Report

Combatting Stress and Burnout in Cyber Security
– From Surviving to Thriving

By David Slade

www.crest-approved.org
## Contents

Executive summary ................................................................. 4

1. Introduction ................................................................................. 5

2. Overview of stress and burnout in cyber security and background to workshop ............................................. 7
   2.1. Stress and burnout. What are they and is all stress bad? ................................................................. 7
   2.2. What have recent studies on stress and burnout in cyber security showed? ........................................... 7

3. Workshop objectives ................................................................. 9

4. Human Givens approach .......................................................... 10
   4.1. What are the fundamental human needs and innate resources? ............................................................. 10
   4.2. Barriers to getting needs met ........................................................................................................... 12
   4.3. Recognising Signs of Stress and Burnout in self and others .............................................................. 12

5. Combatting stress and burnout (Breakout Session 2) ............................................. 13
   5.1. How to look after ourselves ......................................................................................................... 13
   5.2. Management/staff relationships .................................................................................................. 14
   5.3. Team models and ways of working ............................................................................................. 14
   5.4. Working environment .............................................................................................................. 15
   5.5. Training/psycho education ....................................................................................................... 15
   5.6. Technology/task automation vs. labour intensive methods ......................................................... 16
   5.7. Integration of security into systems ........................................................................................... 16
   5.8. Other areas considered ........................................................................................................... 16

6. Summary and call for action ........................................................ 17
Executive summary

At previous CREST workshops and events, the issue of stress and burnout in the workforce was raised by a number of the participants. This is a problem for all industries, but the nature of the work, the potentially unsocial hours, remote working and remote management makes the issue more concentrated in the technical security industry. The ultimate purpose of the stress and burnout workshop was to raise the profile of the issue for employees and employers alike. In the context of the access to cyber security day the objective was to discuss approaches to support the workforce, help retain people working in the industry and to provide assurance to prospective employees that stress and burnout is recognised as a major problem and steps are being taken to address this. The specific workshop objectives were:

- To increase understanding of stress and burnout in terms of fundamental human needs/resources and how people can recognise when they or others are merely surviving.
- To provide practical tools and ideas to combat stress and burnout and move towards reviving and thriving in the cyber security workplace.
- Establish whether further collaborative work specific to the technical cyber security industry was required.

Participants’ first hand insights and experiences of stress and burnout in the cyber security workplace were discussed and documented in the workshops and also recorded in the online workbooks. The Human Givens approach was used as a guide both to understanding stress and burnout in terms of fundamental human needs and resources and to help focus on areas where these needs might not be being met in the cyber security workplace.

Much of the information gathered from the workshops and online contributions supported previous studies on stress and burnout in cyber security and clearly demonstrated that fundamental needs are not being met throughout the industry. Certainly, the symptoms of stress can be reduced to a degree by people looking after themselves and others around them better but more systemic issues centred on; management/staff relationships, working environment and culture, wellbeing education, task automation, team models and integration of security into business models all require more attention to detail, awareness and empathy in terms of stress prevention.

In order to maintain the momentum initiated by the enthusiasm and good work generated by the workshops and from online contributions a number of actions were recommended.
1. Introduction

Globally, it is becoming increasingly important to attract new people into the cyber security industry but once recruited a serious commitment is also necessary to look after them, get the best from them and most importantly retain them. Morally this is the right thing to do since employees should not have to endure severe stress over extended periods. Indeed everyone has a moral responsibility to look after themselves, their families and their work colleagues and employers have a legal responsibility and a duty of care to look after the welfare of their employees. In an industry that suffers from an acute lack of skilled employees, improving retention of staff and therefore enhancing this resource would only be a positive thing from a business perspective and in addition to that employees operate more proficiently and make fewer mistakes when not highly stressed or exhausted. Reduction of stress and burnout would lead to fewer sick days being taken which would ultimately save time and money but most importantly would protect and provide help to those who need it in the workforce.

In July 2019 CREST ran a day of workshops, hosted by IBM, for; CREST members seeking to employ a more diverse workforce, Academic Partner representatives, Training Partner representatives and other interested parties to discuss access to the cyber security industry. CREST started the discussion with an introduction to the access to cyber security day and highlighted the themes of the workshops; physical disability, gender, neurodiversity and the topic of concern in this report, stress and burnout.

