

# Road surface research

November 2017



future  
thinking



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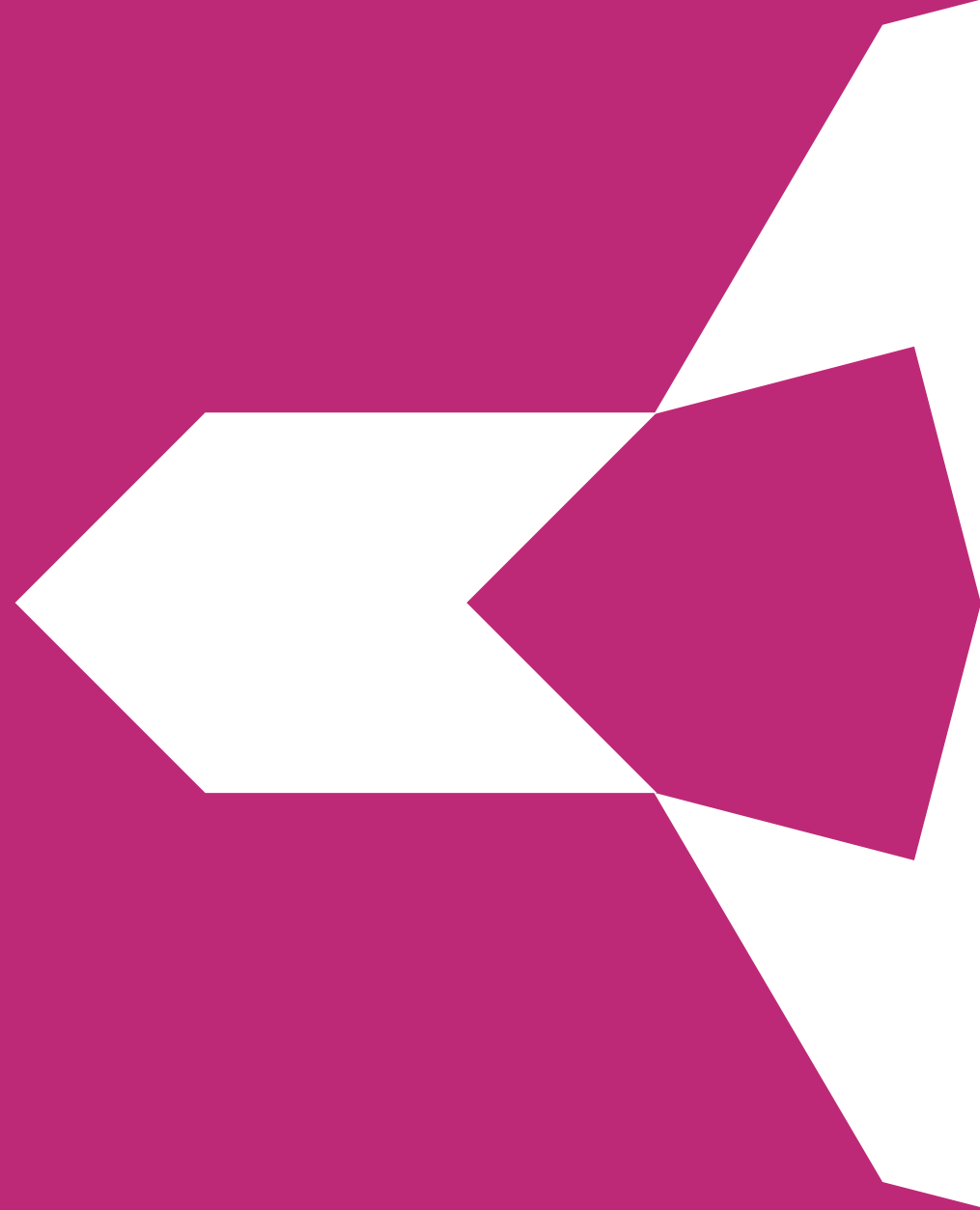
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# Approach



# Research objectives

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A number of recent studies among strategic road network (SRN) users have identified the recurrent perception of road users that road surfaces require improvement. Transport Focus wished to explore the wider context of the statistics and ascertain the source of these perceptions, the extent of the issue, and where best to focus its efforts in facilitating future change. Qualitative research among SRN users was therefore commissioned to gain further understanding of what lies behind the figures.

Specifically:

## 1 Understand 'road surface' perceptions

Unpick how the term is used by drivers to understand whether it is a general expression or if it encompasses multiple aspects such as surface material, noise, road markings etc.

