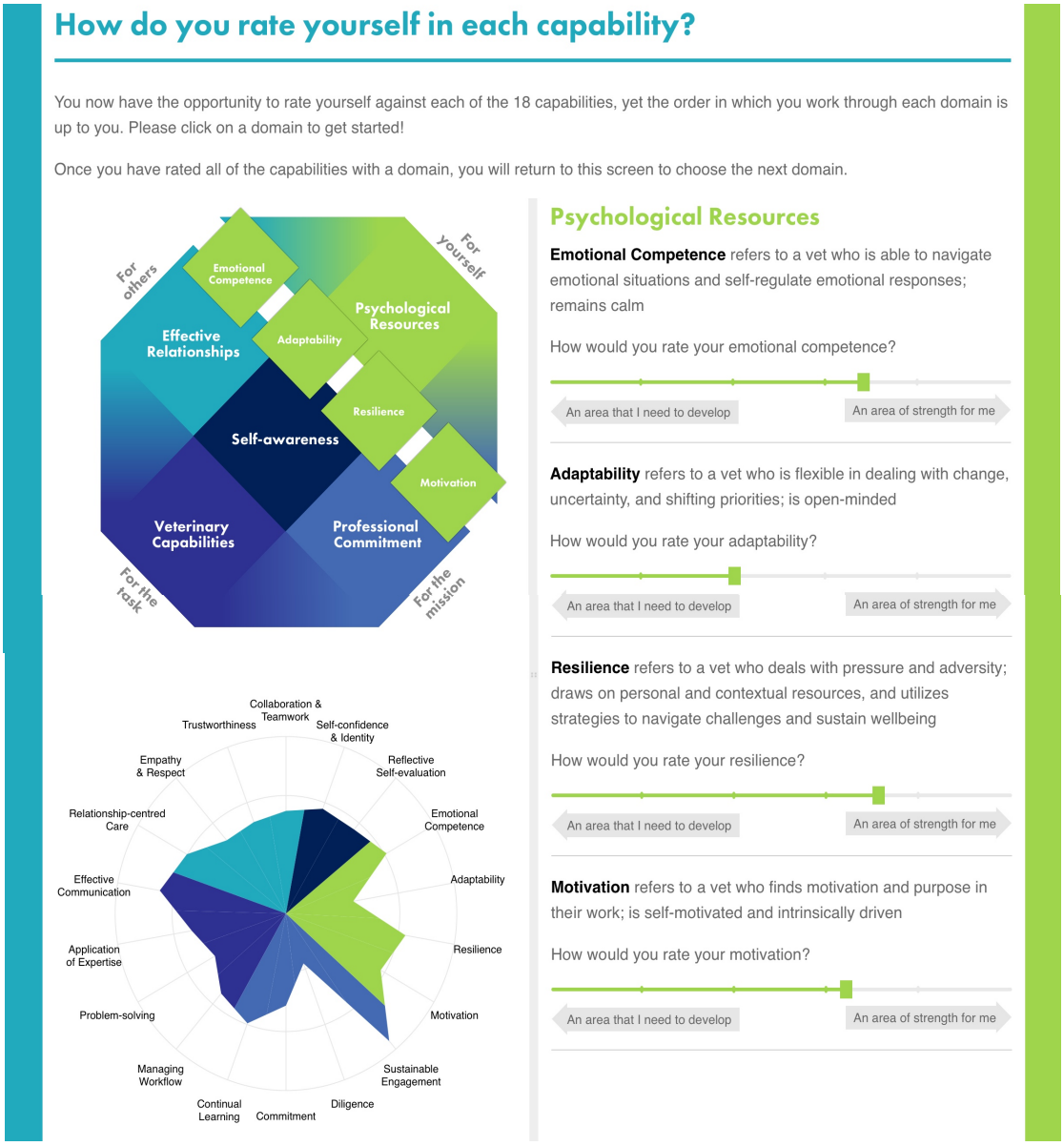
> "So they need to be, I guess, confident enough to jump in and do some things, so not get frozen with fear, but not overconfident." (Employer)

4.4 Limitations of the framework

A few limitations of this framework should be noted:

- it is intended to complement, not replace, existing capability frameworks defined around other essential outcomes such as competency and professionalism
- it is a framework for personal and professional development and is not intended for employer use in selection
- it is oriented to clinical practice, though the transferable nature of employability is acknowledged. Some skills important to other veterinary work contexts (e.g. research) are not included
- it is oriented to graduate level employment, so excludes some capabilities known to be important in later career stages, notably higher-level business, financial and practice management skills which are viewed as postgraduate expectations (Bell et al. submitted for publication)
- it is a framework for individual success, not for the success of the profession more broadly
- it is not yet fully validated as a framework, though pilot application has established its face validity (Stalin 2018).

Assessment of Veterinary Employability (AVE): *this online self-assessment and guided reflection tool based on the VetSet2Go framework is freely available on the project website (www.vetset2go.edu.au/vetset2go). After rating each domain and capability and reflecting on an action plan, learners can save or download their completed self-assessment as a time-stamped report for future reflection.*



5. Teaching & learning for veterinary employability

5.1 As in other disciplines, employability offers both challenges and opportunities for veterinary education. The need to implement a broad and complex, yet well–articulated and collectively shared pedagogical strategy is particularly challenging for university environments.

The potential scope of employability pedagogy is dauntingly broad, and could for example include (Artress et al. 2017):

- embedding employability in curricular learning outcomes, activities, and assessment
- providing co-curricular and extra-curricular learning opportunities
- work-integrated learning experiences
- building links with employers, professional groups, and mentors
- supporting students' personal and psychological growth
- encouraging reflection and self-awareness
- developing career awareness and providing career guidance
- assisting development of graduate or professional identity.

Despite this breadth (and in part, because of it), employability nevertheless offers a unifying construct for much that already occurs in veterinary education, in both formal and informal learning. In particular, the high extramural and clinical experience requirement in veterinary degrees, as well as their strong undercurrent of professional identity formation, provide valuable opportunities for employability learning that would be the envy of many non-professional programs.

5.2 Developing a shared approach

Cole & Tibby (2013) provide a useful framework for institutions or clusters seeking to develop and refine employability approaches. Key steps in this process are:

(1) locally defining employability,
(2) auditing and mapping current practice,
(3) prioritising actions, and
(4) measuring impact.

Their recommendations emphasise the need for a collective response through a shared point of reference and common language, shared ownership and responsibility, and shared practice. They recommend that individual schools seek to integrate with their broader institution's strategy and resources, as well as identifying key external partners (e.g., alumni, employers, professional bodies, etc.) to enable a collective strategy (Cole & Tibby 2013).

5.3 Challenges and barriers

Bennett et al. (2016) identify a number of institutional barriers to embedding employability, including:

- overcrowded curricula
- modularised course delivery
- research-focused key performance indicators and ranking systems
- an increasingly casualised academic workforce
- inadequate graduate outcome metrics.

In the veterinary education context, Bell et al. (2018) identify the dominance of the orthodox 'competency' paradigm, and accountability-based framing of 'professionalism' (cf. the more personalised 'professional identity') as potential barriers to embedding employability (see **2.6.3**).

Since employability pedagogy may require new educational approaches and ways of thinking, it may require preliminary staff development and dialogue. Staff criticism of employability can be encountered in higher education (Artress et al. 2017), including that employability:

- is poorly defined
- is a 'buzzword'
- should be the responsibility of employers
- is ideologically and economically driven
- places too much emphasis on employers' needs
- plays into a discourse of students as 'consumers' of higher education.

These critiques can be contested through a broad, inclusive and mutually agreed framework that takes into account the rich

complexity of the construct and multiple stakeholder perspectives (Artress et al. 2017). As well as a solid theoretical base, it is important to develop a local 'academic rationale' for employability development to ensure faculty commitment.

Employability offers both challenges and opportunities for veterinary education.

5.4 Framing employability in vet education

Careful attention to defining, positioning and framing employability in the veterinary context is an important consideration for teaching. Issues around employability as a construct (see **1.8**) as well as discipline-specific veterinary concerns (see **2.6**) raise the following considerations for framing employability in veterinary education:

- **Success and satisfaction:** A useful definition of veterinary employability should broadly accommodate the complexity of the construct. The VetSet2Go project adopted a broad, personally-oriented definition (see **1.9**) based around satisfaction and success in meaningful employment.
- **More than 'key skills':** Many authors, including the VetSet2Go project, have concluded that employability should not be reduced to employer-defined lists of 'key skills' or skill 'gaps'. While the phrase 'employability skills' is frequently encountered, it is important to note that this is more often used as short-hand for a more complex set of learning outcomes including behaviours, beliefs, values, and qualities. Yorke (2006) notes that disciplinary and generic skills are "necessary but not sufficient" for employment.
- **More than getting a first job:** As distinct from 'Day One' competencies, employability can be applied to whole-of-career. While the focus for undergraduates may be on getting a desired job and successful transition in early employment, employability also describes long-term sustainability of work.
- **Process as well as possession:** Employability may be best portrayed as both a learning and growth *process* (involving self-awareness, reflection on experience, and identity formation), and a possessed set of capabilities that can be discovered, developed and refined.
- **Contextual but transferable:** While undergraduate attention will likely be on preparing for clinical practice, the transferable nature of many employability attributes means many will remain assets in non-clinical or non-veterinary employment. Importantly, employability should be framed so as to broaden, not narrow, career opportunities through the development of transferable skills.
- **Balancing stakeholder expectations:** Employability should be considered from the perspectives of all the stakeholders, including employers, clients, team, and the employee/self. This parallels the veterinary professional identity elicited by Armitage-Chan et al. (2016) of balancing multiple stakeholder needs in the face of challenging complexity.
- **Sustainability:** Employability comprises factors which mutually benefit both the employer and employee (or all stakeholders) to ensure sustainability of work.
- **Finding 'fit':** Employability is contextual and differs between work situations and roles. Awareness of self and career opportunity allows graduates to find 'job fit' in an employment context that values their capabilities.

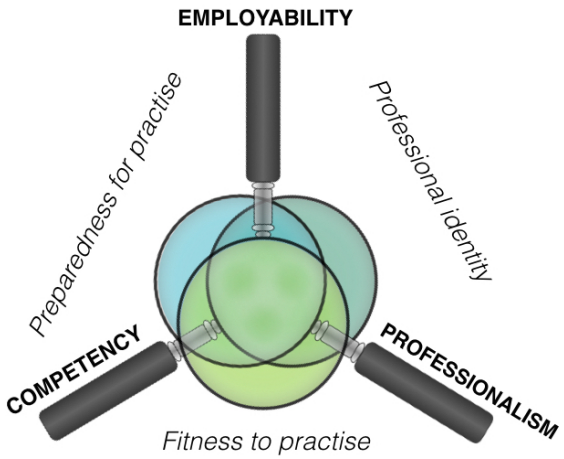
5.5 Employability versus 'competency' versus 'professionalism'

Bell et al. (2018) contrasted the educational objectives of competency, professionalism, and employability, and noted distinctions in their purpose, emphasis, endpoint, and evaluation. At the same time these form overlapping sets; for example many employability capabilities are well-represented in published competency and professionalism frameworks, while clinical competence and professionalism are themselves elements of employability (since being incompetent or unprofessional is incompatible with employment).

Veterinary professionalism is closely aligned to employability, sharing a core suite of values, behaviours, and 'professional skills' (communication, teamwork, self-management, etc.). However, since professionalism is fundamentally concerned with accountability to a social contract with others (clients, patients, society), it often presents a different focus and 'polarity' compared to employability. For example, while professionalism emphasises the capacity to "recognise personal and professional limits" (also a key Day One competence), employability is more oriented to recognition of personal and professional *strengths*. Since professionalism is defined by meeting the expectations of others, it does not necessarily capture the needs of the veterinarian; for example professionalism does not require job satisfaction or personal wellbeing, only effective functioning or rather, absence of impairment.

5.5.1 The employability 'lens'

Though competency, professionalism, and employability share overlapping skillsets, Bell et al. (2018) suggested that employability should neither replace, nor be subsumed or 'wedged' into existing competency and professionalism frameworks. Rather, competency, professionalism and employability are better conceptualised as distinct dimensions of the successful veterinary professional. Each can be harnessed as a distinct 'lens' to explore the distinct capabilities required in each context.



An example of these lenses can be seen in blueprinting a complex task (or entrustable professional activity, EPA) such as **euthanasia of a pet dog**:

The lens of *competency*:

- communicate procedure effectively to client
- correctly place catheter
- properly administer correct drug
- check heart sounds to confirm euthanasia

The lens of *professionalism*:

- owner gives informed consent
- euthanasia is ethically justified
- client is treated with respect and dignity
- confidentiality is maintained

The lens of *employability*:

- reinforce a 'bonded' and enduring client relationship
- demonstrate empathy & compassion without burdening veterinarian's own wellbeing
- charge appropriately for service

5.6 Recommendations for pedagogy

5.6.1 Whole-of-course, embedded approach

Veterinary employability will likely be best approached through pedagogy which:

- engages students early in the course
- spans the whole of program
- accommodates 'slow learning' across units or modules
- is vertically integrated
- is regularly revisited through multiple reflection cycles
- is fully embedded in curricula, rather than 'bolt-on' modules
- is framed and delivered in a veterinary rather than generic context
- is supported, and at least partly delivered, by veterinary faculty and mentors rather than central university experts
- is clearly scaffolded to course-level (degree-level) learning outcomes
- is underpinned by an overarching philosophy and rationale.

Recommendations from other disciplines (Bridgstock 2009, Bennett et al. 2016) similarly stress the importance of engaging students in employability early in the course and integrating it into the whole program, since many undergraduate students have not thought about post-university life and are not engaged with their career planning until close to graduation, by which time it is too late for meaningful development.

Veterinary schools may perhaps anticipate almost the opposite problem, in that students may be very focused on a singular vision of clinical veterinary practice, and will benefit from exploring the breadth of career paths and the transferable employability capabilities which will enable them. The key requirement, of early self-awareness and active engagement followed by cycles of reflective learning, remains just as relevant to the veterinary context.

5.6.2 Self-awareness

The VetSet2Go project concluded that self-awareness, reflection, and identity formation should form the core of employability development, driving the central learning process as well as developing specific capabilities that are valuable in their own right (e.g. capacity for reflection, ability to articulate achievements). Self-awareness builds and activates employability 'assets' through knowledge of employability strengths as well as areas for development, drives personal learning and agency, and enables exploration of identity 'job fit'.

Rust & Froud (2011) argue that employability should not be viewed as separate from other graduate attributes such as academic, research, or digital literacy, but rather as a graduate's awareness, activation, and synthesis of them. Rust & Froud (2011) describe this critical self-awareness or 'personal literacy'—the ability to read one's self—as the vital graduate attribute, the core of 'graduateness', and the overarching 'master key' of employability. Critical self-reflection is a central element of major employability models, e.g., the stem of Dacre Pool & Sewell's (2007) CareerEDGE 'key' model, and the M (=metacognition) of Knight & Yorke's (2002) USEM model.

Bennett et al. (2016) concluded that the core of developing employability is developing self, and recommended that all students explore and apply knowledge relating to self and career as foundational elements of their program, through authentic learning experiences incorporating critical reflection. Enhanced self-awareness assists graduates not only in career success but also in articulating their credibility, strengths and capabilities to potential employers (Jackson 2016). Similarly, agentic self-belief has been argued to be a necessary precondition for employability development (Artress et al. 2017).