The stress and burnout workshop examined how people working in cyber security could look after their own and others’ mental health and wellbeing.

Recent research has consistently shown that stress and burnout in cyber security is at an unhealthy level and is ever-increasing. With this in mind it made sense to go back to the very fundamentals of what helps human beings thrive rather than merely survive in terms of their mental and physical wellbeing and apply this knowledge to the particular stressors encountered in the cyber security industry. It was anticipated that some of the changes required to help people combat stress might be possible in the short to medium term and other more systemic issues would require a concerted effort and commitment throughout the industry.

To help prepare for the workshop, calls for online contributions were sent out to interested persons both in terms of what topics they felt needed addressing and also their responses to questions posed in a workbook similar to the one used in the workshops. A number of replies were received and were taken into consideration in the workshops and throughout the writing of this report. It was clear from the workshop and the comments received that whilst stress and burnout is an issue in all industries there were some attributes that were quite specific to the technical cyber security industry. A brief extract of the nature of things people wanted the workshop to achieve is given below:

- ‘Looking for guidance on how to ensure that our teams do not burn out or get too stressed and how other organisations deal with the issue’
- ‘Insights into CISO challenges’
- ‘Keen to gain greater information on the prevalence and effects of stress and burnout particularly in our sector’
- ‘I would like to find out how to avoid getting stressed and some pointers to help alleviate it happening and coping mechanisms’
- ‘To gain a better understanding and to gain some skills and techniques that will assist in my personal life’
- ‘A deeper appreciation of managing stress in the workplace with the multitude of means of contacting (bombarding) staff with requests and queries’
2. Overview of stress and burnout in cyber security and background to workshop

2.1. Stress and burnout. What are they and is all stress bad?

Stress is defined as an outcome of an interaction between an organism and the demands put on it by the environment or more specifically in human beings psychological stress is the condition arising when a person perceives that the demands placed on them exceed (or threaten to exceed) their capacity to cope, and therefore threatens their wellbeing. Burnout is a state of physical, mental and emotional exhaustion and is typically experienced after exposure to prolonged or excessive psychological stress.

It is important to mention that most security leaders and others working in cyber security are passionate about what they do and the potential to make a real difference, even when the job is stressful.

They tend to be stimulated by high-pressure situations and find their work exciting, despite it being very challenging. Brief and controllable stress can be stimulating and enjoyable and within limits people perform better when mildly stressed. The difficulty is recognising when this healthy positive stress becomes unhealthy and detrimental to performance and wellbeing i.e. surviving rather than thriving. This combined with antisocial working hours and remote management means that the signs of unhealthy stress are not recognised as early, or at all in the industry.

2.2. What have recent studies on stress and burnout in cyber security showed?

In cyber security several factors combine to create a particularly stressful working environment including but not limited to:

- **Constant and more sophisticated, organised threats/attacks** – there is no obvious end point to the work; security teams always on the defensive, attackers are always searching for weaknesses; people leave work at the end of the day with threat alerts not dealt with; never ending flow of risk assessments, responding to incidents, patching, etc.; staff don’t have feedback to gauge whether they have successfully defended against a threat or not.

- **The speed of innovation relating to threats is increasing** – global cybercrime is increasing and creates difficulty in staying ahead of the threats.

- **Lack of downtime** – non-stop 24/7; every moment is hypercritical; on constant state of high alert and thus hard to disconnect; downtime not used productively i.e. proper breaks not taken.

- **Low sense of personal worth/value and high degree of cynicism** – security staff not feeling particularly liked by other teams at times due to potential for creating extra work or slowing things down for them; take things very personally; often delivering unwelcome news and seen as failing.

- **Solitary nature of remote working** – lack of support and communication with others can lead to vulnerability and stress and burnout developing unnoticed.

- **Cyber security is not widely accepted as a strategic function** – lack of senior management buy-in to the advice of security employees.

- **Skills shortage** – causing high rates of burnout and staff turnover, globally the total number of unfilled security jobs estimated to be 3.5 million by 2021; overloaded; widely believed that attackers have a skills advantage; having to get more done with less resources.
• **Increasing regulation** – GDPR, NIS Directive increasing pressure in roles; concerns over being held personally liable; different in different geographic areas; keeping track of these let alone doing actual defending work.