## 2 What are users looking to improve?

While stating road surface as a priority for improvement, what are they seeking to change:

- Quality of ride (e.g. smoother etc.)
- Minimising damage to vehicle/tyres
- Reduction in requirement for maintenance/roadworks

## 3 How should HE mobilise itself?

Within the area of road surfaces, are there elements which are more urgent for HE to focus on in the short term?  
What do users view as key aspects of road surface quality when using the SRN

# Method

Multi-staged programme of research among transport stakeholders and those using the SRN



## Expert Interviews

6 telephone depth interviews with representatives across the transport sector








## 9 focus groups and 8 depths with SRN users

-  x 4 full groups
-  x 1 full group
-  x 2 mini groups
-  x 2 mini groups
-  x 8 f2f depths

London, Birmingham, Manchester, Bristol



## 12 ethno-depths with SRN users

-  x 4
-  x 1
-  x 2
-  x 2
-  x 3

4 routes: M60/A663/A627; M20/A20; M5/A30; M1/A38



## 4 days of intercepts

71 5-minute semi-structured qualitative interviews conducted across 4 MSAs

Tiverton Services (M5/A38)  
Thurrock Services (M25/A13)  
Wetherby Services (A1M)  
Cherwell Services (M40/A43)

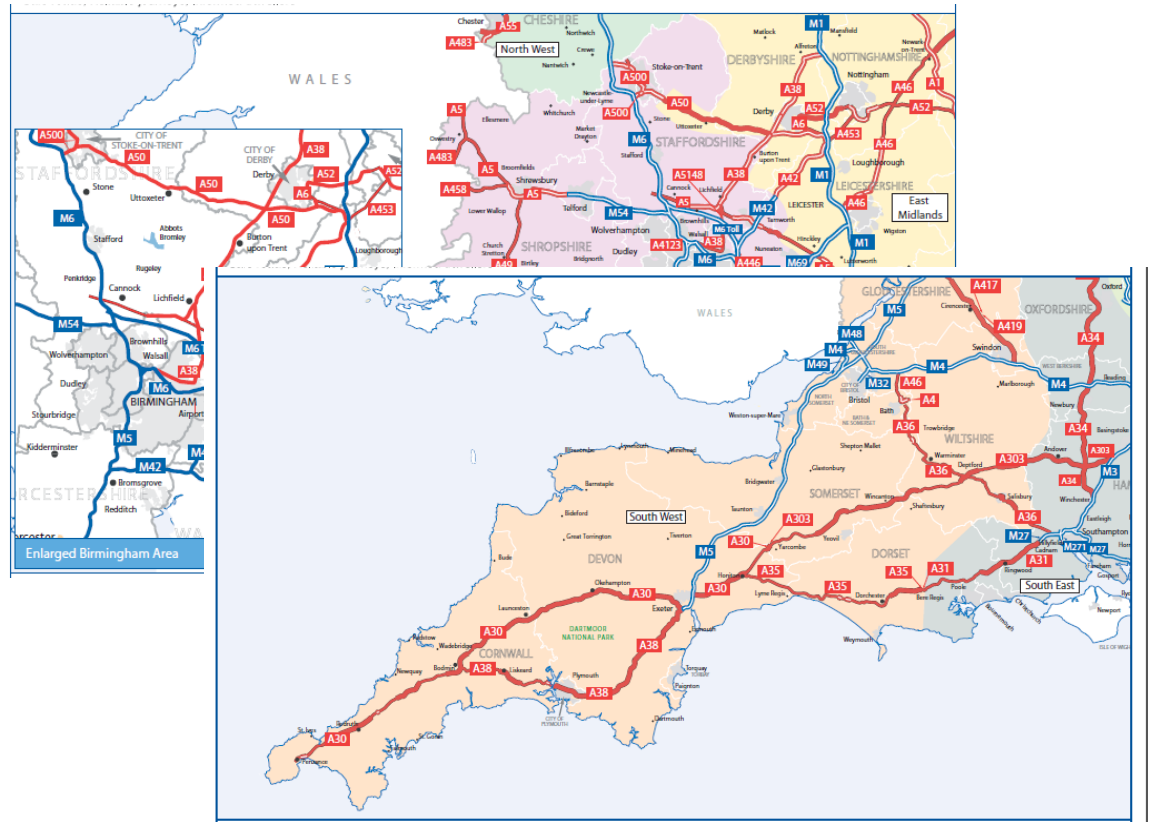


# Focusing on the SRN

At the beginning of each qualitative session the parameters of road surfacing that were to be discussed were outlined. Participants were given SRN road maps to use during session to refer to and help clarify any confusion over which roads are classed as the SRN

It is important to flag that there is a general lack of awareness of which 'A' roads and Motorways are classed as SRN.

Any references to local roads during the sessions have not been included in these findings



**Context**



# Background to the research

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In 2015, Transport Focus undertook its first large-scale research with motorised users of the SRN including drivers of cars/vans, motorcycles and HGVs.

The survey identified that a top priority for improvement (alongside aspects such as journey time and safety) was the quality of road surfaces. This was consistent across drivers of all vehicle types (but particularly among motorcyclists) and among fleet managers<sup>1</sup>. Road surfacing quality alongside journey time is a factor which is relevant to every SRN journey.

Acknowledging that drivers can be susceptible to citing road surface as the default response regarding the SRN, this research was focussed on identifying what drivers include in the term 'road surface', true experiences of these factors on the SRN (both positive and negative) and understanding driver expectations of road surface standards across the network



<sup>1</sup> Priorities research: 2015, Future Thinking; fleet managers asked for spontaneous improvements compared to MaxDiff exercise with drivers



# Understanding the industry perspective

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We spoke with representatives of a range of relevant vehicle and transport organisations to gauge the wider outlook on road surfaces across the SRN

There is a high expectation of the road surface on the SRN network which is not always met although deemed better than local roads.

