

SAFEDISTANCE

.....
Enhancement of Reactec Technologies
to Manage Social Distancing



Personal alerts to employees

Wrist worn to optimise Bluetooth blind spots

Configurable detection settings

GDPR Compliant data to manage workplace behaviour

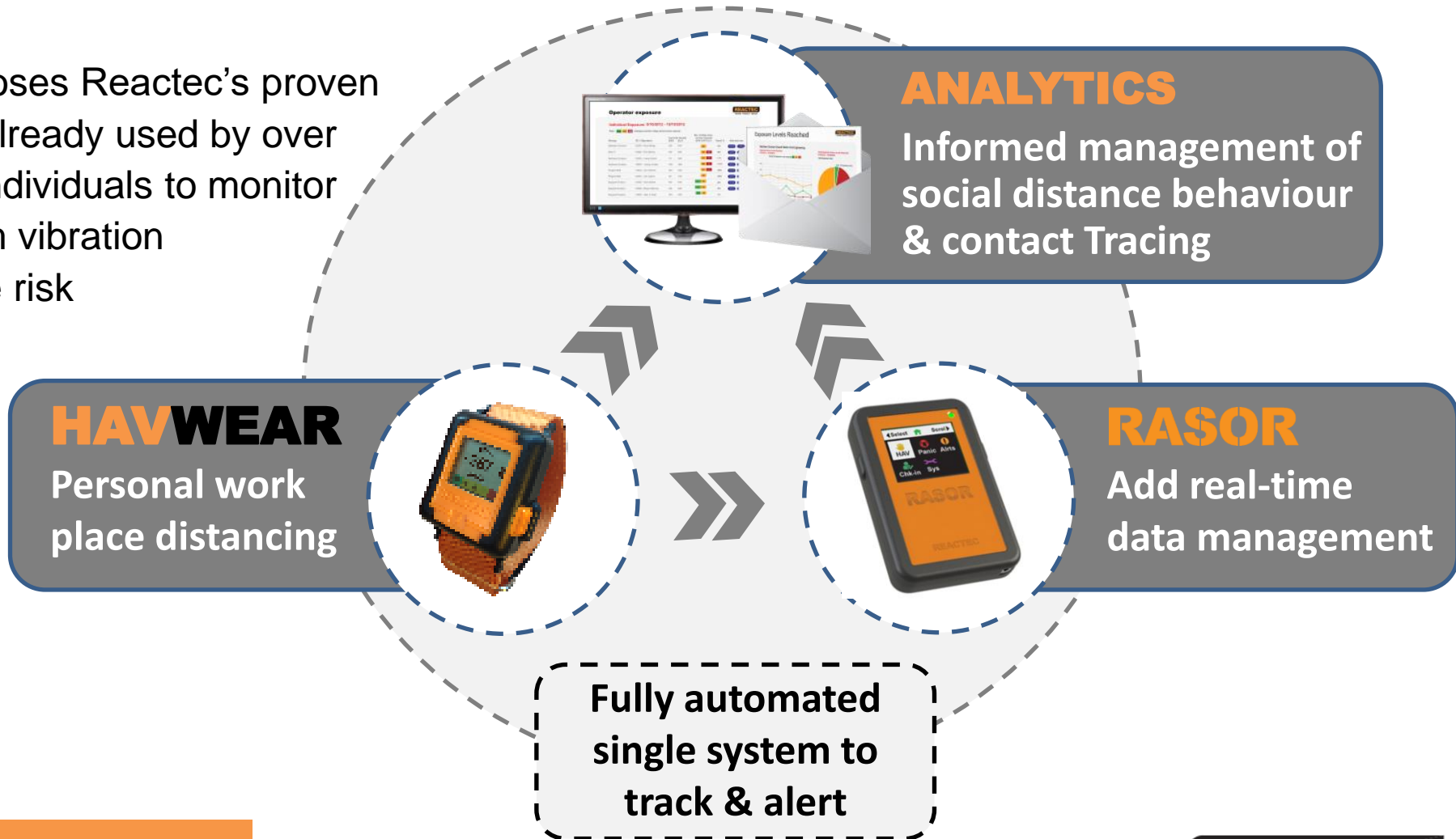
GDPR compliant contact tracing as needed

Introduce Live data for rapid management

SAFEDISTANCE

SAFE-DISTANCE helps organisations manage social distancing in workplace environments

It repurposes Reactec's proven system already used by over 70,000 individuals to monitor hand arm vibration exposure risk