• **Having to secure too much data in too many places** – growing complexity of the digital realm; ever-changing technical aspect to cyber security and trying to keep up; increasing responsibility; unrealistic deadlines and client expectations.

• **Threat of losing job or being disciplined** – mistakes are costly; difficult to communicate the importance of the work without raising alarms to management; over last 10 years salaries have increased markedly which generates extra delivery pressures; single point of failure.

• **Very rare for people in cyber security to seek professional help when feeling overwhelmed** – people worried about being labelled with ‘mental illness’ and restricting duties, etc.; peer group support might be lacking; unhealthy coping mechanisms used.

Recent statistics (UK and US figures combined) show that:

• 30% of security team members experience tremendous stress

• 27% of CISOs admit stress levels greatly affect ability to do job

• 23% of CISOs say stress adversely affects relationships out of work

Nearly **1 in 3** security team members experience tremendous stress

Over **1 in 4** of CISOs admit stress levels greatly affect ability to do job
3. Workshop objectives

With the above research findings taken into consideration, the workshop was divided into two parts reflecting two main objectives:

To increase understanding of stress and burnout in terms of fundamental human needs and resources and, how people can recognise when they or others are merely surviving (Breakout Session 1)

To provide practical tools and ideas to combat stress and burnout and move towards reviving and thriving in the cyber security workplace (Breakout Session 2)

As well as providing understanding and resilience training tools to better handle the stressors of the job the workshop also explored the need for more attention to detail, awareness and empathy in the cyber security workplace.
4. Human Givens approach

The Human Givens (HG) approach comes from the understanding that human beings are biologically programmed to have certain physical and emotional needs and also have innate resources, like an internal satellite navigation system, to help them get their needs met in whatever environment they find themselves in. These needs and resources are given by nature.

When essential physical and emotional needs are met in balance and people’s innate mental resources are used correctly, they will be emotionally and mentally healthy and will thrive.

However, when emotional needs are not adequately met in balance, or are met in unhealthy ways, or when innate resources are damaged for any reason or unintentionally misused, mental states such as stress, anxiety, anger, depression or addiction often follow. The principles of the HG approach feel familiar to most people because they are core to people’s existence. Thinking about them in the context of the workplace can make a significant difference to helping employees achieve a meaningful work-life balance. This can be achieved by focussing on precisely what needs to change in order for them to be mentally healthy. The HG approach has been successfully applied to individual therapy, organisations, education, politics and other areas besides.

4.1. What are the fundamental human needs and innate resources?

So what are the fundamental needs and resources that ensure a person’s sense of wellbeing? In Breakout Session 1 of the workshop and in the online workbooks the following questions were posed:

Q: What do you consider to be the fundamental human (emotional and physical) needs that when met in balance enable a human being to be mentally healthy?

Q: What innate resources do human beings possess to help them get their emotional needs met?

Most of the essential human needs and innate resources identified over decades of work by health and social psychologists were identified directly or indirectly by participants in the workshop groups, acknowledging that physical needs are adequately captured under the need for security. The nine needs identified, with examples of their relevance to the workplace, were summarised as follows:

- **Security** – an environment where people can live without experiencing excessive fear (e.g. of losing their job or not feeling part of a team) so that they can develop healthily as individuals and families; insecurity can lead to experiencing an inability to learn, properly complete tasks and meet other human needs; includes the ability to secure food, warmth, shelter, clean air, a safe place to live, a good night’s sleep, adequate exercise, etc.

- **Control** – a sense of autonomy, choice and control over what happens around and to people; feeling well supported but ultimately being able to make their own decisions.

- **Attention** – receiving and giving it; a form of essential nutrition that fuels the development of each individual, family and culture; in the workplace this translates into ensuring employees receive regular feedback on their work as well as checking how they’re feeling.
• **Emotional connection to other people** – includes friendship, love, intimacy; often people experience emotional connection from partners, family members or pets; employers must recognise the importance of their employees’ home lives, which can be demonstrated through family-friendly policies; security leaders and team members will often put work before their personal lives because the nature of their work relates to the health and wellbeing of the wider community or organisation so self-sacrifice becomes the norm and eventually affects their own wellbeing.