Transport spokespersons are aware of issues for particular drivers such as motorcyclists and those with disabilities who may suffer more as a result of poorly kept road surfaces.

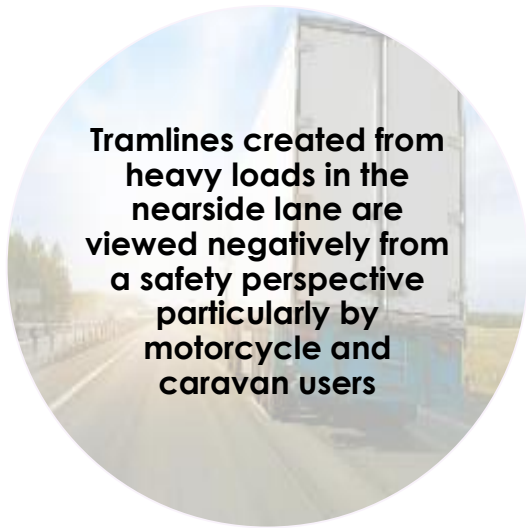
Road surface is a factor which members and those they represent do mention and which can influence attitudes towards the network. However they believe drivers perceptions of the SRN surface quality would be unlikely to impact people's decision whether to use it.



# Perceptions of expert witnesses

Consistent themes arise in reference to SRN road surfaces across various stakeholders

## Grooves in the road surface

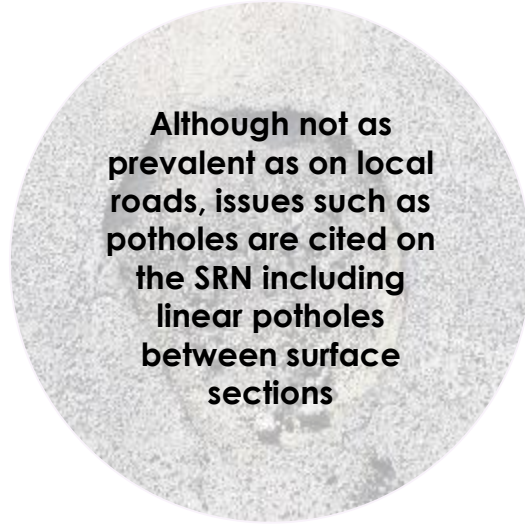


Tramlines created from heavy loads in the nearside lane are viewed negatively from a safety perspective particularly by motorcycle and caravan users



Even the smallest dip in the carriageway could result in an accident

## Damage to surface



Although not as prevalent as on local roads, issues such as potholes are cited on the SRN including linear potholes between surface sections



People just simply don't expect to hit a pothole at 70 miles per hour

## Road markings



Old road markings which have been blanked out can become reflective in the rain or poor light



Anyone who thought that the surface of the motorway network wasn't bad is welcome to come on the back of my motorcycle and I'll take them across the M6 elevated section and we'll see how many teeth they have left at the end of it

## Road surface construction



Materials used for the SRN impact:

- Noise levels
- Comfort
- Safety during transition from one surface material to another

# Some arising hypotheses

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**01**

The impact of different road surface features can affect target audiences in different ways

The term 'road surface' can encompass a large range of aspects of the road

**02**

**03**

Poor road surface can have a significant impact on people's perception of their driving experience on the SRN given its relevance to every journey

There is a preference for a smooth, asphalt road surface among road users

**04**

# General perceptions of road surface



# What do road users include in the term 'road surface'?

When road users initially consider road surface, the material itself, road markings and condition of the road are top of mind

**Top of mind**

## Road material

Top of mind when considering surfacing is the material itself



Surfacing is the material the road is made out of right. The top layer?

Car Driver, Manchester

## Surface condition

Defects in the road

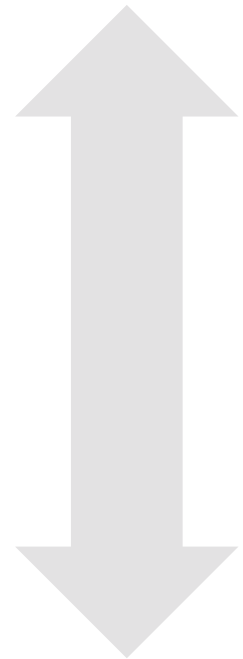
## Road markings and features

The state and condition of the road markings and the other features of the road



First, the surface material. It could also cover the other things on the road itself, like potholes and painted lines

HGV driver, Bristol



**Deeper considerations**



# What makes up road surface?

These three categories in reality encompass a range of factors:

Tarmac (asphalt)

**Road material**

Concrete

Cracks

Grit

Potholes

Subsidence

**Surface condition**

Rutting (tramlines)