SAFEDISTANCE

- ✓ HAVwear will alert you if you come too close to a colleague
- ✓ It is programmed to emit a buzz and vibrate at a distance that is considered unsafe
- ✓ There will be some variation in the actual physical distance when it alerts
- ✓ The distance is affected by how well your device aligns with your colleague
- ✓ The alert is intended to make employees check their surroundings

Advantages of wrist worn device

- ✓ Improved monitoring of 360 surround due to hand movement
- ✓ Not as limited as torso location monitors which can limit range due to body blocking



Configurable Settings

- ***Contact Start Period:** Extending the contact start period reduces the likelihood of false positives. Good alignment between devices or enclosed environments can lead to false positives which are infrequent and short in duration. Extending the start contact from the default of 5secs will reduce these events.
- ***Sensitivity:** Three settings available. In open environments standard setting typically alerts at 2m, while low alerts at 1m. The high setting will alert workers to keep further apart.
- ***Alert Type:** Choose whether the HAVwear user receives an proximity alert which is “vibrate and Beep”, “vibrate only” or “none”
- **Contact Duration:** Select times for proximity events to be reported in green/amber/red
 - Green = Short duration. Typically 1 minute
 - Amber = Moderate duration. Time between short and sustained
 - Red = Sustained duration. Typically 15 minutes
- **Data Deletion:** To comply with GDPR choose when proximity data should be automatically deleted

Settings marked * are configurable at a docking station level

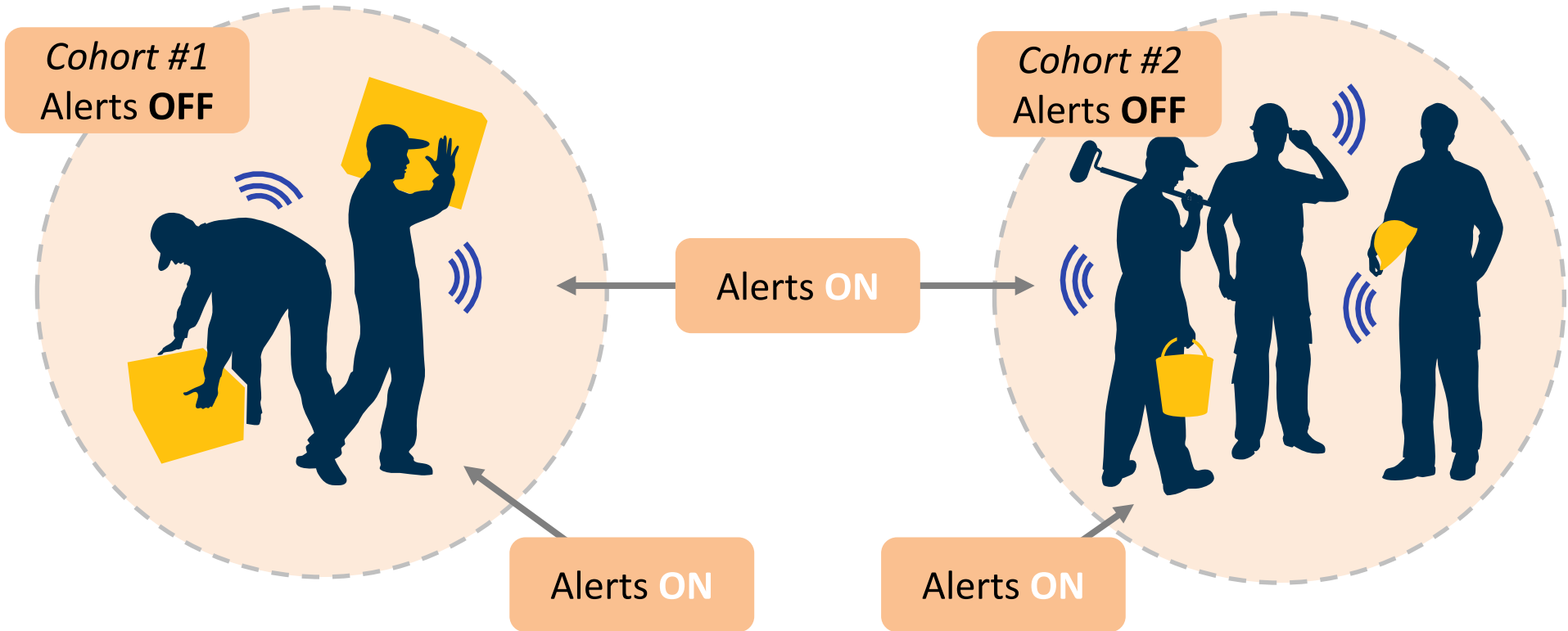
HAVwear Proximity Records

- ✓ A proximity record for each detection of two individuals at an unsafe distance
- ✓ Once an unsafe distance is detected the time it extends can be classed as
 - ✓ Short (typically <1 min)
 - ✓ Moderate
 - ✓ Sustained (Typically > 15 mins)
- ✓ A record ends when the person moves materially away
- ✓ For each detection of an unsafe distance a record is created of
 - The owner of the nearby HAVwear. If the nearby HAVwear is from another company - Record company ID and operator ID
 - How long they were close
 - The date and timestamp the unsafe distance was detected