• **Connection to the wider community** – people being part of something larger than themselves; generally feeling part of a broader community adds to people's sense of wellbeing and can be encouraged at work from social lunches to emphasis on team-building.

• **Privacy** – People need opportunities to reflect and consolidate their experiences.

• **Status** – being accepted and valued in the various social groups people belong to; losing sense of status can make people feel incompetent and a lack of connection with others.

• **Achievement and competence** – which comes from successful learning and effectively applying skills; giving employees clear objectives, support in achieving objectives if necessary and recognition when staff reach their goals.

• **Meaning and purpose** – which comes from being stretched in what people do and how they think; it is through ‘stretching’ themselves mentally and physically by service to others, learning new skills or being connected to ideas and philosophies greater than themselves that people’s lives become purposeful and full of meaning but it is hard to feel connected to a sense of purpose when overly stressed.

Innate resources are:

• **Long-term memory** – which enables people to add to their inherent knowledge and keep learning; memory becomes less efficient when stressed and becomes biased towards remembering negative events, etc.

• **Rapport** – the ability to empathise and connect with others; this ability is impaired when overly stressed.

• **Emotions and instincts** – emotions help people communicate, motivate people to change things and demonstrate feelings; when excessively stressed emotion dominates and the ability to think clearly is significantly reduced.

• **Imagination** – enables people to focus attention away from emotions and problem solve more creatively and objectively; when misused imagination can lead to excessive negative thinking as in depression.

• **Conscious, rational mind** – that can check out emotions, question, analyse and plan; access to this type of thinking is impaired when overstressed.

• **Ability to know** – understand the world unconsciously through metaphorical pattern matching; stress can lead to unhelpful patterns being established in the mind which can lead to anxiety, depression, anger, etc.

• **Observing self** – that part of people which can step back, be more objective and recognise itself as a unique centre of awareness apart from intellect, emotion and conditioning; when stressed, people lose the ability to see the wider picture and maintain a balanced perspective on things.

• **Dreaming brain** – which allows people to metaphorically discharge unexpressed emotional expectations from the day before thus freeing the brain to deal with the next day’s emotionally arousing concerns; when people worry excessively as they do when stressed, they dream more than normal which uses up large amounts of energy often resulting in exhaustion, lack of motivation and depression.

In general people's ability to use their resources correctly and in healthy ways is hampered when they are overstressed.
4.2. Barriers to getting needs met

Another question posed in Breakout Session 1 was:

Q: What barriers might prevent these needs getting met? Including particular difficulties within the cyber security workplace?

Inevitably some of these barriers were discussed whilst discussing needs and resources. There are three main possible reasons as to why someone may not be able to get their needs met. Participants identified a large number of barriers prevalent in the cyber security industry which supported the previous research findings on stress and burnout and that fell into one of the following three broad categories:

• The environment is toxic – e.g. workplace bullying; poorly managed change at work; working remotely without adequate support thus feeling isolated and disconnected; unhelpful culture regarding wellbeing; lack of flexibility in the workplace.

• A person’s internal guidance system is damaged – e.g. unhelpful conditioning; psychological damage due to trauma; brain injury or genetic conditions.

• Missing coping skills – e.g. misuse of the imagination by worrying excessively; people haven’t learnt how to engage and disengage their attention at will; unrealistic expectations about work.

It is important to note at this point that neurodiverse employees working in cyber security have the same fundamental needs as neurotypical people but may require different approaches to helping them get their needs met in the workplace.

4.3. Recognising Signs of Stress and Burnout in self and others

It is crucial to be able to recognise the warning signs of stress and burnout in order to be able to deal with it effectively and in a timely manner. For this reason participants were asked to consider the following question in Breakout Session 1 of the workshop.

Q: What are the symptoms of stress and burnout to look out for in one’s self and in work colleagues?

Participants were conversant with a number of the warning signs of stress and burnout and it was useful to group these into stages as highlighted below:

In the early stages people may feel anxious, lacking in confidence, that they are making erratic decisions with negative consequences, irritable, they have reduced concentration, poor time keeping, feeling overwhelmed, etc.