Flooding

Anti skid

Rumble strips

Road markings

**Road markings and features**

Chevrons

Drains

Cats eyes

# Impact of road surface on SRN experience

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Road surface may not always be top of mind for road users unless a particularly negative experience has occurred, however such a variety of aspects are included in people's perceptions of road surface that encountering any such related issues, both positive and negative, can significantly affect people's journeys and their opinions of the network

Where issues such as potholes, surface deterioration, bumps/dips etc. are evident for long periods on the same road, drivers lose faith in the standards of maintenance compared to roads which have obviously been upgraded

Confidence in standards which maintenance/contractors are held to is lowered due to inconsistencies in standards across the network

While people are unlikely to avoid the SRN due to known issues with road surface it can affect their driving e.g. unforeseen veering to avoid deterioration, or knowingly avoiding certain issues

From our intercepts, we gathered 152 ratings of SRN roads and 68% of the ratings were fairly or very good for road surface on that day but 1 in 10 (11%) were fairly or very poor

# Road surface can have an impact on and be a conduit for other experiences

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As road surface is experienced on all SRN journeys (whether positive or negative) it can affect perceptions of other elements of the network:

- Safety – having to react to features such as flooding, potholes, raised ironworks etc. can cause anxiety especially at speed
- Conflict – road users may need to avoid surfacing aspects such as potholes, debris etc. by veering or changing lanes at short notice. Such behaviour can be inflammatory to following road users unaware of reasons for this behaviour
- Journey time – road users claim that routes which have a smooth and flawless surface lead to more efficient journeys which are not delayed by having to avoid issues or adapt driving behaviour to navigate road imperfections

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The spray from HGV vehicles is horrendous when there is water on the roads, sometimes you feel like they do it on purpose

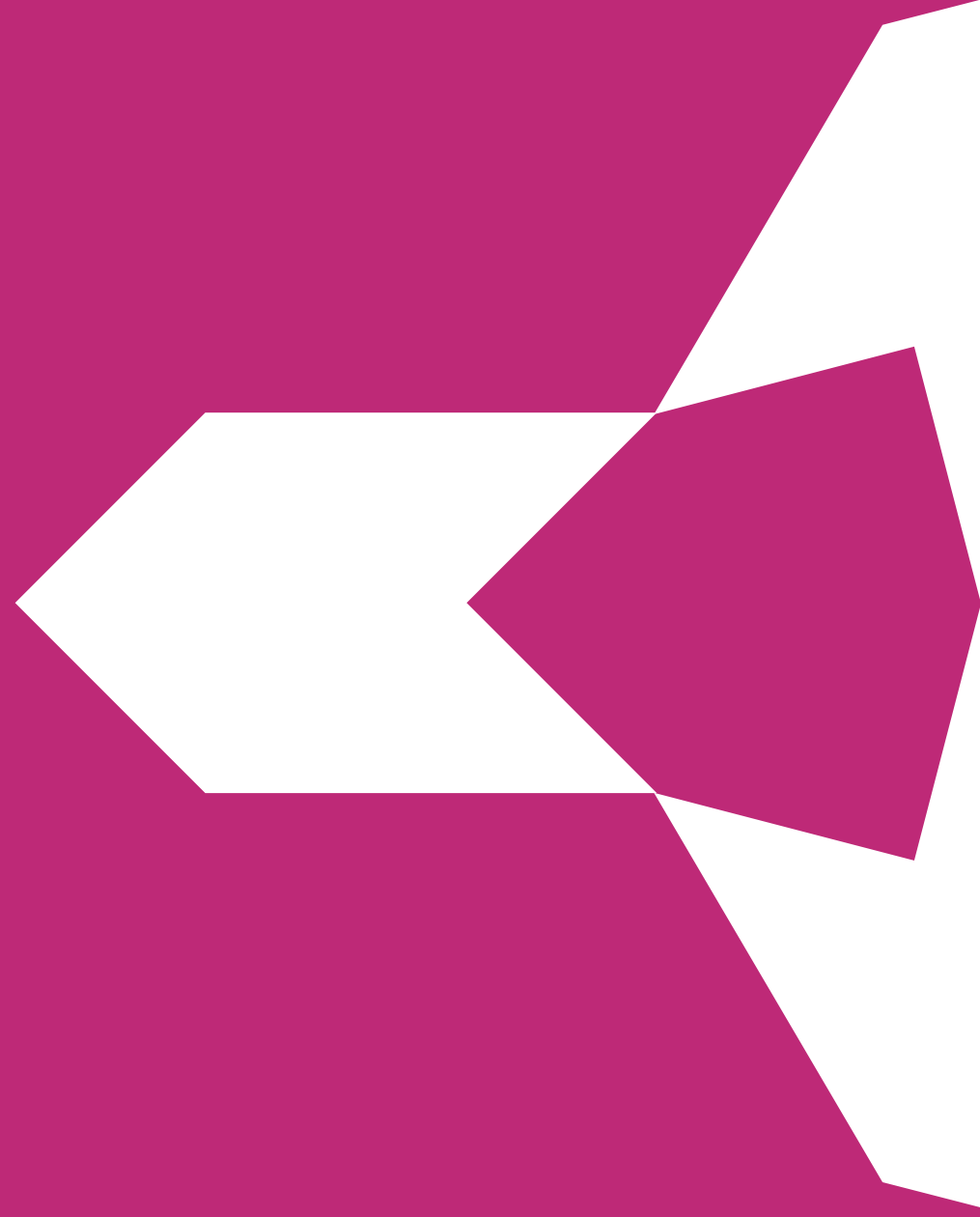
Car driver , Bristol

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I've had times where I've had to move out of the inside lane because the rutting was so bad. Other road users couldn't understand what I was doing, I got a lot of funny looks!