Transmission of Data records

- ✓ When HAVwear is docked in a docking station all data records are transmitted immediately to the Reactec Analytics
- ✓ Reactec Analytics (aggregates all data at 3am after docking). An automatic e-mail will be sent if there are instances of
 - ✓ Moderate proximity – Alerts
 - ✓ Sustained proximity – Alarms
- ✓ Analytics reports detected proximity via a traffic light system

Working Cohorts



A Cohort facility allows the identification of a small number of individuals to be controlled as a working cohort, meaning that these individuals are allowed to work within close proximity of each other.

When in close proximity to a colleague within their cohort proximity will be detected but they will not receive alerts and the time will be recorded separately as cohort time

Safe Zones



- SAFE-ZONES are used to indicate areas where an individual is **not** at risk from being in contact with germs as the area has physical barriers to prevent transmission. While such physical barriers may prevent virus transmission, they may allow radio signals to pass through and hence create a false proximity detection. SAFE-ZONE tags allow you to switch off detection of proximity
- Employees “tag” into an RFID tag to mark entering and leaving a safe zone (switching off and on detection). The tag is programmed with a time out to automatically switch detection back on.
- Two types of safe zone
 - enclosed where the protected employee cannot be approached unsafely. Employees are never alerted in an enclosed safezone eg a passenger in a 2 person cab with a screen between passenger and driver
 - Open safezone where if an employee can be approached unsafely, the approaching employee will be detected if they are not tagged into a safezone. Eg working on a manufacturing line with side screens

Social Distance Proximity Notifications

- A daily proximity email alert will be sent to all users that have the notification enabled. This email will contain counts of aggregated detected moderate and sustained proximity with a link to view the data for the given day.
- The content of this email will resemble the following format:

From: reports@reactec.com <reports@reactec.com>
Sent: 28 August 2020 04:02
To: Developer <developer@reactec.com>
Subject: Reactec Analytics Platform - SAFE-DISTANCE Proximity Alert

