Scientists dispel the myth of the ‘X-Factor’ in favour of the ‘Hooked Factor’ – Music that stands the test of time

- The Spice Girls and Lou Bega responsible for the nation’s catchiest songs
- It takes Brit’s five seconds on average to recognise the UK’s biggest selling records
- Double platinum selling record – Shakira’s ‘Hips don’t lie’ is one of the least recognisable songs, despite spending four weeks at number 1 in the UK

A man with an excessively high waistband, three months on one of the nation’s biggest TV shows, and a public vote are usually thought to be the formula behind creating a hit. But scientists from the Museum of Science & Industry have spent the last year immersed in data provided by over 12,000 people in the Citizen Science experiment, delving into what really makes a catchy tune that stays with us – dispelling the ‘X-Factor’ in place of the ‘Hooked Factor’.

The research conducted as part of the Museum’s #HookedOnMusic online experiment and the 2014 Manchester Science Festival, reveals the most memorable songs, pinpointing the time it takes to recognise them, and identifying the most recognisable fragment or hook within the hit.

The #HookedOnMusic concept was originally designed by computational musicologist, Dr John Ashley Burgoyne and colleagues at University of Amsterdam and Utrecht University. The Museum’s web based version of the experiment was designed to be engaging, accessible and fun, built by The Reading Room in close collaboration with MOSI, Dr John Ashley Burgoyne and Wellcome Trust Engagement Fellow, Dr Erinma Ochu, a citizen science expert based at The University of Manchester.
The Spice Girls' 'Wannabe' is top of the pops, as the UK’s most instantly recognisable song. It takes the average person just 2.29 seconds to recognise the track from the song's catchiest hook 45 seconds in ('If you wanna be my lover...') - Zig-a-zig-ahh!

Lou Bega's 'Mambo No. 5' is the second catchiest tune with Brit's recognising the track after just 2.48 seconds, starting from the iconic ‘A little bit of Monica in my life...’.

'Eye of the Tiger' by Survivor takes the third spot in the chart of the UK's quickest to identify hits, taking just 2.62 seconds, perhaps partially down to the powerful guitar riff. In this track, it isn’t until the second chorus that people pick up on the hook and start to sing along.

Over 12,000 people have played the #HookedOnMusic online game. This includes over 1,300 "power players", those that play for over 15 minutes and repeatedly come back to play; these power players provide the scientists with the most robust data for the study. The game is available to play at www.hookedonmusic.org.uk and will continue to provide information for the study.

Below is the full list of the UK's catchiest tunes, the length of time it takes the average Brit to recognise the song and the moment when people are quickest to sing along.

1. Spice Girls - Wannabe - 2.29 s (0:45)
2. Lou Bega - Mambo No. 5 - 2.48 s (0:50)
3. Survivor - Eye of the Tiger - 2.62 s (2:04)
4. Lady Gaga - Just Dance - 2.66 s (1:39)
5. ABBA - SOS - 2.73 s (2:25)
6. Roy Orbison - Pretty Woman - 2.73 s (1:07)
7. Michael Jackson - Beat It - 2.80 s (0:38)
8. Whitney Houston - I Will Always Love You - 2.83 s (3:09)
9. The Human League - Don't You Want Me - 2.83 s (3:05)
10. Aerosmith - I Don't Want to Miss a Thing - 2.84 s (2:22)
11. Lady Gaga - Poker Face - 2.88 s (0:57)
12. Hanson - Mmmbop - 2.89 s (1:44)
13. Elvis Presley - It's Now Or Never - 2.91 s (2:14)
14. Bachman-Turner Overdrive - You Ain't Seen Nothin' Yet - 2.94 s (1:48)
15. Michael Jackson - Billie Jean - 2.97 s (1:25)
16. Culture Club - Karma Chameleon - 2.99 s (0:41)
Interestingly, it takes the typical Brit five seconds on average to recognise the nation’s best-selling records. And, as much as they may try, our brains don’t block out one-hit wonders with the likes of Lou Bega’s ‘Mambo No.5’ and Hanson’s ‘Mmmmbop’ lasting in our memories longer than some of the world’s biggest selling artists like Take That, Oasis and U2.

What’s more, when it comes to songs standing the test of time, it would appear spending four weeks at number one in the UK, and selling ‘Double-Platinum’ doesn’t mean the track will stay in our heads. Shakira’s track ‘Hips Don’t Lie’ takes Brits 6.02 seconds to recognise.

Whilst not easy to re-create the magic of ‘Wannabe’ or ‘Mambo No.5’ the study suggests that a catchy record strikes a careful balance between prominent hooks and other musical material.

