



# PROMOTING DRONES FOR GOOD

## A COMMUNICATIONS PLAN

Increasing public sentiment and acceptance  
in the increasing use of drones

March 2022



# TABLE OF CONTENTS

**04**  
**INDUSTRY PREFACE**  
Drones for Good explained; how this research will feed into the programme.

**06**  
**PROMOTING DRONES FOR GOOD**  
Background, objectives and the approach taken.

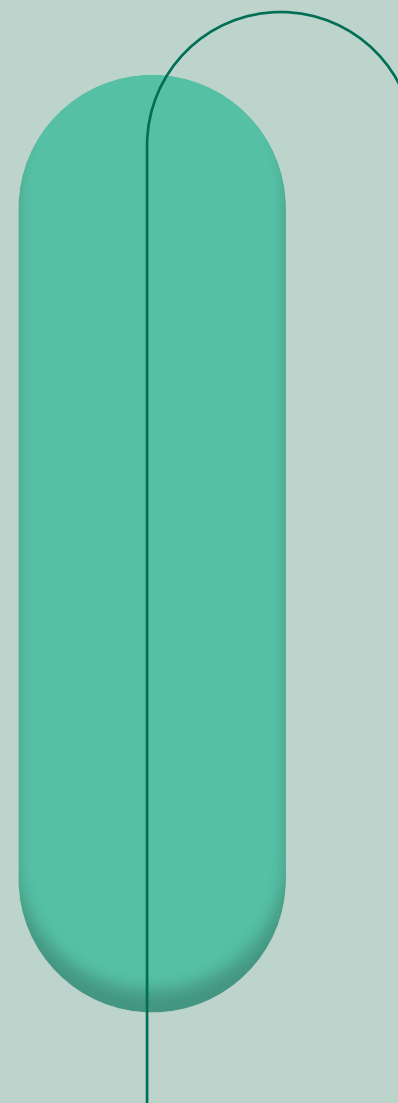
**09**  
**CURRENT PUBLIC PERCEPTIONS OF DRONES**  
Baseline research to get an up to date measure of public opinion.

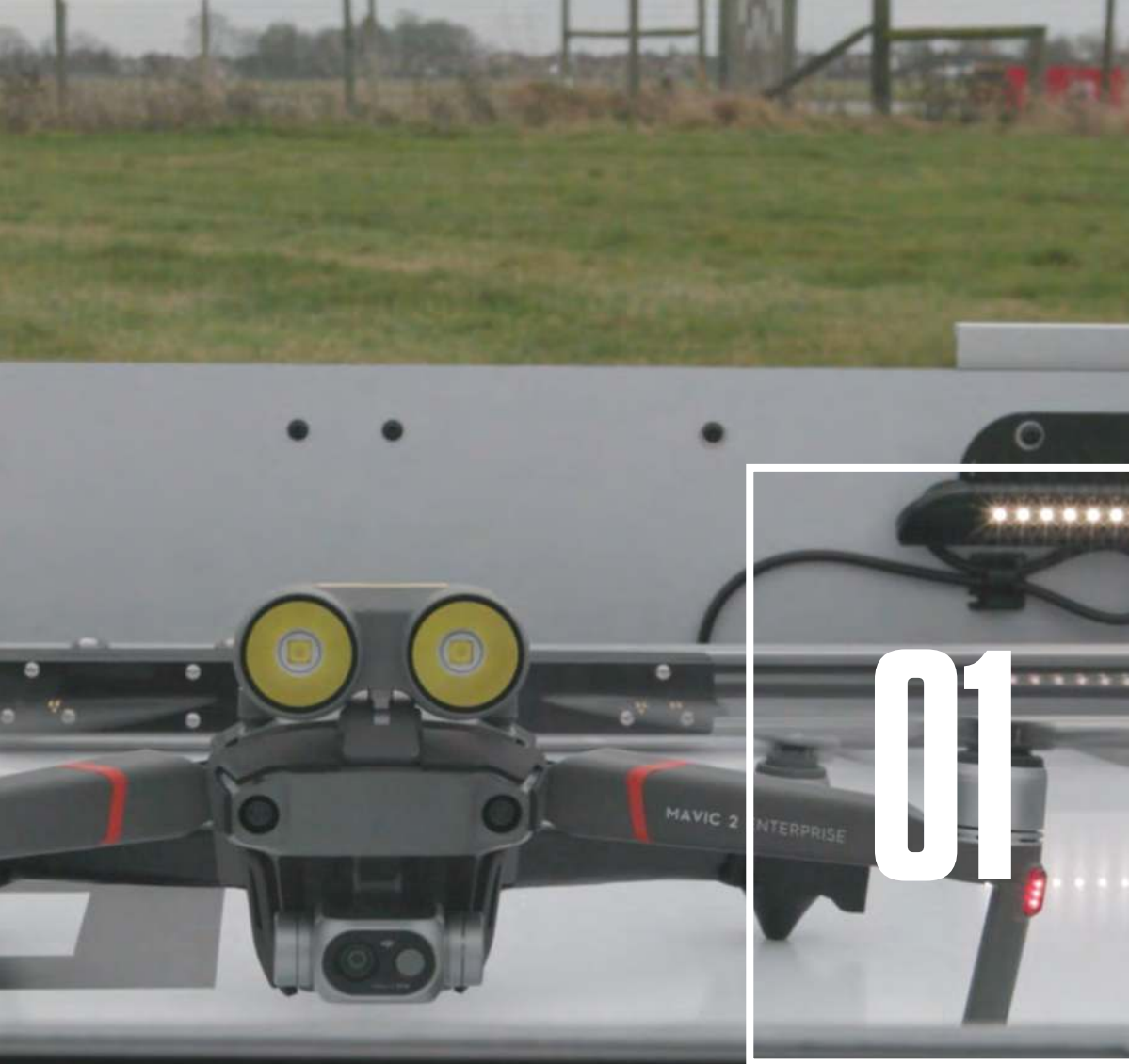
**18**  
**DEVELOPING THE MESSAGE**  
Industry appraisal of current public opinion, and hypothesising messaging to test.

**26**  
**REFINING THE MESSAGE**  
Public scrutiny of the hypothesised messaging to develop detailed examples to test.

**30**  
**CHANGING PERCEPTIONS: THE GUIDELINES**  
Testing of the messaging and recommendations.

**40**  
**SUMMARY**  
The communications plan in full.





## Industry Preface

Drones for Good explained; how this research will feed into the programme.

# PROMOTING DRONES FOR GOOD IN 2022 AND BEYOND: THE PLAN



**There is a need to both mitigate concerns around greater drone use and also to increase positive public sentiment and boost perceptions of the technology.**

As drone technology continues to advance and as use of drones accelerates – both through new innovative uses and the increase in hobbyists and leisure users – the drone industry will need to place even greater emphasis on managing public perceptions and proactively creating a positive narrative around the technological shift.

Indeed, there are signs 2022 could prove to be an inflection point in the number of drones that are around, which will lead to it becoming more common to encounter drones in everyday life. However, if the industry is to realise its full potential it needs to have the public on board.

The Covid-19 pandemic has led to changes in the way people act which has created further opportunity for transport and logistics innovation and therefore increased drone use. For example, the increase in online shopping necessitating more deliveries, or the restrictions placed on workplaces as they tried to prevent the spread of the virus leading to the identification of ways of completing manual jobs with a reduced need for human contact.

This increase in use however is accompanied by an uptick in scrutiny around how the public feel about this emergent technology and their reactions to the benefits that are currently being sold to them.

Now is an opportune moment to act and to develop a communications framework to help stakeholders in the private and public realm promote drones for good.

There is a need to both mitigate concerns around greater drone use and also to increase positive public sentiment and boost perceptions of the technology.

This investigation was designed to inform the creation of a communications strategy to increase positive sentiment and acceptance of drones amongst the public. Specifically, it sought to:

- Define current perceptions and knowledge levels of drones in 2021/22
- Identify how to best improve public knowledge of drones
- Create guidance for optimising communications with the public (including messages, channels and differences by use cases and audiences)
- Inform feedback mechanisms to support and inspire development of use-cases and communications with the public on-side.



02

## Promoting Drones For Good

Background, objectives and the  
approach taken.

# CURRENT PUBLIC PERCEPTIONS OF DRONES

## What is already known from existing research:

Past research<sup>1</sup> has indicated low levels of understanding of the potential for drone usage, and relatively low levels of public acceptance, with fewer than a third of the public saying they are positive towards drones. However, the most common reaction is one of indifference, with nearly half saying they are neither negative nor positive.

- This tallies with the industry perception that public views are neither strongly in favour nor against drone technology. There is a balance in views between recognising the emerging acceptance that drones can be used for good, and concerns around privacy, noise and bad press (for example, incidents surrounding Gatwick and Heathrow airports in recent years).

Use cases that involve assisting the emergency services and/or providing a high benefit to society are more positively thought of than those that only benefit industry or an individual (such as parcel delivery and recreational uses).

- There is a perception (to be tested in the research) that when information is shared about what drone

services can offer people are very often “fascinated” and “supportive”.

Known concerns include the potential for misuse, criminality and safety.

- The industry recognises this and has significant concerns about the impact of negative press drones have sometimes received.

When prompted, there is a high demand for regulation of drone use and users, including licensing of operators, mandatory insurance and registration of planned routes with the CAA.

- The industry has perceived common misconceptions that drone use is not regulated, that they are toys and anyone can fly one anywhere.