Self-awareness enables personalisation of employability learning, which is important since the endpoints of 'success' and 'satisfaction' must be uniquely defined by individuals. This recalls Viner's (2010) premise that long-term satisfaction is only likely when one's professional objectives (i.e., provision of high-quality care) are in balance with core personal values and goals. Such congruence is important to motivation and engagement, and to workplace wellbeing.

5.6.3 Job fit

Notions of 'job fit', 'finding fit', or 'job matching' were consistently encountered in the VetSet2Go project data from employers and employees, as were the related ideas of 'fitting in' or 'team fit'. The outcome of 'fit' was implied to be mutual, suggesting that employers seek to recruit employees with particular qualities (skillset, attitudes, disposition, etc.) into specific roles and a broader workplace culture in which they believe they will succeed, for the mutual success of both parties. Similar representations of 'fit' are becoming prevalent in the broader employability literature (Williams et al. 2015).

> **Employability is about discovering your capabilities and strengths, and an employer who values them.**

The notion of 'finding fit' brings a number of implications for undergraduate learning, including that students should:

- understand the range of qualities employers may be looking for, and how these may vary individually or across different sectors
- understand their own unique capability set, through exploration of their personal strengths and areas for development
- understand their unique personality traits and preferences, and how they are perceived by other people (i.e., self-awareness and social awareness elements of emotional intelligence)
- understand their core motivations, values, and beliefs with which they seek congruence in their work
- be able to document and articulate their unique capabilities, achievements and identity for 'selling' to an employer ('signal management').

Framing around job fit provides a positive message for students, since it demonstrates that employability is contextual, that no-one need be judged 'unemployable', and that there are opportunities for success in the veterinary profession for everybody if the right connections can be made. It also reinforces the mutuality of employability, with both employer and employee responsible for the success of the relationship.

5.6.4 Self as focus

The VetSet2Go project proposed that reframing the map of stakeholders with the graduate 'self' at the centre of the employability 'pearlshell' (Bell et al. 2018, see **3.1**) is a powerful educational device emphasising the personal and mutual aspects of professional success.

While employability is partly defined by the capacity to satisfy the expectations of others, it is also realised through a graduate fulfilling their own potential and self-defined goals. It is thus individually and contextually diverse, and not amenable to normatively-defined thresholds. It is not realistic or appropriate to expect that all learners will achieve equivalent employability development, or to define threshold barriers (Knight & Yorke 2003). Rather, the focus should be on formative development of awareness and capacity, putting the learner 'in the driving seat' of their own employability.

One applicable framework may be Kumar's (2007) SOAR model: Strengths, Opportunities, Aspirations, Results. This provides a structured approach to a cyclical reflection-action process, asking "Where am I now?, "Where do I want to be?", then "How do I get there?".

5.6.5 Professional Identity Formation

Employability learning should be aligned and integrated with professional identity formation, which requires support for a similar process of identifying the gap between current capabilities and those of the professional. Wald (2015: 702) described the key drivers of [medical] professional identity formation as including:

> "experiential and reflective processes, guided reflection, formative feedback, use of personal narratives, integral role of relationships and role models, and candid discussion within a safe community of learners."

Similar recommendations have been for supporting veterinary professional identity through providing scaffolding, support for periods of identity crisis, exposure to multiple professional identities, strategies to engage, and reflection against self (Armitage-Chan 2016).

5.6.6 Complex learning outcomes

While the employability capabilities identified by the VetSet2Go project are readily understood as human qualities, only a minority of them could readily be described as 'competencies' in the applied sense (that is, observable abilities underpinning specific professional tasks). Many relate more to internal self-beliefs, attitudes, values, and metacognitive processes, and can only be interpolated, rather than measured, from complex behaviours.

The complexity of employability learning outcomes may prove challenging to integrate within competency-based assessment processes. It is difficult to provide precise and well-defined rubrics for employability learning outcomes

without reducing their complexity; indeed this was identified as a major challenge in the VetSet2Go project. Thus an employability approach must expect and tolerate some ambiguity or 'blurriness' around the capabilities required, in contrast to more precisely defined and measured competency frameworks.

Nevertheless, articulating a shared set of learning outcomes is important for scaffolding learning and feedback. This need to provide clear direction in the face of complex, 'fuzzy', contextual learning outcomes is a recognised challenge for employability pedagogy.

5.6.7 Formative not summative assessment

Employability development requires a primary focus on supporting learning, rather than summative judgment. The approach should provide challenge and a 'wake-up call', but overall should be supportive and facilitate growth rather than focusing on deficiencies. In their book on employability and assessment, Knight & Yorke (2003) present a provocative criticism of summative assessment, and question the large amount of trust and effort put into 'assessment-as-grading':

> "These problems become more acute when teachers are asked to be explicit about the ways in which they promote and assess complex learning outcomes, such as those that comprise employability. The familiar problems of grading essays reliably pale in comparison with expectations that colleges and universities will warrant students' all-round achievements as communicators, creators, motivators and leaders."
>
> (Knight & Yorke 2003: 16)

They also note the structural barriers in higher education against formative assessment, including political, economic, curricular, and historical barriers; these may be even more acute in veterinary schools accustomed to summative competency-based approaches. Assessing employability may require a cultural shift to accept assessment methods normally dismissed as having low reliability.

5.6.8 Multiple assessment methods

Assessment of employability is undoubtedly challenging. To meet this challenge, assessment of employability is best designed to be multidimensional: multiple time points, methods, purposes, assessors, presentation modes, tasks, and contextual scaffolding (Knight & Yorke 2003).

Examples of suitable assessment methods for employability include (Knight & Yorke 2003, Pegg et al. 2012):

- reflective writing
- creative writing
- logs and journals from relevant experience
- contributions to group or online discussions
- portfolios and ePortfolios
- self-assessment questionnaires and tools
- direct observation in suitable (workplace) context
- work-integrated learning assessment rubrics
- peer assessment.

The VetSet2Go project similarly concluded that the most feasible and fruitful assessment approach for veterinary employability is likely to be multiple forms of guided reflection triangulated by rich multisource feedback.

5.6.8 Guided reflection

Guided and scaffolded self-evaluation and reflection is a core process in employability, which drives growth and development of capabilities as well as developing key metacognitive processes (see Moon 2004 for review). Reflection is a 'master key' with many central roles in employability learning such as:

- personalising the meaning of employability
- helping learners explore and gain awareness of their particular or unique set of employability qualities
- developing awareness of other parties needs and expectations (e.g., employers, clients, team members)
- finding personal congruence through 'job fit' (see **5.6.3**)
- harnessing or activating personal employability strengths
- identifying vulnerabilities as targets for employability development

- motivating meaningful (thus high quality, deep) learning
- preparing for lifelong self-directed learning
- career planning and exploring possible futures
- enhancing the ability to express and articulate (e.g., in a CV or interview) personal capabilities and achievements
- encouraging continual recording of learning and achievements
- developing reflective self-awareness, a quality valued in itself as an employability attribute and as a core of emotional intelligence
- driving a core reflection-action process that underpins development of other employability aspects
- deepening the value and practice of reflection itself (i.e., reflection driving reflection).

5.6.9 Rich, multisource feedback

While reflection is essential to employability, the ability to self-assess is notoriously flawed, including the cognitive bias known as Dunning-Kruger effect. In employability, the perceptions of one's qualities by others necessarily forms a major part of employability as a social process. Thus external feedback is essential to triangulate and calibrate self-assessment, through comparing self-perceptions against the perceptions of others. The powerful effect of rich formative feedback on learning is well-known (e.g., Biggs & Tang 2011), as are the systematic barriers inhibiting it. This is particularly true for complex veterinary clinical learning environments such as teaching hospitals and work placements, which offer rich opportunity for authentic and valuable feedback, but also present challenges in capturing it (Magnier & Pead 2017). General guidelines for best practice in feedback include that it should:

- be captured as soon as possible after experience
- be specific and focused on individual performance
- identify excellence as well as areas for improvement
- be scaffolded against explicit criteria or rubrics.

The complex nature of employability capabilities dictates that tightly defining explicit learning objectives is difficult, and that the perceptions of assessors can be particularly subjective. This subjectivity can potentially be moderated by the use of **multisource feedback**, in which multiple 'low-stakes' assessments from multiple sources (including clinical supervisors, workplace supervisors, peers) are aggregated into a combined report. Multisource feedback has been shown in other contexts (e.g., professionalism) to achieve high validity and reliability, through the use of 'triangulated' multiple data points to overcome random bias in subjective and expert evaluation (van der Vleuten et al. 2012; Archer et al. 2008; Donnon et al. 2014). When compared to parallel self-assessment (a process in industry sometimes termed '360-degree evaluation'), rich and reliable external feedback improves the accuracy of self-assessment, thus increases the value of reflective learning. Peer feedback should be encouraged as part of a multisource approach; peer feedback offers a rich learning process in itself for both parties, and allows for calibration to peers.

5.6.10 Assessment of Work-Integrated Learning

Van der Vleuten et al. (2012) outline the challenging dual requirement for WIL feedback to be as rich as possible in order to provide meaningful information to the learner (n.b., can be rich *quantitatively* as well as *qualitatively*), yet also be highly efficient to avoid placing demands on volunteer, time-poor supervisors. Because of these challenges, the WIL opportunities provided by the extensive veterinary requirement for extramural and clinical experience often remain untapped. For employability, WIL provides great potential for valid and authentic assessment, since it is based on direct observation of performance in unpredictable real-world situations over extended periods. Since they are typically also employers, WIL supervisors are uniquely qualified to assess employability and provide particularly valid feedback in the employability context. Employability also provides a shared vocabulary and shared framework of objectives to promote employer dialogue in veterinary education.

Short Assessment of Veterinary Employability
Student Name/ID: Date:

Assessor/practice/section:

	To develop	A strength
*1. Record a **global impression** of these **DOMAINS**:*		
Effective Relationships For effective interactions with **others** ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
*2. Record **what stood out** among these **INDICATORS**:*		
Collaboration / teamwork		
Trustworthiness / honesty		
Empathy		
Respect		
Relationship-centred care		
Effective communication (interpersonal)		
Veterinary Capabilities For efficacy in work-related **tasks** ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Effective communication (clinical)		
Written communication & records		
Animal handling		
Technical knowledge		
Procedural confidence		
Problem-solving / clinical reasoning		
Workflow management		
Professional Commitment To the organisational and professional '**mission**' ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Committed to quality care/welfare		
Diligence / work ethic		
Reliable / punctual		
Keen to learn		
Enthusiasm / engagement		
Psychological Resources Supporting the **self** for satisfaction and wellbeing ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Work-life balance		
Motivation		
Resilience		
Adaptability / flexibility		
Emotional regulation		
Self-awareness For personal and professional **development** ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Reflection		
Self-awareness (strengths & limitations)		
Confidence		
Professional image		

*3. Provide **specific feedback** or advice on **employability STRENGTHS** (i.e. to harness or activate):*

*4. Provide **specific feedback** or advice on areas for **employability DEVELOPMENT** (i.e. to improve):*

www.vetset2go.edu.au

An example of a short-form assessment for veterinary employability using the VetSet2Go framework, suitable for use in clinical settings and in work-integrated learning (see next page).

5.6.11 Mentoring

Mentoring by appropriate role-models can provide powerful learning opportunities for employability, and can correct the 'hidden curriculum' through which student calibrate "what's really important". For example, having staff and other mentors candidly reveal their own vulnerabilities and 'common humanity' to students can powerfully model self-awareness and reflective practice, and build a more trusting and supportive learning environment.

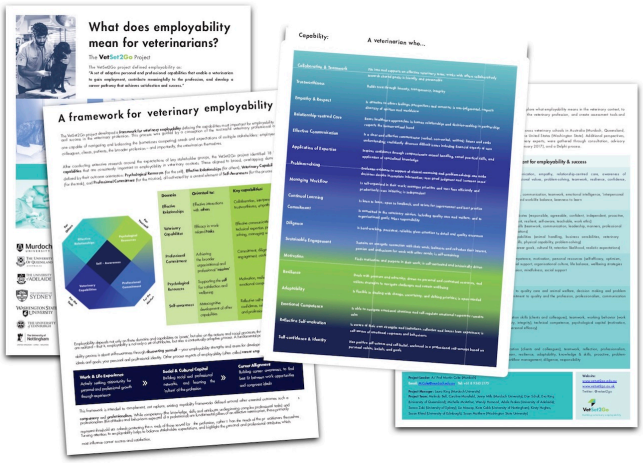
Opportunities for mentoring within veterinary programs may include:

- formal mentoring programs with faculty, professional staff, external mentors, or peers
- contact time with suitable role-models (e.g., extramural placements)
- dialogue with mentors (e.g., employer Q&A panels)
- 'story-telling' in guest lectures or tutorials
- informal learning during small group activities
- ongoing engagement with alumni.

5.6.12 Programme outcomes

If employability is to be fully embedded in veterinary curricula, it should be also be embedded in quality assurance and quality enhancement mechanisms (Cole & Tibby 2013). This requires veterinary schools to seek feedback and track outcomes about the employability of their graduates, as well as their competency. This might be achieved through developing relevant measures of success; seeking feedback from students, faculty, colleagues (i.e., benchmarking), graduates, employers and other stakeholders; and using this feedback for systematic improvement.

Student resources, including a 4-page summary of VetSet2Go framework and 2-page resource cards for each capability are freely available on the project website www.vetset2go.edu.au.



Short Assessment of Veterinary Employability

Student Name/ID: Date:

Assessor/practice/section:

*1. Record a **global impression** of these **DOMAINS:***

*2. Record **what stood out** among these **INDICATORS:***

	To develop	A strength
Effective Relationships For effective interactions with **others** ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Collaboration / teamwork		
Trustworthiness / honesty		
Empathy		
Respect		
Relationship-centred care		
Effective communication (interpersonal)		
Veterinary Capabilities For efficacy in work-related **tasks** ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Effective communication (clinical)		
Written communication & records		
Animal handling		
Technical knowledge		
Procedural confidence		
Problem-solving / clinical reasoning		
Workflow management		
Professional Commitment To the organisational and professional '**mission**' ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Committed to quality care/welfare		
Diligence / work ethic		
Reliable / punctual		
Keen to learn		
Enthusiasm / engagement		
Psychological Resources Supporting the **self** for satisfaction and wellbeing ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Work-life balance		
Motivation		
Resilience		
Adaptability / flexibility		
Emotional regulation		
Self-awareness For personal and professional **development** ○ ○ ○ ○ ○ ○ ○ ←An area for development An area of strength→ *Not observed* ☐		
Reflection		
Self-awareness (strengths & limitations)		
Confidence		
Professional image		

*3. Provide **specific feedback** or advice on **employability STRENGTHS** (i.e. to harness or activate):*

*4. Provide **specific feedback** or advice on areas for **employability DEVELOPMENT** (i.e. to improve):*

Student mini-guide:

The following pages may be printed as a four page mini-guide to the VetSet2Go veterinary employability framework, suitable for students or other stakeholders (CC-BY-SA VetSet2Go, 2018)

What does employability mean for veterinarians?

The **VetSet2Go** Project

The VetSet2Go project defined employability as:
"A set of adaptive personal and professional capabilities that enable a veterinarian to gain employment, contribute meaningfully to the profession, and develop a career pathway that achieves satisfaction and success."






Murdoch University
The University Of Queensland Australia
The University of Adelaide
The University of Sydney
Washington State University
The University of Edinburgh
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Employability, simplistically the ability to **gain and sustain employment**, is becoming an increasingly important concept in higher education and career development in many fields. Since vets typically graduate with high employment prospects and predefined professional career paths, employability has not often been talked about in the veterinary context.

