

Presented at the FIG Working Week 2016,  
May 2-6, 2016 in Christchurch, New Zealand







THE WORLD IS POORLY ADDRESSED



# 4 BILLION UNADDRESSED

COMMISSION ON LEGAL EMPOWERMENT OF THE POOR,  
UNITED NATIONS DEVELOPMENT PROGRAMME - 2008





4 BILLION PEOPLE DON'T HAVE AN ADDRESS



The lack of a complete, correct and unique national addressing system constitutes a major socio-economic challenge for a number of developing countries.



UPU | UNIVERSAL  
POSTAL  
UNION



HOUSE N<sup>10</sup>

E 193  
15

STREET ADDRESSING IS  
EXPENSIVE & TIME CONSUMING

AMHIS  
C-10800  
S-01000  
H-01400

BLK

54



# LANDMARK BASED ADDRESSING IS NOT SCALABLE



“From the Tibas cemetery, 200 meters south, 300 meters west, cross the train tracks, white two-story house.”

**Costa Rica**



AN ADDRESS WILL **START WITH, OR AT LEAST INCLUDE A BUILDING NUMBER**



**ROYAL OPERA HOUSE, COVENT GARDEN,  
LONDON, WC2E 9DD, UNITED KINGDOM**



# NO BUILDINGS ARE NUMBERED ZERO



**0 EGMONT ROAD, MIDDLESBROUGH, TS4 2HT**



OK, BUT THEY WON'T HAVE **NEGATIVE NUMBERS**



**-1 PRIORY ROAD, NEWBURY, RG14 7QS**



**BUT THERE'LL ONLY BE ONE NUMBER IN THE  
ADDRESS, SURELY?**



**5/F, CITYPLAZA 3, 14 TAIKOO WAN ROAD,  
ISLAND EAST, HKSAR**



**AHA! BUT THERE'LL BE A ROAD NAME!**



**2 MI N THEN 3 MI W OF JENNINGS, OK 74038**



# FALSEHOODS PROGRAMMERS BELIEVE ABOUT ADDRESSES

[www.mjt.me.uk/posts/falsehoods-programmers-believe-about-addresses/](http://www.mjt.me.uk/posts/falsehoods-programmers-believe-about-addresses/)





POOR ADDRESSING IS COSTLY & FRUSTRATING  
IN THE DEVELOPED WORLD...





...AND LIMITS GROWTH & COSTS LIVES  
IN DEVELOPING ONES



# POOR ADDRESSING HAS A MASSIVE IMPACT



Humanitarian Aid



Navigation



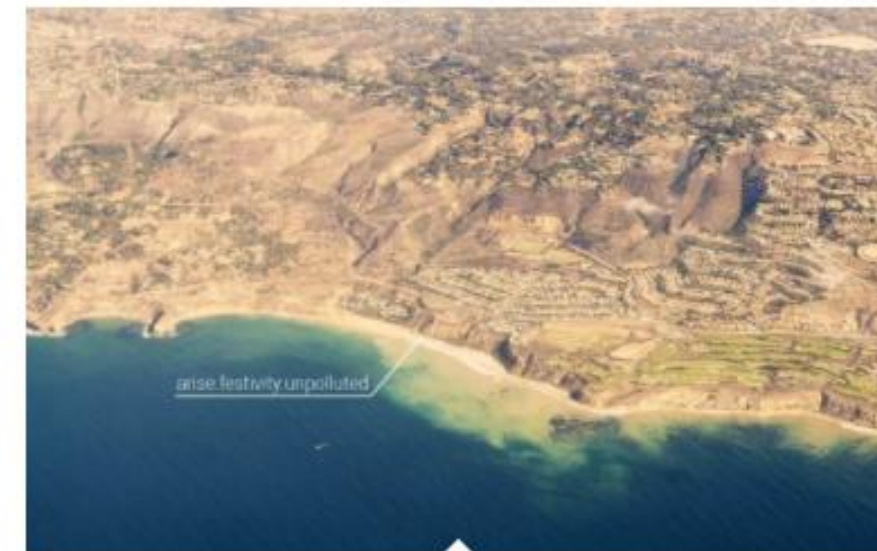
Delivery



Government



Sport & Exploration



Mapping



E-commerce



Travel



Socialising



Taxis



Property Search



Festivals & Events





**Jack Levis**

Director of Process Management  
at UPS

“  
*A reduction of one  
mile per driver per day  
translates to savings of  
up to \$50 million a year.*  
”



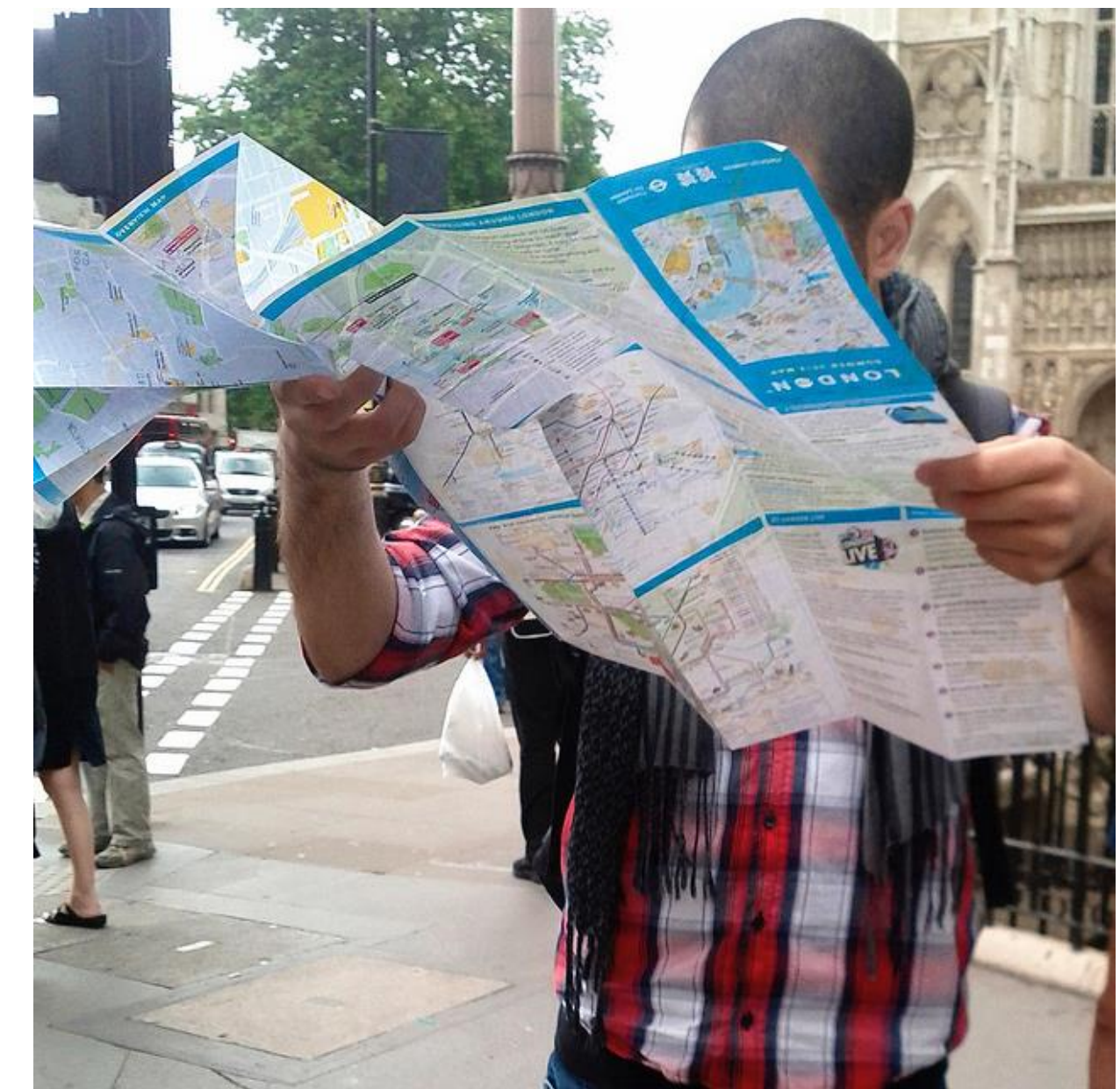
# POOR ADDRESSING HAS A MASSIVE IMPACT



1 mile/driver = \$50m



80% calls - where are you?



