

# SebDB

## Behaviour and Risk Selection

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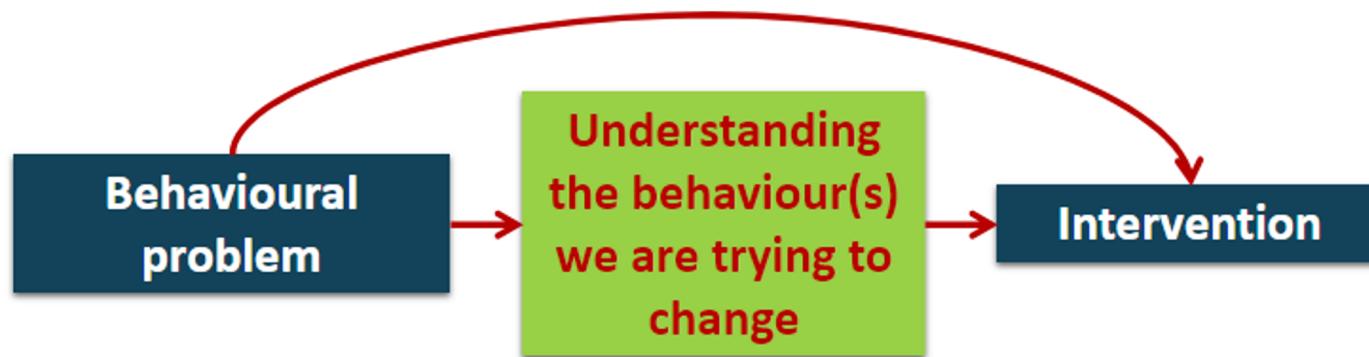


# Why are interventions failing?

- Message fatigue
- Fear and scare tactics
- Scatter gun approach
- Lack of meaningful metrics
- Interventions not addressing the right barriers