REACTEC
INFORM : PROTECT : DEPLOY

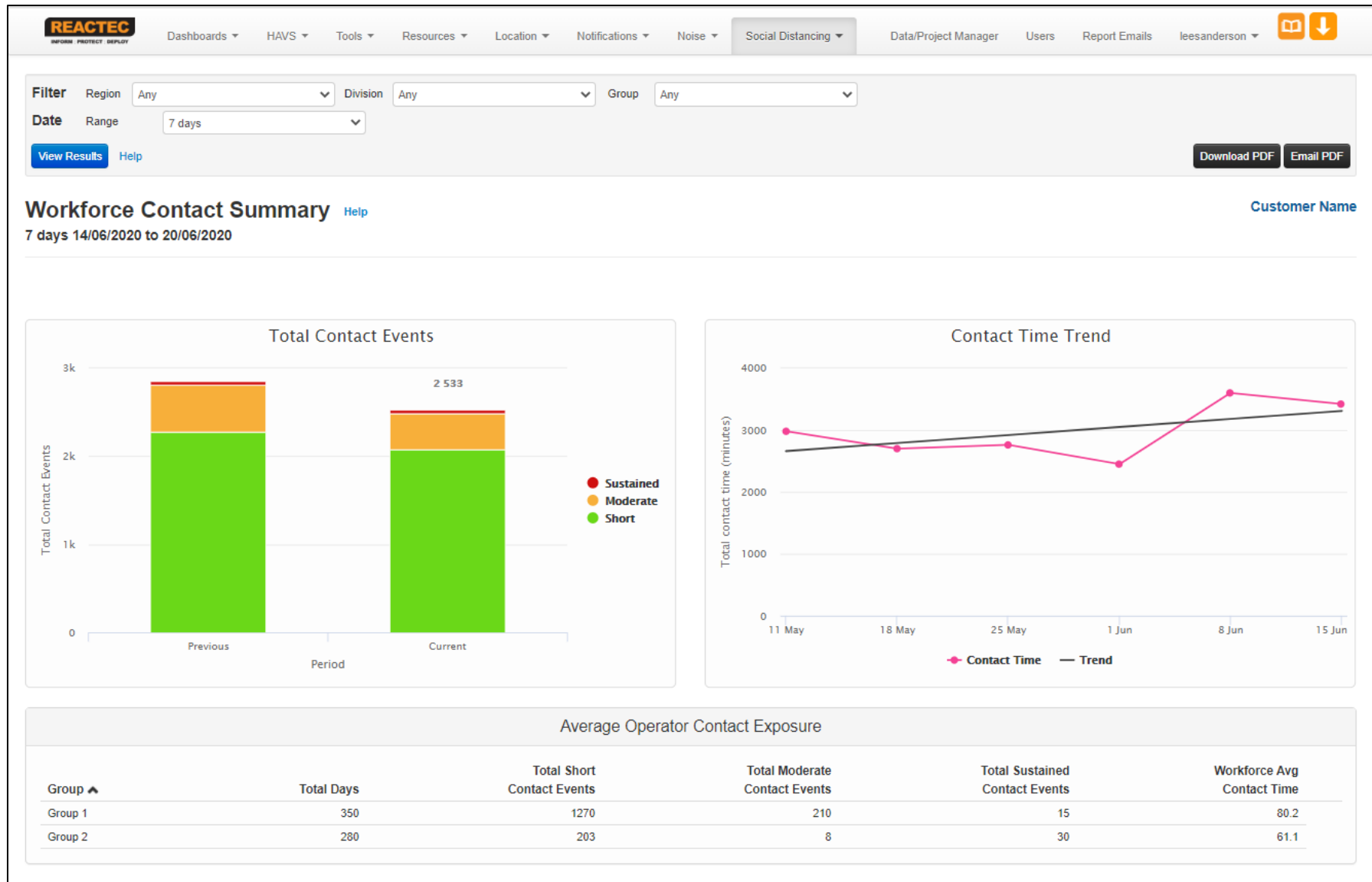
Reactec Analytics Platform - SAFE-DISTANCE proximity alerts

Alert Summary:

Report Date	27/08/2020
Report Time	03:00
Operators with moderate proximity detections	5
Operators with sustained proximity detections	0

[View the details here](#)

SAFE-DISTANCE Data



All reports can be set up to be automatically e-mailed at a configurable period

Analytics Proximity Reports

Filter Region Division Group

Date Range

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Workforce Contact [Help](#) Dye.

7 days 22/08/2020 to 28/08/2020

Group	Operator ID	Name	Contact Time (Mins)			Contact			Cohort Time (Mins)		Last Seen	Actions	Analysis	Intervention
			Days	Total	Average	Moderate			Total	Average				
						Short	Sustained	Sustained						
Unassigned Resources	3	Wayne Robson	2	35.4	17.7	58	35		0	0	26/08/2020	View By Date By Contact	+	
Unassigned Resources	5	Max Hildrew	3	29	9.7	55	29		0	0	27/08/2020	View By Date By Contact	+	
Unassigned Resources	77	Tony Fiteni	4	24.4	6.1	31	26		0	0	28/08/2020	View By Date By Contact	+	
Unassigned Resources	69	Bogdan Trandafir	3	23	7.7	28	22		0	0	29/08/2020	View By Date By Contact	+	
Unassigned Resources	19	Liam Stratford	4	17.5	4.4	20	17		0	0	27/08/2020	View By Date By Contact	+	

Contact Tracing [Help](#) [

Wayne Robson, 7 days 22/08/2020 to 28/08/2020

Company	Group	Operator ID	Name	Cohort	Date	Time	Duration (Mins)
Dyer & Butler SD Trial	Unassigned Resources	77	Tony Fiteni	No	26/08/2020	01:34	0.2
Dyer & Butler SD Trial	Unassigned Resources	77	Tony Fiteni	No	26/08/2020	01:32	0.3
Dyer & Butler SD Trial	Unassigned Resources	77	Tony Fiteni	No	25/08/2020	23:51	0.2
Dyer & Butler SD Trial	Unassigned Resources	77	Tony Fiteni	No	25/08/2020	23:50	0.1
Dyer & Butler SD Trial	Unassigned Resources	77	Tony Fiteni	No	25/08/2020	23:49	0.2
Dyer & Butler SD Trial	Unassigned Resources	56	Justinas Vaisvila	No	25/08/2020	21:02	1.8
Dyer & Butler SD Trial	Unassigned Resources	19	Liam Stratford	No	25/08/2020	05:09	0.3
Dyer & Butler SD Trial	Unassigned Resources	5	Max Hildrew	No	25/08/2020	05:05	0.4
Dyer & Butler SD Trial	Unassigned Resources	5	Max Hildrew	No	25/08/2020	05:02	0.6
Dyer & Butler SD Trial	Unassigned Resources	5	Max Hildrew	No	25/08/2020	05:00	0.2
Dyer & Butler SD Trial	Unassigned Resources	5	Max Hildrew	No	25/08/2020	04:57	0.2
Dyer & Butler SD Trial	Unassigned Resources	5	Max Hildrew	No	25/08/2020	04:44	0.1