22m hours lost abroad

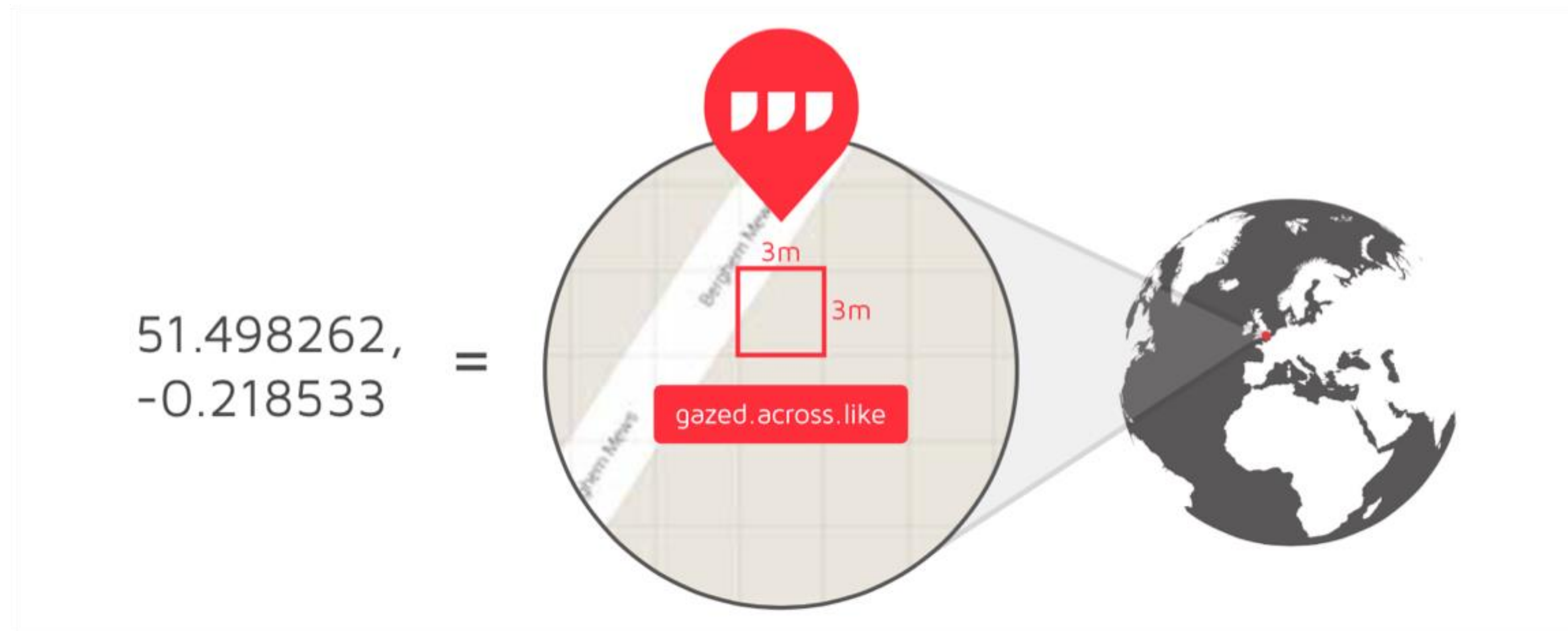


**THE ONLY OPTION IS ACCURATE BUT  
DIFFICULT TO REMEMBER & USE**

**25° 9' 40.918" S 18° 59' 2.824" E**

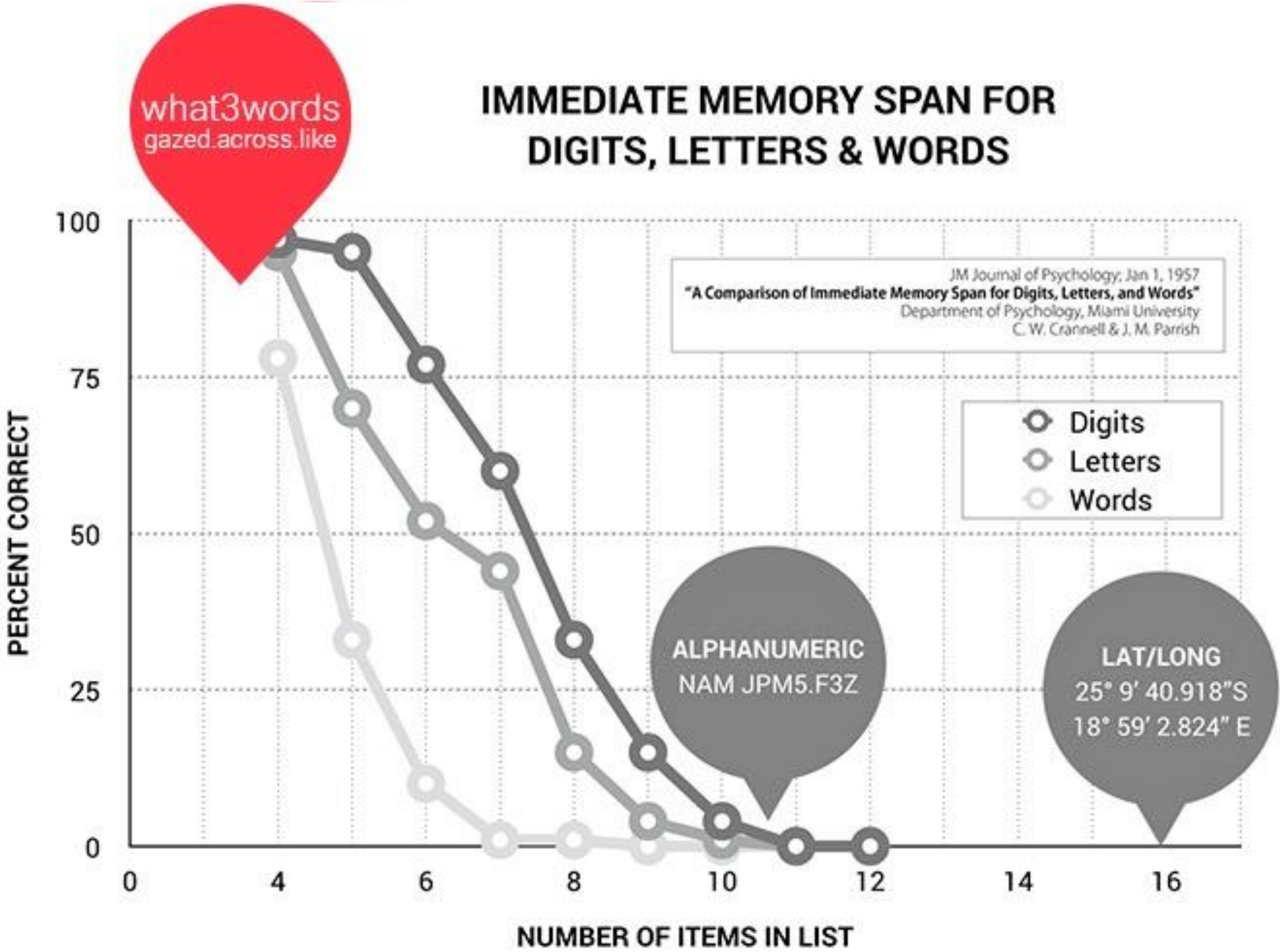


# WHAT3WORDS IS A NEW **GLOBAL** ADDRESS SYSTEM





# WORDS BEAT NUMBERS FOR COMMUNICATION





# WORDS WORK EVERYWHERE





# WORDS MEAN YOU CAN SPOT ERRORS





# WORDS ALLOW INTELLIGENT DISTRIBUTION





# LANGUAGE EMPOWERS COMMUNITIES





# A COMMON COMMUNICATION LANGUAGE






# OFFLINE AND AUTOSUGGEST CORRECTIONS

EVEN IF YOU ARE OFFLINE YOU CAN NOW NAVIGATE TO A 3 WORD ADDRESS

**COMPASSMODE**  
now available on Android