# Why are interventions failing?



# Understanding behaviours

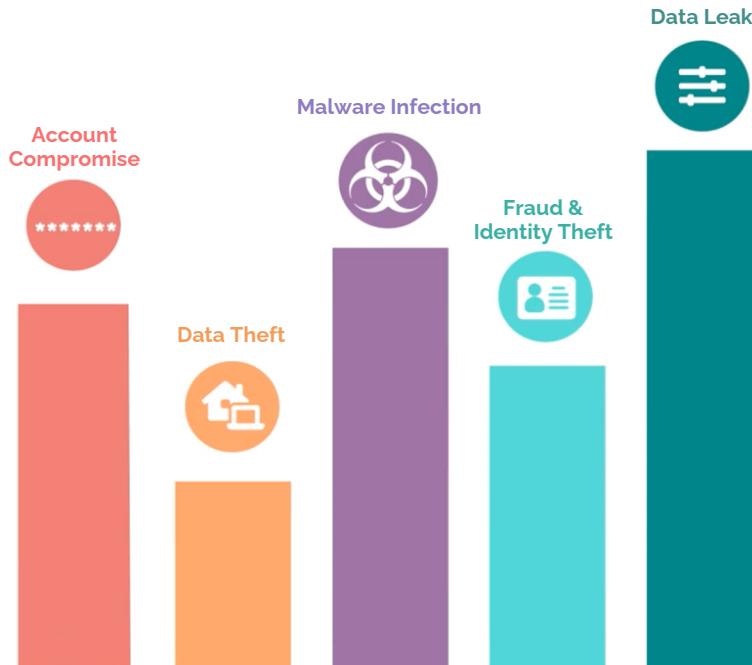


# Behavioural Risks

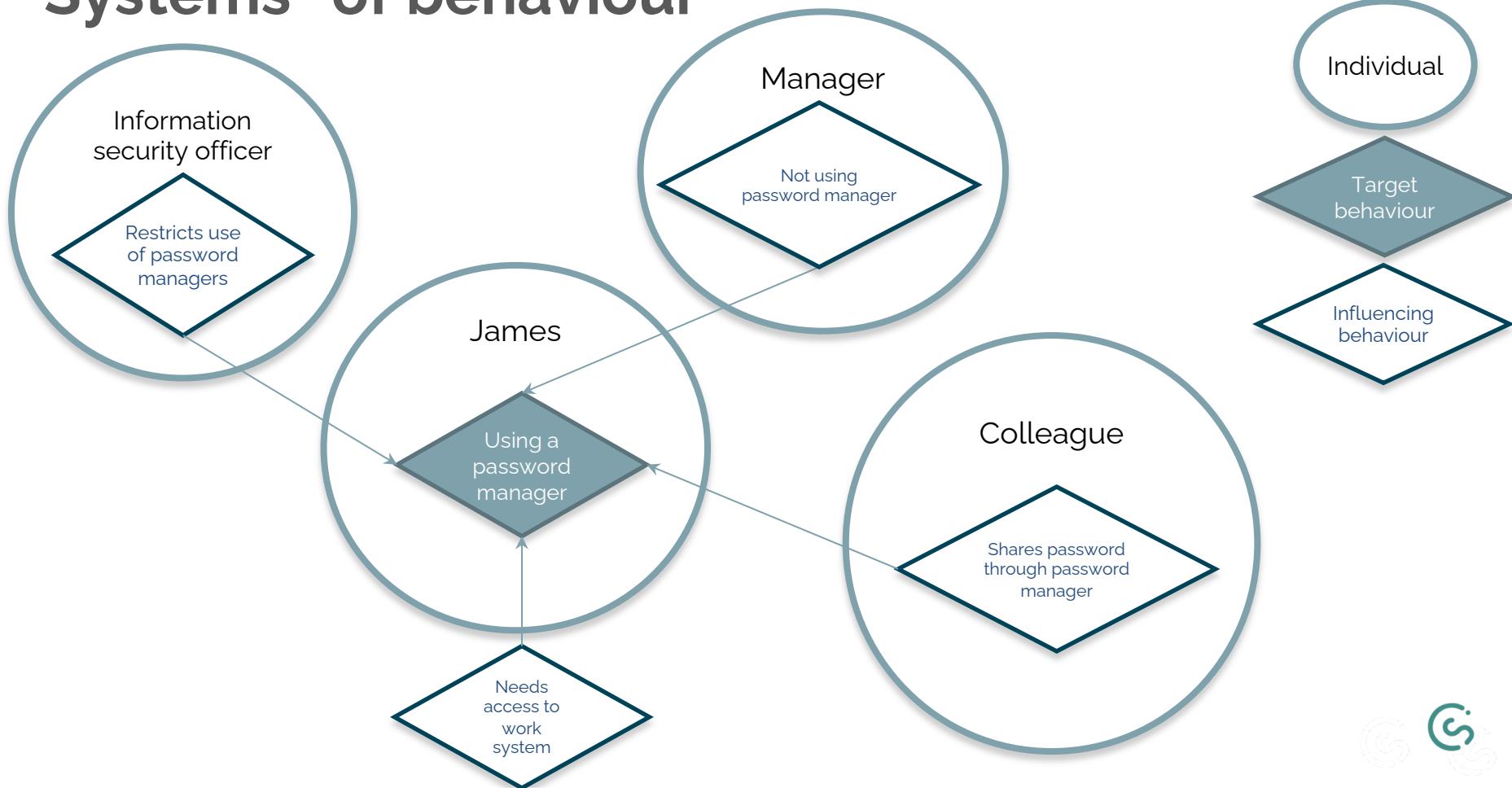
## The behavioural problem

Being specific about:

- *What risks you are tackling*
- *The mitigating behaviour(s)*
- *The target individual or group*



# “Systems” of behaviour



# Prioritising Behaviours

## Primary Criteria

1. Impact (on security risks)
2. Likelihood of change

## Supporting criteria

1. Behavioural spillover
2. Suitability
3. Ease of measurement



Adapted from Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, 6(1), 42.