But employability is more than just the ability to remain employed, it is also the capacity to productively **employ your abilities** through harnessing your strengths. It implies being **sustainably satisfied** in work that is personally meaningful. It also refers to the ability to continually develop and transfer skills across multiple jobs or roles over the course of your working life. In other words, employability describes the ingredients and the **recipe for career success.**

Support for this project has been provided by the Australian Government Department of Education and Training. The views expressed in this project do not necessarily reflect the views of the Australian Government Department of Education and Training.

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Building veterinary employability

A framework for veterinary employability

The VetSet2Go project developed a **framework for veterinary employability** defining the capabilities most important for employability and success in the veterinary profession. This process was guided by a conception of the successful veterinary professional as one capable of navigating and balancing the (sometimes competing) needs and expectations of multiple stakeholders: employers, colleagues, clients, patients, the broader profession – and importantly, the veterinarian themselves.

After conducting extensive research around the expectations of key stakeholder groups, the VetSet2Go project identified 18 key **capabilities** that are consistently important to employability in veterinary contexts. These aligned to broad, overlapping domains defined by their outcome orientation: **Psychological Resources** (for the self), **Effective Relationships** (for others), **Veterinary Capabilities** (for the task), and **Professional Commitment** (for the mission), all activated by a central element of **Self-Awareness** (for the process).

Domain	Oriented to:	Key capabilities:
Effective Relationships	Effective interactions with **others**	Collaboration, interpersonal skills, trustworthiness, empathy, respect
Veterinary Capabilities	Efficacy in work-related **tasks**	Effective communication, confident technical expertise, problem-solving, managing workflow
Professional Commitment	Achieving the broader organisational and professional **'mission'**	Commitment, diligence, sustainable engagement, continual learning
Psychological Resources	Supporting the **self** for satisfaction and wellbeing	Motivation, resilience, adaptability, emotional competence
Self-awareness	Metacognitive development of other capabilities	Reflective self-evaluation, confidence, self-efficacy, personal and professional identity

Employability depends not only on these domains and capabilities as 'assets', but also on the actions and social processes through which they are realized – that is, employability is not only a set of attributes, but also a contextually adaptive process. A fundamental part of the employability process is about self-awareness through **discovering yourself** – your employability strengths and areas for development; your values, ideals and goals; your personal and professional identity. Other process aspects of employability (often called **career engagement**) include:

Work & Life Experience
Actively seeking opportunity for personal and professional growth through experience

»

Social & Cultural Capital
Building social and professional networks, and learning the 'culture' of the profession

»

Career Alignment
Building career awareness, to find best fit between work opportunities and congruent ideals

This framework is intended to complement, not replace, existing capability frameworks defined around other essential outcomes such as **competency** and **professionalism.** While competency (the knowledge, skills and attributes underpinning complex professional tasks) and professionalism (the attitudes and behaviours expected of a professional) are fundamental pillars of an effective veterinarian, these primarily represent threshold standards protecting the needs of those served by the profession, rather than the needs of the practitioners themselves. Turning attention to employability helps to balance stakeholder expectations, and highlight the personal and professional attributes which most influence career success and satisfaction.

Capability:	A veterinarian who...
Collaboration & Teamwork	Fits into and supports an effective veterinary team; works with others collaboratively towards shared goals; is friendly and personable
Trustworthiness	Builds trust through honesty, transparency, integrity
Empathy & Respect	Is attentive to others feelings, perspectives and concerns; is non-judgmental, respects diversity of opinion and worldview
Relationship-centred Care	Bases healthcare approaches in human relationships and decision-making in partnership; respects the human-animal bond
Effective Communication	Is a clear and effective communicator (verbal, non-verbal, written); listens and seeks understanding; confidently discusses difficult issues including financial aspects of care
Application of Expertise	Inspires confidence through compassionate animal handling, sound practical skills, and application of specialized knowledge
Problem-solving	Evaluates evidence in support of clinical reasoning and problem-solving; can make decisions despite incomplete information; uses good judgment and 'common sense'
Managing Workflow	Is self-organised in their work; manages priorities and uses time efficiently and productively; uses initiative; is independent
Continual Learning	Is keen to learn, open to feedback, and strives for improvement and best practice
Commitment	Is committed to the veterinary mission, including quality care and welfare, and to organisational goals; takes responsibility
Diligence	Is hard-working, persistent, reliable; gives attention to detail and quality assurance
Sustainable Engagement	Sustains an energetic connection with their work; balances and refreshes their interest, passion and enthusiasm for work with other needs; is self-sustaining
Motivation	Finds motivation and purpose in their work; is self-motivated and intrinsically driven
Resilience	Deals with pressure and adversity; draws on personal and contextual resources, and utilizes strategies to navigate challenges and sustain wellbeing
Adaptability	Is flexible in dealing with change, uncertainty, and shifting priorities; is open-minded
Emotional Competence	Is able to navigate emotional situations and self-regulate emotional responses; remains calm
Reflective Self-evaluation	Is aware of their own strengths and limitations, reflective and learns from experience; is self-aware of emotional responses and behaviours
Self-confidence & Identity	Has positive self-esteem and self-belief, anchored in a professional self-concept based on personal values, beliefs, and goals

The VetSet2Go Project

The VetSet2Go project (2015-2018, www.vetset2go.edu.au) set out to explore what employability means in the veterinary context, to define the capabilities most important for employability and success in the veterinary profession, and create assessment tools and resources to build these capabilities.

The project was a multi-national collaboration between 14 academics across veterinary schools in Australia (Murdoch, Queensland, Sydney, Adelaide), the United Kingdom (Edinburgh, Nottingham) and the United States (Washington State). Additional perspectives, including those of practitioners, professional bodies and interdisciplinary experts, were gathered through consultation, advisory groups, a world-first Veterinary Employability Forum (48 delegates, February 2017), and a Delphi process.

The VetSet2Go evidence	What's important for employability & success
Systematic Review • 32 included sources • 10 consensus frameworks	• Effective communication, empathy, relationship-centred care, awareness of limitations, professional values, problem-solving, teamwork, resilience, confidence, business skills
Case Studies • 9 semi-structured interviews of Australian employer-employee pairs	• Self-confidence, communication, teamwork, emotional intelligence, 'interpersonal skills', resilience and work-life balance, keenness to learn
Employers - Recruitment • 18 semi-structured interviews of Australian employers	• Personal attributes (responsible, agreeable, confident, independent, proactive, organized, diligent, resilient, self-aware, teachable, work ethic) • Interpersonal skills (teamwork, communication, leadership, manners, professional image, client relations) • Veterinary capabilities (animal handling, business sensibilities, veterinary knowledge & skills, physical capability, problem-solving) • Job match (career goals, cultural fit, retention likelihood, realistic expectations)
Resilience • Literature review • 340 survey respondents – veterinarians • 110+ surveys - recent graduates (ongoing) • 15+ interviews of graduates (ongoing)	• Emotional competence, motivation, personal resources (self-efficacy, optimism, reflection), social support, organisational culture, life balance, wellbeing strategies • Self-compassion, mindfulness, social support
Client Expectations • 1599 survey responses • 8 focus groups • 6 interviews	• Commitment to quality care and animal welfare, decision making and problem solving, commitment to quality and the profession, professionalism, communication skills
Stakeholder Survey • 1519 survey responses from stakeholders (recent graduates, employed veterinarians, vet and non-vet employers, allied staff, academics and policy makers)	• Communication skills (clients and colleagues), teamwork, working behavior (work ethic, honesty, integrity), technical competence, psychological capital (motivation, resilience, personal efficacy)
Delphi Panel • 32 international experts, representatives, practitioners • 3 rounds of consensus voting	• Communication (clients and colleagues), teamwork, reflection, professionalism, keen to learn, resilience, adaptability, knowledge & skills, proactive, problem-solving, workflow management, diligence, responsibility

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Twitter: @vetset2go

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Appendix 1

Veterinary client expectations survey:

The Client Expectations survey is described briefly in **3.3.2**, and in more detail in Hughes et al. (2018) and on the project website at: https://www.vetset2go.edu.au/the-vetset2go-veterinary-client-survey-report. The survey was conducted with the expert assistance of the Work Psychology Group.

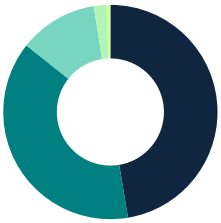
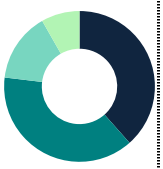
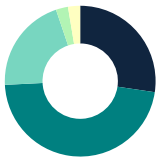
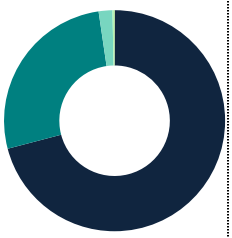
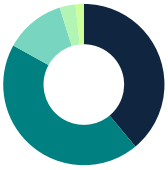
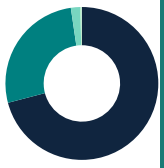
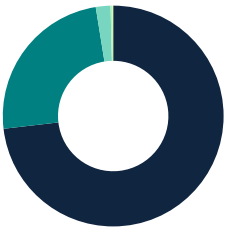
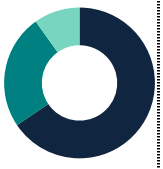
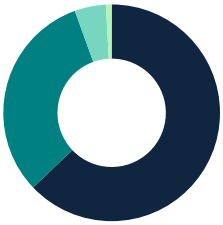
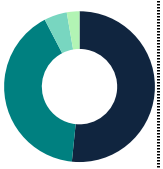
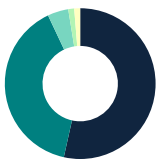
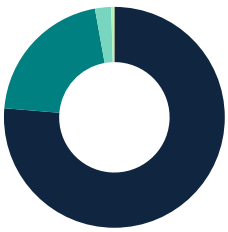
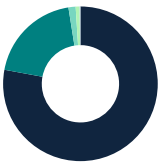
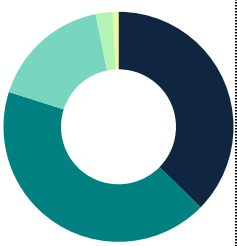
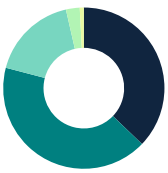
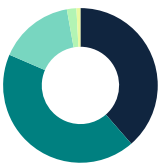
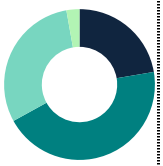
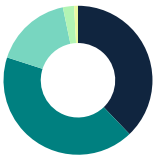
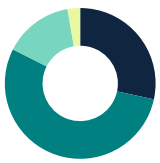
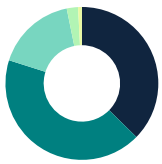
The following figures represent the ratings of veterinary clients (n=1275 completed surveys from 1599 respondents) asked to rate the importance the following capabilities, in relation to how important the behaviour or characteristic was to their satisfaction as a veterinary client, using a standard 5-point Likert scale (1=not important to 5=extremely important).

Results are also shown demographically according to country of origin:

UK & Europe	50%
Australia & New Zealand	46%
North America	2%

and by animal type owned by client:

Small animal only	68%
Farm & equine only	5.5%
Multiple/mixed animal types	27%

	OVERALL	UK & EUROPEAN CLIENTS	AUSTRALIAN & NEW ZEALAND CLIENTS	NORTH AMERICAN CLIENTS (US & CANADA)	SMALL ANIMAL CLIENTS	FARM & EQUINE CLIENTS	MIXED ANIMAL TYPE CLIENTS
COMMITMENT TO ANIMAL WELFARE							
Shows a **genuine interest** in your animal(s), asking questions about their needs or personality							
Handles your animal(s) with confidence and care, in a way to which your animal(s) respond(s) well							
Shows **compassion towards animals**; prioritises your animal's wellbeing and quality of life							
Adapts the way that your animal is handled and examined to your specific animal							
How important is it to your **overall** that your vet demonstrates commitment to animal welfare?							
COMMITMENT TO QUALITY AND THE PROFESSION							
Prepares for your consultations to ensure the highest quality care is provided							