There is a marked difference in perceptions between younger and older individuals, with younger people far more positive about drones in particular when it comes to recreational use.

## WHAT WE DO NOT KNOW FROM EXISTING SOURCES AND WHAT HAS CHANGED:

The previous research gives a good overview of what the general perception of drones was among the public in 2019. However, there are still gaps in our knowledge that need to be filled to create a robust and effective communications strategy.



How have views changed since the pandemic?



Why are some use cases are more appealing than others?



Why the lack of interest – how can this be turned into positivity?



What common myths are proving barriers to acceptance?



What imagery and modes of delivery are most effective?

<sup>1</sup> Including “Trust in Drones” (2019), PwC [pwc.co.uk/trustindrones](https://www.pwc.co.uk/trustindrones) (last accessed 08/02/2022) and “Public Perceptions: Drones” (2019), Institution of Mechanical Engineers <https://www.imeche.org/news/news-article/public-perceptions-drones-survey-results-2019> (last accessed 08/02/2022)

# HOW WAS THIS ACHIEVED?

To achieve all of the above a five stage research approach was developed utilising a range of both qualitative and quantitative research methods with the public and industry stakeholders:

Focusing on ensuring the project design is aligned with and building on existing knowledge.

- Industry stakeholder survey and workshop to inform areas to explore and formulate hypotheses to test.

01 Orientation

Exploratory phase to define and understand key priorities in accepting drones for different use cases.

- Qualitative online community to uncover barriers to drone acceptance in different scenarios.

- Robust survey to generate baseline read of sentiment and identify the magnitude of barriers and how they map to different use cases.

02 Definition

Workshops with Connected Places Catapult and industry/ infrastructure partners to triangulate findings from phases 1 and 2 with industry knowledge and formulate communications strategies and use case examples that will increase positive sentiment and allay concerns.

03 Co-Creation

Sharing the communications strategies hypothesised in Phase 3 with the public, and refining and optimising them further ahead of wide-scale testing.

04 Refinement

Robust survey testing the impact of the developed messages and communications strategies on acceptance levels and positive sentiment.

- Draw conclusions and develop full evidence-based communications strategy.

05 Demonstration

## METRICS OF SUCCESS

The key metrics of success of the communications plan will be:

- Increased positive sentiment towards drones among the public as a whole.
- Increased understanding of what they can be used for, the regulation surrounding them, the benefits they bring.
- Increased acceptance of drones and feeling more comfortable with the idea of more drones in UK airspace.



03

## Current Public Perceptions of Drones

Baseline research to get an up to date measure of public opinion.

# DRONES IN THE CONTEXT OF 2021

## Current levels of public acceptance

The first stage of the primary research was to take a measure of the current levels of understanding, positivity and acceptance among the general public. This involved an online community of 100 people and a nationally representative survey of 2,000 people.

Whilst awareness of drones is high (nearly everyone recognises the term “drones”) and most expect to see more in the sky in future...

- Understanding of their uses is low
- Interest is low, and
- Perception of relevance to the individual is low

## UNDERSTANDING

There is a **very high awareness of what “drones” are**, in the survey all were familiar with the term (100%) and many were aware of the basics such as what they typically look like and that they are remotely operated.

However, **understanding beyond this is mixed** with only a third (31%) reporting they had a good understanding of drones and what they are used for, with a further third (36%) saying they had “some” understanding and the final third (33%) having little or very little understanding.

People’s **personal experience and interactions with drones is limited** – very few have seen a drone operating in person and, among those that have, it has typically been hobbyists or for camera usage. Indeed, knowledge is typically driven by seeing drone-related news reports or footage used in the media (for example, films, TV, YouTube and other social media).

“I don’t have a great deal of first hand experience, only what I have seen or heard on the TV, newspapers and seeing them used in parks” **F 65-74**

“I saw on the news a few years ago that they had to stop flights or flights were delayed because people were flying drones too close to the airport” **M 55-64**

## INTEREST

Whilst eight in ten (80%) said they expected to see an increase in the number of drones in the sky in future, **their interest in finding out more was not high**. Only a third (35%) were interested or very interested in finding out more about them. A further third (30%) were moderately interested.

This leaves a third (35%) who were not interested or not at all interested in finding out more about drones.

## PERCEPTION OF RELEVANCE

Some of this indifference may stem from the lack of personal experience with drones. If people are not regularly seeing drones in the sky, they may not be able to picture themselves in a position where they see drones affecting their life in any way. Indeed, many see drones as something used by (and therefore affecting) “others”, and they have very low expectations that they will

have personal experiences with drones in future.

It also relates to the finding that **only a third expected an increased use of drones to impact them personally**, with 26% expecting a positive impact and 11% a negative impact. This leaves almost two-thirds (63%) who either felt there would be no impact on them personally, or that the positives would balance the negatives.



# SENTIMENT TOWARDS DRONES

**There is a big opportunity to get in early with positive messaging about drones and their uses before they become more commonplace in everyday life.**

Low understanding of the potential uses and low perceived impact by the public currently translates to very low levels of negative feeling towards drones, with the majority either feeling positive or neutral towards them.

Currently, if someone was to unexpectedly see a drone flying close to where they lived, the dominant feelings would be of curiosity and interest with far fewer expressing negative emotions such as apprehension,

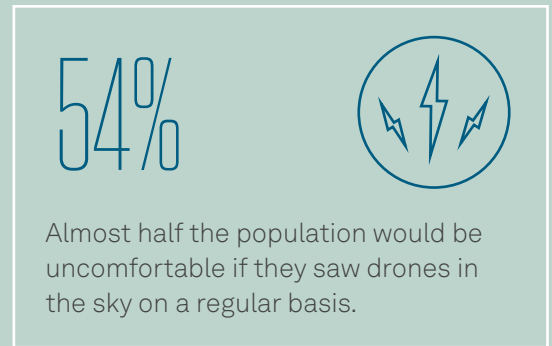
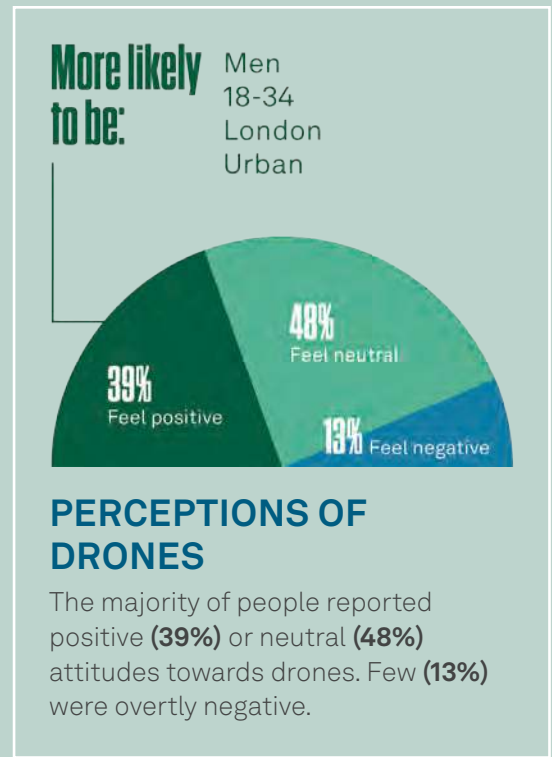
annoyance or nervousness. Overall, responses were more likely to be positive than negative, with 72% having some positivity in their response, and 54% showing any negativity (there is some overlap here, where people have a mixed response for example curious but nervous). That said, positive emotional reactions such as amazement and excitement were rare at just one in ten (11% and 10% respectively).

## HOWEVER

Whilst current levels of ambivalence provide an opportunity for communications to fill the void with positive stories and examples, it must be noted that **lack of negative sentiment does not translate to general acceptance of an increase in the number of drones in the sky.**

The current levels of indifference are driven by an assumption that drones will not impact on the individual personally. Increased numbers of drones increases the perceived personal impact, making them much more noticeable, harder to ignore, potentially more of a nuisance and raises more safety concerns.

**Almost half the population (47%) said they would feel uncomfortable if they were to see drones in the sky on a regular basis** compared to just one in five (19%) saying they feel comfortable about it.



Curious	52
Interested	27
Apprehensive	23
Distracted	18
Annoyed	18
Nervous	17
Amazed	11
Excited	10
Relaxed	9
Fearful	8
Angry	6
Trusting	4
Bored	2

**PEOPLE'S REACTIONS TO SEEING A DRONE NEAR THEIR HOME**

## WHAT UNDERPINS POSITIVE SENTIMENT AND ACCEPTANCE?

To understand the impact of this on any communications campaign, we first need to understand what underpins these positive and negative reactions and acceptance and non-acceptance of increased drone usage.

- Encouragingly for any communications plan, **positive sentiment appears to be strongly correlated with understanding of potential drone uses.**

Of those who felt they had a good understanding of drones, two-thirds (65%) held an overall positive view of drones, compared with just 17% of those with little understanding of them. Similarly, those with a good understanding of drones were far more likely to be comfortable with the idea of there being drones in the sky on a regular basis (32% compared with 10% with little understanding).

Of course, this could just be a product of those who are interested and positive about drones showing more interest and seeking out more knowledge about it. But even this early stage, the research was able to demonstrate that **simply hearing more about drones and the possible use cases instantly widens their perceived value and has a positive impact on acceptance.**

“Drones are capable of doing a lot more than I ever imagined they could” F 65-74

- Positivity around drones is driven primarily by **perceptions of the benefits they will provide to society in general and to the individual.** People who were more positive about drones in the survey were particularly more likely to recognise their positive impact on society in general and benefit to themselves personally (over the economy or the environment).