 **what3words**  
what3words.com/android

EVEN MAKING A MISTAKE WILL NOW GET YOU TO A 3 WORD ADDRESS

**AUTOSUGGEST**  
now available on Android

 **what3words**  
what3words.com/android



# BATCH CONVERSION AND EXCEL PLUGIN

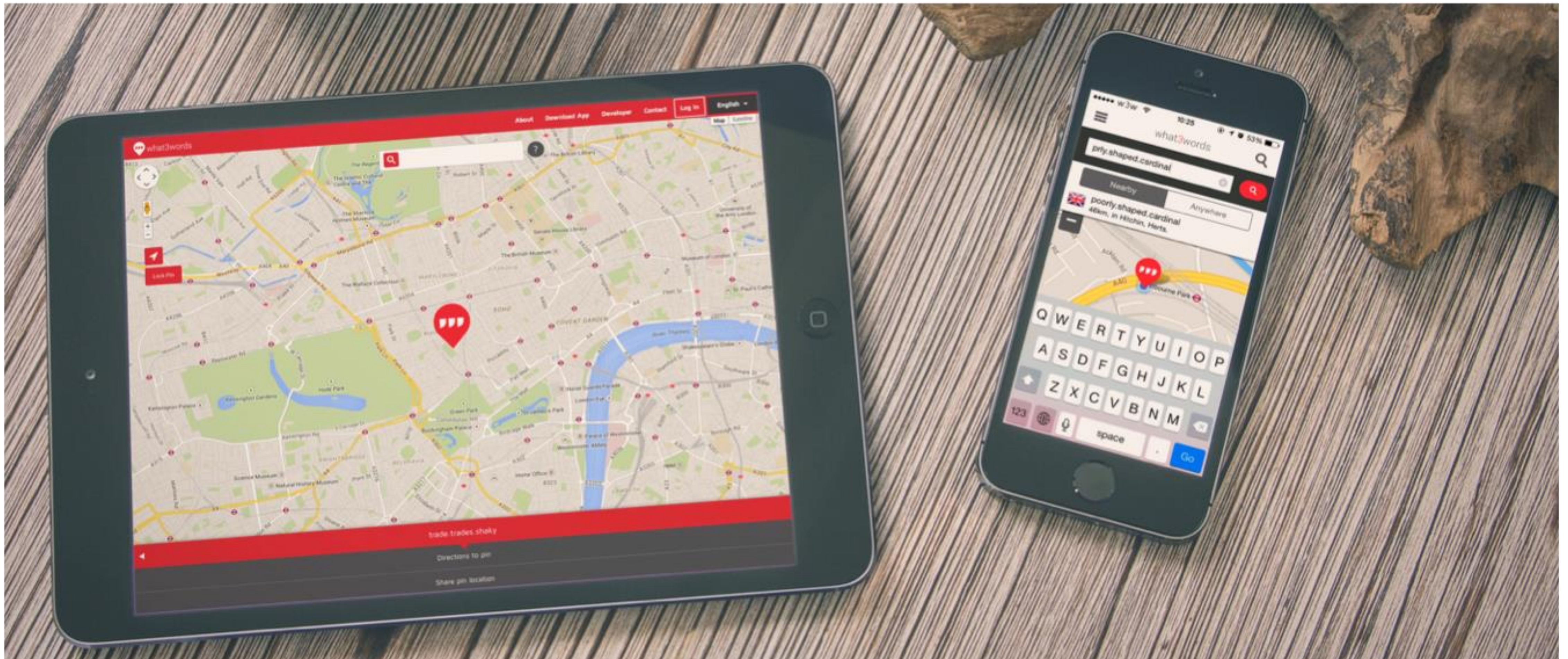
ALL YOUR LAT, LONG COORDINATES NOW  
HAVE 3 WORD ADDRESSES



ALL YOUR LAT, LONG COORDINATES  
CAN NOW BE EASILY CONVERTED TO  
3 WORD ADDRESSES







Web API



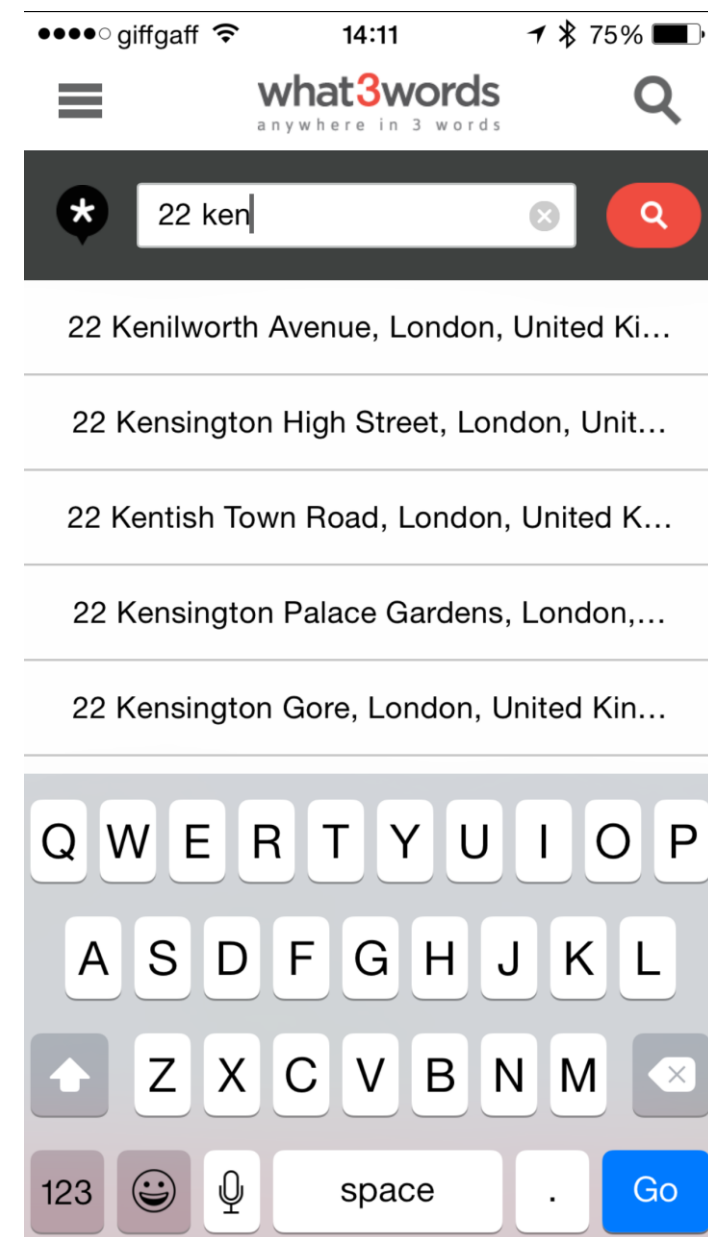
Code Libraries



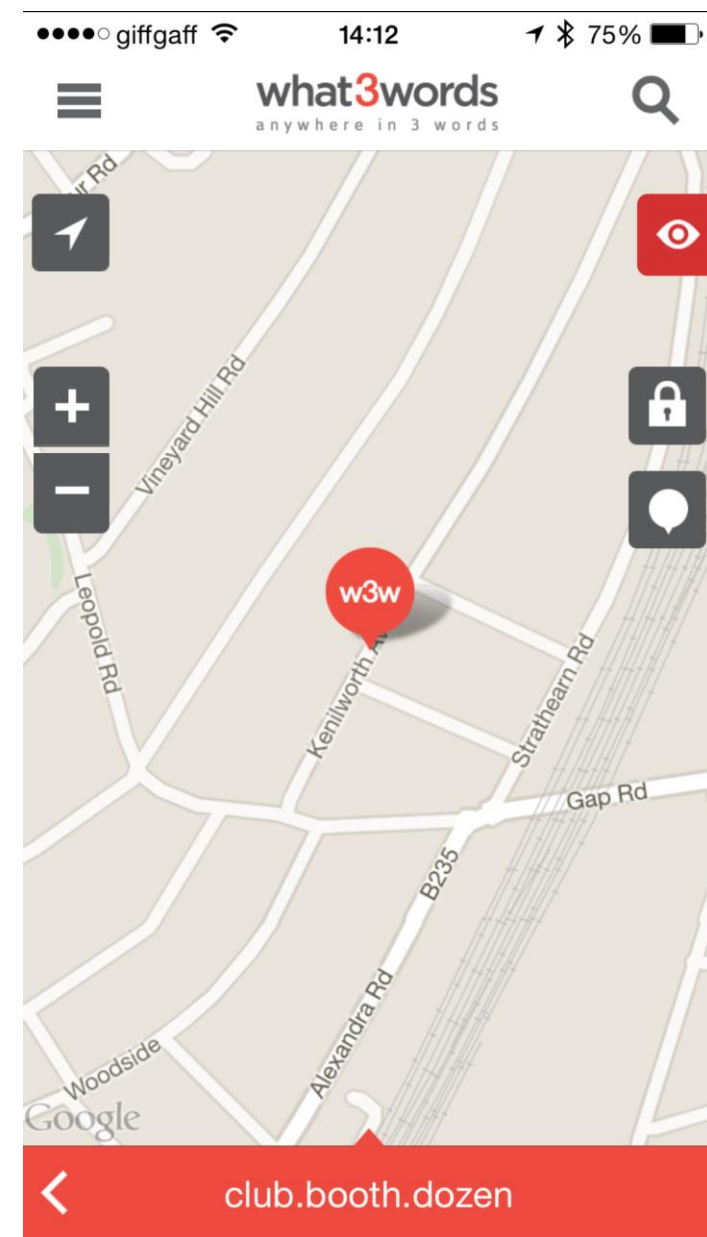
iOS & Android SDK



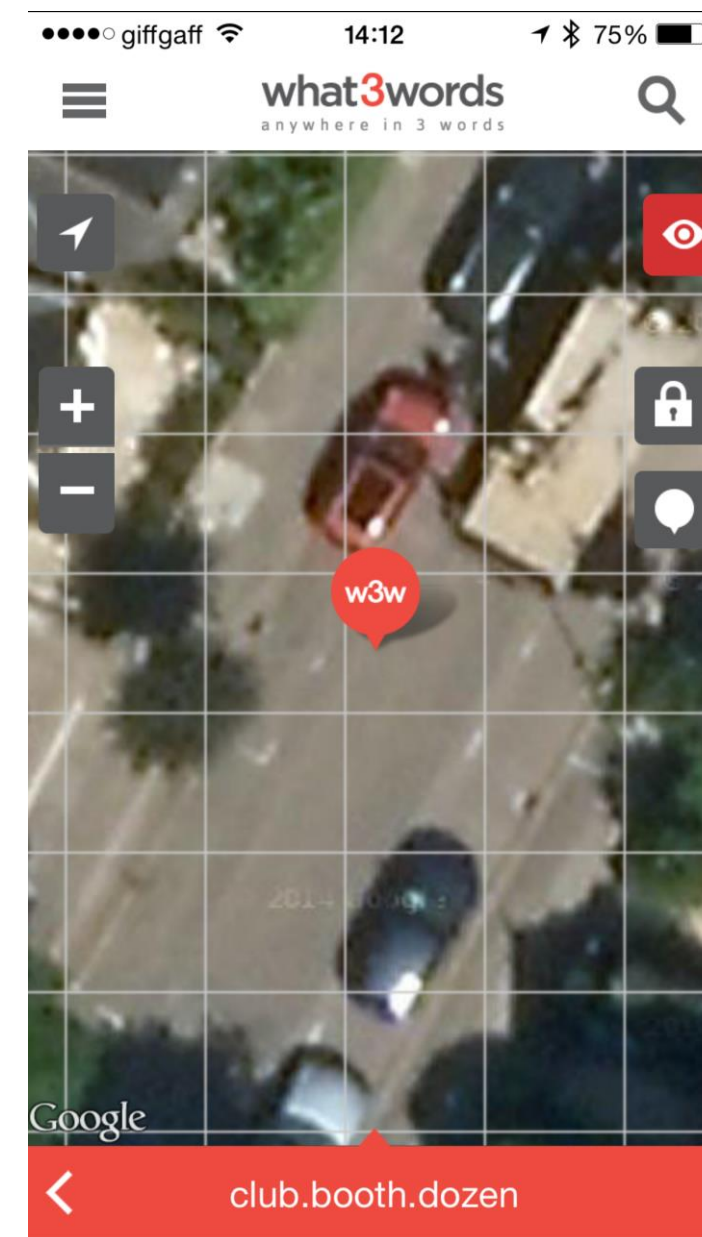