Analytics Proximity Reports

REACTEC INFORM PROTECT DEPLOY

Dashboards ▾ HAVS ▾ Tools ▾ Resources ▾ Location ▾ Notifications ▾ Noise ▾ Social Distancing ▾ Data/Project Manager Users Report Emails evelynchapman ▾

Filter Region Any ▾ Division Any ▾ Group Any ▾

Date Range 30 days ▾

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Workforce Contact [Help](#) Mats Test 1

30 days 18/08/2020 to 16/09/2020

Group	Operator ID	Name ▲	Contact Time (Mins)			Contact			Cohort Time (Mins)		Last Seen	Actions	Analysis	Intervention	
			Days	Total	Average	Short	Moderate	Sustained	Total	Average					
Unassigned Resources	20071305	spaces LastName	1	1.2	1.2		1		0	0	16/09/2020	View	By Date	By Contact	+
Group A	19102506	Bobby X Davidson	15	12.1	0.8	7	8	1	29.1	1.9	15/09/2020	View	By Date	By Contact	+ 🔍
Unassigned Resources	20071301	Comma, LastName	1	0.1	0.1	1			0	0	15/09/2020	View	By Date	By Contact	+ 🔍
Group B	19102502	David Hammersmith	21	11.9	0.6	14	7	1	1.8	0.1	16/09/2020	View	By Date	By Contact	+ 🔍

REACTEC INFORM PROTECT DEPLOY

Dashboards ▾ HAVS ▾ Tools ▾ Resources ▾ Location ▾ Notifications ▾ Noise ▾ Social Distancing ▾ evelynchapman ▾

Filter Region Any ▾ Division Any ▾ Group Any ▾

Date Range 30 days ▾

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Contact Analysis By Date [Help](#) Mats Test 1

Bobby X Davidson, 30 days 18/08/2020 to 16/09/2020

Date ▲	Duration
25/08/2020	3.4
13	2.8
22	0.6
26/08/2020	0.7
08	0.7
04/09/2020	0.9
10	0.4
11	0.5
07/08/2020	1.9

REACTEC INFORM PROTECT DEPLOY

Dashboards ▾ HAVS ▾ Tools ▾ Resources ▾ Location ▾ Notifications ▾ Noise ▾ Social Distancing ▾ evelynchapman ▾

Filter Region Any ▾ Division Any ▾ Group Any ▾

Date Range 30 days ▾

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Contact Analysis By Contact [Help](#) Mats Test 1