## WHAT ARE THE BARRIERS TO POSITIVITY AND ACCEPTANCE?

The key spontaneous concerns relating to drones centre around safety and privacy.

### SAFETY

Safety, including the fear of collisions in the air or on the ground causing risk to human safety and risks of damaging property, is a key concern across all groups. The technology is still viewed by many as relatively new, and many expect there will be occasions of drones malfunctioning or crashing and causing injuries.

There is a lack of knowledge about production processes and regulations around these.

When prompted, around two-thirds of people (68%) thought safety was at least a moderate risk of increased drone use in UK air space; only a third (33%) were comfortable that there was a low risk to human safety.

### PRIVACY

Privacy was the other key issue that came up spontaneously when people were asked about their concerns about drones. Nearly three-quarters (73%), when prompted, said the expected increased drone usage to present at least a moderate risk to personal privacy with just a quarter (26%) rating it a low or very low risk.

The main fear with privacy is the capability of drones to capture footage and take photographs. Pairing this with the fears of drones being misused or getting “into the wrong hands” provoked strong concerns, particularly among parents.

Fears of criminal misuse also come to the fore when prompted – whilst this did not come up so often as privacy and safety when people were asked to share their concerns unprompted, once prompted it shot to the top of the list with people more than twice as likely as average to say they were concerned about it.

### A LACK OF UNDERSTANDING OF POTENTIAL DRONE USES

This plays a part in driving these fears. Whilst having a good understanding is strongly linked with positive sentiment, there are a large number who reported they do not have a good understanding at present – a third said they have “little” or “very little” understanding of drones.

Whilst the majority of people with little understanding held a neutral view of drones overall, there are indications this is because they feel drones are currently not relevant to them: when asked whether they would be comfortable if there were drones in the sky on a regular basis, 57% of those with little understanding said they would not be. This compares with just 34% of those who had a good understanding of drones.



Low awareness or lack of experience mean that some potential barriers are not driving current negative sentiment towards drones but that could change in the future.

Potential issues that are not currently top-of-mind concerns to the public include:

- The visual impact of having more drones in the sky
- The impact of noise pollution
- Job losses as a result of drones doing roles currently done by people

These may become larger barriers in the future as increased use of drones mean people have more experience of them, for example, people with experience of witnessing drones were far more likely to mention noise as a concern. At present, however, these are not seen as barriers and thus are not a priority to address.

## NOISE POLLUTION: A SILENT ISSUE

There is a current perception among the public (who have limited experience of seeing drones “in real life”) that drones will not present an issue with regards to noise pollution. Many pointed out they are quieter than planes, trucks etc and that they would fly at a height where they could not be heard. There is also a perception that a high-quality drone would be much quieter than a low-quality one, and that smaller would be much quieter than larger ones.

Those who have experience of drones, conversely, mention the “loud, high-pitched buzzing” sound and expressed

concern that larger number of drones would present a nuisance.

Whilst it is not a pressing issue for people currently, we would not want communications to introduce the idea to someone who hadn’t considered it. However as the use of drones becomes more commonplace and people become familiar with the noise they make, it is very likely to develop as a barrier to acceptance and positive sentiment towards drones.



# SPECIFIC USES OF DRONES: REACTIONS

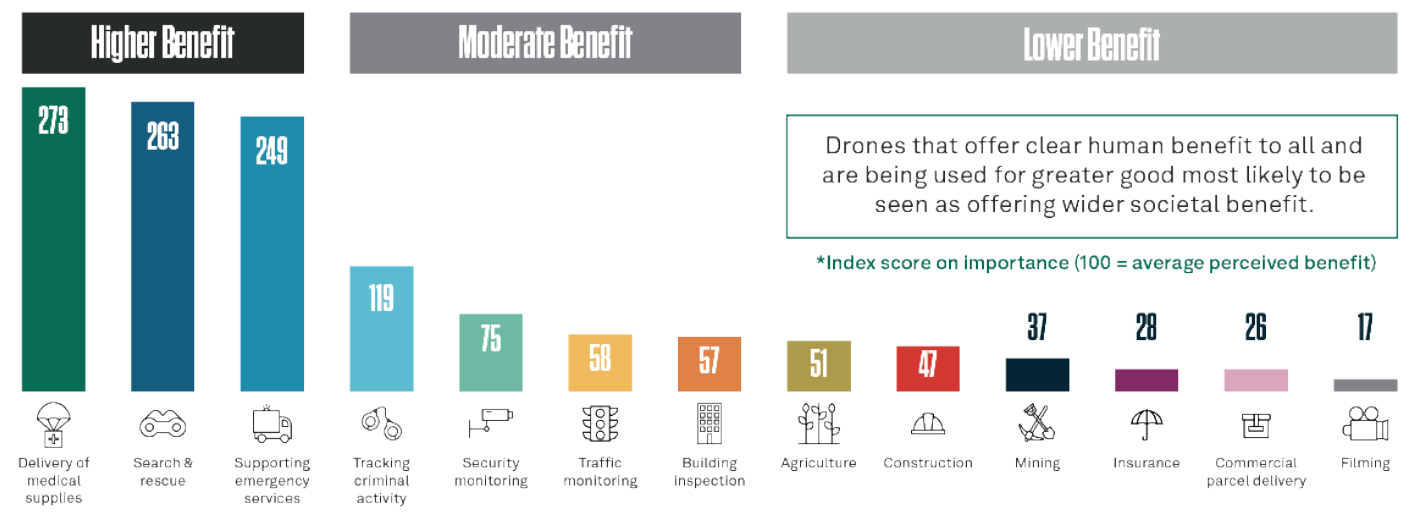
Learning about the range of potential uses of drones has a positive impact on acceptance across the general public.

As understanding among the public is low, there is little known about the potential uses of drones.

- Highlighting the range of uses instantly widens their perceived value

However, some uses of drones have a higher potential to change opinion for the better, for example those that hold a higher perceived benefit, and provoke fewer privacy and safety concerns. Any effective communications will benefit from focusing on these use cases.

Thirteen potential uses of drones were put to the survey participants, and they were asked to rate each for how beneficial they thought using drones in this way would be to UK society in general, and how concerned they felt about the use of drones in this way.



## PERCEIVED SOCIETAL BENEFITS OF DIFFERENT USE CASES (MAX-DIFF TRADE-OFF EXERCISE)

**↑ HIGH BENEFIT USE CASES**

Factors that increased the perceived societal benefit of different uses of drones were:

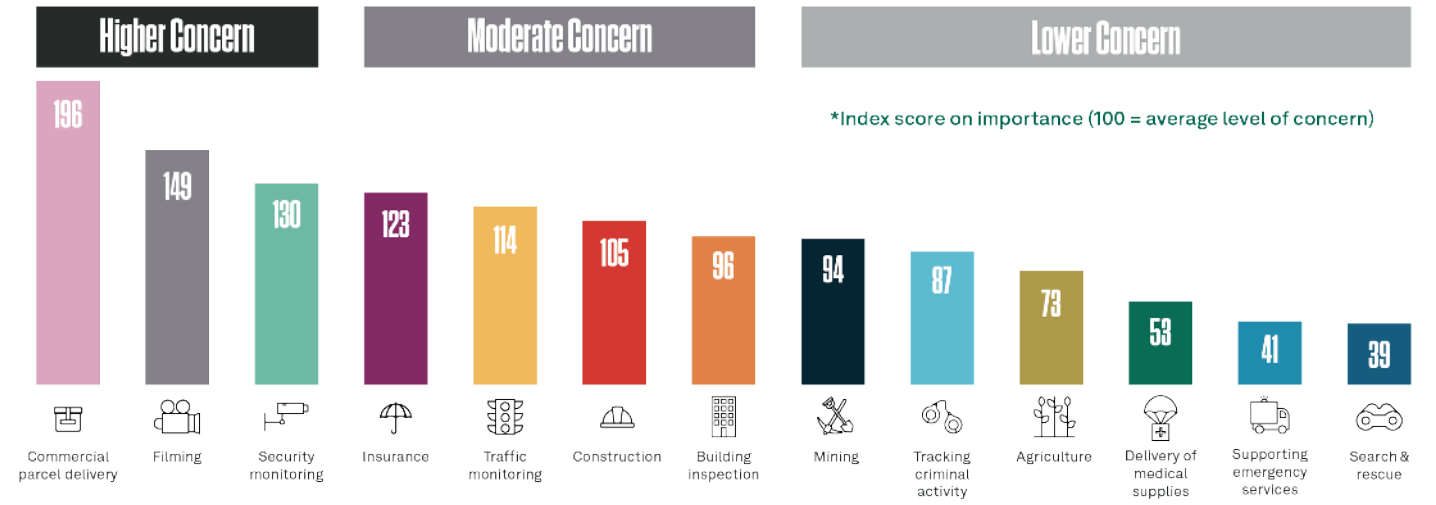
- Uses that offered clear human benefit (e.g. saving a life – delivery of medical supplies, search and rescue etc.)
- Uses for “the greater good” – societal benefits (assisting emergency services and keeping people safe through tracking criminal activity or security monitoring).