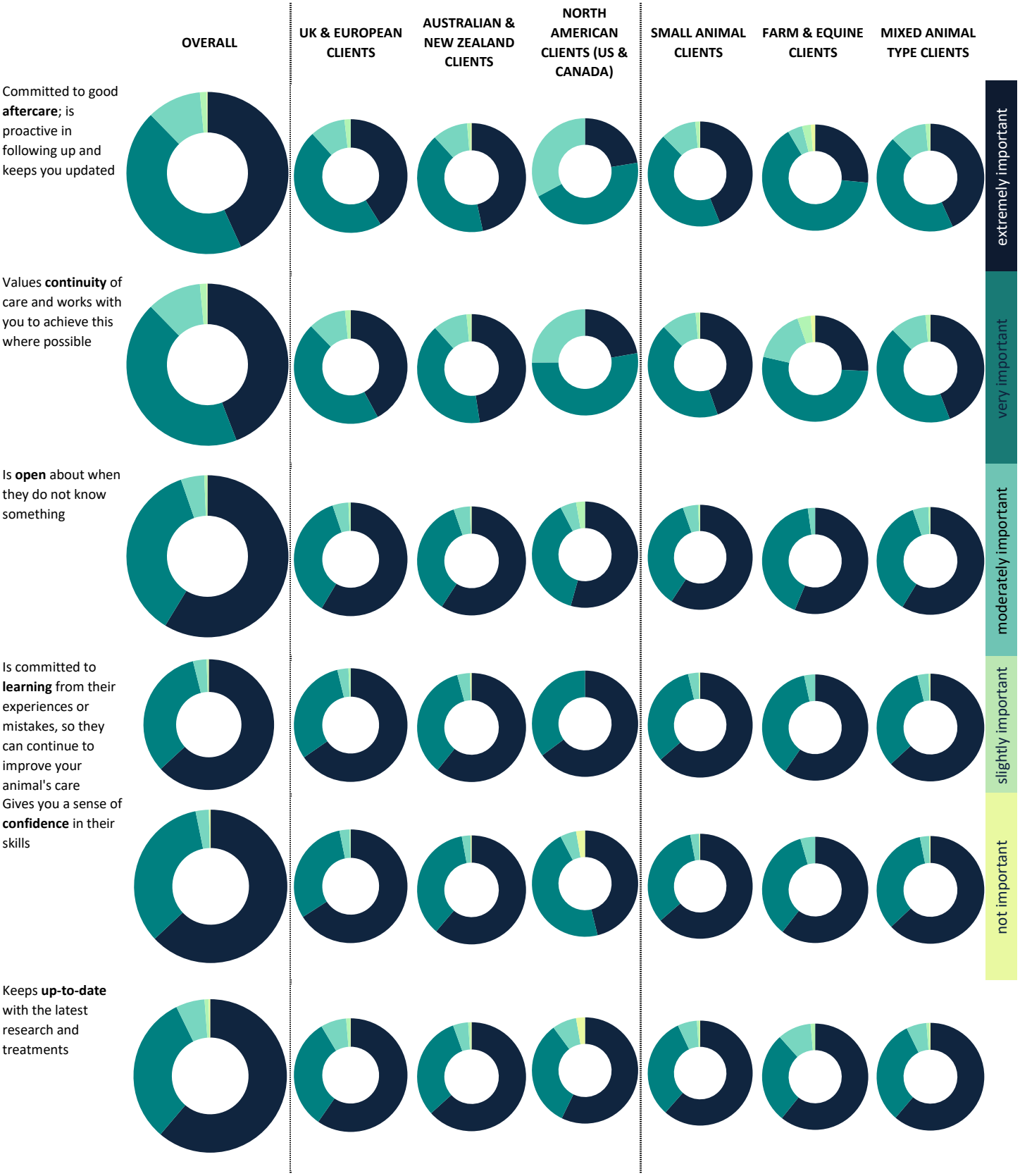
extremely important

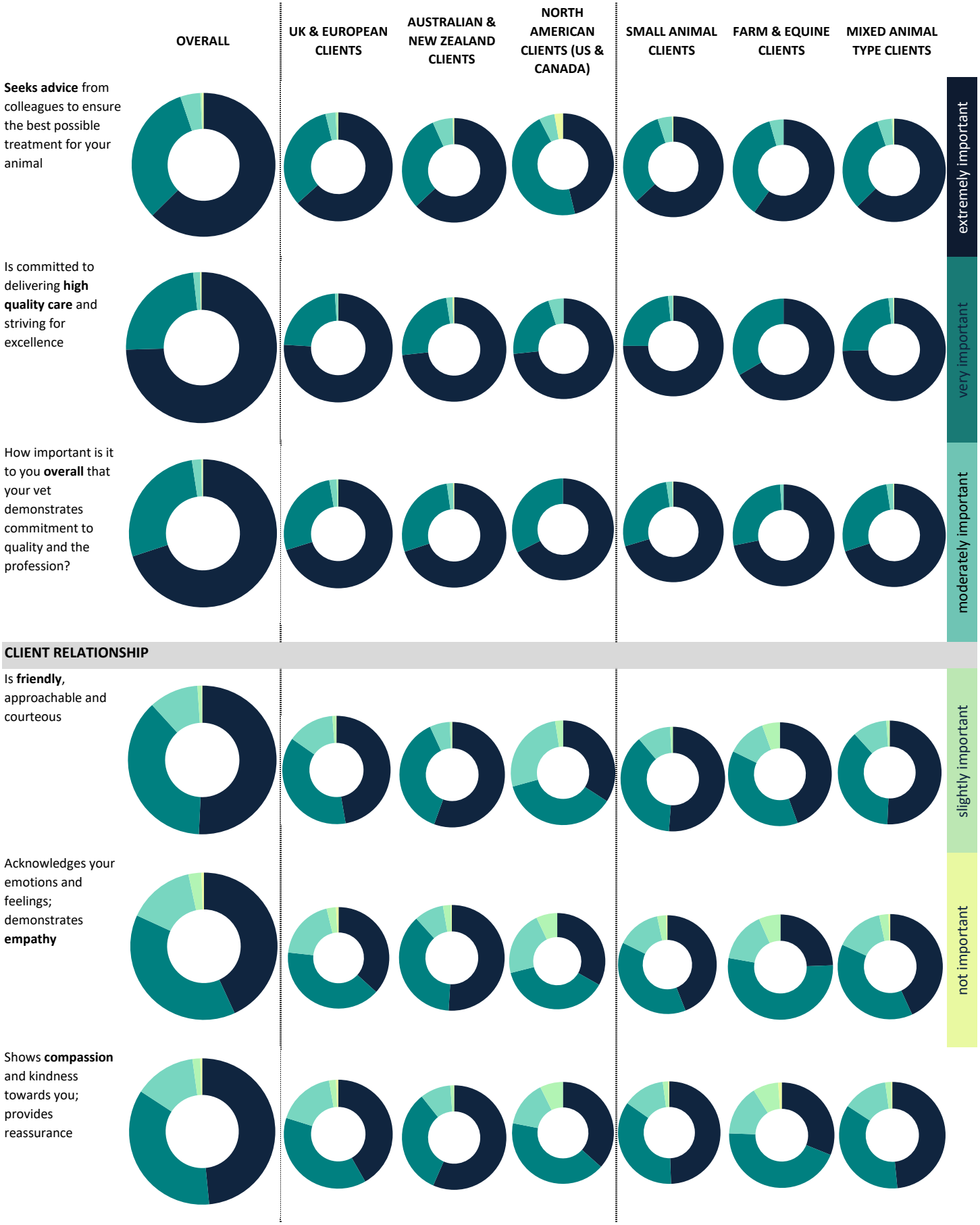
very important

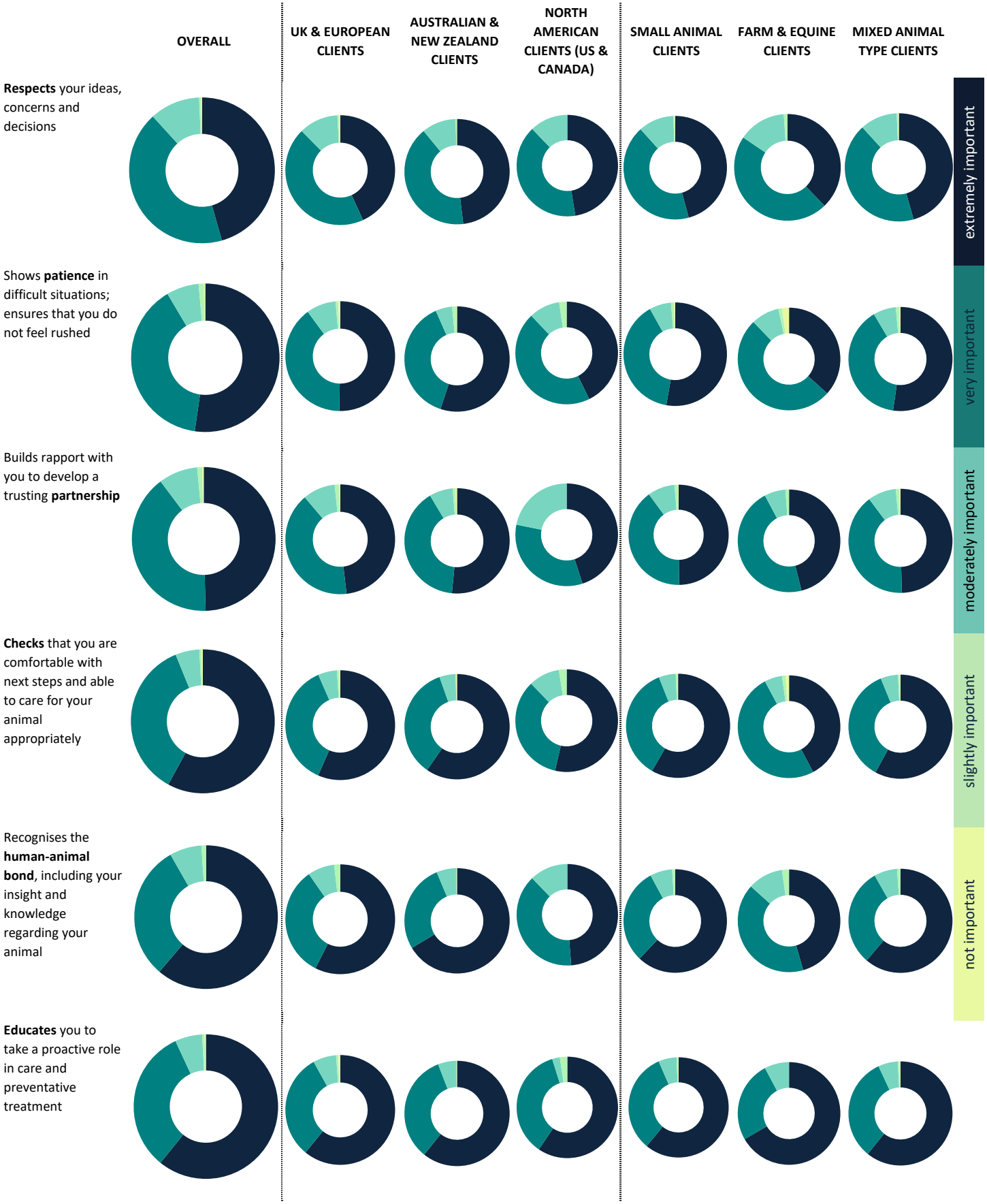
moderately important

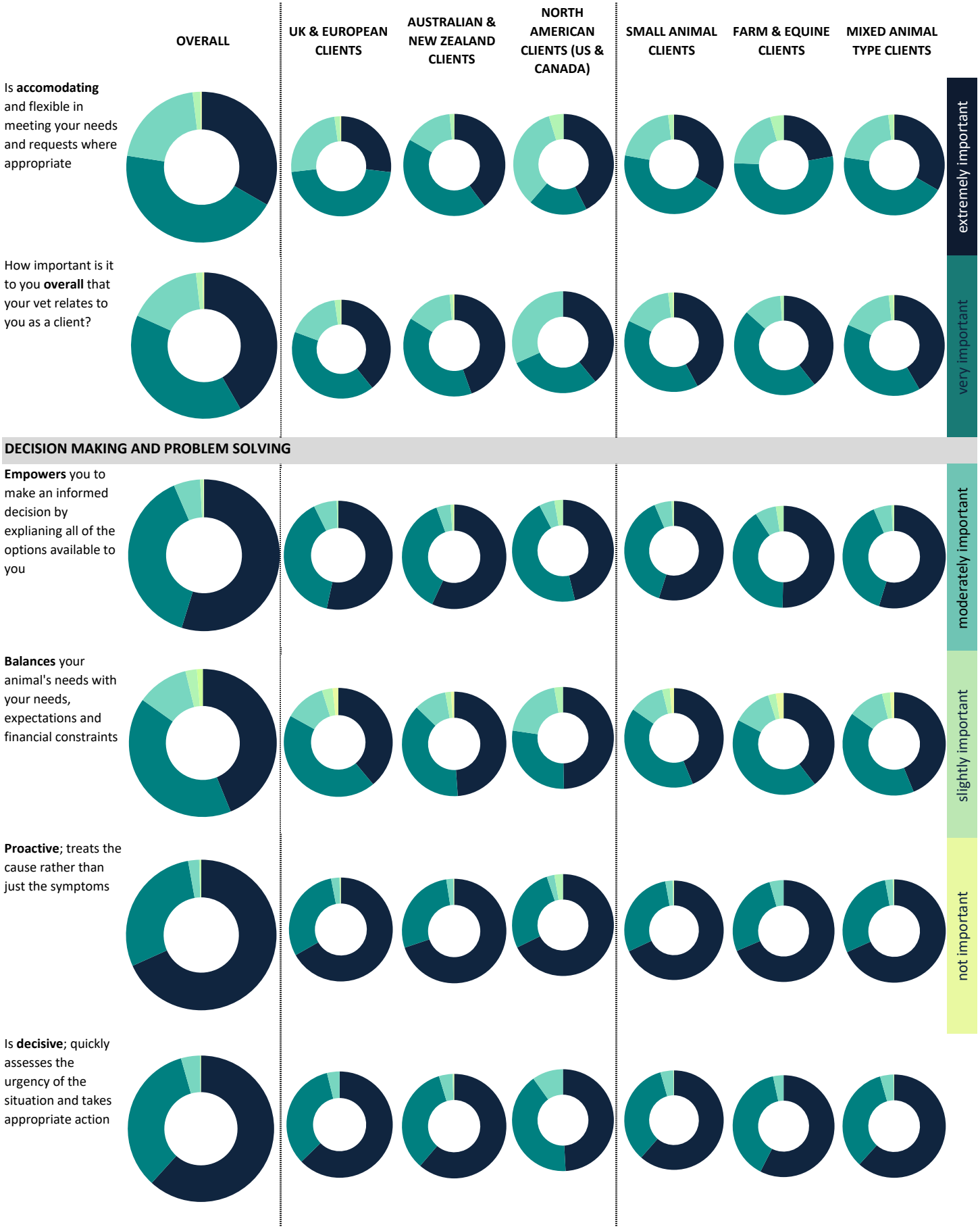
slightly important

not important


OVERALL
UK & EUROPEAN CLIENTS
AUSTRALIAN & NEW ZEALAND CLIENTS
NORTH AMERICAN CLIENTS (US & CANADA)
SMALL ANIMAL CLIENTS
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Committed to good **aftercare**; is proactive in following up and keeps you updated
Values **continuity** of care and works with you to achieve this where possible
Is **open** about when they do not know something
Is committed to **learning** from their experiences or mistakes, so they can continue to improve your animal's care
Gives you a sense of **confidence** in their skills
Keeps **up-to-date** with the latest research and treatments
extremely important
very important
moderately important
slightly important
not important


OVERALL
UK & EUROPEAN CLIENTS
AUSTRALIAN & NEW ZEALAND CLIENTS
NORTH AMERICAN CLIENTS (US & CANADA)
SMALL ANIMAL CLIENTS
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Seeks advice from colleagues to ensure the best possible treatment for your animal
Is committed to delivering high quality care and striving for excellence
How important is it to you overall that your vet demonstrates commitment to quality and the profession?
CLIENT RELATIONSHIP
Is friendly, approachable and courteous
Acknowledges your emotions and feelings; demonstrates empathy
Shows compassion and kindness towards you; provides reassurance
extremely important
very important
moderately important
slightly important
not important