# HOW TO FIND A 3 WORD ADDRESS



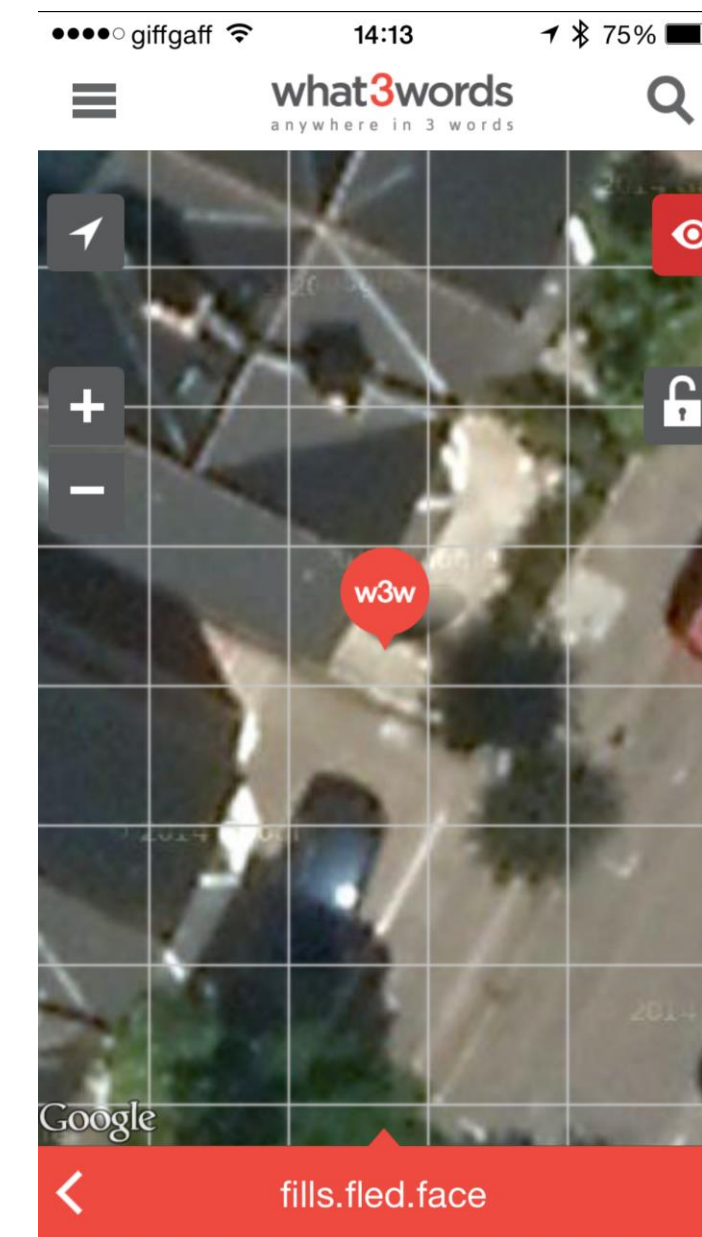
1. Type in your postcode, street address or business name.



2. View the map and zoom in to grid level.



3. Switch to satellite view and unlock pin.



4. Move pin to actual location, the 3 word address is displayed on the red bar.



# INTEGRATED INTO GIS INFRASTRUCTURE





# BEING PILOTED BY THE DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM IN SOUTH AFRICA



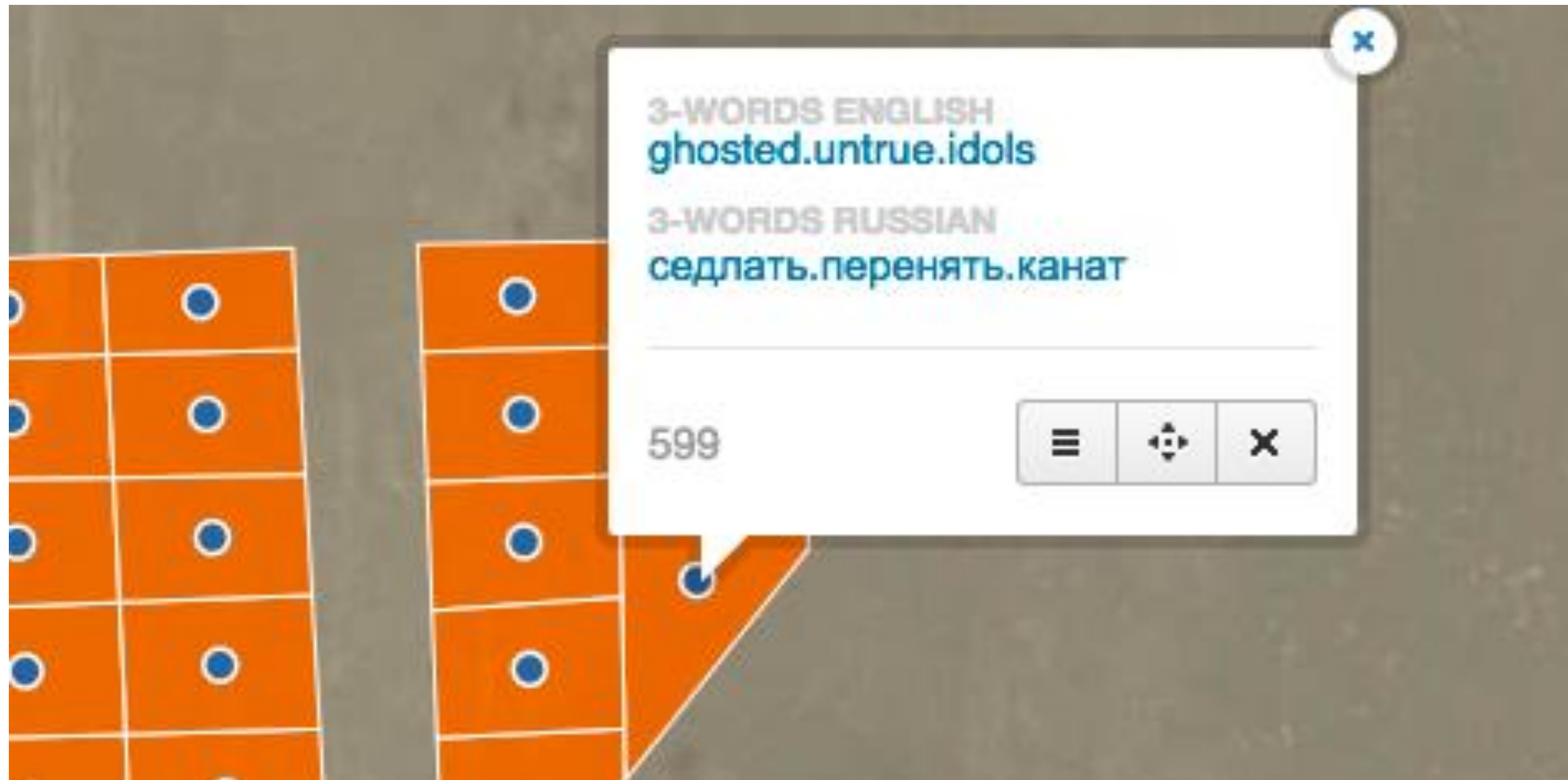
**rural development  
& land reform**

Department:  
Rural Development and Land Reform  
**REPUBLIC OF SOUTH AFRICA**

[w3w.co/2016/02/drdlr/](http://w3w.co/2016/02/drdlr/)