**↓ LOW BENEFIT USE CASES**

Uses that were seen as less beneficial included:

- Uses for primarily commercial benefit, such as filming, commercial package delivery and insurance.
- Uses that did not benefit the individual directly such as mining, construction and agriculture.

Research participants also ranked the same thirteen uses of drones by how concerned they would be to know drones were being used in that way.



### MOST & LEAST CONCERNING OF DIFFERENT USE CASES (MAX-DIFF TRADE-OFF EXERCISE)

**↑**

#### HIGH CONCERN USE CASES

Factors leading to higher concern included:

- Uses that would entail them having more contact with drones, such as commercial parcel delivery.
- Uses that provoke privacy concerns, such as filming, security monitoring and insurance.

**↓**

#### LOW CONCERN USE CASES

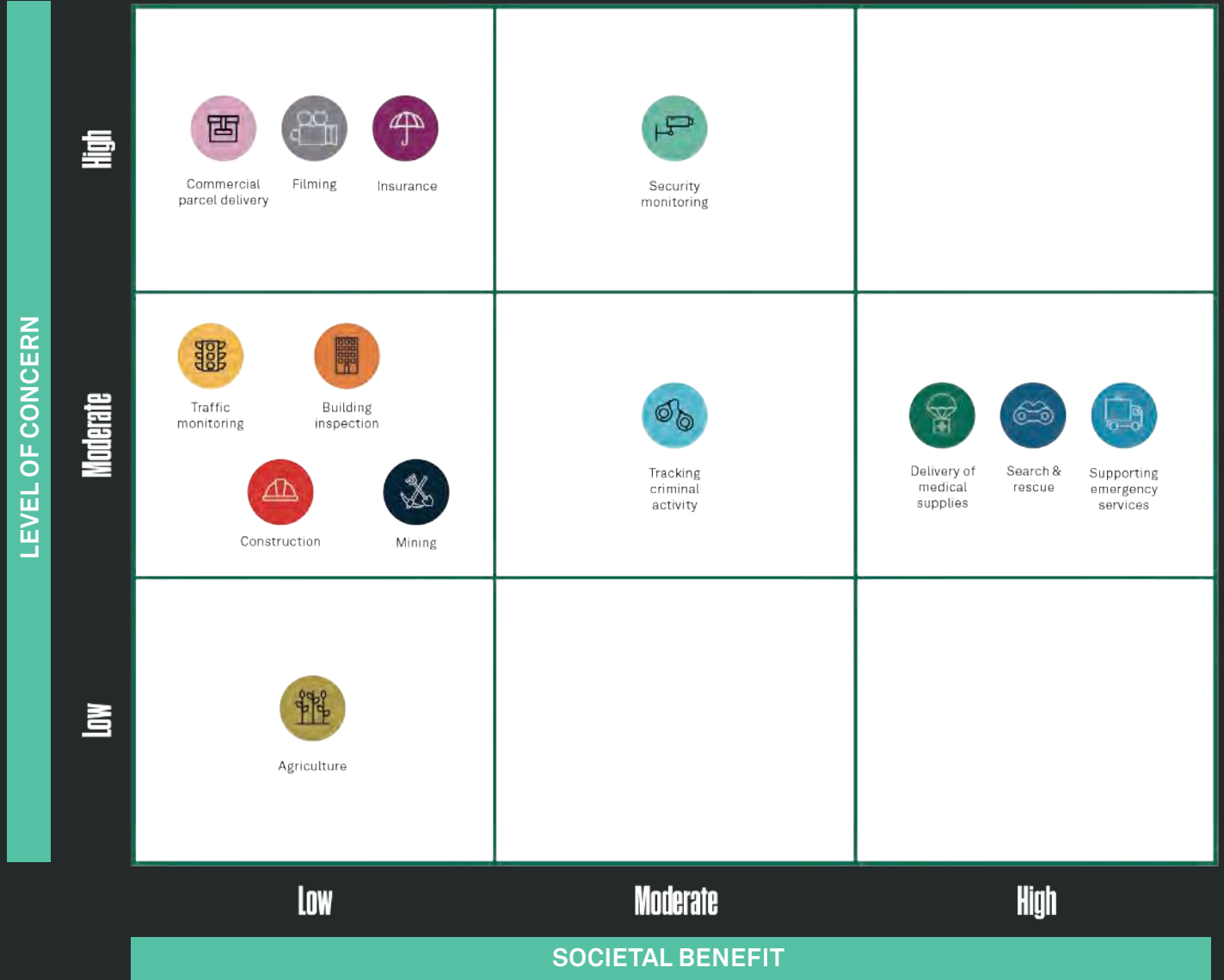
Less concern was attached to uses that:

- provided a strong societal benefit, such as search and rescue, supporting the emergency services and delivery of medical supplies, and tracking criminal activity.
- would not entail close contact with the general public such as uses in agriculture and mining.

# THE SOCIETAL MATRIX

Plotting the two of these against each other highlights which uses of drones are most likely to elicit positive feelings and increase positive sentiment and acceptability. It also highlights areas to consider when addressing the less appealing uses of drones in communications with the public.

- Use cases in the “High benefit” and “Low concern” box are strong contenders for impactful messaging.
- Those in the middle have good potential to increase sentiment but any communications will need to handle the concerns that arise as a result.
- Low benefit use cases need to be broached in bigger-picture messaging (as the wide utility of drones appeals), however again concerns will need to be handled to reduce negative perceptions about what their use might lead to.





04

## Developing the Message

Industry appraisal of current public opinion, and hypothesising messaging to test.

# USE CASES

## THE GOLD STANDARD



Delivery of medical supplies



Search & rescue



Supporting emergency services

**These use cases will be the core focus of messaging to promote use of drones.**

These use cases will be the core focus of messaging to promote use of drones.

Beneficial to:

- ✓ Society
- ✓ The economy
- ✓ The environment
- ✓ The individual
- ✓ People feel comfortable
- ✓ Exciting and interesting
- ✓ Not a threat to privacy
- ✓ Not a threat to safety

These applications are the strongest example of “drones for good”. Few are aware of the potential for using drones in this way, and making them aware of it immediately encourages them to reappraise any negative associations they have with drones.

However it will still be important to address concerns around safety and potential misuse, which will still be underlying reactions and may temper the positive reactions.

“

“It is exciting to see that drones could be used to save lives and help the emergency services”

M 45-54

“

“It can be very very useful for society, especially when it comes to saving lives and dropping off blood and medical supplies to unreachable places”

F 45-54

# USE CASES

## BENEFICIAL, BUT WITH CAVEATS



Tracking criminal activity



Security monitoring

**These use cases will be the core focus of messaging to promote use of drones.**

The benefit of using drones to track criminal activity and monitor security is appreciated, however considerable concerns remain about using them in this way. People do not see a benefit to themselves, the environment or the economy of this use case, and do not feel it is a particularly exciting use of the technology.

Specifically, there are concerns around abuse of powers overshadowing any potential societal benefit. Security monitoring in particular is assumed to be related to private use, which means lower

trust, and given the amount of security cameras already in use many question the need.

A greater awareness of the regulation in place could help address the mistrust issues, and the privacy issue will need addressing – whether people will be alerted to the drones in the way CCTV needs to be clearly signed.



“I would want to know who has access to the footage and how it would be kept safe”

F 25-34



“A private security firm shouldn’t be able to use them as they make their own rules and wouldn’t be trusted”

M 35-44



“Great use of technology...an extra tool for police officers. Great idea for events, could see fights/muggings etc

M 35-44

# USE CASES

## NEUTRAL

**These use cases will be the core focus of messaging to promote use of drones.**

The benefits of these use cases are appreciated: the expectation they could save both time and money, and make many jobs a lot easier (for example, crop spraying). There is particular recognition of the benefits to agricultural use in terms of the economy and the environment.

Very few people expected to be impacted personally by these use cases, leading to a high acceptance of these uses for drones. That said, some highlighted safety worries and concerns of causing a distraction in relation to traffic monitoring.



Traffic monitoring



Construction



Building inspection



Mining



Agriculture



**“Neither should they be allowed to hover over roads -if one was to break...it would cause a massive pile up and result in death”**

**M 35-44**

Some also mentioned the impact on jobs and whether people were being replaced by drones.



**“The main issue is the loss of skilled workers that already do most of the jobs a drone can do”**

**F 45-54**

However, these use cases do not inspire or excite, and are unlikely to be effective on their own at driving positive opinion.



**“I like the fact drones could be used to inspect and survey the maintenance of buildings, as it would offer peace of mind to potential buyers”**

**F 18-24**



# USE CASES

## NEGATIVE REACTIONS

**These use cases will be the core focus of messaging to promote use of drones.**

The public were far less likely to see the benefits in using drones in these commercial situations. Furthermore, there was considerable concern around the threat they posed to people’s privacy and safety.

Using drones for filming in particular is perceived to offer very little benefit to the individual. Whilst the benefits of the unique footage that can be appreciated, it sparks instant concerns about spying and privacy violations. People express concern that images could be captured without consent and not knowing what the footage would be used for was a big concern.

There is also little perceived individual benefit from insurance companies using



Commercial parcel delivery



Filming



Insurance

drones, and there are concerns around misuse by insurance companies to avoid paying claims.

Concerns around commercial parcel delivery centre around safety, the possibility of drones being used for criminal activity or there not being enough regulation around who can use them and what they can do, as well as the fear of them being hijacked and packages stolen.