OVERALL
UK & EUROPEAN CLIENTS
AUSTRALIAN & NEW ZEALAND CLIENTS
NORTH AMERICAN CLIENTS (US & CANADA)
SMALL ANIMAL CLIENTS
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Respects your ideas, concerns and decisions
Shows patience in difficult situations; ensures that you do not feel rushed
Builds rapport with you to develop a trusting partnership
Checks that you are comfortable with next steps and able to care for your animal appropriately
Recognises the human-animal bond, including your insight and knowledge regarding your animal
Educates you to take a proactive role in care and preventative treatment
extremely important
very important
moderately important
slightly important
not important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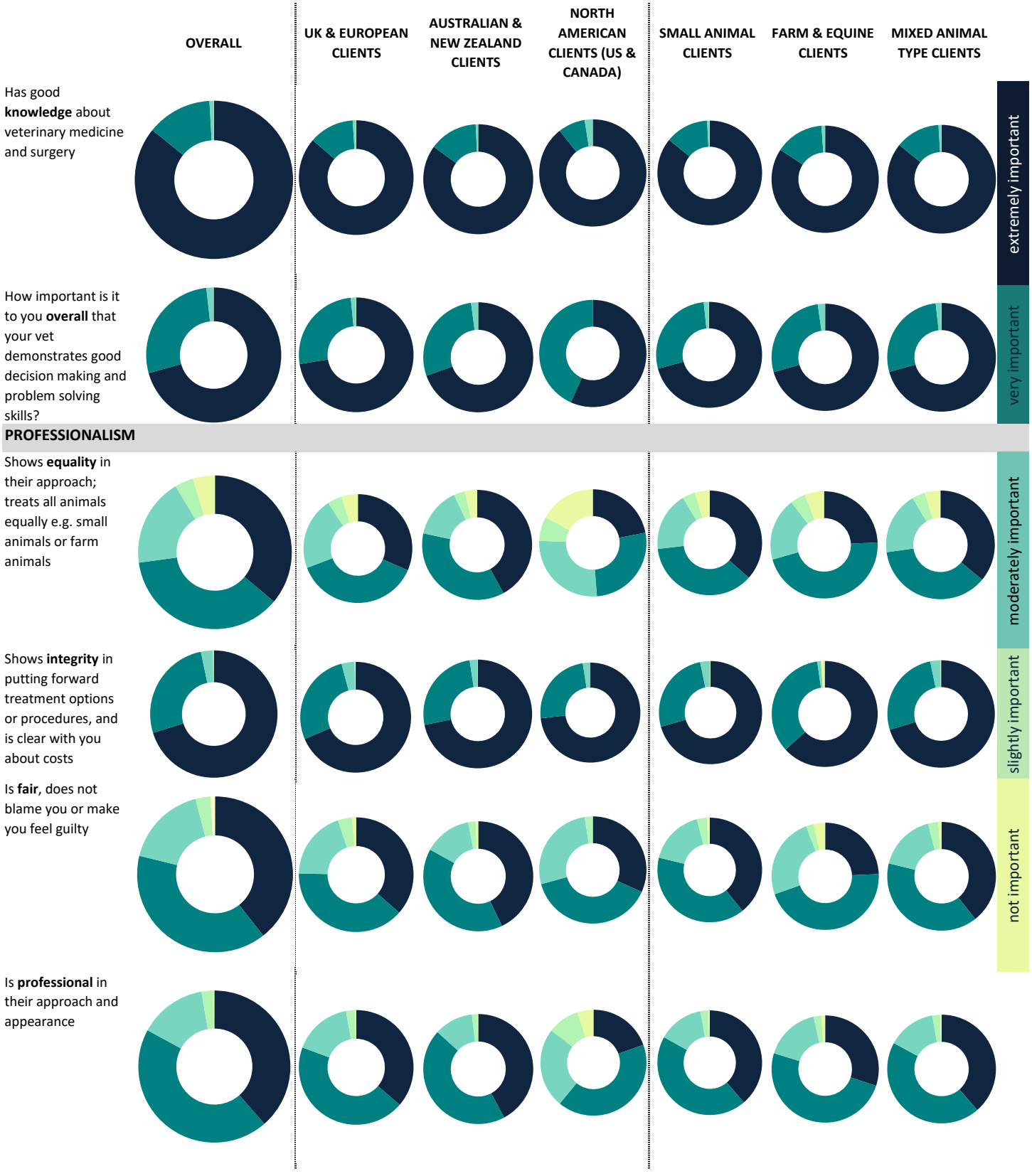
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Is **accomodating** and flexible in meeting your needs and requests where appropriate
How important is it to you **overall** that your vet relates to you as a client?
DECISION MAKING AND PROBLEM SOLVING
Empowers you to make an informed decision by explianing all of the options available to you
Balances your animal's needs with your needs, expectations and financial constraints
Proactive; treats the cause rather than just the symptoms
Is **decisive**; quickly assesses the urgency of the situation and takes appropriate action
extremely important
very important
moderately important
slightly important
not important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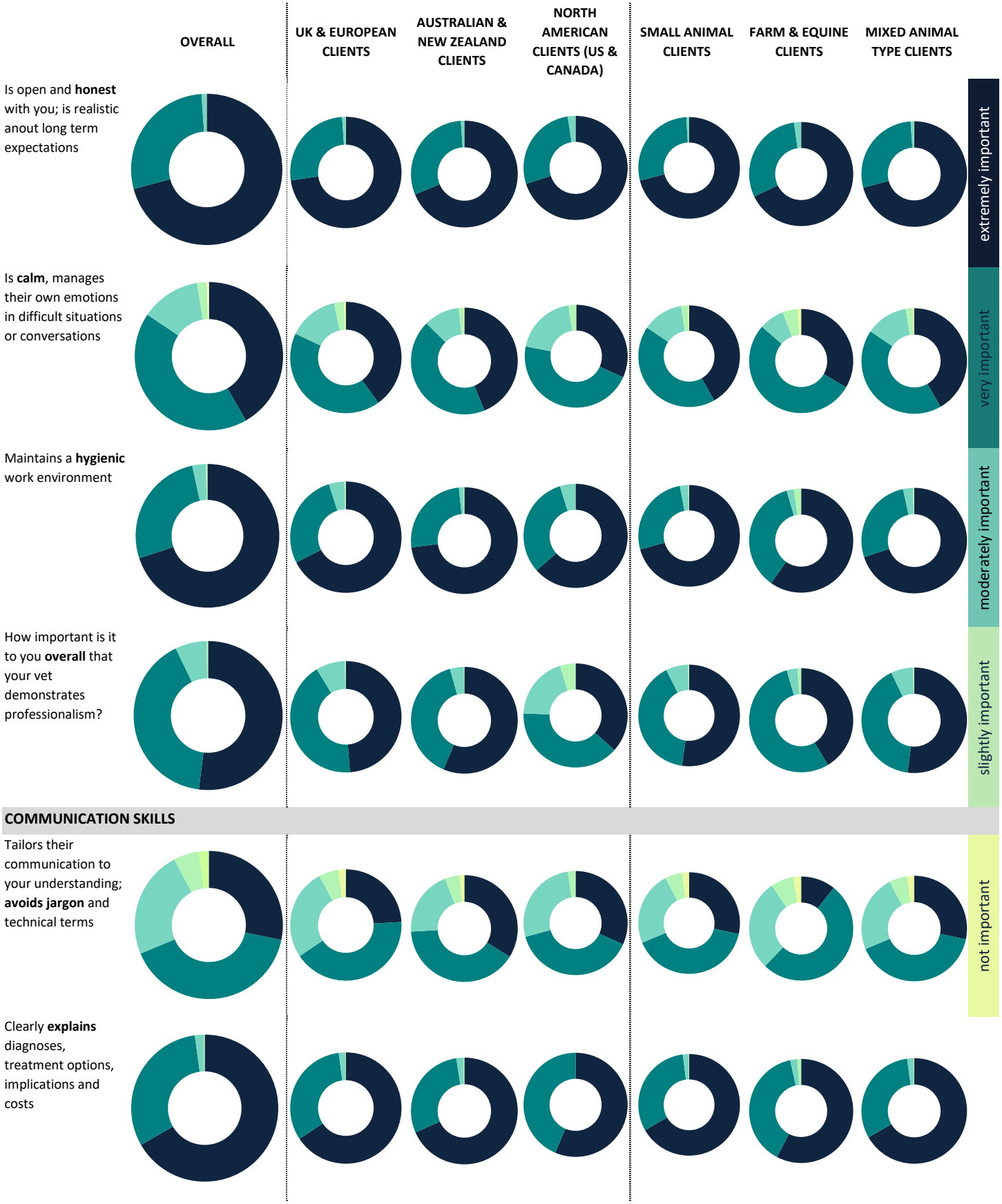
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Has good knowledge about veterinary medicine and surgery
How important is it to you overall that your vet demonstrates good decision making and problem solving skills?
PROFESSIONALISM
Shows equality in their approach; treats all animals equally e.g. small animals or farm animals
Shows integrity in putting forward treatment options or procedures, and is clear with you about costs
Is fair, does not blame you or make you feel guilty
Is professional in their approach and appearance
extremely important
very important
moderately important
slightly important
not important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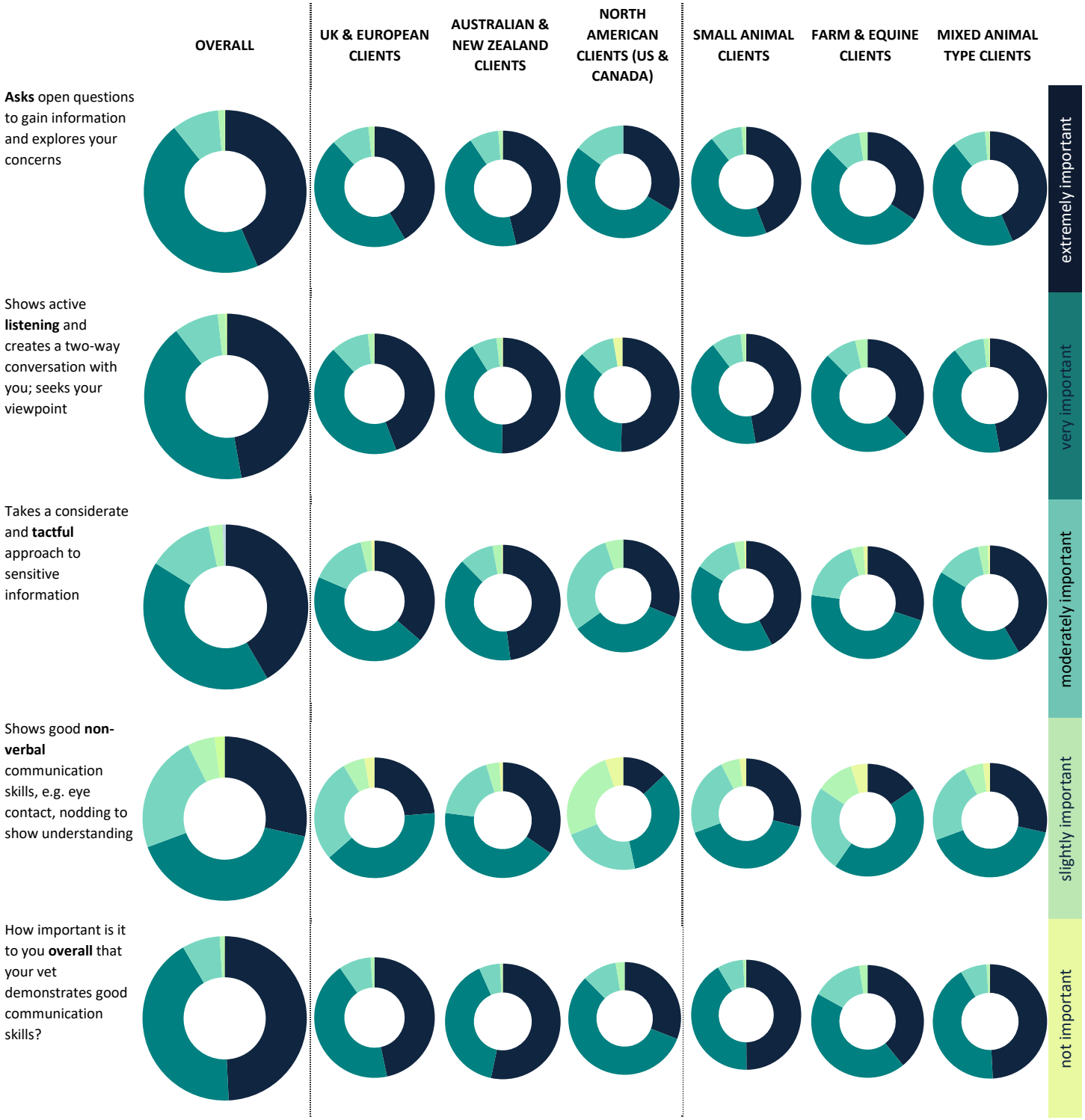
SMALL ANIMAL CLIENTS
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Is open and **honest** with you; is realistic anout long term expectations
Is **calm**, manages their own emotions in difficult situations or conversations
Maintains a **hygienic** work environment
How important is it to you **overall** that your vet demonstrates professionalism?
extremely important
very important
moderately important
slightly important
not important
COMMUNICATION SKILLS
Tailors their communication to your understanding; **avoids jargon** and technical terms
Clearly **explains** diagnoses, treatment options, implications and costs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SMALL ANIMAL CLIENTS
FARM & EQUINE CLIENTS
MIXED ANIMAL TYPE CLIENTS
Asks open questions to gain information and explores your concerns
Shows active **listening** and creates a two-way conversation with you; seeks your viewpoint
Takes a considerate and **tactful** approach to sensitive information
Shows good **non-verbal** communication skills, e.g. eye contact, nodding to show understanding
How important is it to you **overall** that your vet demonstrates good communication skills?
extremely important
very important
moderately important
slightly important
not important

Appendix 2

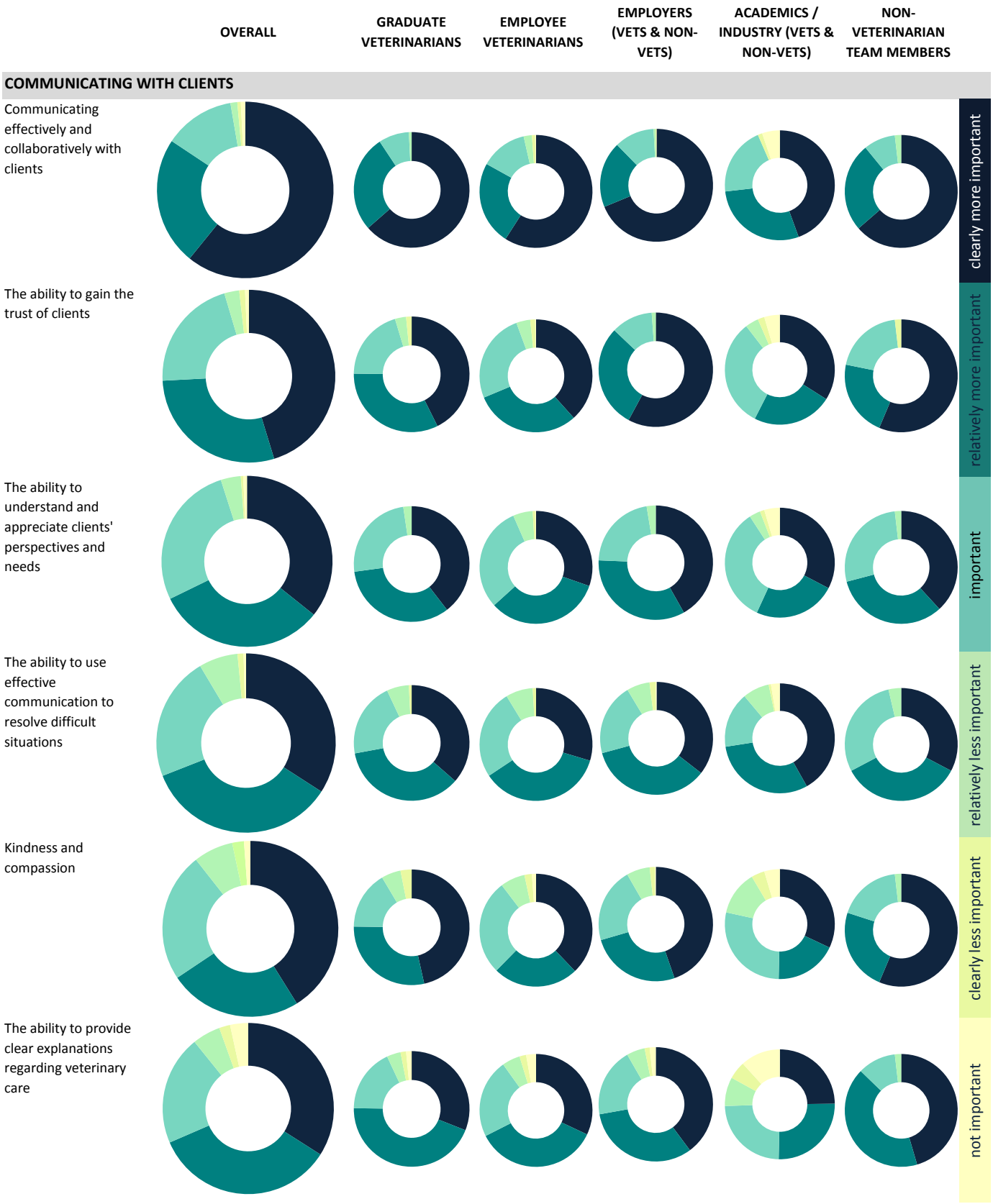
Stakeholder perceptions survey:

The Client Expectations survey is described briefly in **3.3.4**, and in more detail on the project website at: https://www.vetset2go.edu.au/the-vetset2go-stakeholder-perceptions-survey-report. A research report is being prepared for publication (Bell M et al., *in preparation*).