HGV driver, Bristol

# Surfacing in detail



# Surface material

There was a clear preference for smooth asphalt as opposed to coarser asphalt or concrete, both of which were viewed as less comfortable to drive over and louder. There were a few exceptions where concrete was the preference as it was felt to be harder wearing and less susceptible to damage, particularly for the inside lane to help manage tramlines caused by HGVs



## What do they want?

**Asphalt** – smooth, offers less vibration and noise

**Black** – shows markings clearest

**Consistent smoothness** – to enable a more relaxed state when driving

Asphalt. It is quieter. If you're on the concrete for a sustained amount of time, it's bumpy. After you've done that journey, it's not a pleasant experience.

Car Driver, Manchester



## What don't they want?

**Concrete** – its too loud and bumpy, dislike the joins and vibrations

**Light colours** - Preference for darker colours to aid clarity of road markings

**Grit, grainy surface, loose chippings** – adds unwanted vibration to the drive and concern of vehicle damage

Concrete roads are a no go-er, not as good as tarmac roads, slippery when its rainy, on ice you can't get the grip, the noise is horrendous

HGV driver, Bristol



# Surface material in their own words

It is felt that concrete is less prevalent on the roads in England, and that it is being phased out in favour of asphalt and this is seen as a positive move



## Performing Well



**M25, A13 Junction**, they've redone the area so the road is very nice and smooth. So it's a smooth easy drive and they've also added another lane or something, going towards Lakeside so, that feels nice.

Car driver, London



## Room for Improvement



On the **M20** there were times when it would be every 10 metres or so that you noticed a different surface. Starts as loud concrete, then changes to different tarmacs which are much nicer. You do sometimes end up looking a bit more at the surface than the traffic ahead on the road which isn't great

Car driver, Dover

# Road markings and features: road markings

A good road surface needs to have bright clear road markings in order to feel up to scratch. Failure to comply with these requirements leads SRN users to question the quality of the road



## What do they want?

**Bright white** – to ensure confidence in road markings when driving

**Bold lines** – to ensure clarity of road markings

**Old road markings removed completely** – to remove any confusion when driving

**Road surface signage** – SRN users often find it easier to use signage on the road than signs, particularly HGV drivers

**Motorcyclists** – in contrast to other road users – motorcyclists prefer less markings on roads. They have issues slipping on them in rain



The sun's reflecting off the old markings, the new markings. I've had that in the car, the sun's in your face and you're trying to work out where you're meant to be.

Male, motorcyclist, Birmingham



## What don't they want?

**Faded** – can be dangerous as drivers lose clarity of markings and lanes

**Old markings showing through (mainly due to road works)** – even the most confident of driver can lose confidence when there are two sets of road markings visible on the road. Particularly if you are familiar with the road you may track the lane you are familiar with. Rain/bright sun can often exaggerate this issue, reflecting on old markings

**Conflicting messages on signage vs. road markings** – in temporary lanes it can be confusing seeing signage information conflict with lane markings



Road markings, you've got new ones, old ones, torched out ones. Unless they completely resurface it, it's very confusing.

Female, caravan owner, Birmingham

# Road markings in their own words...

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Generally road markings were felt to be of a good standard on the SRN, occasional issues occurred around temporary road works and on older stretches of road where markings had been worn away



## Performing Well



White lines are strong and prominent on **M20 Ashford to Dover**

HGV Driver, Dover



## Room for Improvement



**Top of A38** - lanes that were straight over and right and haven't changed the signage - not used to it - need fresh new marking and at least a temporary sign

HGV driver, Bristol

# Road markings and features: road features

Features such as cats eyes, rumble strips and anti-slip surfacing are well liked aspects of the SRN roads. They are felt to aid confidence and safety during driving. However, there is felt to be a lack of consistency of maintenance and provision of cats eyes



## What do they want?

**Rumble strips** - all road users, particularly HGV drivers note the importance of these to aid drifting from your lane. Motorcyclists were the least positive due to issues with slipping on them in wet conditions

**Bright reflective cats eyes** - help to keep you in lane at night

**Anti slip surfaces at junctions** - good for keeping you safe particularly in adverse weather conditions



Good thing they put rumble strips on the hard shoulder for if you start wandering, it will wake you up if you doze off

HGV driver, Bristol



## What don't they want?

**Broken/ raised cats eyes** - a particular issue for motorcyclists, who can be most affected by raised cats eyes

**Cracks caused by removing cats eyes** - these are in the centre of the road and can be an issue for motorcyclists in particular



Like the new ones that light up brighter, you can see them in the mirror, I think they should be on every road, they show you exactly where you're going.