It would be tricky to sell these use cases as a beneficial use of drone technology, and best to avoid them when promoting drones for good. If drones were to be used this way, any communication around it must be careful to pre-emptively address the concerns that arise.



“It would mean thousands of drones in the sky at one time if large items were flying around the sky there is a high risk of them crashing...and injuring people”

M 45-54



# REGULATION AND SAFETY

**There remains a fear that the drone market is unregulated, anyone can fly one, and the safety and privacy implications of this.**

Whilst presenting different use cases appears to lead to people reappraising their view of drones, fears around safety and regulation still persist even in the use cases that are universally agreed as beneficial.

It will be important to include information about the regulations in place in any communications, as the research found that simply becoming aware that rules exist to govern the height, proximity and distance of travel reduces safety concerns, and also alleviates some fears about criminal activity and misuse.



# KEY CONSIDERATIONS TO TAKE FORWARD INTO THE MESSAGING

**At present, awareness of drones is high but understanding of their use and interest is low people don't see it as being that relevant to them.**

- As a result, most people display neither a positive nor negative sentiment to “drones” as a whole.
- That said, the thought of there being more drones in the sky is met with some resistance, with around half saying they would be uncomfortable with that.
- Increasing people’s understanding of drones and their potential uses seems to increase acceptance and positive sentiment – particularly if they could see benefits to themselves or to society.
- However use cases that gave primarily commercial benefits or were felt to compromise privacy were less well received.
- The key concerns, even in use cases that people are broadly positive about, are safety and the threat to their privacy. There is also some concern about drones “getting into the wrong hands” and being used for criminal activity. Any messaging will need to address this and educate on the regulations in place.
- Another key consideration for the communications is that they must be easy to take in and able to be consumed passively, as people are not seeking out information or looking to learn more about drones at the present time.



# DEVELOPING THE MESSAGES TO TEST

The findings from the initial survey of public opinion were reviewed with industry representatives to scope out the building blocks of an ideal communications campaign, and how to measure its success.

The Criteria for Success of the communications plan were agreed as being:

- Raising acceptance of drones (that is, being comfortable with increased drone presence in the UK skies – go beyond just raising awareness)
- Minimise public concerns
- Educate public on range of drones uses and their potential benefits

The initial findings suggest achieving the second two points will lead to success in the first.

The audience for the communications will be the whole population, with a particular focus on those with lower levels of awareness/knowledge such as older people and less tech-savvy groups (given that those who have higher levels of knowledge are already more positive).

## KEY MESSAGES TO TEST IN THE NEXT PHASE:

- ✓ Existing positive sentiment towards healthcare provides opportunities to promote drones for good through their potential applications in this arena, particularly the NHS-related use cases.

Reaction to healthcare-related use cases was overwhelmingly positive, making it a great showcase for drones for good.

- ✓ Hypothesis put forward that sustainability could offer another opportunity to encourage positive responses.

This is a new hypothesis to be tested, relating to the current popularity of environmental messaging in general.

- ✓ Address current concerns about safety, privacy and misuse.

These came through as key barriers to acceptance in the initial research phase. Information about regulations already in place and how they are enforced will be tested to see if that is sufficient to alleviate concerns.

- ✓ Potential for creating new job opportunities (especially for women) could improve public acceptance.

Some concerns were raised, particularly around industrial use, of drones taking jobs away from people who were already undertaking the tasks they would do. A counter-argument of the jobs to be created will be explored.

- ✓ Focus on end-user benefit – where a group, member of the public or animal has benefited (e.g. receiving medical treatment or rescue), tangible benefits to the customer (e.g. faster deliveries), improving environmental impact.

The most positive reactions were to use cases the individual could see being of benefit to themselves or to other people, rather than the benefits to the companies seeing greater efficiencies or the logistics of the operation.

## WHAT TO AVOID IN THE MESSAGING

- ✗ Messaging around commercial applications and increased efficiencies/profits
- ✗ Anything around the tech and logistics about how drones operate
- ✗ The focus needs to be on the benefits to the end-user
- ✗ The low level of interest in drones means messaging such as this is not likely to have much impact



# 05

## Refining the Message

Public scrutiny of the hypothesised messaging to develop detailed examples to test.

# REFINING THE MESSAGES TO TESTED

The hypotheses raised by industry figures in response to the initial research phase were tested with the public in a series of focus group discussions, to further refine the messages and examples to use when communicating with the public to raise acceptance of drones.

## RECAP: THE CURRENT SITUATION

What we know about what the public think:

- There is currently low understanding about the potential for drones, and little engagement to change that. This presents an opportunity to “fill the void” with good news.
- When people think about drones, it is filming, private use/hobbyists, commercial deliveries that springs to mind.

- People don’t feel these are personally relevant to them
- There is low awareness of other uses and filling this knowledge gap can help drive positive sentiment towards drones.
- There is some concern around privacy and safety, and the possibility of misuse that will need alleviating in any messaging.

Six key insights emerged from the focus groups for headline topics to feed into the messaging. These types of message to be explored can be split into two groups: “New News” & “Addressing Barriers and Concerns”.



## Group 1

New News: Educating them about uses for drones they were previously unaware of.

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## Group 2

Addressing Barriers and Concerns: Educating about regulations in place and their enforcement.

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# NEW NEWS

## HOW DRONES CAN ASSIST THE EMERGENCY SERVICES:

**Hypothesis:** Assisting the emergency services is a compelling benefit across all groups.

**Initial reactions:** Drones helping in life-or-death situations evokes a widespread positive response, with instant emotional connection and tangible benefits.

### Messages to test:

- Helping **Mountain Rescue** find injured people in remote countryside.
- Transporting medical supplies between **hospitals**.
- Helping **firefighters** identify the hottest points within a burning structure and help them direct their efforts, using thermal imaging cameras.
- Helping **police** track suspects or scout suspected illegal activity at specific locations.

## THE ENVIRONMENTAL BENEFITS OF DRONES:

**Hypothesis:** Environmental benefits are positively received but need explanation (to address concerns around them).

**Initial reactions:** Unlikely to generate the strongest positive reaction. It is not viewed as a strong motivator, receiving neutral reactions from many. The assumed environmental “savings” are not perceived to be high enough to outweigh the negatives.

### Messages to test:

- Drones can be used for some things (e.g. delivery) that cars and vans are currently used for. This could help reduce congestion on the roads, **reducing pollution** as they are small and electric.
- Drones can be used to **plant seeds** for trees over wider areas and more quickly than is possible by other means.
- Drones can be used to **assess habitats and endangered species** by giving a wider and aerial perspective than otherwise possible.
- Drones can be used to **assess natural areas for potential dangers to humans** e.g. cliff collapses / floods / etc.

## HOW DRONES CAN ASSIST WITH PARCEL DELIVERY:

**Hypothesis:** Commercial parcel delivery can spark some negativity, but faster deliveries have some appeal.

**Initial reactions:** This is one of the uses people know most about without being prompted, but benefits tend to be linked to the companies doing the delivering rather than to the end user.

### Messages to test:

- Drones could **deliver smaller parcels more quickly** than current turnaround times e.g. within 1 hour.
- Drones could potentially offer delivery to **more remote locations** e.g. in the Scottish Highlands or in agricultural areas with long distances from main roads.
- Drones could offer more **environmentally cleaner delivery than cars or vans**.

# ADDRESSING BARRIERS & CONCERNS

## HOW DRONES CAN KEEP PEOPLE SAFE:

**Hypothesis:** Keeping people safe is a compelling message.

**Initial reactions:** There are a lot of fears about the safety of drones, but messaging around ways in which drones actually keep the public safe could counterbalance this. In addition, the use of drones to prevent misuse of drones could reassure about the enforcement of regulation and appease fears about illegal drone activity.

### Messages to test:

- Drones can be used to assess crime scene after incidents to look for clues to help solve cases and potentially locate the offenders.
- Helping the police to manage large public events and moving traffic.
- Helping the police to identify and seize illegal drones that are found to break the law.

## USE OF DRONES IS WELL REGULATED:

**Hypothesis:** Information / reassurance is desired on regulation and governance - as many assume these don't exist (or aren't enforced).

**Initial reactions:** This is a key concern for many, even regarding use cases that are seen as overwhelmingly positive.

### Messages to test:

- Provide information on WHO can operate them e.g. that a theory test is required plus age restrictions.
- Provide information on restrictions on HOW and WHERE they can be operated e.g. height limits, proximity to others limits, and distance from things such as airports.
- Provide information on previous successful prosecutions of people for misuse to demonstrate that the law takes misuse seriously.
- Provide information on filming laws e.g. if fitted with a camera, you must not fly within 50 metres of people, vehicles, buildings or vessels AND you must inform people in an area if you intend to record.
- Information on the associations that make the rules, conduct the theory tests, etc. primarily the Civil Aviation Authority.

## NEW JOBS & OPPORTUNITIES:

**Hypothesis:** Creation of new jobs is a nice to have benefit, but a need to reassure that this does not represent a shift from blue to white collar.

**Initial reactions:** Loss of jobs is not a top-of-mind barrier but one that comes up as a concern when prompted. Communications around this will have to be carefully done, as raising the issue may spark further questions (and concerns). A general job creation message risks expectations that the new roles won't be suitable for the same people, so some will still suffer as a result.

### Messages to test:

- Information on number of sectors where drones can be used (e.g. 'your job with a drone could be anywhere'), in construction / ecology / film and tv etc.
- Information on how many jobs have been created / will be created through the use of drones.
- Information on where jobs are being / will be created - e.g. especially if helping address other losses of jobs or more general low employment.
- Information of how to enquire for more information on how people could potentially work with drones.