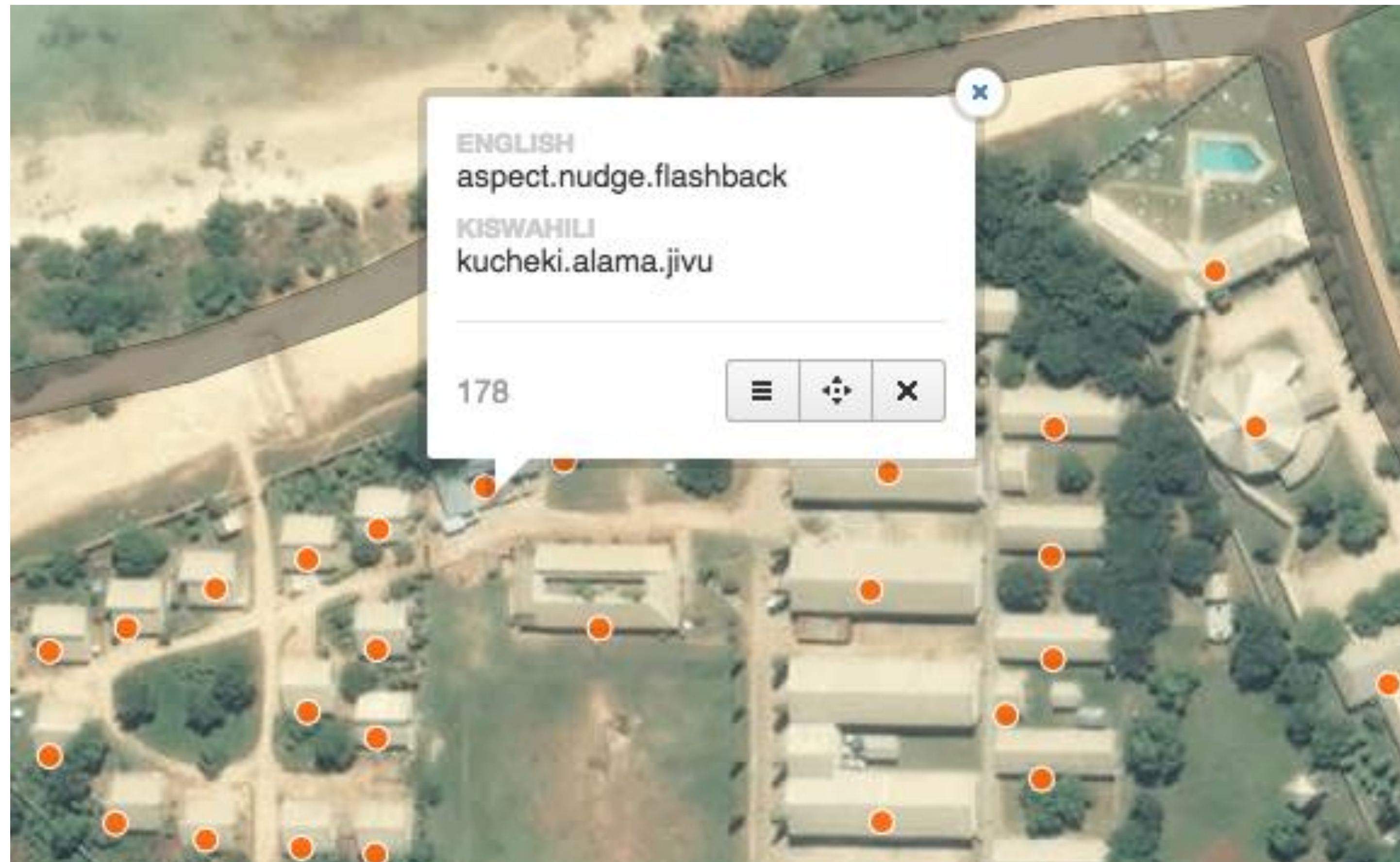
# WHAT3WORDS FOR LAND ADMINISTRATION



3 WORD ADDRESS AS A UNIQUE ID FOR A LAND PARCEL USING THE ADDRESS OF THE PARCEL CENTROID TO LABEL THE PARCEL



# WHAT3WORDS FOR LAND ADMINISTRATION



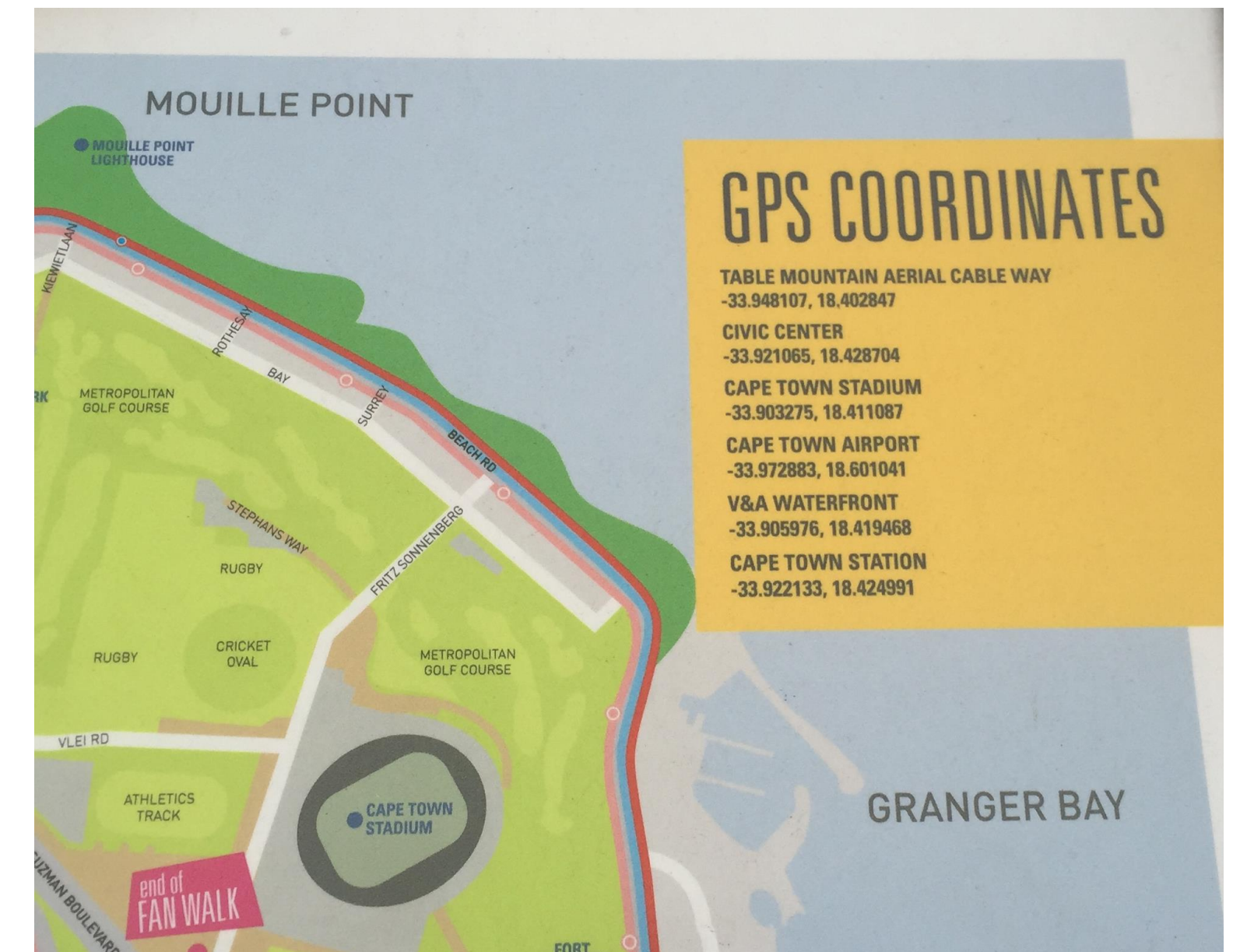
3 WORD ADDRESS ALSO UNIQUE ID FOR MICRO ASSETS SUCH AS BINS, ELECTRICITY PYLONS OR WATER METERS



- PROVIDE A **STANDARDISED HOUSEHOLD ID** NOT ONLY FOR PROPERTY TAX BUT ALL KINDS OF TAX COLLECTION
- PROVIDE UNIFORM AND EASY TO COMMUNICATE LOCATION FOR **EMERGENCY RESPONSE** SERVICES
- ALLOW LOCAL GOVERNMENTS AND UTILITIES TO MANAGE AND NAVIGATE TO **MICRO ASSETS** SUCH AS TRAFFIC LIGHTS, PARK BENCHES, RUBBISH BINS, ELECTRICITY SUBSTATIONS AND A HOST OF OTHER ASSETS WHICH HAVE NO ADDRESS