# The security behaviours database v1

- Behaviour categorisation & risk mapping.
- Security behaviour prioritisation support.
- Case studies



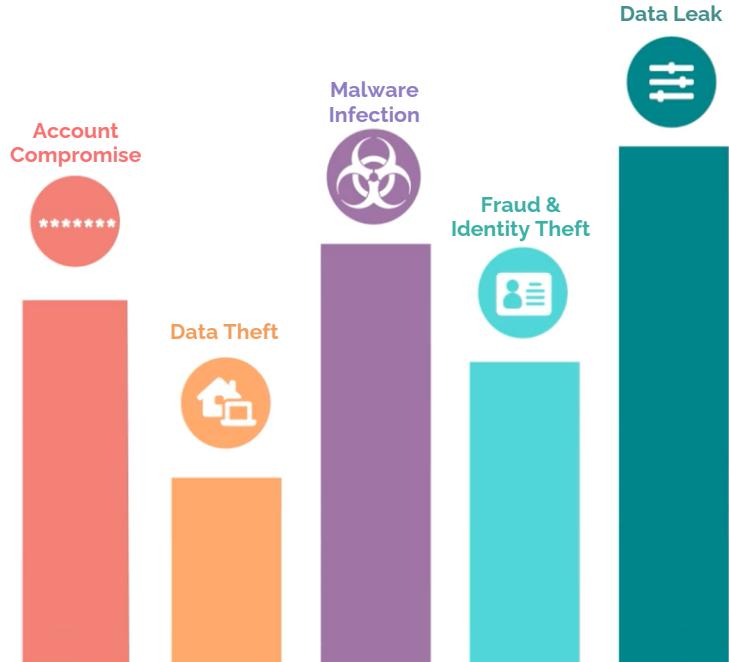
# How was SebDB developed?

- Co-designed & continually developed.
- Academic literature review.
- Reference to guidance and standards, published by NCSC, ISO & others.
- SebDB panel of academic, government and industry experts.
- Iteratively designed.



# Using SebDB: Behaviour <> Impact

- 70+ behaviours
- Group by:
  - Category
  - Risk-related outcomes
- Ranked by priority (impact on risk)
- See how behaviours link to different risks



# Example

## Malware Infection

Malware infections occur when malicious software makes its way on to a device or network.

### Behaviours



#### Reporting security incidents

Reporting known or suspected security incidents helps protect the workplace. If the incident is reported early, IT ...



#### Asking for help

Asking for help can help people learn. Security professionals can advise on how best to approach and resolve ...

```
7 22:33 .
Sep 15:53 ..
. Sep 2015 bin -> usr/bin
9. Sep 09:31 boot
1. Sep 15:50 dev
9. Sep 09:32 etc
21. Sep 15:52 home
30. Sep 2015 lib -> usr/lib
4 23. Jul 16:01 lib64 -> usr/lib
6 1. Aug 22:45 lost+found
36 30. Sep 2015 mnt
16 21. Sep 15:52 opt
8 21. Sep 15:52 private -> /home
896 12. Aug 08:15 proc
560 21. Sep 15:37 root
7 30. Sep 15:50 run
4096 30. Sep 2015 sbin -> usr/bin
300 21. Sep 15:51 srv -> usr/bin
4096 12. Aug 15:45 sys
4096 23. Jul 10:25 var
4096 21. Sep 15:51 ..
```

Case study



# Example

## Reporting security incidents

Reporting known or suspected security incidents helps protect the workplace. If the incident is reported early, IT and Security teams can act fast to prevent damage.

## Why is it important?

Security incidents may not always be detected by technical controls. Data breaches for example may occur through physical means such as a leaked physical document. It's important to try and find out about such incidents quickly as it can give valuable time to security teams.

Building a culture of trust, where people want to report security incidents, is important. Incidents can become worse if they're not reported.

## Priority Tier



### Risk Mitigated



#### Account Compromise

Account compromise happens when unauthorised people access them.



#### Data Theft

Data theft is the intentional stealing of data.