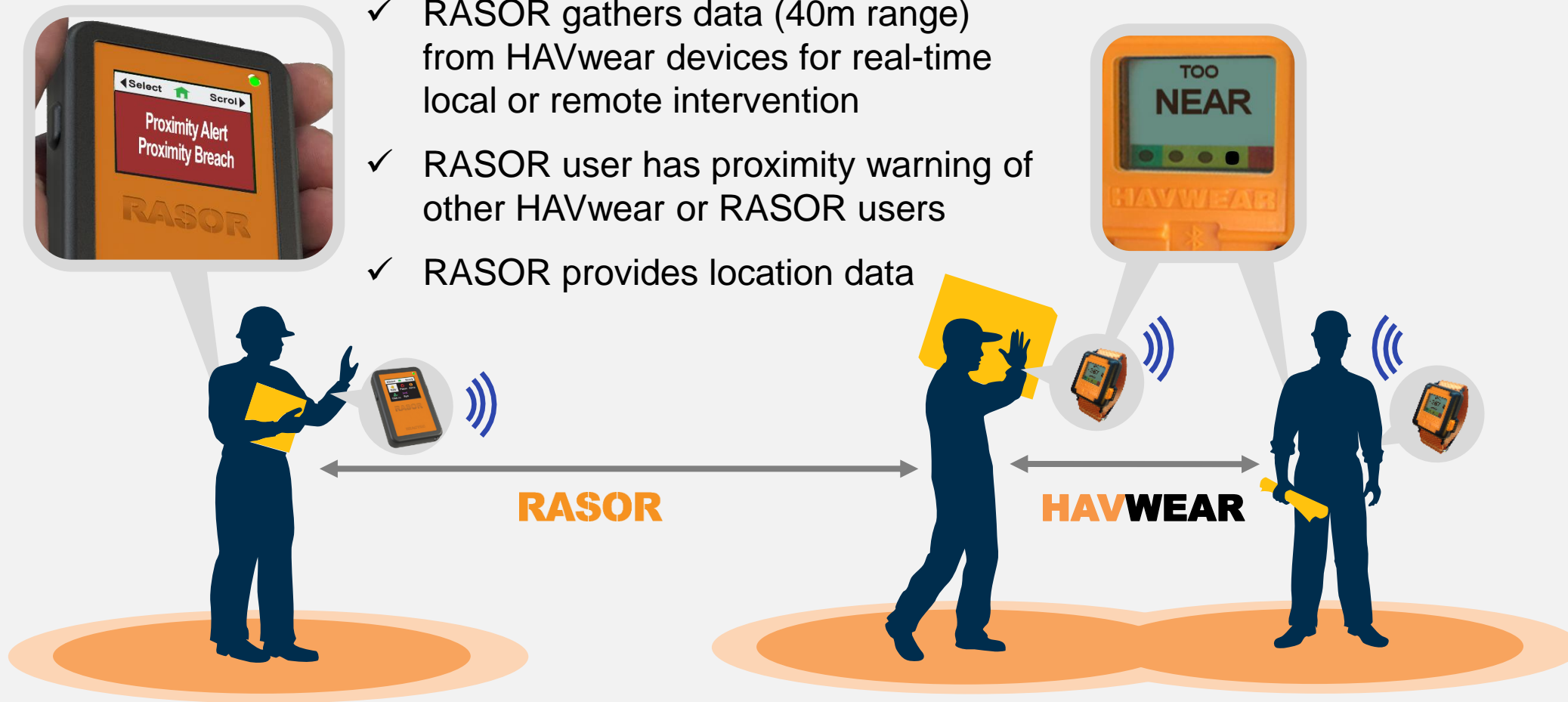
Bobby X Davidson, 30 days 18/08/2020 to 16/09/2020

Date ▲	Duration
25/08/2020	3.4
David Hammersmith	2.8
Norman Spring	0.6
26/08/2020	0.7
Norman Spring	0.7
04/09/2020	0.9
Norman Spring	0.9
07/09/2020	1.9
Nick Burbano	1.9

SAFEDISTANCE LIVE

Assign a RASOR to an individual who roams around colleagues – or position in a fixed central location in hub mode

- ✓ RASOR gathers data (40m range) from HAVwear devices for real-time local or remote intervention
- ✓ RASOR user has proximity warning of other HAVwear or RASOR users
- ✓ RASOR provides location data



RASOR Proximity Records

- RASOR proximity records are the same as HAVwear with the addition of GPS location information
- RASOR records location information for RASOR detected proximity as the location of where the proximity ended
- When a RASOR receives records of proximity from a HAVwear the location information provided is the location information for the RASOR when it received the data

RASOR Transmission of Data records

- RASOR transmits proximity **alerts** (**moderate** proximity) at the next scheduled communication (default 15 minutes)
- RASOR transmits proximity **alarms** (**sustained** proximity) immediately

RASOR notifications from the Reactec Analytics

- RASOR proximity **alerts** result in e-mail notifications
- RASOR proximity **alarms** result in e-mail and text message notifications

SAFE-DISTANCE Data LIVE

REACTEC Dashboards ▾ HAVS ▾ Tools ▾ Resources ▾ Location ▾ Notifications ▾ Noise ▾ Social Distancing ▾ Data/Project Manager Users Report Emails customer6admin ▾

Filter Region Any ▾ Division Any ▾ Group Any ▾

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Live Dashboard [Help](#) Customer 6

Active Operators - HAV

Alex Murphey	100	400	99	→	2 BAV
Steven Graves	100	400	99	→	0 EAV 0 ELV

Active Operators - Noise

David Smith	32	100	0	→	1 BAV 0 EAV 0 ELV
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Active Alarms

Daniel Jones	10005	Social Distancing Alarm	Active	→	🔍
Daniel Jones	10005	Social Distancing Alarm	Active	→	🔍