HGV driver, Bristol

# Road features in their own words...

Generally SRN road users are happy with the road features, aside from some issues with cats eyes being broken and not providing light for them to feel safe. In fact most would like to see more road features on the road, anti slip surfacing was particularly popular



## Performing Well

On the **M40**, where they have the cat's lights....it helps you to stay in your lane and obviously, you reduce your speed a little bit because, you know, you can't really see what's in front of you

Car driver, London



## Room for Improvement

I can't see anything there [**on the M11**]. It's really quite hazardous for all. I find it surprising there's no cat's eyes....sometimes you have to really look at the lane to catch the headlights. Sometimes, that's taking your focus off looking ahead, because you're trying to keep track, and you're losing focus of what's in front.

Commercial driver, London

On the **M6 past Knutsford**, the middle lane has got, you know when they move the cat's eyes out to the middle? The cars go over them and it's made holes. Nobody drives in the middle lane anymore. Everyone drives in the outside or the inside lane.

Car driver Manchester



# Surface condition: potholes

It is felt that potholes are a rare sight on the SRN roads, in particular motorways. Where they do occur, they are seen as high risk to SRN users



## What do they want?

**Speedy repair-** potholes are felt to be highest priority for fixing as they are most likely to impact driving in terms of safety and damage to vehicle

**Long lasting repair** – when a pothole emerges any patching up should be long lasting and if this is not possible, there is a preference for the whole road being resurfaced



When there is an issue on the motorway it usually gets fixed pretty fast, which is how it should be

Bristol, Car Driver



## What don't they want?

**Potholes** – small or large, these are felt to be dangerous on the SRN roads due to the high speeds, as a result there is a priority to ensure defects in the roads are fixed as soon as possible

**Patch up repairs:** these are felt to be a short-term solution. Many SRN users could recall a recurrent issue with the same pothole being filled. Residual grit as the filler breaks up also causes issues for drivers and motorcyclist as it can spray up and potentially damage vehicle



You either go around [a pothole] or you see it too late. I'll tense up and almost be thinking, 'Brakes, brakes, brakes.' The second you're over it, you feel safe again, but then you think something's going to be wrong with the bike.

Motorcyclist, Birmingham

# Potholes in their own words...

On the occasion where one is seen it is felt to be of the highest priority to be fixed due to the potential danger it poses to road users either going into them or trying to avoid them. Important to note that SRN users were not sure how to report a pothole if they encountered one.



## Performing Well



If there are potholes, any repairs get done in the evening, which normally, well, for me, is a good thing

M25, Female, Car driver



## Room for Improvement



I recently went to Chelmsford on the is it, **A12** Basically, I thought I had a flat tyre from the sound of the road and stuff. It was quite, when I say pot holes, pot holes but it was uneven and stuff, so there is some stretch on there.

Car driver, London



If you go on the **M25**, there're certain places where it's got dips in it. If you're in your van and you've got loads in your van, you're driving and everything just moves around and-, if you're fully loaded and doing 70, and go in that dip, some of them are really deep, your van starts to-, if it was raining, you know, it's dangerous.

Commercial, London

# Surface condition: water retention

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There appear to be a few hot spots for flooding in bad weather, but mostly SRN users are satisfied with the water retention on the surfaces. Most SRN users claim they would like to see Highways England invest in innovative, more absorbent materials



## What do they want?

**No surface water:** aqua planing and skidding are big causes of concern for drivers and motorcyclists. It is felt that surfaces should be designed to drain away or absorb surface water

**Clear drains:** leaves and other debris can clog drains and lead to surface water collecting on busy roads, these need to be maintained

**Flat drains:** motorcyclists in particular are concerned by raised drains as they offer a potential hazard



## What don't they want?

**Water build up:** felt to be dangerous, even a small amount of build up can seriously affect motorcyclists

**Clogged drains:** unmaintained drains full of debris are felt to be dangerous in heavy rainfall.

**Spray:** surface water leads to heavy spray from large vehicles which can obscure views.

# Water retention in their own words...

Water retention issues are an issue for all road users, but motorcyclists experience the most adverse effects from surface water. All road users see aquaplaning are a serious issue that Highways England needs to prioritise on the SRN in these water retention hotspots



## Performing Well



The new road on the A13, when it was raining, it was, like, the water just, like, washed away from the surface in comparison to if the road is older and stuff, you get patches of water all over the place, but as I say, that being a benefit of the new road, you hardly even see the water on the surface

Commercial Driver, London



## Room for Improvement



For me it's rain. There's an area near Heaton Park on the **M60**. If you have significant rain for any time, there's a film of water over the whole motorway.