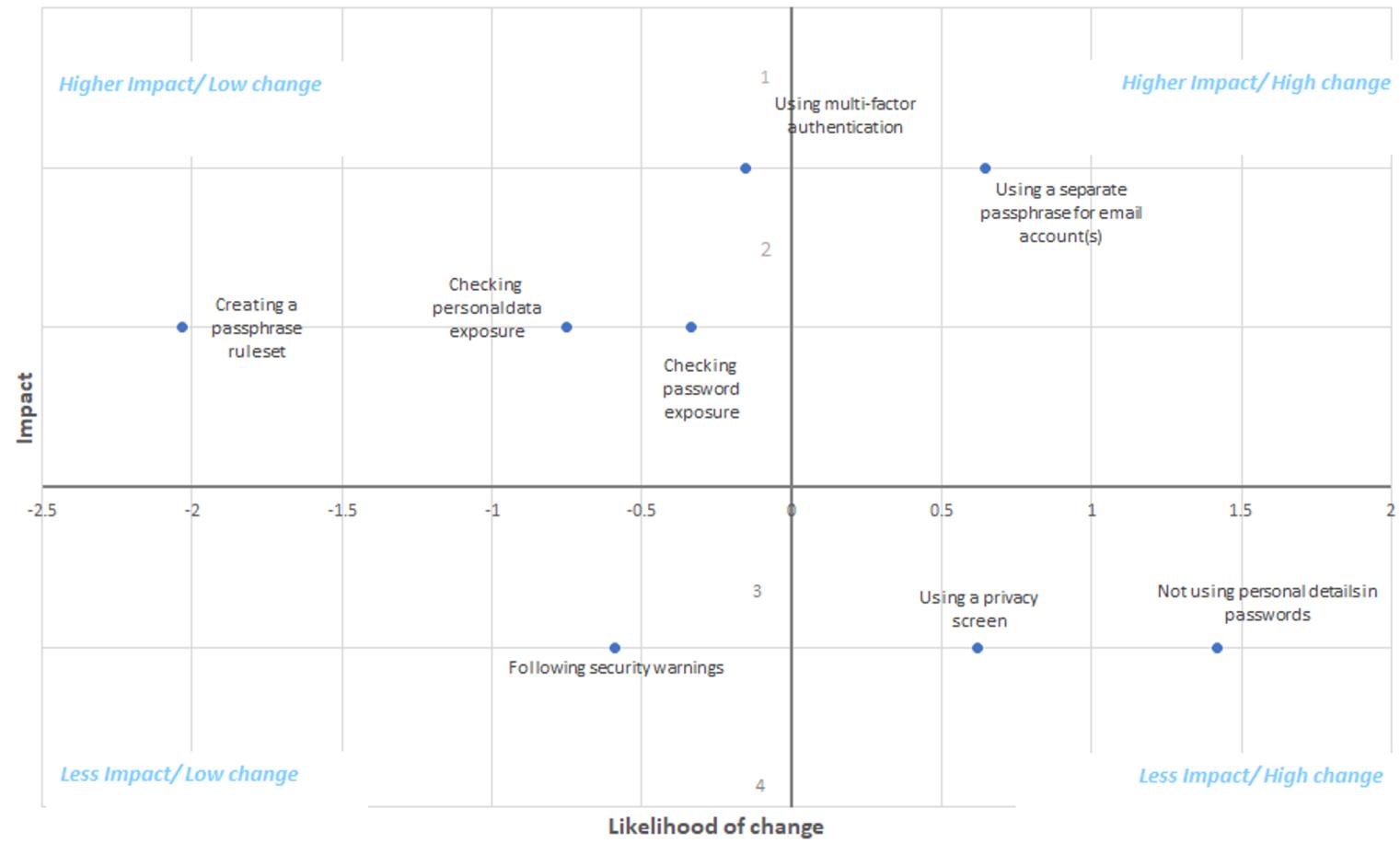


#### Malware Infection

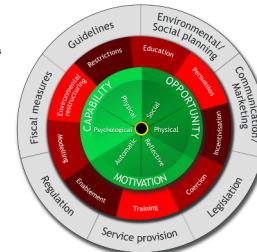
Malware infections occur when malicious software makes its way on to a device or network.