Active Operators - Social Distancing

David Smith	1	3	→	7 Moderate
Simon Johnson	1	1	→	2 Sustained
Alex Murphey	0	3	→	

REACTEC Dashboards ▾ HAVS ▾ Tools ▾ Resources ▾ Location ▾ Notifications ▾ Noise ▾ Social Distancing ▾ Data/Project Manager Users Report Emails customer6admin ▾

Filter Region Any ▾ Division Any ▾ Group Any ▾

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Live Operator Contact Tracing [Help](#) Customer 6

Operator						Other Operator				Razor Operator			
Last Seen	Group	ID	Name	Date	Time	Company	Group	ID	Name	Duration	ID	Name	Location
29/06/2020 10:45:22	Group 1	10004	David Smith	29/06/2020	10:45:22	Customer 6	Group 2	10006	Simon Johnson	18.6	10001	Iain Kiloh	📍
29/06/2020 10:45:22	Group 2	10006	Simon Johnson	29/06/2020	10:45:22	Customer 6	Group 1	10004	David Smith	18.6	10001	Iain Kiloh	📍
29/06/2020 10:45:22	Group 2	10006	Simon Johnson	29/06/2020	10:45:22	Customer 6	Group 1	10008	Alex Murphey	12.4	10001	Iain Kiloh	📍
29/06/2020 10:55:48	Group 1	10008	Alex Murphey	29/06/2020	10:45:22	Customer 6	Group 2	10006	Simon Johnson	12.4	10001	Iain Kiloh	📍
29/06/2020 10:45:22	Group 1	10004	David Smith	29/06/2020	10:45:22	Other Customer	XXXXXXX	AB00012	XXXXXXX	11.5	10001	Iain Kiloh	📍
29/06/2020 10:45:22	Group 1	10004	David Smith	29/06/2020	10:45:22	Customer 6	Group 1	10008	Alex Murphey	4.2	10001	Iain Kiloh	📍
29/06/2020 10:55:48	Group 1	10008	Alex Murphey	29/06/2020	10:45:22	Customer 6	Group 1	10004	David Smith	4.2	10001	Iain Kiloh	📍
29/06/2020 10:55:48	Group 1	10008	Alex Murphey	29/06/2020	10:45:22	Other Customer	XXXXXXX	CD00025	XXXXXXX	3.0	10001	Iain Kiloh	📍
29/06/2020 10:45:22	Group 1	10004	David Smith	29/06/2020	10:45:22	Other Customer	XXXXXXX	AB00012	XXXXXXX	2.0	10001	Iain Kiloh	📍

Managing Alerts & Alarms

Operator Alerts [Help](#) Reactec Office

This Week (w/c 13 Jul) 13/07/2020 to 19/07/2020

Alert Raised	Operator ID	Operator Name	Group	Alert Type	Status	Source Device Type	Source Hardware Id	Actions
Wed 15 Jul 2020 11:36:22	520215	Visitor Two	The Office	HAV EAV	Active	HavWear	1C6769135337414420312E340C0614FF	🔍 📍
Wed 15 Jul 2020 11:28:02	520203	Barbara Bell	The Office	Social Distancing Alert	Active	Rasor	547B05D84341374420312E400C060100	🔍 📍
Wed 15 Jul 2020 10:46:52	520215	Visitor Two	The Office	HAV EAV	Active	HavWear	1C6769135337414420312E340C0614FF	🔍 📍

Alerts Notifications:

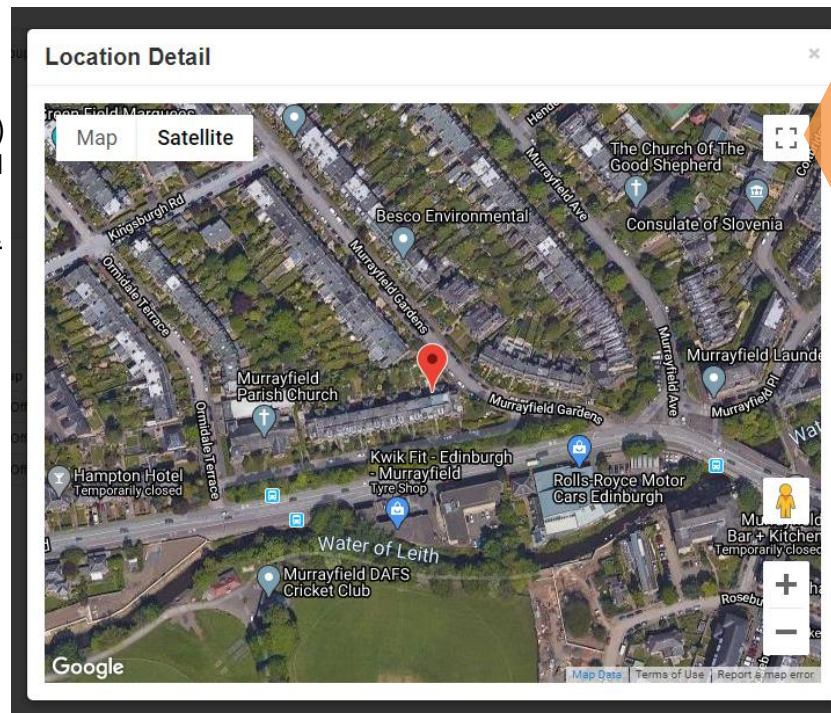
- HAV EAV breach
- Moderate SAFE-DISTANCE proximity contact
- A slip/trip/fall (not resulting in fall being detected)
- Data from 3rd party sensors not defined as critical