06

## Changing Perceptions: The Guidelines

Testing of the messaging and  
recommendations.

# SO WHAT?

## How to build & reinforce the public perceptions surrounding the positive impact of drones

The hypothesised messaging was then tested and validated with a sample of 2,000 members of the public to finalise:

- **What** the messages should be: what use cases to focus on, and what specific messages to use
- **Which type of imagery** of drones is most engaging and should accompany the message?
- **Who** should convey the message – what trust is there in organisations, brands, people?
- **Which channels** are most effective in communicating information and creating trust?

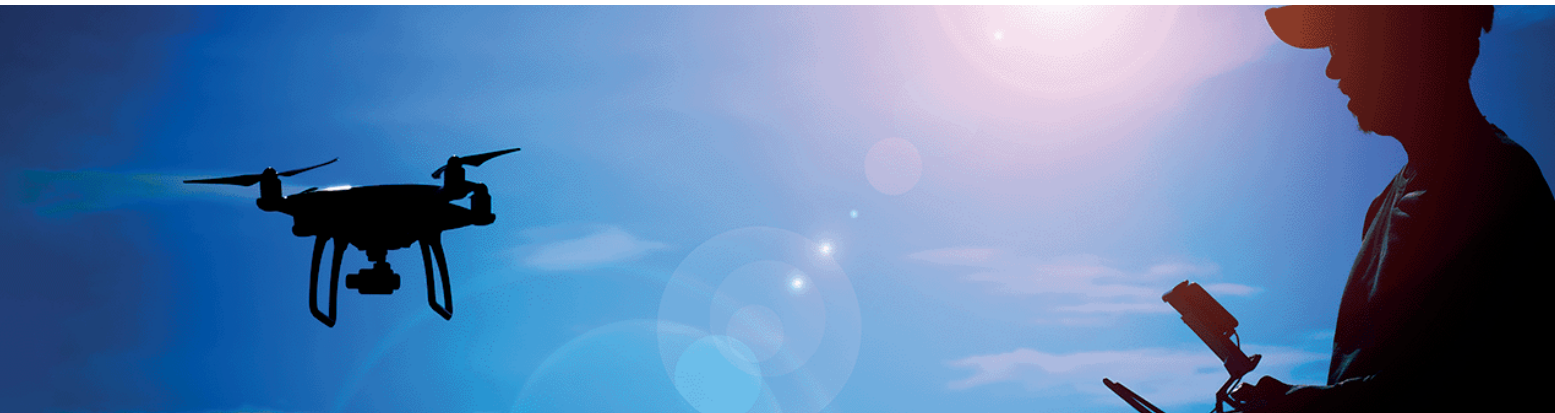
### RECAP:

The messaging needs to achieve these aims

- Increase positive sentiment
- Increase understanding of drones
- Increase acceptance, that is, feeling comfortable with more drones in UK airspace

### WHAT WE KNOW:

- Communications must be easy to take in passively – simple, widely available and noticeable. People aren't seeking information but increased understanding has a direct effect on acceptance so it is important to get it in front of them where they will see it.
- Where possible, focus on altruistic use and highlight personal benefits – use cases such as search and rescue, emergency services and delivering medical supplies perform well particularly when paired with messaging that demonstrates personal, tangible benefits.
- Informing the public of the existence of rules and regulations will be key as this is a critical concern for many.



# WHAT THE MESSAGES SHOULD BE

## MESSAGING AROUND THE USE OF DRONES

All use cases of drones tested had a positive impact on overall sentiment, suggesting the wide range of uses drones can be used for is a strong message taking us towards acceptance.

The uses that had the largest impact on positive sentiment were transport of medical supplies and equipment, and agriculture and mining.

Use case	Baseline positive sentiment (%)	Positive sentiment after hearing use case (%)	Percentage point difference
Transport of medical supplies and equipment	36	79	+43
Agriculture / mining	36	64	+28
Traffic monitoring	36	63	+27
Infrastructure / construction	36	62	+26
Security and law enforcement	36	62	+26
Keeping people safe	36	53	+17
Filming (for leisure, e.g. film/TV display)	36	51	+15
Commercial parcel delivery	36	47	+11



16-34s

were less likely to be influenced by law enforcement but were more positive about filming.



55+

were more likely to be positive after hearing about law enforcement messages, and not influenced by filming.

### WOMEN WERE MORE LIKELY TO RESPOND POSITIVELY TO USE CASES AROUND KEEPING PEOPLE SAFE AND TRANSPORTING MEDICAL SUPPLIES.

**16-34s** were less likely to be influenced by law enforcement but more positive about filming...**55+** were more likely to be positive after hearing about law enforcement messages but less likely to be positively influenced by filming uses. This group were also less likely to be enthusiastic about commercial parcel delivery.

## MESSAGING AROUND THE BENEFITS OF DRONES

The following messages about the benefits of drones had the biggest impact on positive sentiment towards drones:

Benefit message	Baseline positive sentiment (%)	Positive sentiment after hearing use case (%)	Percentage point difference
Assist in Search & Rescue	36	85	+49
Transport medical supplies	36	83	+47
Lower carbon emissions	36	67	+31
Minimise criminal activity	36	67	+31
Less congestion on roads	36	65	+29
Create new jobs and opportunities	36	56	+20
Help people and organisations save time	36	55	+19
A better use of limited resources	36	54	+18
Help people and organisations save money	36	46	+10

All benefits led to an increase in positive sentiment, however benefits with a tangible human element were again most powerful, for example emergency service and medical benefits.

Commercial benefits, such as saving time, money and being a better use of resources, were less likely to lead to people feeling more positive about drones.

Messages around saving time were more impactful for younger audiences (**16-34**) than older (**55+**). Conversely, messages about the benefits of helping with search and rescue were more positive for older audiences (**55+**) than younger (**16-34**).

Messages about drone's utility helping with search and rescue were particularly impactful with audiences in rural locations.



### Message categories most likely to improve perceptions of drones

- How drones can assist the emergency services
- The environmental benefits of drones
- How drones can keep people safe



### Message categories less likely to improve perceptions of drones

- Use of drones is well regulated
- Drones can help create new jobs and opportunities
- How drones can assist with parcel delivery

## MESSAGE CATEGORIES MOST LIKELY TO IMPROVE PERCEPTIONS OF DRONES: IN DEPTH

### HOW DRONES CAN ASSIST THE EMERGENCY SERVICES:

The stand-out subject for driving positive perception of drones, in particular when linked to the preservation of human life.

- ★★★★★ Quickly and effectively transport critical medical supplies
- ★★★★★ Help Mountain Rescue teams
- ★★★★★ Searching for people is 20 times faster using a drone
- ★★★★★ Help firefighters identify the hottest points within a fire
- ★★★★★ Help the police track suspects or spot illegal activity

### THE ENVIRONMENTAL BENEFITS OF DRONES:

The environmental message that prompted the most positive reaction was again linked back to the human benefit.

- ★★★★★ Assess the environment for potential danger to humans
- ★★★★★ Assess the habitats of endangered species
- ★★★★★ Used for reforestation by planting seeds over wide areas
- ★★★★★ Used for deliveries that cars and vans are usually used for, reducing congestion on the roads

### HOW DRONES CAN KEEP PEOPLE SAFE:

The message that provokes the most positive reactions in relation to keeping people safe is tonally light and reductive. It is specific to the criminal situation and does not prompt concerns about them being used to record one's own behaviour. Messages that the individual may be impacted by directly scored far lower here. The message about using drones to prevent illegal drones also resonates less.

- ★★★★★ Assess crime scene to look for clues and locate offenders
- ★★★★★ Help emergency services identify and seize illegal drones that are breaking the law
- ★★★★★ Help the police manage large public events and move traffic

- ★★★★★★ Much more likely than average to improve positivity
- ★★★★★ More likely
- ★★★★ A little more likely
- ★★★ A little lower than average
- ★★ Lower than average
- ★ Considerably lower than average

## MESSAGE CATEGORIES LEAST LIKELY TO IMPROVE PERCEPTIONS OF DRONES: IN DEPTH

Although these categories had less positive impact overall, there are still some important messages contained within that mitigate fears (and may reduce negativity, even if they don't actively promote positivity).

### USE OF DRONES IS WELL REGULATED:

This sort of messaging could be considered a "hygiene factor". Without it, perceptions of drones are more likely to be negative, but it doesn't in itself drive positive sentiment.

- ★★★★★ The police and CAA have prosecuted individuals and organisations who are in breach of drone regulations
- ★★★★★ Drone use is well regulated. All drone pilots must be registered and take a theory test to get a licence.
- ★★★★★ The CAA put in place measures to minimise and prevent illegitimate drone use
- ★★★★★ There are limits on where drones can be used
- ★★★★★ The CAA makes the rules that determine how, when, where and why drones are allowed to be used
- ★★★★★ If a drone is being used, they cannot fly within 50m of people or vehicles

### DRONES CAN HELP CREATE NEW JOBS AND OPPORTUNITIES:

Messages around jobs perform less well, with the exception of those that focus on the delivery of public sector services. The impact on jobs isn't top of mind for the public, so this message must be introduced with care so it does not raise more concerns than it addresses.