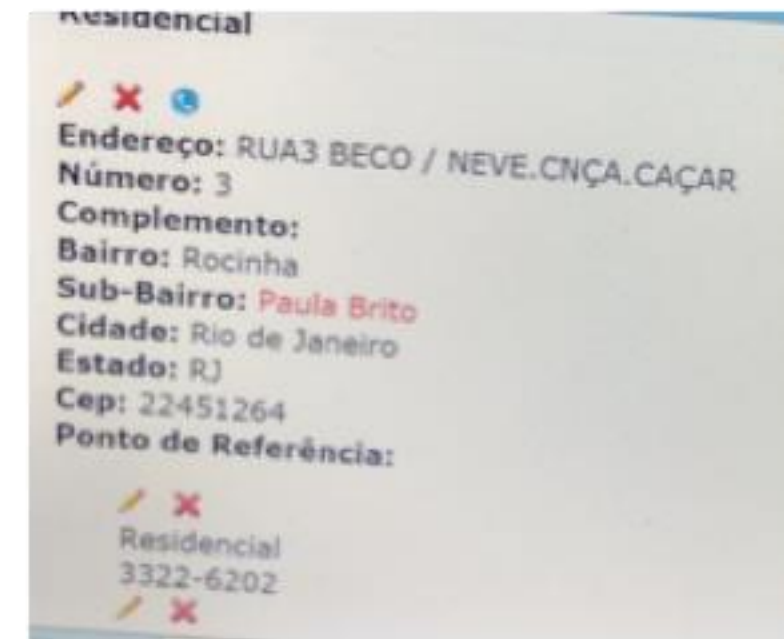
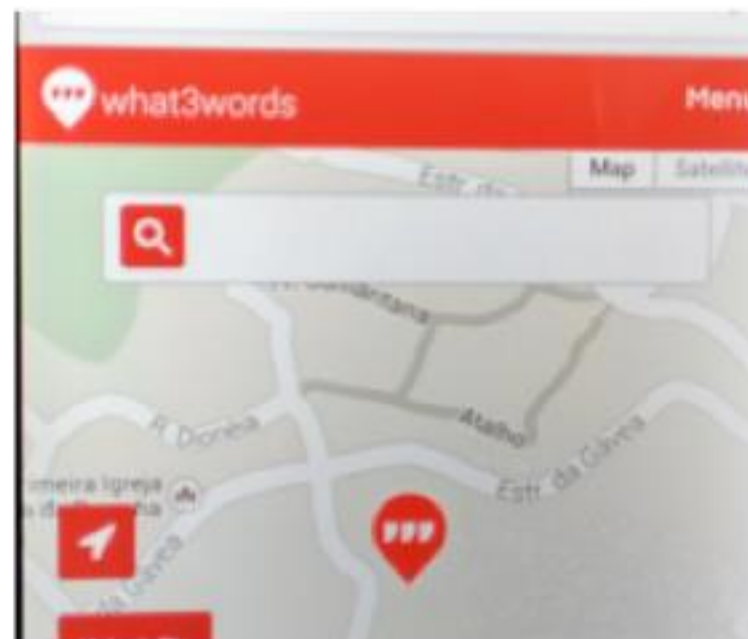
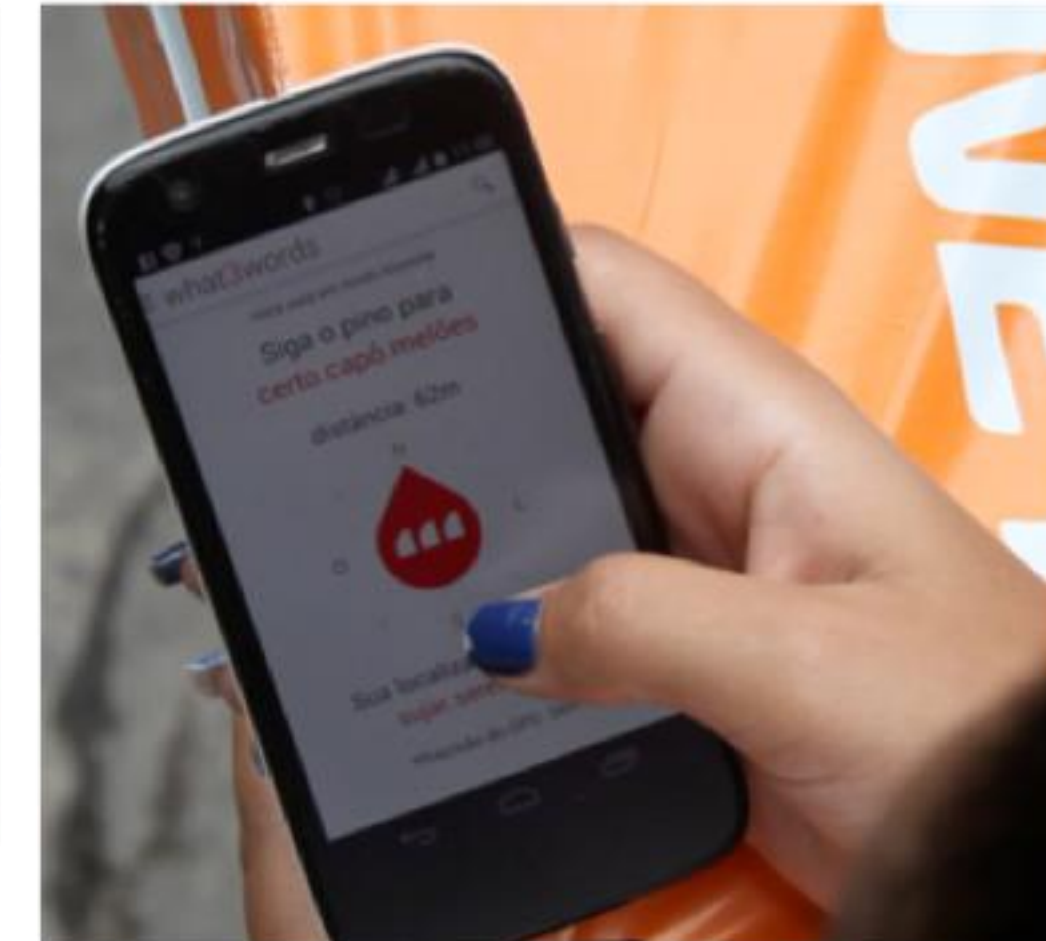


- IMPROVE **FINANCIAL INCLUSION** AND OPEN NEW MARKETS
- **CITIZEN REPORTING**
- **TOURISM** AND EASE OF COMMUNICATION
- ENHANCE POSTAL CODE SYSTEM FOR **DELIVERY**