## Account Compromise: Impact / Likelihood of change

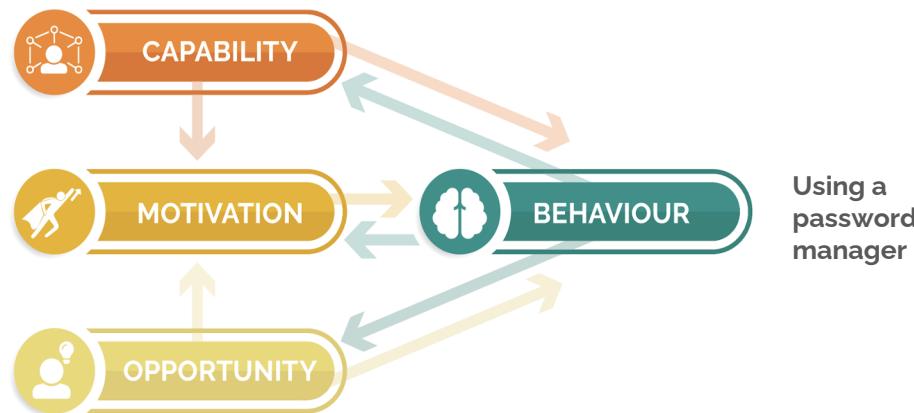


# Using SebDB: As part of your behavioural toolkit

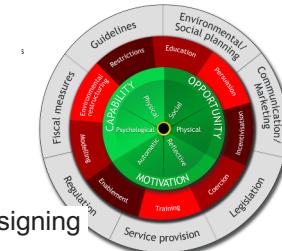


# Using SebDB: Design interventions

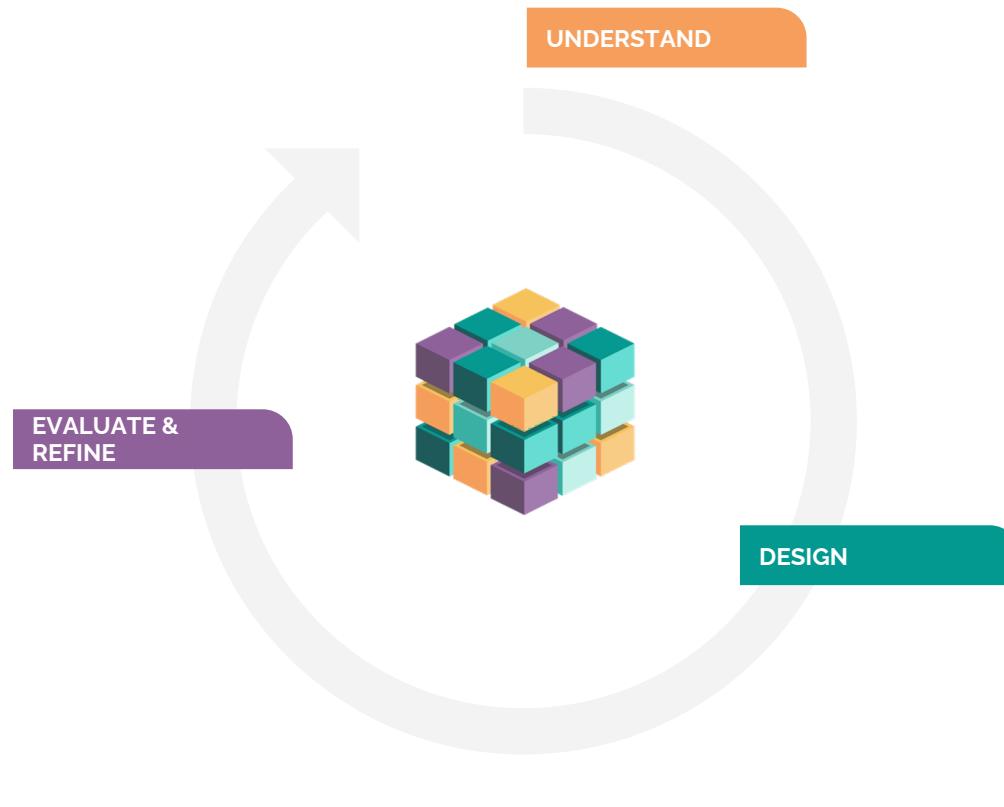
- Produce a step by step video guide
- Prize draw
- Free password manager service for use at home
- Intuitive password manager
- Tone from the top



Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, 6(1), 42.



# Using SebDB: Iterate



# SebDB: Coming Soon

- Behavioural metrics and data sources
- Behavioural insights
- Industry and role specific insights



# What the community are saying?

*"Using SebDB as a way to help us make sure it's up to date and relevant for our planning of next years awareness offering. Having one place to see all the behaviours does help focus the mind".*

*"I really like the community aspect".*

*“The body of knowledge is fantastic...”.*

*"I like how it includes physical risks, as well as, cyber as some CISOs don't consider the physical side".*



# Community

For the community, by the community.

Join us.



# Any Questions?



<https://www.cybsafe.com/research/security-behaviour-database/>