If these changes go unnoticed (which is highly likely if working remotely for long periods) or are ignored over a prolonged period more noticeable changes can occur and often prompt action. These changes include; insomnia, sudden decline in performance, increased alcohol/drug intake, over or under eating, increasing number of sick days taken. Finally people may become burnt out i.e. feeling powerless and hopeless, withdrawn, extreme loss of motivation, not caring and suffering with physical, emotional and mental exhaustion.

In summary, all of the nine emotional needs (security, control, status, privacy, community, achievement, attention, emotional connection to others, meaning and purpose) have the potential to be compromised to some extent in the cyber security workplace environment for a variety of reasons.
5. Combatting stress and burnout (Breakout Session 2)

How can people combat stress and reduce its effects for themselves and work colleagues alike? From the initial research carried out relating to stress and burnout in the cyber security industry the following categories were formulated and considered as potential target areas for stress and burnout prevention/reduction:

- Lack of appropriate self-care or care of others in terms of stress prevention/reduction
- Management/staff relationships
- Team models and ways of working
- Working environment - working hours, time off/out, workplace culture
- Technology/task automation vs. labour intensive methods
- Integration of security into systems

Workshop participants were asked to keep in mind the emotional needs, innate resources and barriers referred to in Breakout Session 1 to guide them. Ideas and points of interest were noted and summarised in the relevant sections below.

5.1. How to look after ourselves?

People can help themselves deal with stress in a number of ways (e.g. physiologically, emotionally and cognitively) and finding the right balance is very much a personal choice. Participants came up with a wide variety of methods and ideas for helping themselves reduce the effects of stress including but not limited to:

- Talking to colleagues and family members as keeping quiet about problems does not help in the long run.
- Employees or potential employees make themselves more aware of the culture, pressures and expectations and discuss with their support network the balance of pro’s and con’s in decisions they might reach.
- People to carry out an emotional needs audit on themselves to identify which needs are not being met and set positive and achievable goals to help get particular needs met.
- Use wellbeing related apps (e.g. Headspace).
- People should know their energy patterns and plan their work accordingly i.e. doing tasks that require more brain power when feeling most energetic and easier admin tasks when feeling low on energy.
- Give and receive peer support as long as appropriate, proportionate and equal.
- Avoid turning to drugs and alcohol, excessive eating, etc.
- Take regular physical exercise - get up from desk regularly or go outdoors for a walk and fresh air, get away from computer and actually take lunch breaks. Exercise helps boost mood and is linked with improved self-esteem, better sleep quality and increased energy.
- Try not to take things personally as people can only do so much.
- Use reframing (challenge assumptions, look for learning opportunities in situations, ask what’s good about a situation etc.) to rationalise a situation i.e. stand back from the problem and question whether it’s as bad as it first appeared.
- Relaxation techniques – e.g. 7/11 breathing, muscle tension/relaxation, guided visualisation.
- Mindfulness – use short mindful exercises, take regular breaks, eat mindfully, focus on one task at a time, be present and pay attention, be mindful in all communications and make time for self-reflection.
- When dealing with challenging communicators (rude, aggravated, etc.) remain calm and focus on the subject at hand. Ask them to clarify what they mean or tell them your understanding of what they said. Focussing on facts not emotions can help keep both parties composed.
- The best way to deal with passive-aggressive behaviour is to try to understand the person’s behaviour and try to build a positive relationship with the person. Being kind, communicative and non-threatening can help people like this feel more relaxed.
• Bullying behaviour should be dealt with initially by having a quiet word with the colleague and let them know the impact of their behaviour, while remaining professional and unemotional. Failing that, advice and support should be sought from line managers or HR.

• Helping others – e.g. volunteering is very therapeutic.

• Worry time – have a dedicated 5-10 minutes in the day to think through worries and work out which ones can be progressed and ones which can’t. This can help regain a sense of control and reduce stress and excessive dreaming.

• Employ good sleeping habits/tips.

5.2. Management/staff relationships

• Managers to ask how their team members are doing. Listen reflectively showing staff contributions are valued and have a real purpose. It is important to develop a culture where regular feedback, conversation and fulfilling discussion are actively encouraged. This is particularly important when people are working remotely.

• Simply thank team members for their efforts.