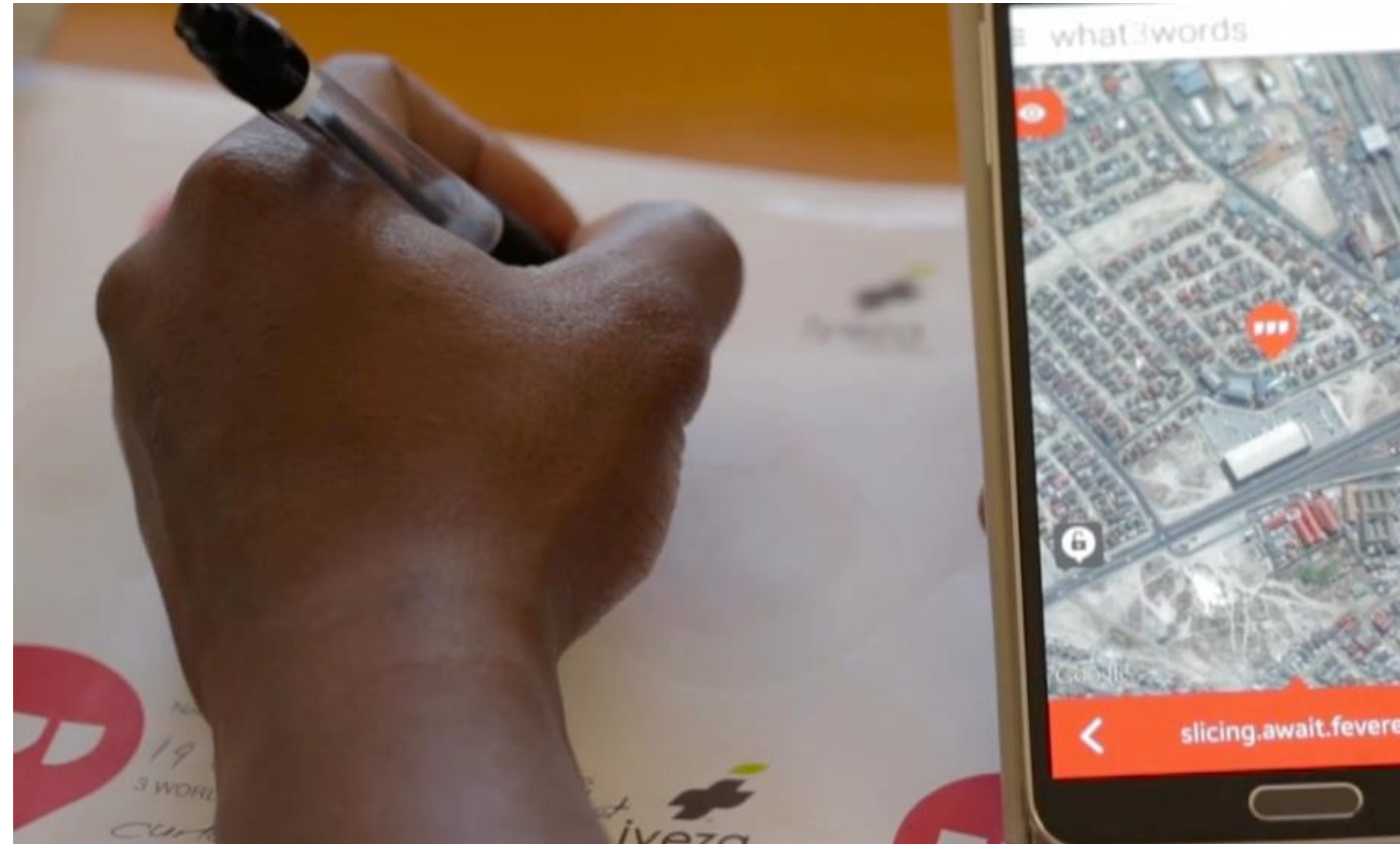


# BEING USED IN THE FAVELAS TO DELIVER PACKAGES



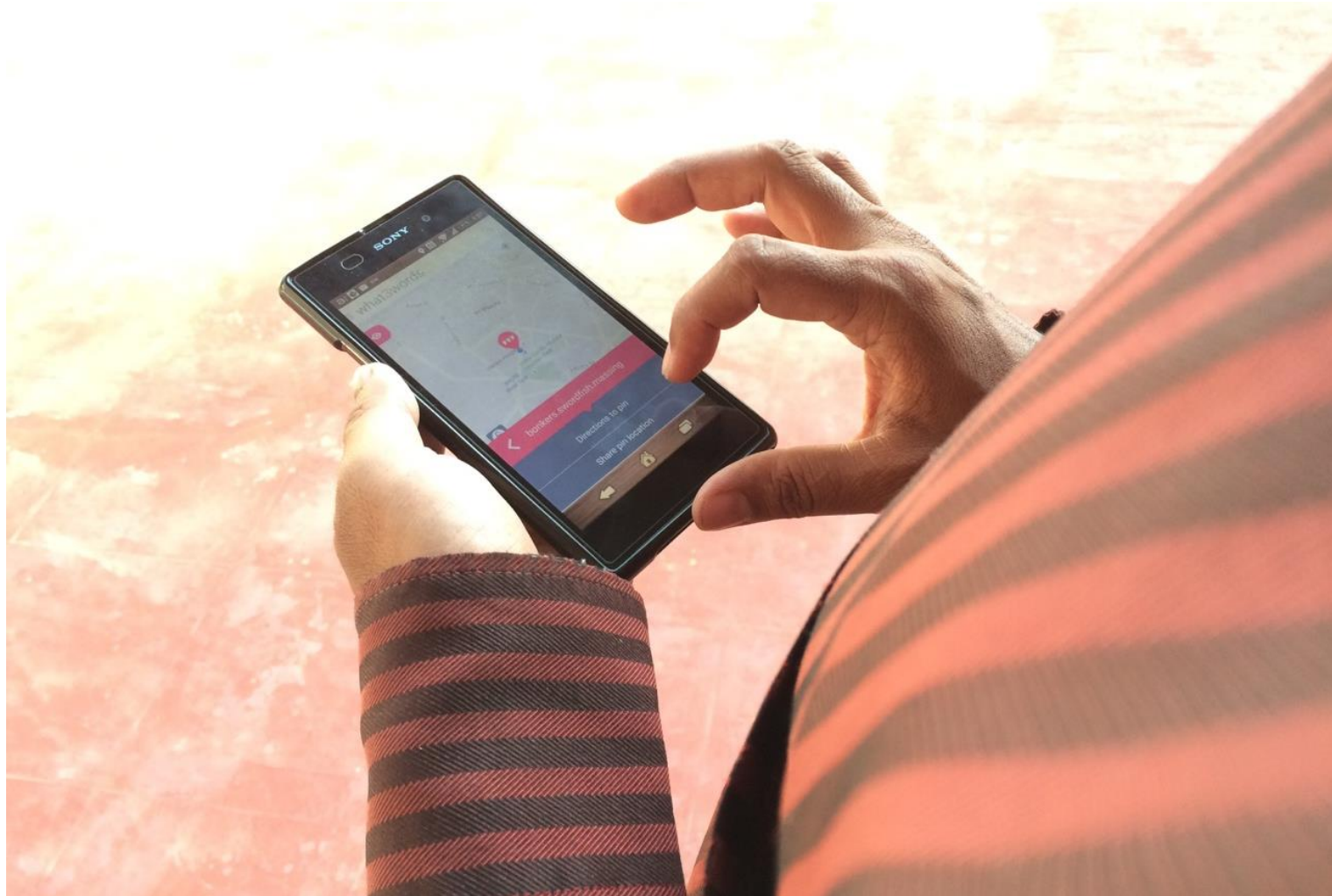


# BEING USED IN THE TOWNSHIPS TO DELIVER MEDICINES





# BEING USED IN INDIA TO DELIVER LIGHT





# BEING USED IN RURAL AFRICA TO ERADICATE MOSQUITOS



[w3w.co/in2care](http://w3w.co/in2care)



# BEING USED IN TANZANIA TO IDENTIFY WATER POINTS

ArcGIS Tanzania Water Points

NEW MAP CREATE PRESENTATION Giles

Details Add Basemap Save Share Print Measure Bookmarks Find address or place

Contents

- Water Quality
- Non Function Reason
- Type of Water Point
- Management Company
- Water Extraction Method
- Village Population
- Status
- World Boundaries and Places
- Topographic

(6 of 14)

Mayo	
NAME	Mayo
TYPE	hand pump
EXTRACTION	Others
PAYMENT	pay per bucket
QUALITY	salty
QUANTITY	insufficient
SOURCE	rainwater harvesting
STATUS	functional
REASON	functional
3 WORDS SW	tutubu.kasoma.inafikia
3 WORDS EN	reimpose.inclusivity.re
LONGITUDE	34.97
LATITUDE	-4.38
Zoom to	

Esri.com . ArcGIS Marketplace . Help . Terms of Use . Privacy . Contact Esri . Report Abuse