The following figures represent the ratings of various stakeholders (n=1094 completed surveys from 1413 respondents) asked to rate the relative importance of the following capabilities in the context of veterinary employability, using a 6-point Likert scale (1=not important to 6=clearly more important).

Results are also shown demographically according to stakeholder identity:

Graduate veterinarian (>3 yrs)	15%
Employee veterinarians	35%
Employers of veterinarians	30%
Academics & industry representatives	14%
Non-veterinarians / team members	6%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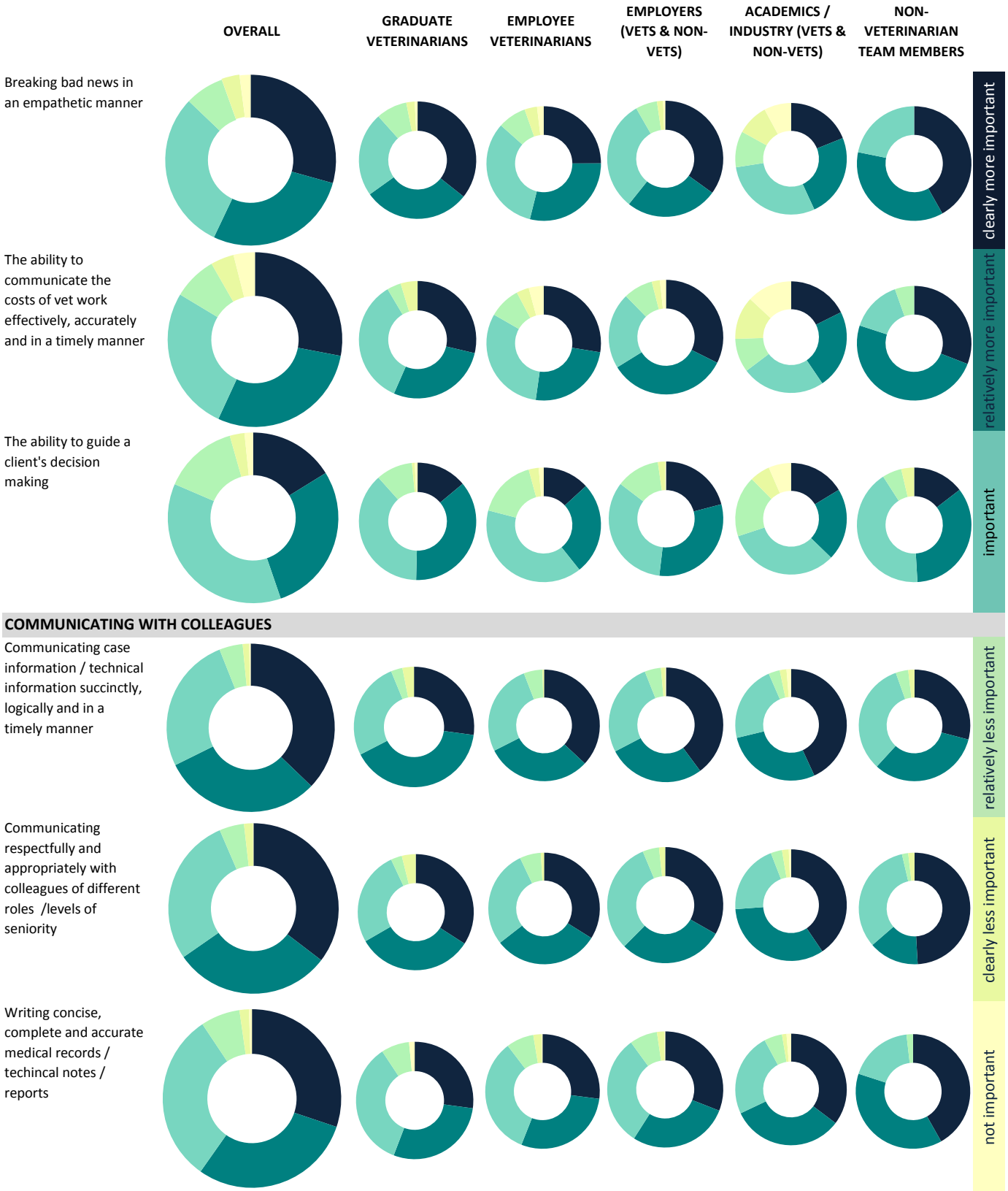
GRADUATE VETERINARIANS
EMPLOYEE VETERINARIANS
EMPLOYERS (VETS & NON-VETS)
ACADEMICS / INDUSTRY (VETS & NON-VETS)
NON-VETERINARIAN TEAM MEMBERS
COMMUNICATING WITH CLIENTS
Communicating effectively and collaboratively with clients
The ability to gain the trust of clients
The ability to understand and appreciate clients' perspectives and needs
The ability to use effective communication to resolve difficult situations
Kindness and compassion
The ability to provide clear explanations regarding veterinary care
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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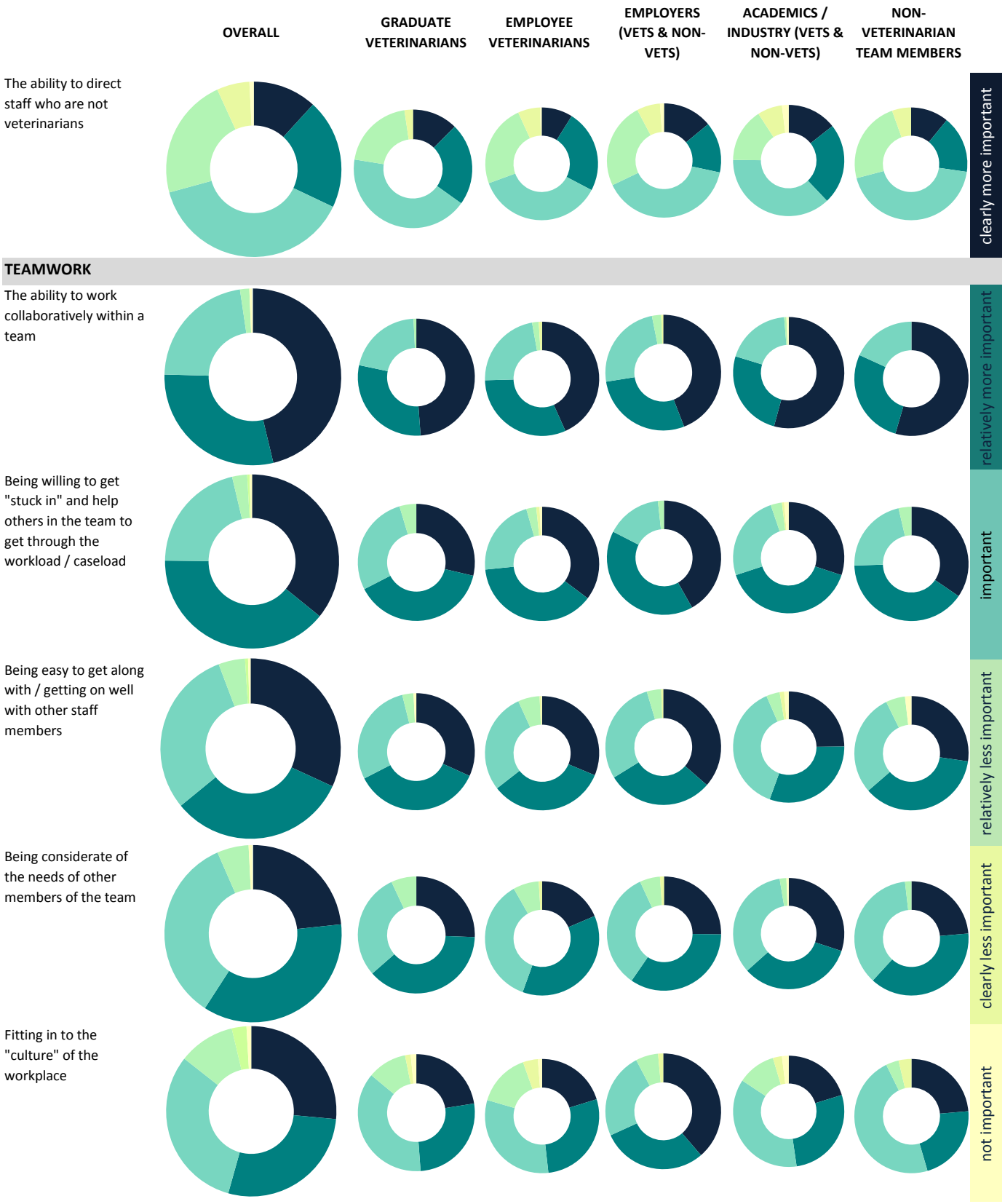
NON-VETERINARIAN TEAM MEMBERS
Breaking bad news in an empathetic manner
The ability to communicate the costs of vet work effectively, accurately and in a timely manner
The ability to guide a client's decision making
COMMUNICATING WITH COLLEAGUES
Communicating case information / technical information succinctly, logically and in a timely manner
Communicating respectfully and appropriately with colleagues of different roles /levels of seniority
Writing concise, complete and accurate medical records / techincal notes / reports
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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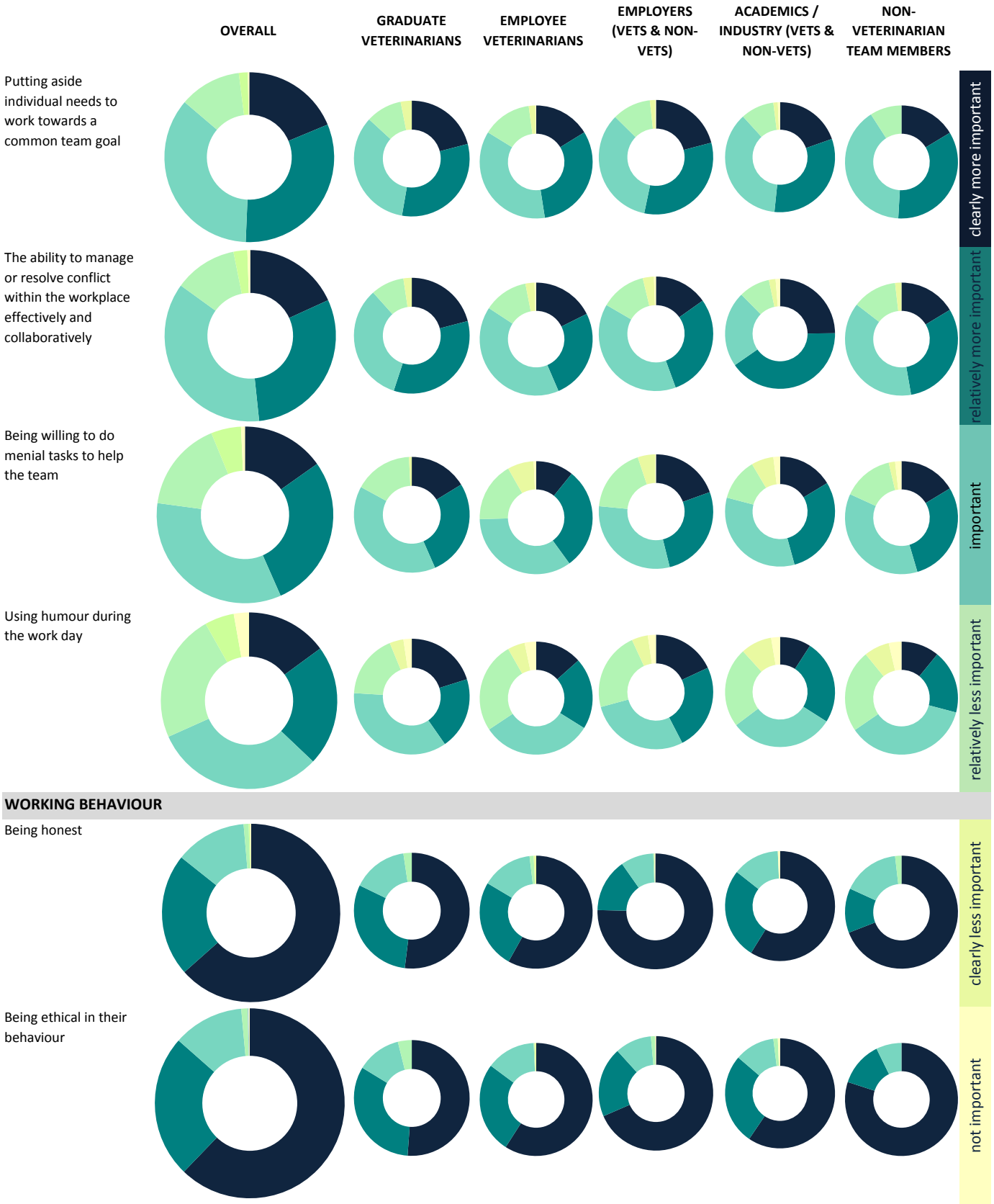
NON-VETERINARIAN TEAM MEMBERS
The ability to direct staff who are not veterinarians
TEAMWORK
The ability to work collaboratively within a team
Being willing to get "stuck in" and help others in the team to get through the workload / caseload
Being easy to get along with / getting on well with other staff members
Being considerate of the needs of other members of the team
Fitting in to the "culture" of the workplace