- ★★★★★ Have a positive impact on the services central and local government deliver
- ★★★★★ Drone industry is a huge growth opportunity and will likely create thousands of jobs
- ★★★★★ Drone industry will create jobs in all areas of the country
- ★★★★★ The UK is a leader in drone tech and the drone industry is likely to be beneficial to the UK economy
- ★★★★★ Can have a positive impact in a wide range of commercial sectors
- ★★★★★ Drone industry will provide a cross section of society with the chance to develop skills

### HOW DRONES CAN ASSIST PARCEL DELIVERY:

Parcel delivery messages were least likely to engender positivity. However it is a use of drones that is likely to become more common, and when it does this will need to be addressed. Messages around the environmental benefit and access to remote locations performed strongest here.

- ★★★★★ Offer environmentally cleaner delivery service than cars or vans
- ★★★★★ Help provide parcel delivery to more remote locations
- ★★★★★ Can help deliver parcels efficiently to hubs in a community
- ★★★★★ Can deliver smaller parcels to customers much more quickly than currently.

- ★★★★★ Much more likely than average to improve positivity
- ★★★★ More likely
- ★★★★ A little more likely
- ★★★ A little lower than average
- ★★ Lower than average
- ★ Considerably lower than average

# WHAT TYPES OF IMAGERY SHOULD ACCOMPANY THESE MESSAGES

**The imagery used in a campaign is key to capturing people’s attention and bringing the message to life.**

As such, a series of images of drones in action were presented to focus group members to gauge their reaction.

On the whole, images that provoked positive reactions aligned neatly with the use cases people were most positive about.

## POSITIVE REACTIONS

Images focused on emergencies appeals across all demographics.

★★★★★ In particular, images that show a person (or animal) being helped by a drone elicit positive emotional response and people show a clear preference for this sort of imagery.

★★★★★ Images delivering medical supplies are also well received.

★★★★★ Reactions were positive to images of police using drones; this was particularly the case among older people (55+).

★★★★★ Images where drones perform unknown tasks sparks interest, and can be used to inform, but do not elicit a strong emotional response so the impact on positive sentiment will be limited.

★★★★★ The inclusion of a person in a high-vis jacket makes drones feel more serious and shows another side to their application – but these should be used carefully as they can provoke associations with drones being dangerous).

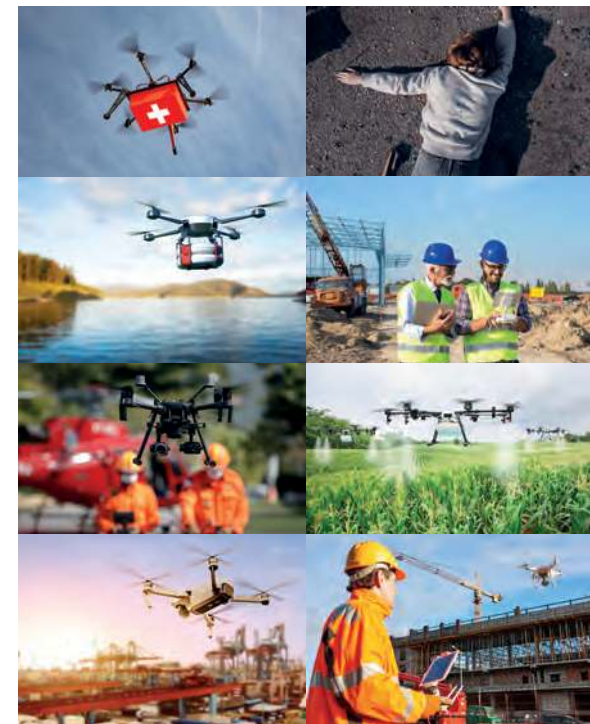
## NEGATIVE REACTIONS

Reactions were less positive for images showing drones being used for leisure purposes, such as recording cyclists or putting on light shows.

★★★★★ Younger people were slightly more positive, but still overall not as positive as for imagery that demonstrated practical benefits.

★★★★★ Images of drones in isolation do not appear to ease concerns as viewer cannot gauge size, height etc and thus how much of a disruption it would be.

★★★★★ Images of multiple drones trigger fear and other negative reactions and should be avoided.



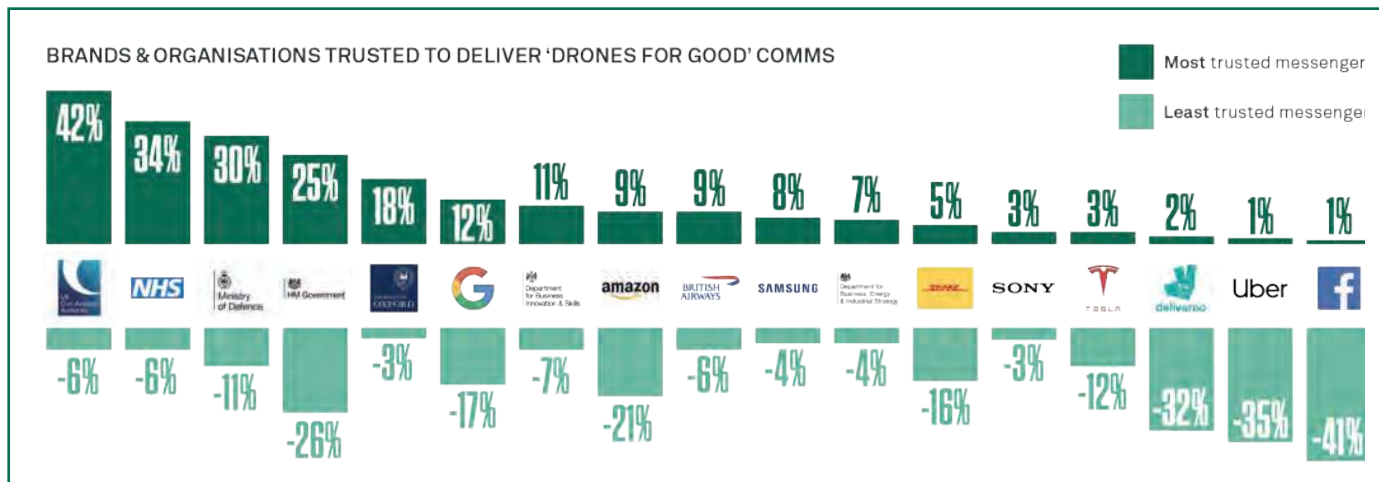
# WHO SHOULD THE MESSAGES COME FROM?

To have the greatest impact, the communications need to come from a public body that is well-recognised and trusted.

Awareness of the Civil Aviation Authority (CAA) is low, but people were positive about its input when the full name was included. It felt relevant, and sparked thoughts of regulation which helped address concerns about how well drones are monitored and regulated.

The NHS was also mentioned by many as one that there is a lot of current positivity about. It segues nicely with the most impactful uses of drones so there could be something in this angle to educate about how drones can save lives.

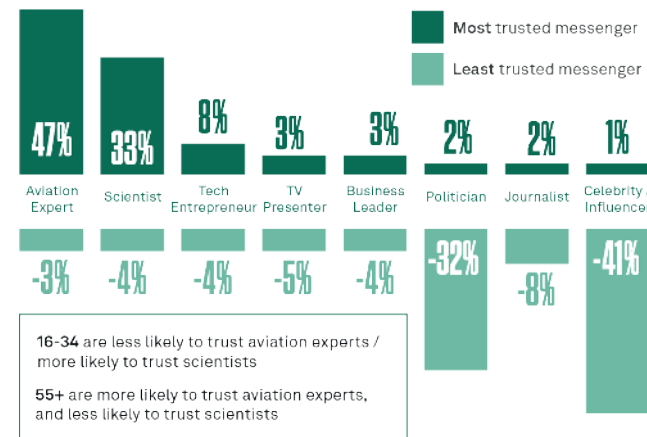
Commercial organisations on the other hand were not seen to be a trustworthy source of information. There were suspicions that their motivations would be increasing profit and their involvement in the messaging would be presumed to be sponsorship of the message, which would impact its credibility. Concerns people have around privacy and safety were unlikely to be alleviated by messages from the people who stand to benefit most from using drones.



Similarly, if individuals were to be ambassadors for drones, it would be more impactful to have experts such as scientists and aviation experts than it would be to have business leaders or politicians. They also have to have some relevance, not influencers or celebrities with no obvious interest. The ambassador(s) need to be a fairly serious, well-respected personality.

Whilst public, recognisable figures were popular, there was also the suggestion that using “real” people working with and benefiting from drones, for example NHS workers, could add to the relatability.

**TYPE OF PERSON TO FRONT A 'DRONE FOR GOOD' COMMS CAMPAIGN:**



# WHAT CHANNELS WOULD BE MOST EFFECTIVE TO DELIVER THE MESSAGE

When prompted, the CAA website and drone manufacturers' websites were the places people were most likely to expect to find out more about drones and their use in UK airspace (each mentioned by 72%). However, whilst the CAA was well trusted (43% said they would trust it), drone manufacturer websites were less well trusted at just 7%.

However, it has already been noted that awareness of the CAA is low, as is the motivation to seek out new information. Therefore the best combination would be to communicate key messages via a different channel such as news media, with the communications directing back to the CAA website for those who want to find out more.

For example:

- An aviation expert from the CAA, with communications pointing back to information on the CAA website
- An NHS worker explaining how drones help them save lives
- A famous respected scientist in the news media and backed up with information on gov.uk and the CAA websites.