• Having a formal structured review process and informal catch-ups between managers and staff is important to gauge whether someone is struggling. Managers should help employees feel more in control by being approachable to discuss workload and other issues.

• Share concerns over work pressure with managers.

• The amount of face to face time can be limited since managers are often also consultants so HR should undertake a key role either supporting a remote line manager or as a mentor to encourage cross-connections and a supportive workplace.

• Trust needs to be built so that staff feel comfortable talking about difficulties without fear of that information being spread around the workplace.

• Management to raise the sense of status and control experienced by staff by supporting them to make their own decisions.

• Ensure each team member’s skills and areas of expertise are properly communicated across the organisation – setting up peer-to peer learning opportunities or work shadowing can also help this.

• Employees to be set clear objectives and deadlines and recognition given when goals met. Meaningfully integrating wellbeing into the workplace can include discussing how tasks will be achieved rather than just setting employees tasks to complete. This helps prevent stress and burnout.

• Tackle problems head on and promptly.

• Ensure managers are aware of stress warning signs.

• Clear working hours and breaks to be agreed e.g. expectations regarding late evening emails.

• Walking meetings for line manager catch ups.

5.3. Team models and ways of working

• Utilise teams to full potential.

• Promote monotasking and streamlining workloads. Encouraging staff to focus on one task at a time as this can be better for wellbeing and can help refresh, revive and focus the mind.

• Staff need time out from their paid deliverables to address getting needs met.

• Move away from hub and spoke model thus minimising single point failures.

• Promote flexible working.

• Find the right people for the right jobs

• When advertising vacancies jobs should be described clearly along with the expectations and support structures.

• Balance between HQ centred workforce vs. remote workforce and the impact that has on what ‘team’ really means.

• Team collaboration to ensure efficient team functioning – use multiple resources to spread the workload out where possible and people to bounce ideas of each other. If resource issues make this difficult identify areas where this can be achieved to some extent.
5.4. Working environment
(e.g. working hours, time off/out, workplace culture)

Take regular time off including extended holidays – taking holidays of more than one week can significantly help people recharge and increase resilience to stress. Also take regular downtime during the working day.

- The cyber security industry may or may not be ready for change that fits the Human Givens approach to getting needs met but organisational leadership must demonstrate that they care about their staff and show empathy regarding their day to day difficulties by constantly making an effort to invest in their wellbeing.

- People often feel measured by where they fit in an ever increasing hierarchy of qualifications and not on their potential or the value they add to the company. Proper support is needed to improve skills and raises people’s sense of status. Organisational culture plays a major role here.

- Social events and team-bonding events.

- Times of uncertainty at work can cause immense pressure on individuals. Any times of change e.g. restructuring, should be communicated with the support of clear change management guidelines and a variety of internal communication channels, while providing opportunities for staff to ask questions.

- Cutting out negative behaviour – workplaces that tolerate bullying or harassment experience inefficiency, high staff turnover and poor relationships within teams at all levels. Designing out bullying should begin with a clear policy about the expectations of behaviour at work and the consequences of not complying. Developing a culture where wellbeing is a priority, as well as investing in leadership development, are important elements of designing out bullying, harassment and the subsequent stress.

- Leave space between meetings.

- If doing something awkward do it first thing in the day to get it out of the way.

- In open-plan offices set aside quiet rooms and hot-desking areas that offer more privacy.

- Helping employees to understand the important role they play towards an organisation’s vision and mission – these positive feelings can be achieved through charity events for employees to take part in, such as group volunteering or fundraising drives.

- Creating an organisational culture of openness and communication is crucial to addressing insecurity where employees are transparently communicated with and have channels for discussing concerns.

- Unhealthily high stress work environments do not have to be an inevitability of the cyber security workplace to avoid people burying themselves in too much work because they don’t want to be failing. By paying attention to key areas of employee support and tackling issues that could result in stress head-on, it’s possible to create positive, low-stress work environments.

- Cultural change needs to happen at board level by people who want to change it and understand it fully. Companies that take wellbeing seriously notice a dramatic upturn in the performance of employees because they feel a sense of belonging, commitment and loyalty. Policies promoting health and wellbeing should be implemented.

- In large organisations demonstrate that every employee is valued.