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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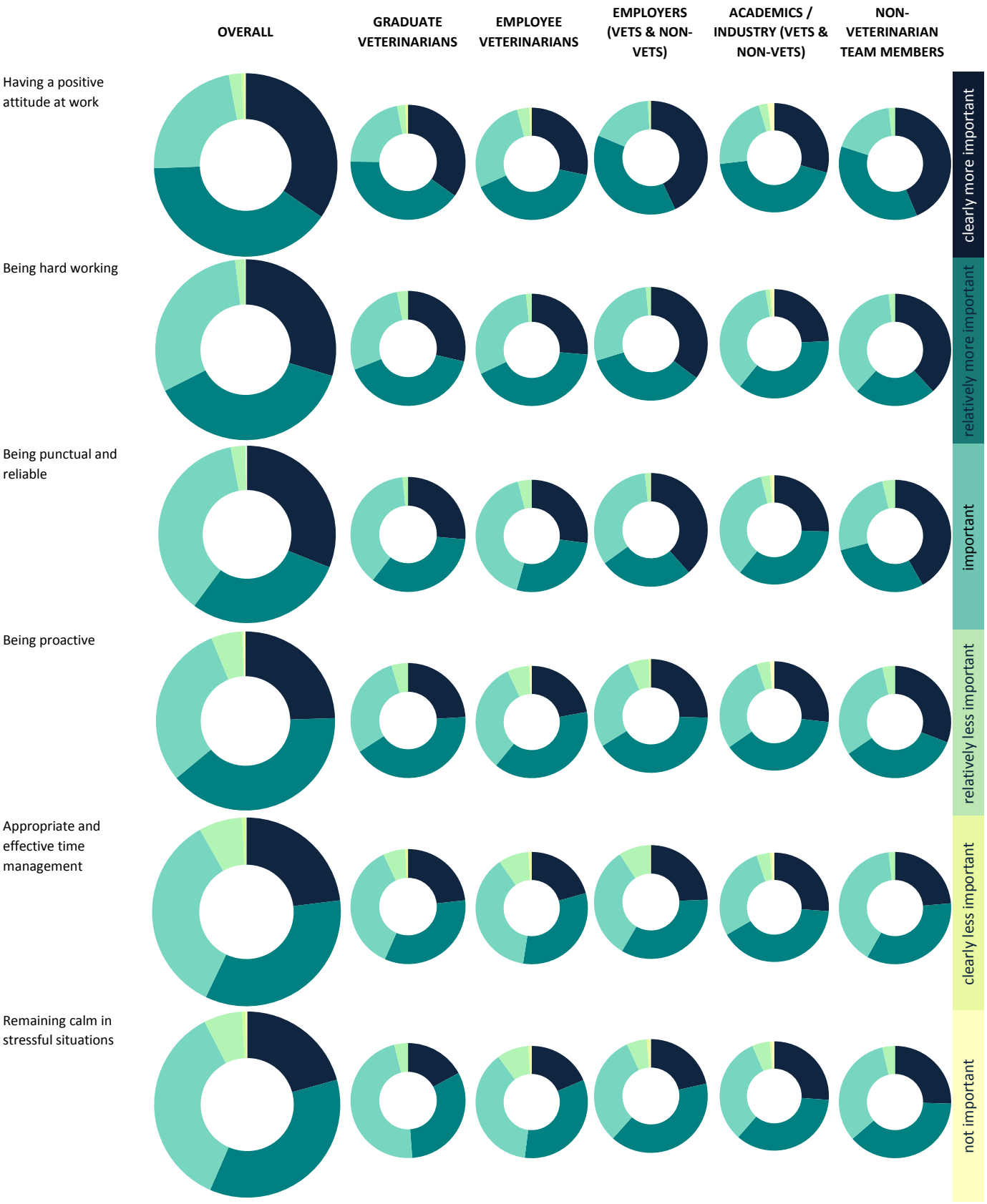
NON-VETERINARIAN TEAM MEMBERS
Putting aside individual needs to work towards a common team goal
The ability to manage or resolve conflict within the workplace effectively and collaboratively
Being willing to do menial tasks to help the team
Using humour during the work day
WORKING BEHAVIOUR
Being honest
Being ethical in their behaviour
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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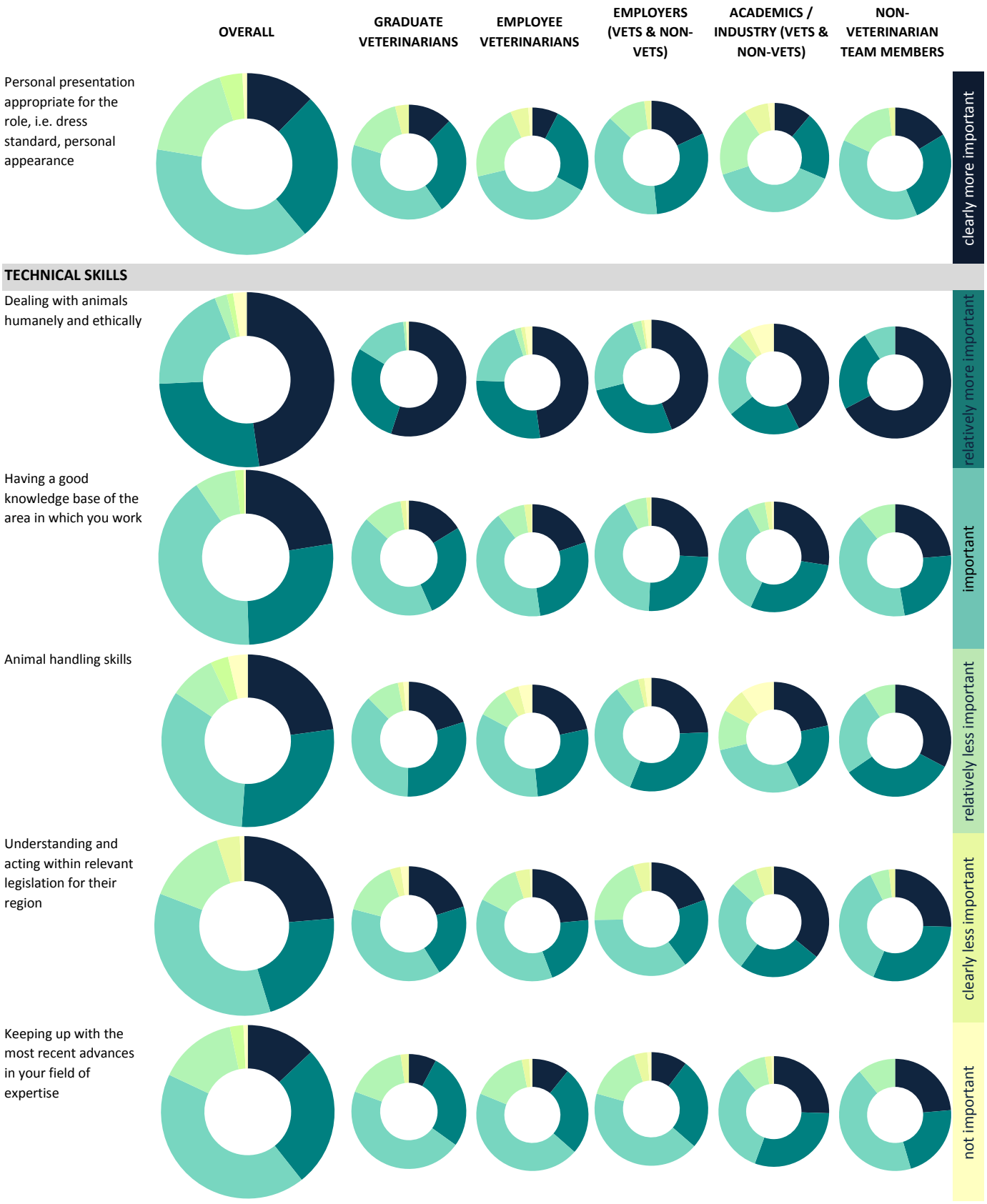
NON-VETERINARIAN TEAM MEMBERS
Having a positive attitude at work
Being hard working
Being punctual and reliable
Being proactive
Appropriate and effective time management
Remaining calm in stressful situations
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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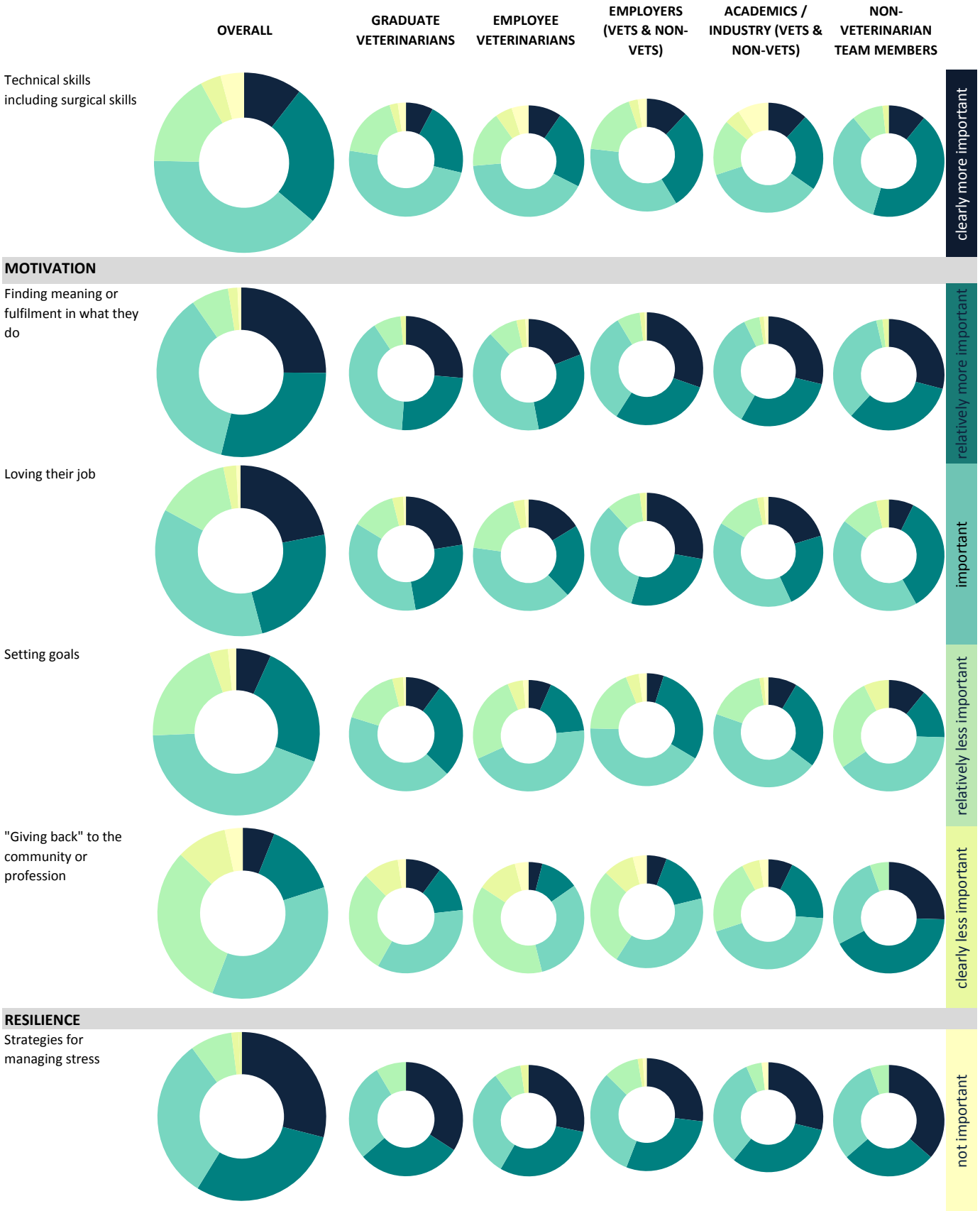
NON-VETERINARIAN TEAM MEMBERS
Personal presentation appropriate for the role, i.e. dress standard, personal appearance
TECHNICAL SKILLS
Dealing with animals humanely and ethically
Having a good knowledge base of the area in which you work
Animal handling skills
Understanding and acting within relevant legislation for their region
Keeping up with the most recent advances in your field of expertise
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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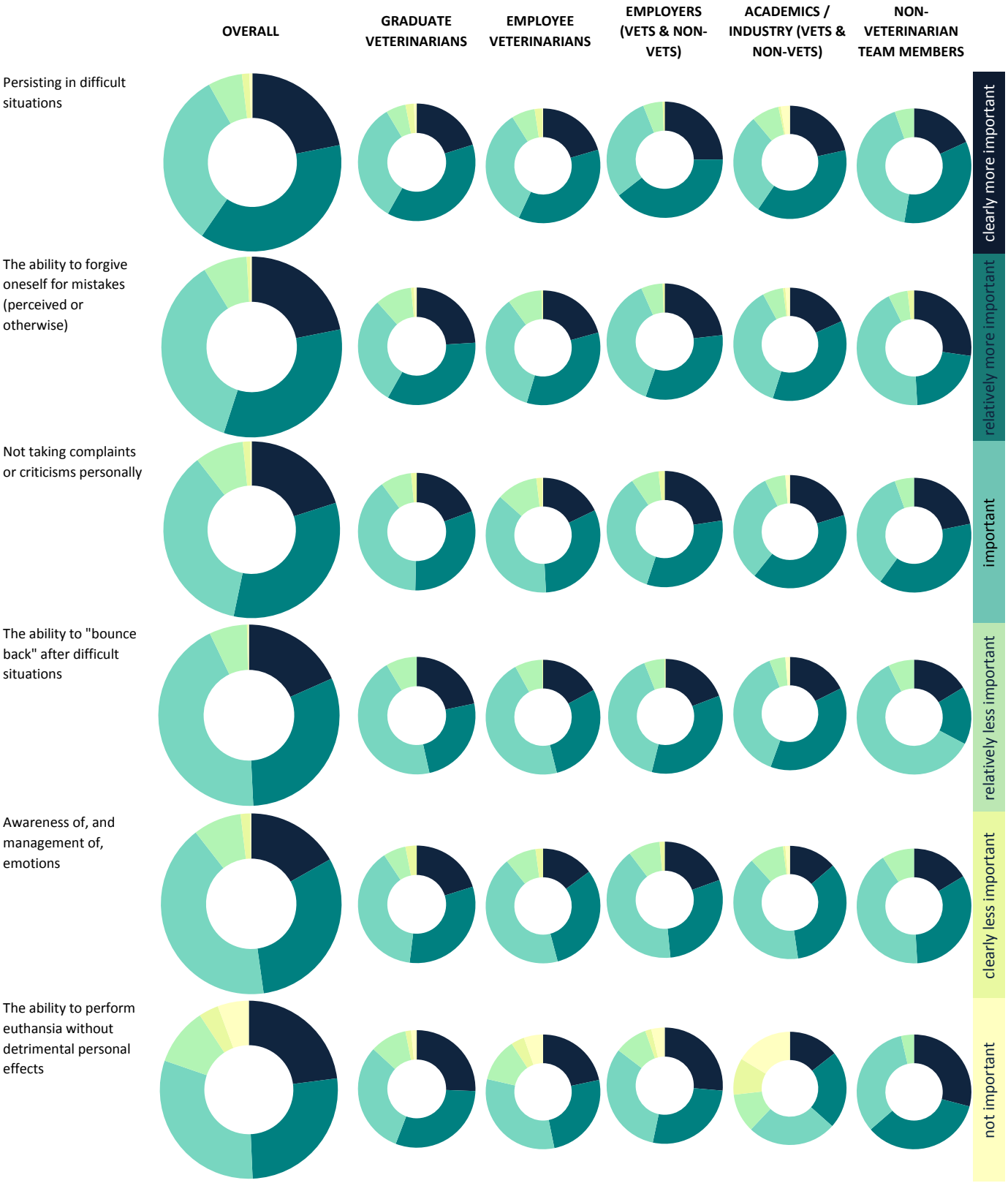
NON-VETERINARIAN TEAM MEMBERS
Technical skills including surgical skills
clearly more important
MOTIVATION
Finding meaning or fulfilment in what they do
relatively more important
Loving their job
important
Setting goals
relatively less important
"Giving back" to the community or profession
clearly less important
RESILIENCE
Strategies for managing stress
not important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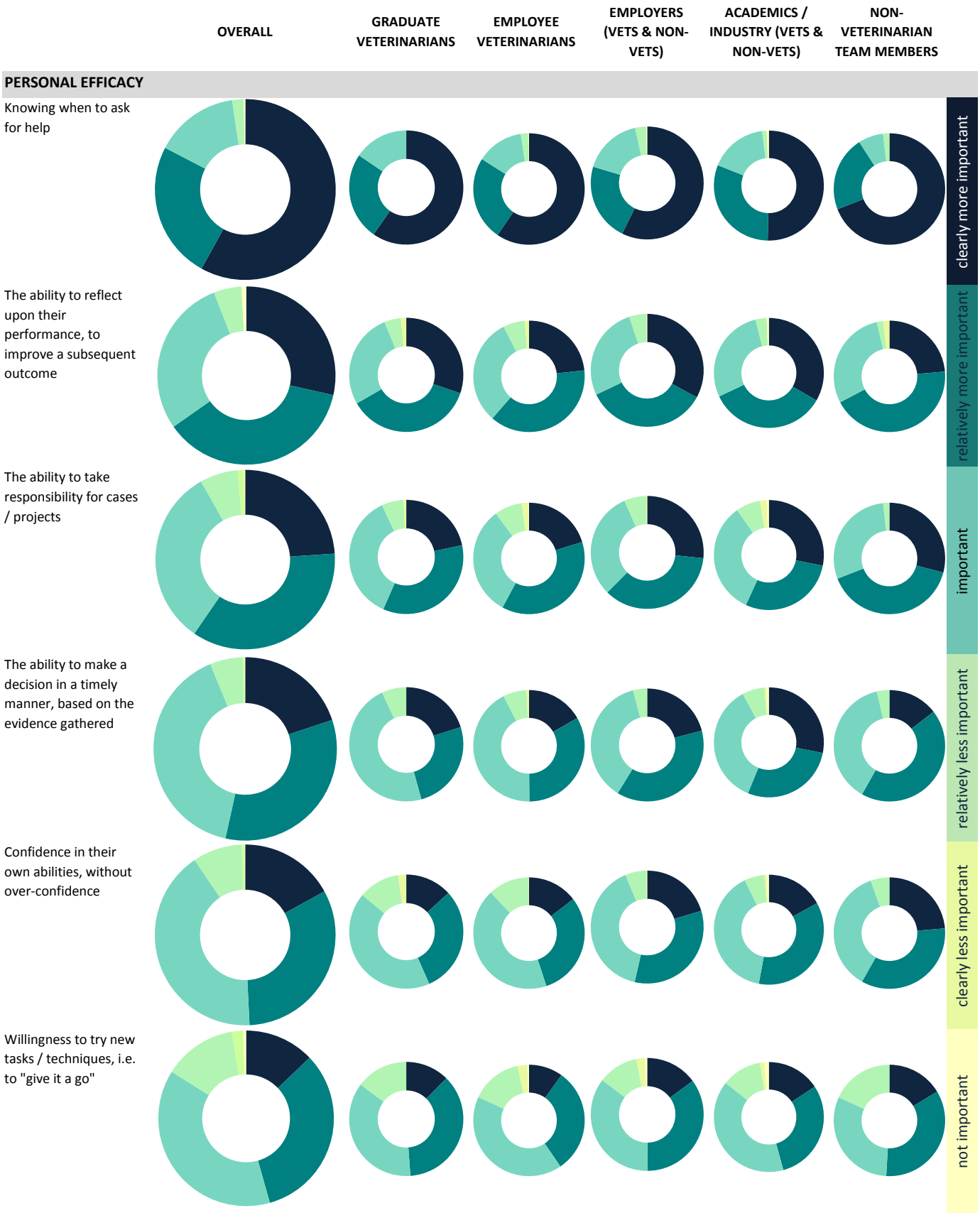
NON-VETERINARIAN TEAM MEMBERS
Persisting in difficult situations
The ability to forgive oneself for mistakes (perceived or otherwise)
Not taking complaints or criticisms personally
The ability to "bounce back" after difficult situations
Awareness of, and management of, emotions
The ability to perform euthansia without detrimental personal effects