Alarm Notifications from Internal RASOR Sensors:

- Panic Button activated
- Man Down

Alarm Notifications from nearby HAVwear or third party sensors:

- HAV ELV breach
- Sustained SAFE-DISTANCE proximity contact
- Data from third party sensors defined as an Alarm



Managing Alerts & Alarms

Operator Alerts [Help](#) Reactec Offi

This Week (w/c 13 Jul) 13/07/2020 to 19/07/2020

Alert Raised	Operator ID	Operator Name	Group	Alert Type	Status	Source Device Type	Source Hardware Id	Actions
Wed 15 Jul 2020 11:36:22	520215	Visitor Two	The Office	HAV EAV	Active	HavWear	1C6769135337414420312E340C0614FF	Q 📍
Wed 15 Jul 2020 11:28:02	520203	Barbara Bell	The Office	Social Distancing Alert	Active	Rasor	547B05D84341374420312E4D0C060100	Q 📍
Wed 15 Jul 2020 10:46:52	520215	Visitor Two	The Office	HAV EAV	Active	HavWear	1C6769135337414420312E340C0614FF	Q 📍

[Back to Operator Alerts](#) **Operator Alert Detail** [Help](#)

Alert: HAV EAV

Alert Details		Operator Details		Rasor Operator Details	
Type	HAV EAV	Operator Name	Visitor Two	Rasor Operator Name	Barbara Bell
Status	Active	Operator ID	520215	Rasor Operator ID	520203
Timestamp	15/07/2020 11:36:22				
Created On	15/07/2020 11:36:28				
Modified On	15/07/2020 11:36:28				

[Add Note](#) [Close](#) [False Alarm](#)

Alert Activity

Timestamp	Activity Type	Activity Detail	Rasor Operator Id	Rasor Operator Name
Wed 15 Jul 2020 11:36:22	Created	Alert Created	520203	Barbara Bell

Actions

Q 📍

Q 📍

Q 📍

Q 📍

Q 📍



Add commentary close or mark event as false

Using the System



1. Sign out

From a Dual Charger or Docking Station, use the Operator ID card to sign out a HAVwear



2. Collect

Unclip the HAVwear module from the bay with the flashing LED light



3. Protect

Insert HAVwear module into a holder, thread the strap through the holder and snugly fit the strap around the wrist



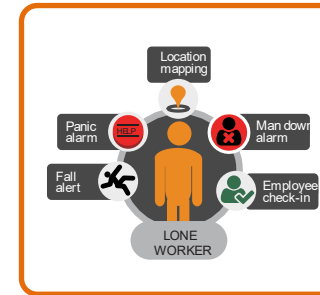
4. Assign

“Assign” a RASOR to an individual by removing the RASOR from the charger, press the RHS button on the RASOR place an ID card on top of the RASOR until a beep sounds.



5. Manage

Gather colleague real-time data from HAVwear and other sensors within 30m or track their location for immediate intervention or remote supervisor alert monitoring.



6. Lone Workers

Remotely view employees exposure levels, location and be alerted to any alarms from man-down, lack of check-in or manually initiated panic.



7. Return

At the end of a shift return the HAVwear to a Docking station to recharge and transmit data



8. Reduce

View reports online or by email of individual and overall exposure and the source of risk.

Note

- Place the **HAVWEAR device** into the docking station retaining clips and press down on the orange plastic moulding of the device to ensure it is firmly clipped into place. Do not press down on the LCD screen of the unit as repeated or excessive



End

Thank you