INTRODUCTION

Bologna’s Mobility Authority, SRM, wanted to reduce the number of solo car journeys, associated congestion and poor air quality.

Bella Mossa (‘Good Move’) was a 6-month programme in Bologna to reduce single-occupancy car journeys and increase active travel using rewards and incentives delivered by a smartphone app.

- Ran April - September 2017
- Covered the Metropolitan area of Bologna, 3,700km² where 1 million people live and move daily
- Funded by the European EMPOWER project

Though primarily driven by transport goals, the desired behaviour change outcomes would bring significant health benefits – essentially ‘health by stealth’. The link between physical activity and health is universally acknowledged - regular active travel benefits current & future health.

Hypothesis: Incentives could be used to change travel behaviour from solo car journeys to sustainable or active modes, as evidenced by journeys tracked using a smartphone app.

METHOD

Created a bespoke, locally branded version of the BetterPoints app and web portal (www.bellamossa.it). Designed a messaging & reward matrix with a range of incentives (monetary & non-monetary) to achieve desired behaviour change.

Users signed up, downloaded the free app and tracked active or sustainable journeys (walk, cycle, train, bus, car share) to earn BetterPoints (BP).

Rewards could be earned several ways:
- Tracking active (walk, cycle) or sustainable (bus, train, car-share) journeys
- Meeting specific goals (e.g. cycling/walking ≤150 min/week)
- Travelling to special events using active/sustainable methods
- Medals awarded for reaching set goals
- Participating in the inter-business team challenge
- Winning a prize draw

BetterPoints could be redeemed instantly by exchanging for vouchers or donating to good causes.

Journeys were tracked using GPS tracking in participants’ mobile phones, verified by sophisticated algorithms and OpenStreetMap data. A validation system calibrated on each mode of transport and waypoint checking avoided misuse of tracking/cheating.

As well as baseline and end of programme in app surveys, users were randomly asked “Did this journey replace a car journey?”

RESULTS

- More than 15,000 participants tracked activities
- 816,139 active & sustainable trips covering 3.7 million km
- Over 700 tonnes of CO2 potentially avoided compared to the use of a large car
- In excess of 350,000 walks tracked - the most recorded activity
- 81% of journeys replaced a car trip - From sample of 667 ‘everyday car users’ surveyed
- A high proportion of journeys were commuting to work & school - according to journey analysis

CONCLUSION

The high level of ongoing participation and the ‘buzz’ around Bologna about Bella Mossa coupled with consistent journey tracking by participants suggests that a mix of monetary & non-monetary rewards and incentives, combined with messaging, can impact travel behaviour. Surveys showed a genuine decrease in solo car use.

Incentives provide immediate feedback for ‘good’ transport behaviour. This seems to motivate initial behaviour change as well helping to maintain positive behaviour in the mid- and longer-term for some participants.

In the final month of the project the chance to win a small prize (e.g. a hat or water bottle) via a prize draw helped create a major spike in user activity. Looking forward, short term competitions that add variety and interest to the ‘basic loop’ of journey tracking should be more frequent.

Key to the success of Bella Mossa was SRM’s energy, promotion and partnerships. The cost to SRM of the BetterPoints system and expertise was €25k, providing excellent value to reach the numbers involved. A 2018 follow-on is focusing on extending participation length to maximise long term behaviour change and will allow further analysis.

Acknowledgements:
Marco Amadori & Giuseppe Liguori, SRM, Bologna, Italy.