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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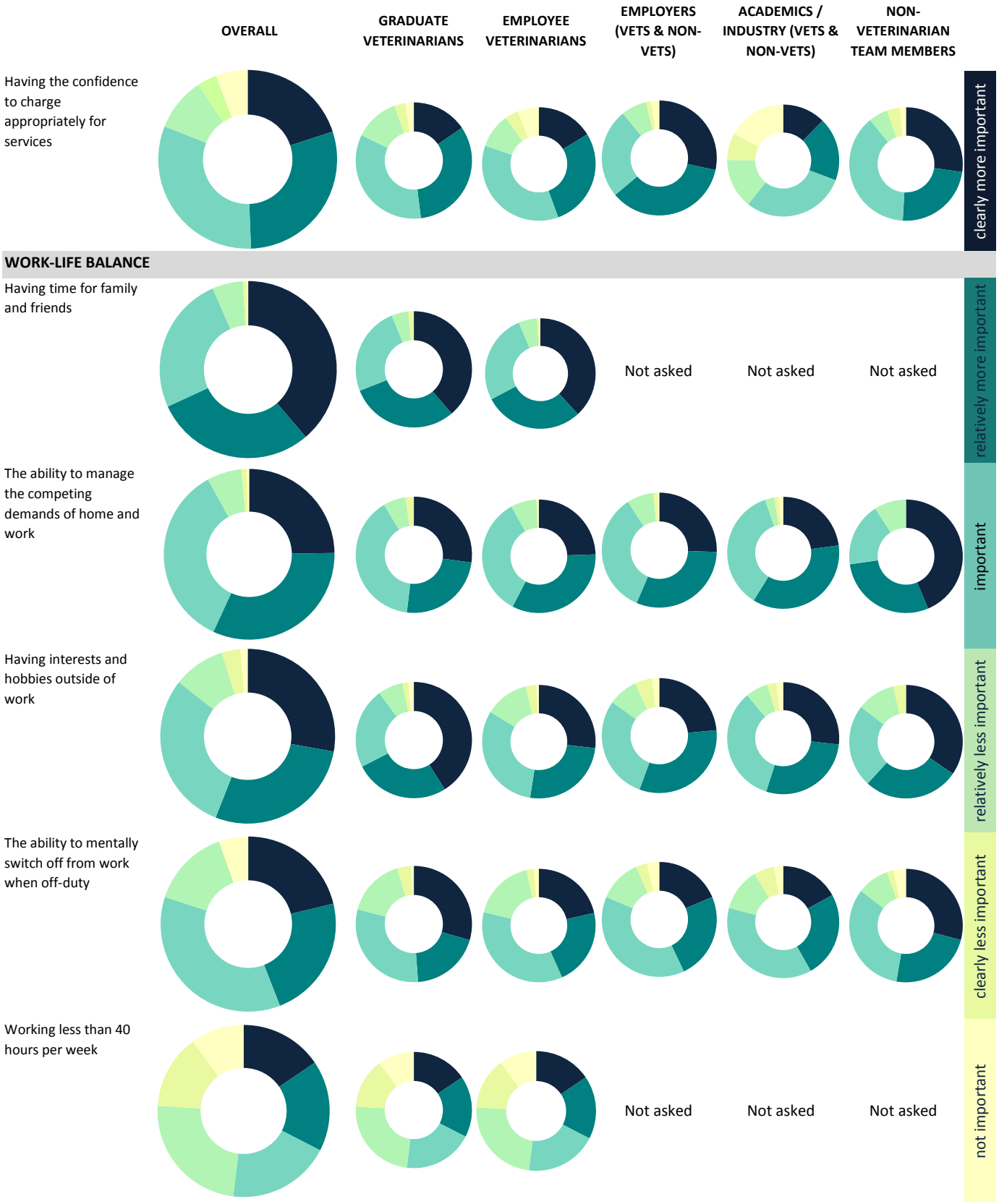
NON-VETERINARIAN TEAM MEMBERS
PERSONAL EFFICACY
Knowing when to ask for help
The ability to reflect upon their performance, to improve a subsequent outcome
The ability to take responsibility for cases / projects
The ability to make a decision in a timely manner, based on the evidence gathered
Confidence in their own abilities, without over-confidence
Willingness to try new tasks / techniques, i.e. to "give it a go"
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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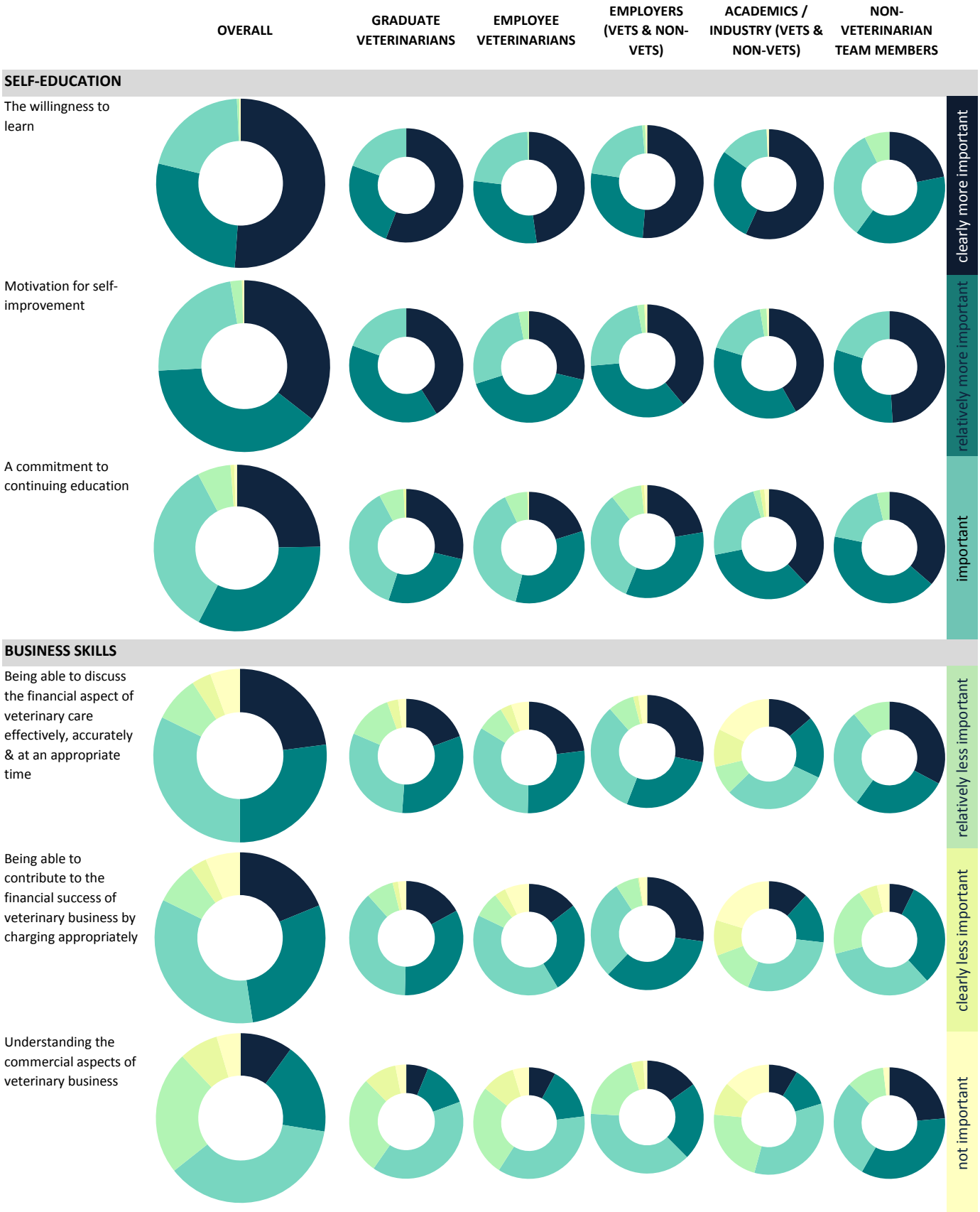
NON-VETERINARIAN TEAM MEMBERS
Having the confidence to charge appropriately for services
WORK-LIFE BALANCE
Having time for family and friends
Not asked
Not asked
Not asked
The ability to manage the competing demands of home and work
Having interests and hobbies outside of work
The ability to mentally switch off from work when off-duty
Working less than 40 hours per week
Not asked
Not asked
Not asked
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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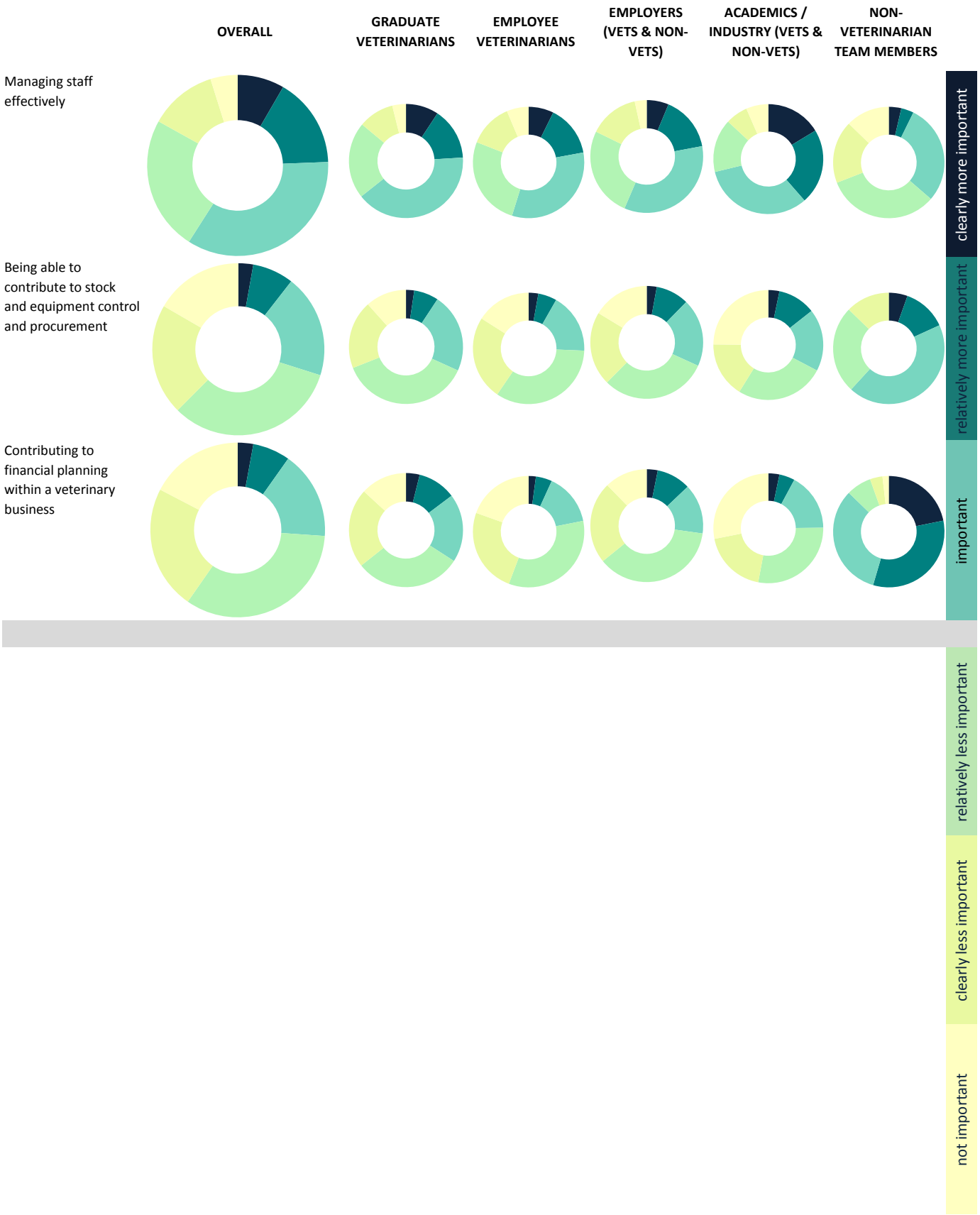
NON-VETERINARIAN TEAM MEMBERS
SELF-EDUCATION
The willingness to learn
Motivation for self-improvement
A commitment to continuing education
BUSINESS SKILLS
Being able to discuss the financial aspect of veterinary care effectively, accurately & at an appropriate time
Being able to contribute to the financial success of veterinary business by charging appropriately
Understanding the commercial aspects of veterinary business
clearly more important
relatively more important
important
relatively less important
clearly less important
not important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NON-VETERINARIAN TEAM MEMBERS
Managing staff effectively
Being able to contribute to stock and equipment control and procurement
Contributing to financial planning within a veterinary business
clearly more important
relatively more important
important
relatively less important
clearly less important
not important

Support for this project has been provided by the Australian Government Department of Education and Training. The views expressed in this project do not necessarily reflect the views of the Australian Government Department of Education and Training.

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