Car driver Manchester



There's that bad corner in the **M60**, always floods doesn't it, near Stockport. Right now it will be like a lake (because it's raining)

Commercial Driver, Manchester



Bristol **A303** and areas of the **M5** you can have issues with flooding

HGV driver

# Surface condition: tramlines

An issue for all road users to some extent, as they can cause you to feel stuck or lose control, larger cars, caravans and HGVs are most affected by these. Smaller cars and motorcyclists are able to avoid the rutting



## What do they want?

**Reinforced inside lane:** to prevent HGV related damage

**Restrictions on the number of HGVs:** allowed to use the motorways to prevent further damage



I don't see why they don't use concrete on the inside lane, it might be able to stand up better to the heavy HGVs and stop the grooves being caused by their wheels

HGV driver, M5/A30 ethno-depth



## What don't they want?

**Deep rutting in the roads:** this causes issues for motorists (motorcyclists to a lesser extent). Getting pulled into a deep rut can be disconcerting and initiate panic, particularly when driving at high speeds. HGV drivers cite that this can make you worry you will turn your vehicle if you change lanes and hit the tramlines at the wrong angle



A problem I find is the grooves off the trucks, that can be a problem. If you get your van in, the car will move over, but if the van gets into that groove, it snaps, trying to pull into the groove

Caravan driver, Birmingham



# In their own words: tramlines

Tramlines are a regular sight on SRN roads, often it is felt they are a never ending battle to fix. When a road is resurfaced it is only a matter of time before the rutting returns



## Performing Well

There is some really great surfacing near **Junction 31 on the M5**. It's all tarmac now. The tramlines have really improved on this stretch, they used to be very bad.

Motorcyclist/car driver, M5/A30 ethno-depth



## Room for Improvement

**Bristol M5 by Bridgwater** it is so awkward to control your vehicle with these deep tramlines

HGV driver Bristol

I've had an issue with grooves, now that you're saying it. I never would have mentioned it, I never would have even thought of it, but I've had a lot of issues with grooves. Once your wheels get in the grooves, it's kind of hard to get out of. Not hard, but you can feel you're in a groove and you can actually lose control.

**M25**, Commercial Vehicle, London

# Surface condition: joins in the road

Not felt to be a priority problem on the road, issues only arise when there are large dips due to changes in surfacing that can cause vehicles to jolt, concrete joins are felt to be the worst offenders here



## What do they want?

**Smooth transition from one surface to the next:** SRN users understand that some roads have been laid in sections but they want minimal height difference to prevent vehicle from jolting too much. A light judder is felt to be acceptable

**Smooth asphalt:** the joins are felt to be more seamless compared with coarser asphalt and concrete

Feels like my lane is dancing

Car Driver, M25 Intercept



## What don't they want?

**Large changes in road level:** from surface to surface whilst a small bump is expected, stepping up or down dramatically can make the driver feel out of control

Sometimes when you change surfaces when they have repaired the road you can almost bounce out of your seat

Commercial LGV, Manchester

# In their own words...joins in the road

Joins in the road are fairly common, large scale bumps due to joins are less frequent but affect all road users, even those in large HGVs



## Performing Well

Cullompton to **Exeter on the M5**, they have just resurfaced, smooth tarmac joins are much better, you barely notice them. On the coarser tarmac or concrete the joins can be really bad

HGV Driver, M5/A30 ethno-depth



## Room for Improvement

Bristol A36, I thought I was gonna fly off one day after going over one, everything on the dashboard flew up and went everywhere. It just looked like a little bump, it's dangerous

HGV driver Bristol

# And what about those not driving motorised vehicles?

This research did not include audiences such as cyclists, pedestrians and equestrians, however it is understood that road surface could have an impact on such users.

Through research conducted with these groups as a separate study for Transport Focus but within the same time frame, some insight into experiences of road surface was uncovered. <sup>2</sup>

Where road surface of the SRN was specifically referred to, it was predominantly by cyclists as users who are directly on the road. Despite equestrians occasionally using the SRN directly, road surface experiences were not spontaneously forthcoming.

Understandably, cyclists only reference experiences associated with major 'A' roads and not motorways.

<sup>2</sup> Transport Focus: Cyclist, pedestrian & equestrian research 2017- conducted by Future Thinking

# Cyclists do have an opinion on road surfaces on the SRN

The key factor which arises among cyclists discussing the road surface centres on safety concerns:

- frequent experiences of raised ironworks or potholes causing them to veer into the road to avoid hitting the obstruction
  - which neither the cyclist nor following vehicles can anticipate
- lack of suitable cycle lanes also results in cyclists using hard shoulders or the inside boundaries of 'A' roads where debris can collect and make a smooth journey difficult



From Leeds up to Tadcaster, it's not very good. You're on hard shoulder laybys. There's all sorts of rubbish up there

Cyclist, York



Rough surface at the potholes along the A20 [meant] I had to buy alligator skin tyres on a road bike because I was getting punctures. Alligator skin tyres are very expensive. They're a lot thicker and I haven't had a puncture since. Why have I got to fork out even more? It's because the roads aren't looked after.

Cyclist, Dover



Potholes are a burden to everybody. Infrastructure of the road materials has never been great. Once filled up, as soon as the potholes get a little bit of frost, they fall apart again.

Cyclist, Worthing



The state of the roads obviously affects every road user, but we feel it more. I'll go round sunken or raised grids if I can. You could lose control.