On Saturday 1 November, late night visitors to the penultimate night of the award-winning Manchester Science Festival will be invited to join a debate about what makes a catchy tune as the results are revealed. Revellers will be able to play the game, take part in a music quiz and a Silent Disco featuring songs from the experiment.

Dr Burgoyne said: “All of the tracks we examined are among the best-known pop tracks in the UK, and none of them showed extreme differences in recognisability between their hooks and their least-catchy moments: no more than 30 percent of what would theoretically be possible. But given that constraint, the catchiest songs also showed the greatest differences in recognisability between their hooks and their verses or bridges.”

Dr Ochu said: “It’s really important that the public not just contribute to the experiment but understand them too - and that’s where creative events at Manchester Science Festival are key.”

Dr Marieke Navin, Director of Manchester Science Festival at the Museum of Science & Industry said, "People have really got behind this citizen science research, helping us to get good data for our scientists. We encourage more to get online at www.hookedonmusic.org.uk to play and we will continue to see how things develop and change.”
Renowned Haçienda DJ and broadcaster Dave Haslam said: “It goes to show that it takes more than just an artist to create a record that stands the test of time and stays with people. From cheesy records like Mambo No.5 to Michael Jackson’s Billie Jean it shows that it takes a little pinch of something different and exciting to keep people hooked, whether it’s lyrics, a bass line or an instrumental it goes beyond the artist on the stage.”

ENDS

For more information please contact Jack Rigby at Carousel PR on 0161 686 5525 or email jack@caoruselpr.com

Notes to Editors

About the Manchester Science Festival

· Since the Manchester Science Festival first launched in 2007, it has engaged over half a million people creatively with science. Last year's Festival attracted over 89,000 visitors to over 150 events and exhibitions across greater Manchester. It is the highlight of the Museum of Science & Industry's cultural programme and continues to grow in stature and reputation among the established UK based science festivals as one of the best for creative content and innovation.

About MOSI

· MOSI is part of the Science Museum Group, a family of museums which also includes the Science Museum in London and Wroughton, near Swindon; the National Railway Museum in York and Shildon; and the National Media Museum in Bradford. The Science Museum Group is devoted to the history and contemporary practice of science, medicine, technology, industry and media. With five million visitors each year and an unrivalled collection, it is the most significant group of museums of science and innovation worldwide.

For more information about MOSI or the Manchester Science Festival please contact Rachel Furst on 0161 606 0176 or email r.furst@mosi.co.uk

About Citizen Science

· Citizen science is scientific research that the public contribute to. Manchester Science Festival produces an annual citizen science experiment with the aim of inspiring the public with science and encouraging active contributions to scientific
research.

http://www.manchestersciencefestival.com/citizenscience

About Dr Ashley Burgoyne

- Dr Ashley Burgoyne is a computational musicologist based at the University of Amsterdam’s Institute for Language, Logic and Computation and the Netherlands Institute for Sound and Vision’s Research and Development department. He has a particular interest in music cognition and statistical methodology. Ashley and his collaborators at Utrecht University created the #HookedOnMusic concept and will present the results of the experiment at the Manchester Science Festival on Saturday 1 November.

About the Wellcome Trust

- The Wellcome Trust is a global charitable foundation dedicated to achieving extraordinary improvements in human and animal health. It supports the brightest minds in biomedical research and the medical humanities. The Trust’s breadth of support includes public engagement, education and the application of research to improve health. It is independent of both political and commercial interests.

- Wellcome Trust Engagement Fellow Dr Erinma Ochu is exploring innovative ways the public can contribute to biomedical research. These Engagement Fellowships champion the leaders of tomorrow by fostering the most promising developing talent. Now in their fourth year, they aim to support individuals with a strong track record of engaging the public with ideas around biomedical science and/or medical humanities, who want to make a step-change in their careers.

About Reading Room

- Reading Room (www.readingroom.com) is an international digital communications consultancy with over 200 staff in offices across Manchester and London in the UK; Brisbane, Canberra, Melbourne and Sydney in Australia; and Singapore.

- Reading Room has a very broad range of clients in the Arts, Culture and Heritage sector including Bletchley Park, Arts Council England, Science Museums Group, Kew Gardens, Wellcome Collection, and many more.

- They provide consultancy, creative and technical production services for web, mobile and social channels including user research, content management and campaign management.
They are a digital supplier on the Government Procurement Service’s frameworks and were formerly on the COI government frameworks, number 1 for Customer Satisfaction in The Drum (RAR), the UK’s top digital agency (Design Week) and a Global Top 10 Digital Agency (Interactive Media Awards).