- HR teams to address providing resource to invest in wellbeing of cyber security staff.

5.5. Training/psycho education

- Employees should be given access to sources of advice on mental health issues (psychoeducation) and resilience training tools, workshops, etc. Everyone has a responsibility to do this.

- Stress and Burnout self-help videos could be posted on the CREST website along with other educational information.

- There is often and induction week for new employees but stress education and coping techniques could be introduced as a mandatory element for membership companies.
• Training tends to be focussed and linked to technical certifications associated with client demands. An example of these pressures is that for one senior role 11 certifications from across 6 different certification bodies were needed in order to meet the requirements across different regions and client demands for doing the same job. This creates huge pressure on an individual alongside the fear of failure of no certificate = no client work (especially in Pen Testing / Risk consultancy).

It was argued that the people who need psychoeducation the most and who can make a difference are the most reluctant to take it on board so ways of getting that message across need to be carefully thought through, devised and communicated.

5.6. Technology/task automation vs. labour intensive methods
• Automate more tasks taking the strain off overworked employees. The dilemma here is that employees could face redundancy as they are replaced by automation so having a transparent process that shows the investment in different job structures would be needed in order to avoid fear and additional stress.
• Be proactive and informed about the correct tools to protect from cyber-attacks.
• Successful automation relies on careful selection of technology and adequate training should be provided before going live.

5.7. Integration of security into systems
• There are opportunities if the engineering and software development areas embrace a more coordinated approach to security and in turn that would require fewer skills in the ‘reactive’ aspects of cyber security but open up more employment opportunities.
• Move from reactive to strategic approach.
• Educate the business on the threat landscape and demonstrate how cyber security can become a business and transformation enabler.
• Integrate security into software development and IT operations teams solving problems before they arise.
• Business critical function – management should invest time understanding the detail of security or bring knowledge onto the board and create a collaborative environment where risks are understood and appropriate resources allocated.

5.8. Other areas considered
• At present there is no centrally managed profession which tracks people moving roles and the reasons given. Employees may be carrying unresolved personal issues into a new job without access to the support and advice that they require. Recruitment agencies are often the first external organisations that notice the signs of stress and or burnout and working out how they might fit into the support network for individuals could be an important benefit.
6. Summary and call for action

Taking all the points raised above into consideration, a clear distinction between ‘needs’, which are physically or psychologically necessary, and ‘wants’, which arise from greed and conditioning, should always be held in mind. To the extent that any leader or organisation fails to help people more fully meet their innate human needs they are contributing to the generation of mental and physical illness. Management’s urgent task is therefore to ensure that the organisation flourishes in a way that serves both the people outside it (that it was set up to help), and the people inside (who work for it). A way of assessing how well the psychological needs of both groups are taken into account should be built into the system. This would ensure that any change of structure or practice instituted in the organisation does not impinge on these needs. Facilitating alignment with the human givens (needs and resources) should always be at the core.

From a human givens perspective, motivation is an appetite. You can’t make someone eat, if they have no appetite.

Business leaders have to learn that their job is to create the conditions where people can get their appetites satisfied for their needs. Thus a business that adopts these ideas is going to work hard to shift control down the hierarchy, because a business works most effectively when decision making is at the coalface. People at the coalface have to have the capacity to make these decisions and that is done by creating a learning and performance culture, which naturally pushes control down. Conversely, a command and control culture pushes control up the hierarchy, where it gets replaced by red tape.

Call for action points

- Small piece of research to identify good practice guidance that can be referenced to CREST member companies.
- Where there are gaps in the advice given that relate to the issues raised by the workshops CREST to consider collaborative workshops to fill these gaps. These could include:
  - Information documents on topics such as healthy remote working to be produced.
  - Resilience training tools, workshops, etc.
  - A series of stress and burnout related self-help videos (e.g. recognising the symptoms, asking for help, relaxation techniques, managing stress in the workplace, mindfulness in the workplace, how to deal with challenging colleagues, etc.)
- Consider asking about the company policies on staff welfare including stress as an element for membership companies. Whilst it is not felt that this should be mandatory, as it does not relate directly to the delivery of services, it would at the very least raise the issue in the minds of the CREST member company management.
- A small working group be established with volunteer CREST members to contribute and oversee the work in this area.