Cyclist, Manchester

# Perceptions of future provision





# What should a perfect road look like?

Overall, there is a consensus about road users' preferences for the look and feel of the SRN roads



**01**

Black asphalt finish with clear white markings



**02**

Smooth surface with no dips, bumps, potholes, undulations or tramlines



**03**

Durable material which resists erosion and deterioration from heavy use



Throughout the research, recommendations for smooth, black surfaces correlated with the suggestion for asphalt as the preferred material. However there was a minority who believed that concrete surfaces provide greater endurance over time

# A smooth and seamless drive is what most road users are seeking from the 'perfect road'

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Many road users could cite examples of roads which already meet their expectations, following resurfacing work but expect this type of standard to be consistent across the network.

Road markings form a key part of perceptions of road surfaces and have a considerable impact on people's experiences of journeys. Therefore ensuring their clarity and safety is a priority for users.

Many mention experiences of international driving, particularly in countries such as France, Netherlands and Italy where roads are perceived as being of a higher standard, through their smoothness and lack of deterioration.



The M1, where they've [made it smooth], and over by Doncaster, it's just lovely to drive on.

Male, motorcyclist, Birmingham



We've all been on the roads with the tarmac, where it's that smooth, and you could hardly hear any noise. We'd all like that.

Male, Caravan owner, Birmingham



I think if you've got a black road with white markings, I think it's better.

Female, car driver, London

# How should ongoing maintenance be dealt with?



**Road users are not against patching up deterioration as long as repairs are seamless and durable**

they are less concerned with the material/colour used in making isolated repairs and more with the final outcome being faultless, smooth and effectively unnoticeable



**Where there are significant stretches of deterioration, whether undulations, tramlines, deterioration etc.. these should receive a full resurface**

with good communication about the benefits of carrying out such work, most road users believe there is acceptance of roadworks



**Expectations of high standard of repairs for SRN**

some scepticism that all subcontractors are sufficiently monitored to an adequate and consistent level



The colour wouldn't make a difference if it was nice and smooth. If it doesn't feel right, then it'll stand out more

Male, Caravan Owner, Birmingham



The one thing I do feel, when you're on the road and it just changes, is that they've employed two different companies and they've not consulted each other. They've just gone, 'right, well this is the bit we're doing.'

Male, Commercial Driver, London

# What actions should Highways England prioritise?

There is an expectation that HE should monitor the SRN road surface quality regularly and have the expertise to identify areas both where there is general deterioration as well as unexpected weakening.

Safety is perceived as the key determinant of urgency for HE to undertake remedial action e.g.

- where severe potholes can cause vehicles to swerve or motorcyclists to crash; or
- where road markings have become unclear so staying in lane/correct lanes is problematic
- where trunk roads/motorways lack cats eyes

“  
If it's in the centre and it's a big pothole, it should be a priority and there should be a timescale, when it's first reported, to when it's dealt with

Male, motorcyclist, Birmingham

”  
They should have the expertise to know how long it takes for a little crack in the road to become something bigger. They should be able to pre-empt.

Female, caravan owner, Birmingham

“  
A defect means that there could be harm to someone and that has got to be a priority

Male, car driver, London

# Conclusions



# Conclusions

01

While road surface is not commonly a conscious issue or one which will result in route changing, it does impact SRN journey experience in a variety of ways.

Road users are unsurprised that it is a priority for SRN users as consideration of personal experiences exposes multiple incidences of poor road surface

02

Road users have high expectations of the SRN and believe that motorways and major 'A' roads should be of an excellent standard.

BUT users can cite frequent examples of a range of issues with the road surfaces on the network which can affect their experience of particular roads

03

A range of factors are included in drivers consideration of 'road surface' and include:

- Surface material
- Surface damage e.g. potholes, dips etc
- Road markings and lighting
- Water retention
- Comfort of drive

04

The most common concern with road surfaces is the potential impact on safety.

Users mention having to:

- swerve to avoid faults in the road
- take concentration off the road ahead in order to focus on navigating issues such as flooding, lane demarcation, visibility through lack of cats eyes etc.

05

Particular driver types do appear to be more affected by the road surface:

- Motorcyclists cite general difficulties with traversing slippery road markings as well as avoiding dips and potholes
- Caravan owners have difficulties with narrow lanes and lane markings as well as being caught in tramlines
- HGV drivers have to avoid debris and rutting in nearside lanes
- Those with a disability experience discomfort on rough, uneven road surfaces

# What can Highways England focus on?

We asked SRN users to tell us what they feel Highways England should be focusing on in the future:

Continuous monitoring of the SRN to identify hotspots, ongoing issues and areas of weakness (e.g. tramlines, lack of/poor cats eyes, work road markings)

01

Prioritise repairs to road surface where safety is impacted

02

Explore engineering advances/international best practice to identify road materials which will deliver the smooth and seamless experience which road users expect e.g. harder-wearing material for nearside lanes etc..

03

Improve communication with SRN users advising if an issue is being examined, scheduled for repair etc.

04

Ensure consistent standards of maintenance are delivered across the network

05



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Future Thinking takes a consultative approach to market research with commercial focus driving everything we do. That's why we focus our attention on the three key areas that drive competitive advantage: Launch, Communicate, Experience.

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