07

## Summary

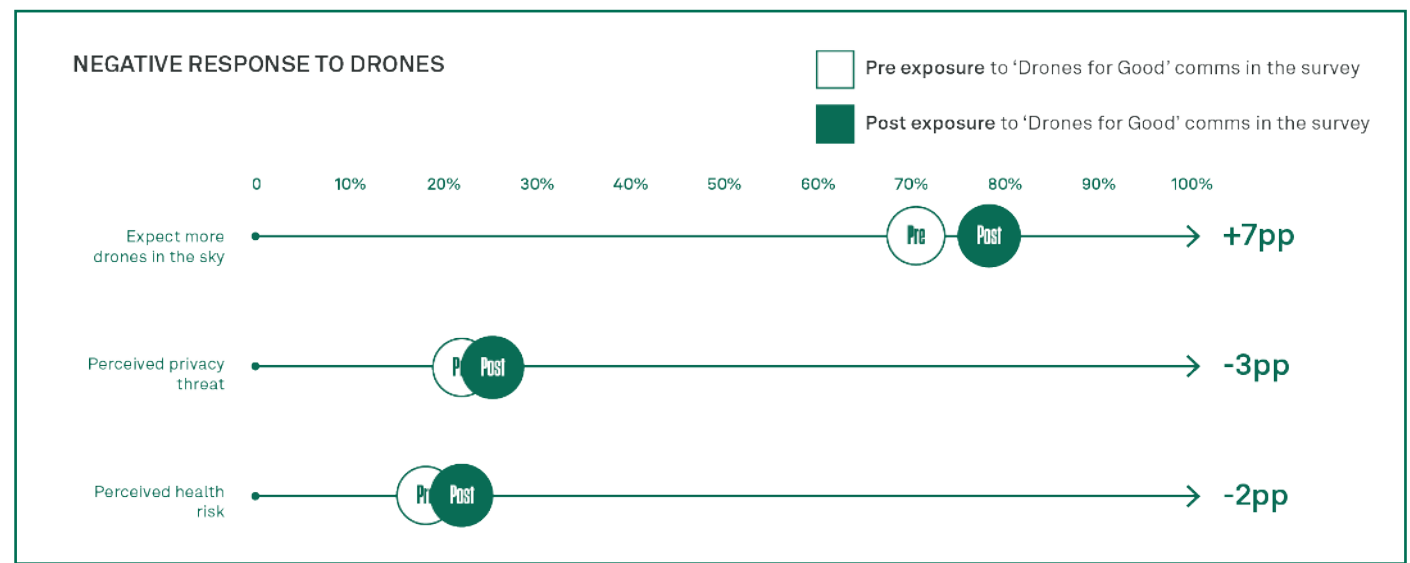
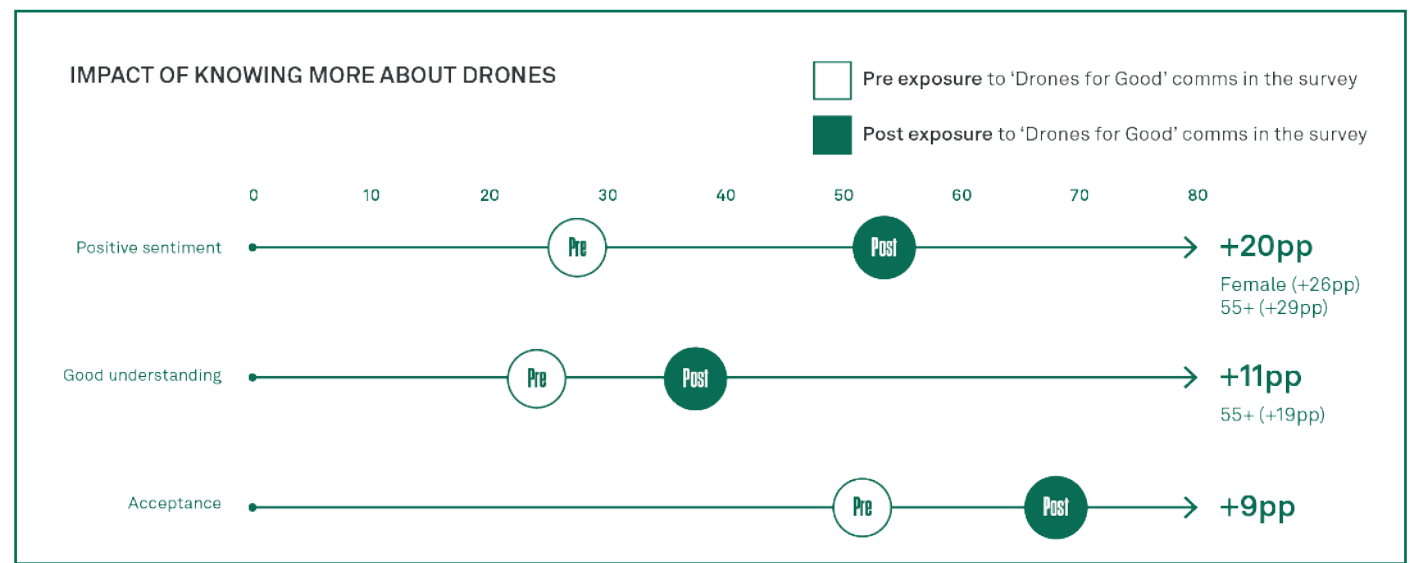
The communications  
plan in full.

# IMPACT OF MESSAGING

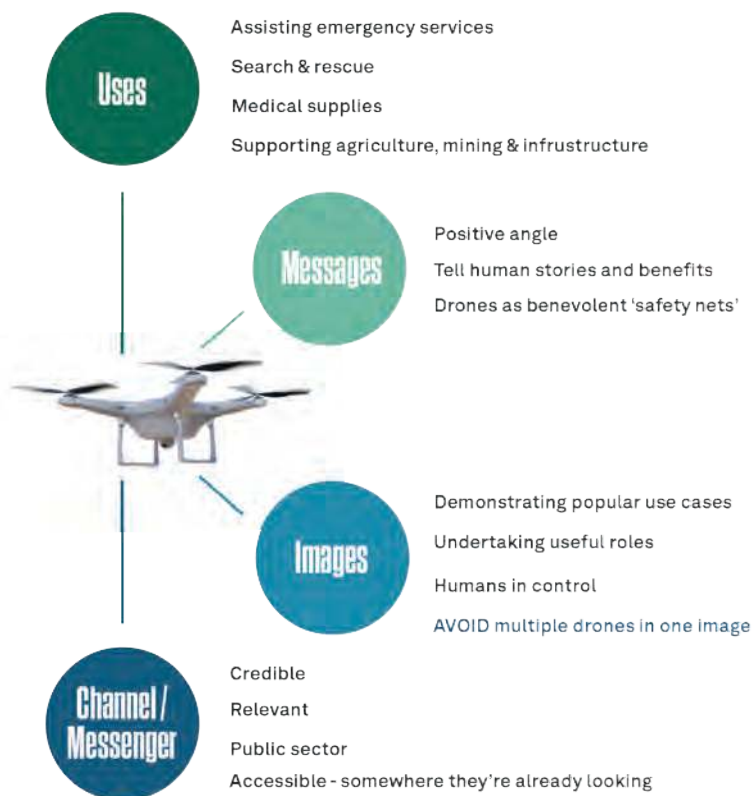
Overall this demonstration research shows good news - people's positive sentiment, understanding and acceptance of drones are all increased by the sharing of these messages.

This data provides demonstrable proof of how perceptions can be substantially improved in the climate of the current low levels of knowledge and the accompanying information void. It strongly suggests there is value in the drone industry taking the front foot in selling the benefits to the public.

Furthermore, whilst hearing more about drones does increase people's expectations that they will start to see more of them in the sky, this increased expectation is not followed by an increase in fears about privacy and safety. There were slightly fewer expressing these fears after seeing the messaging suggesting it is effective to an extent (indeed, one might expect fears to increase given an increased expectation of an increased prevalence of drones), but it is going to take strong messaging and also possibly increased positive real-world experiences of drones before these fears can be substantially reduced.



# THE PLAN FOR COMMUNICATION



## MESSAGE

- Needs to be positive, about both the possibilities drones afford us and the benefits they can give people and society.
  - Avoid defensive messaging which can increase concerns.
- People are open to hearing more about drones and having their opinions changed – most are currently indifferent to drones, and this mostly stems from poor understanding and the perception that the relevance of drones to them is low.
- Messages need to:
  - Tell stories on a human scale
  - Position drones as benevolent “safety nets”
  - Show that drone contact is the exception rather than the rule

## IMAGERY

- Drone imagery that depicts the most popular use cases proved to elicit the most positive reactions.
- Examples of how drones can serve humans and make a decisive impact in emergencies is key.
- Drone imagery is also more reassuring when human authority over drones is never in doubt – e.g. a human controlling a drone rather than a drone controlling a human.

- Images of multiple drones trigger fear and negative reactions and should be avoided.

## MESSENGER

- Public sector endorsement will be far more effective than messaging coming from the private sector.
  - The CAA and NHS in particular inspire trust
- Celebrity ambassadors need to be both credible and relevant.

## CHANNEL

- The CAA website is by far the most trusted channel for information among the public.
  - However, there is low awareness of who the CAA actually are and what they do, so people may not know to look there.
- Additionally, people are not motivated to seek out more information.
- As such, channels such as news media would be more effective, as they would mean more people becoming aware of the messages without having to seek them out.

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