Esri, HERE, DeLorme, USGS, NGA

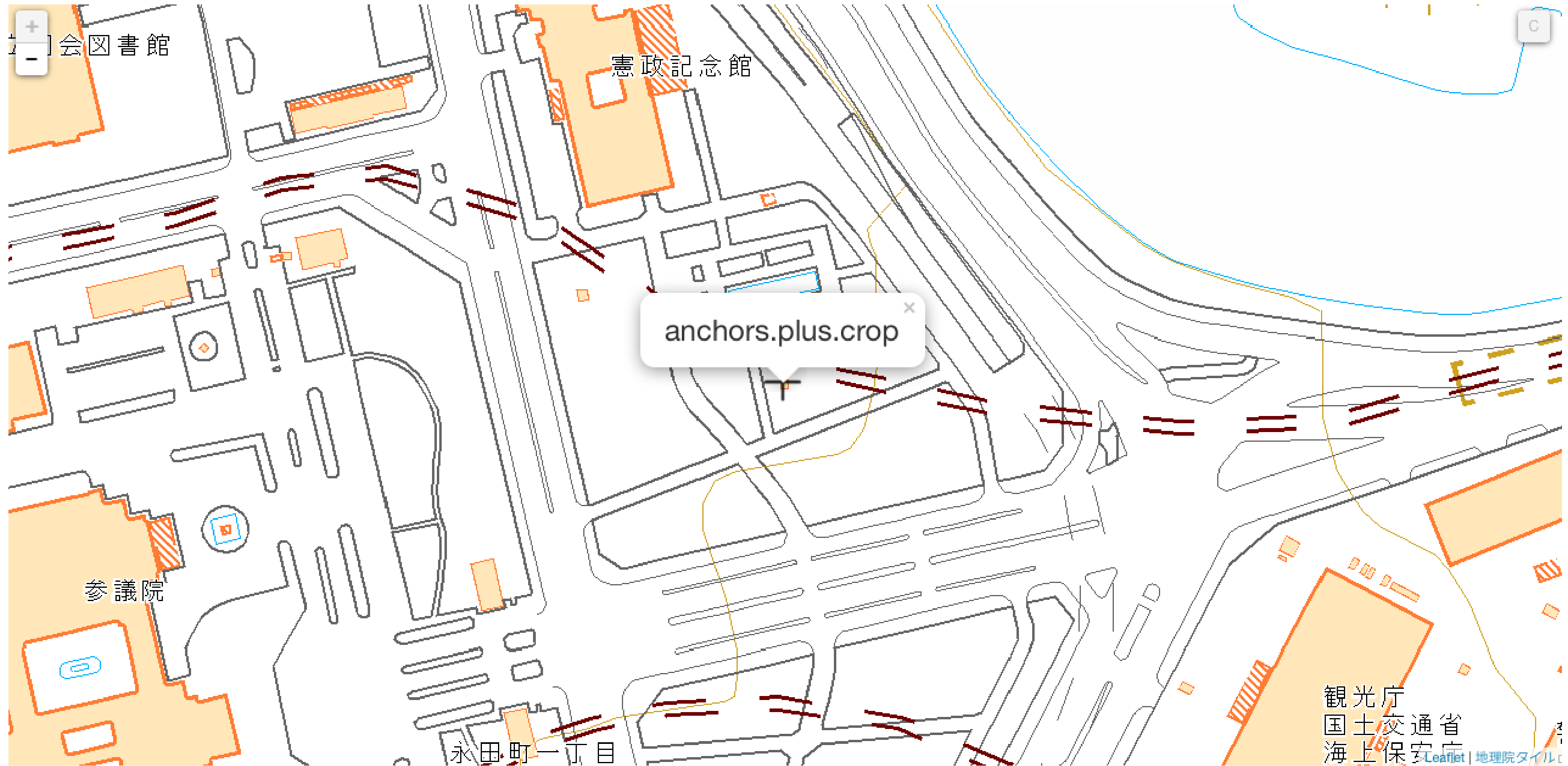


# MIGRANT ENCAMPMENT IN FRANCE



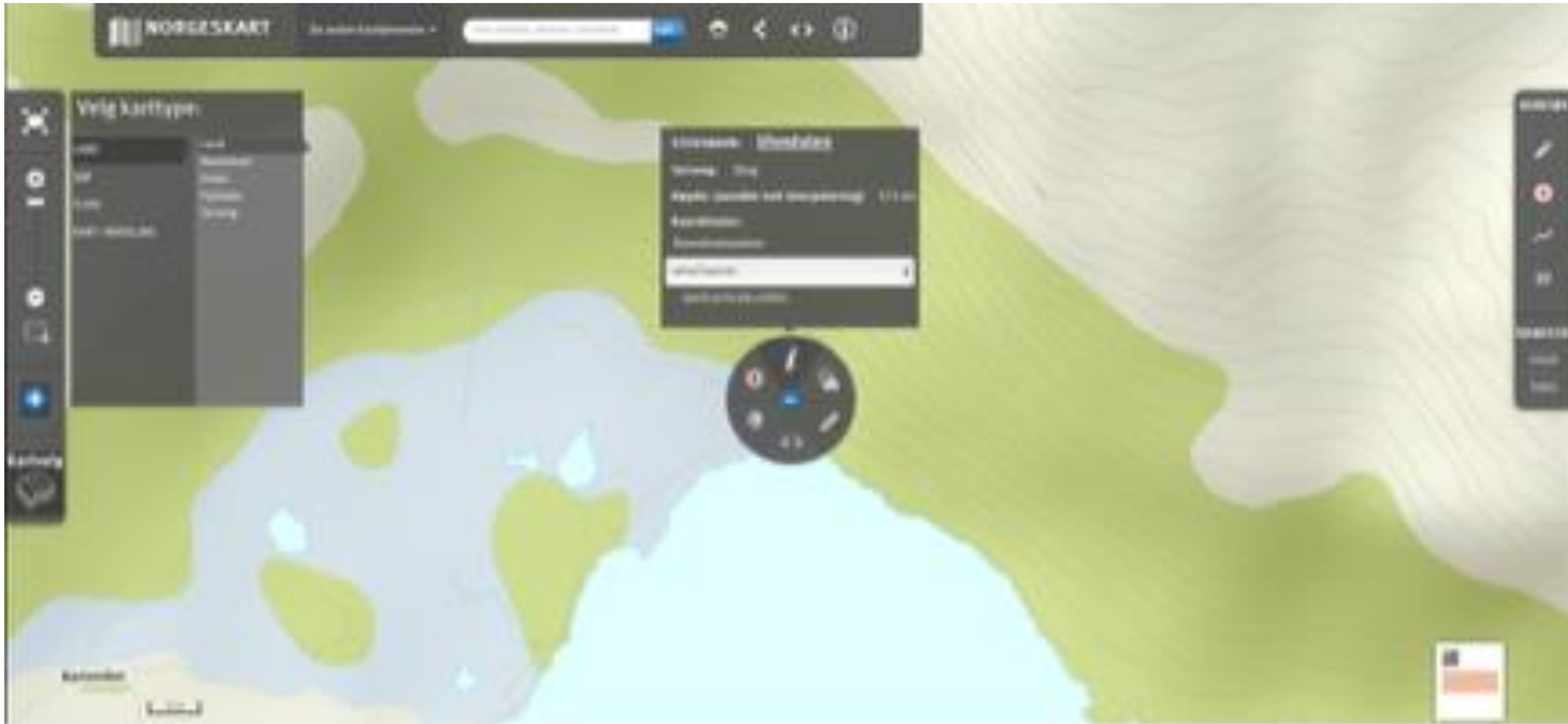


# DEMO SITE ON GITHUB FOR JAPAN





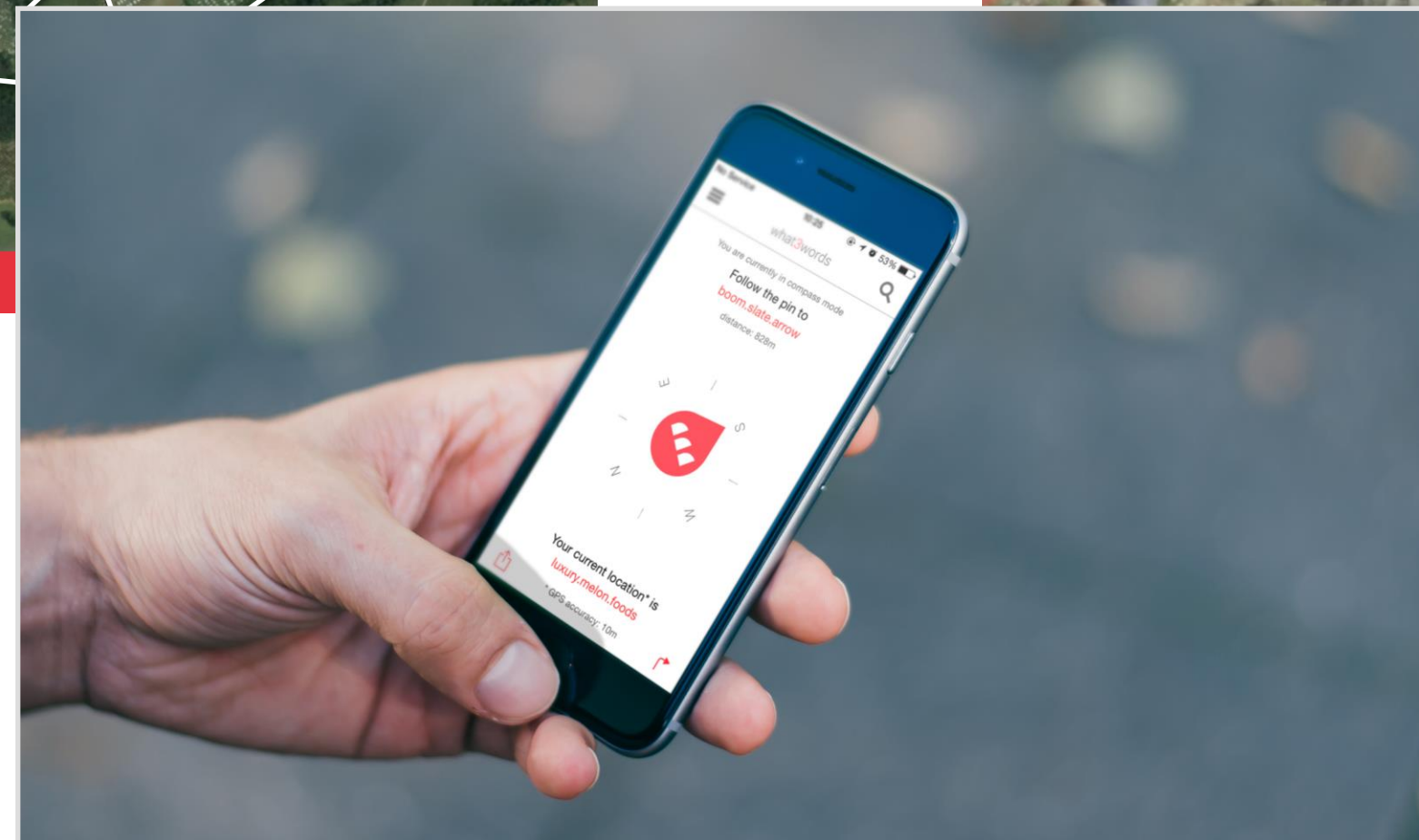
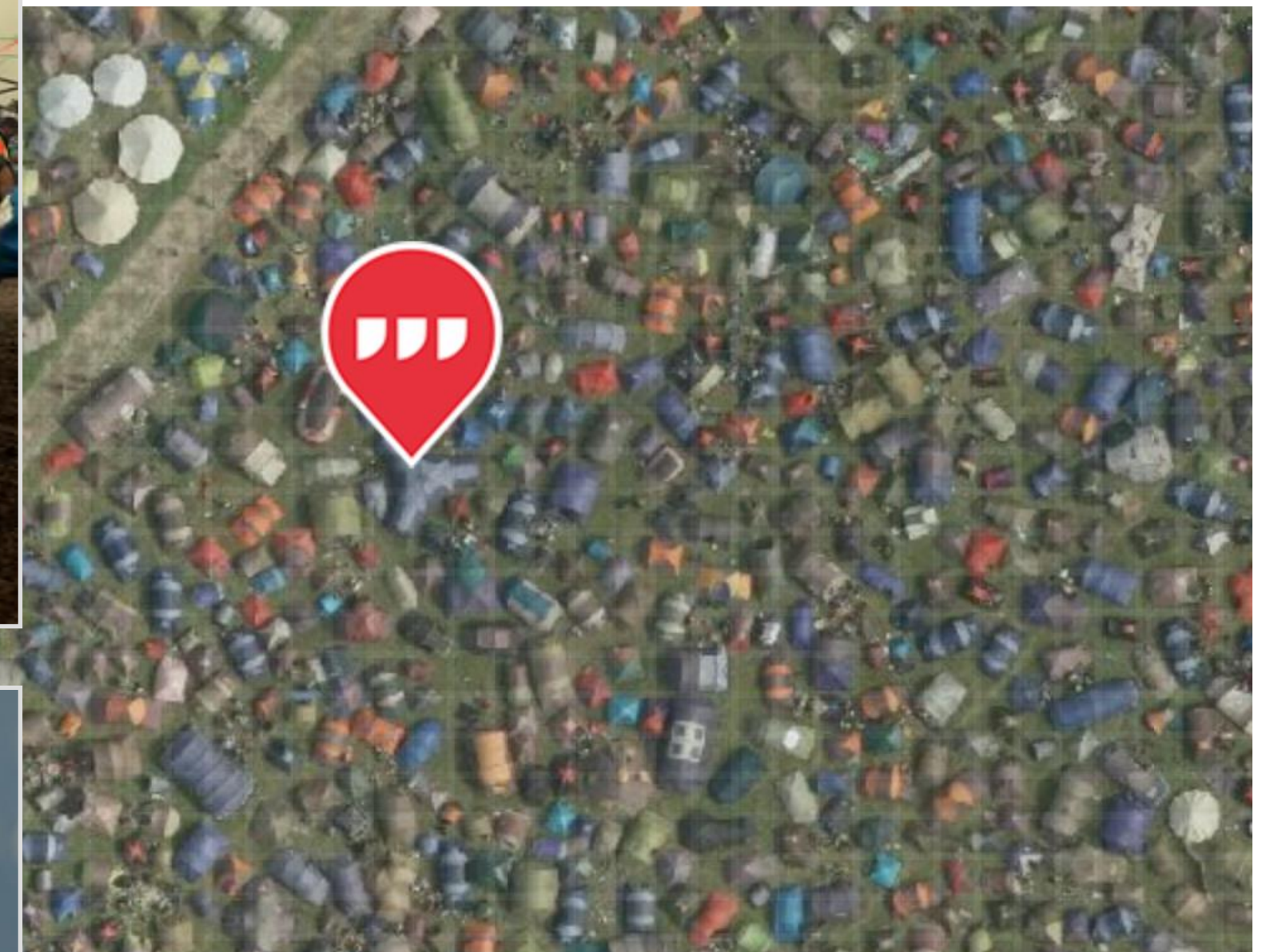
# SEARCH AND DISPLAY IN NORWAY



[www.norgeskart.no](http://www.norgeskart.no)



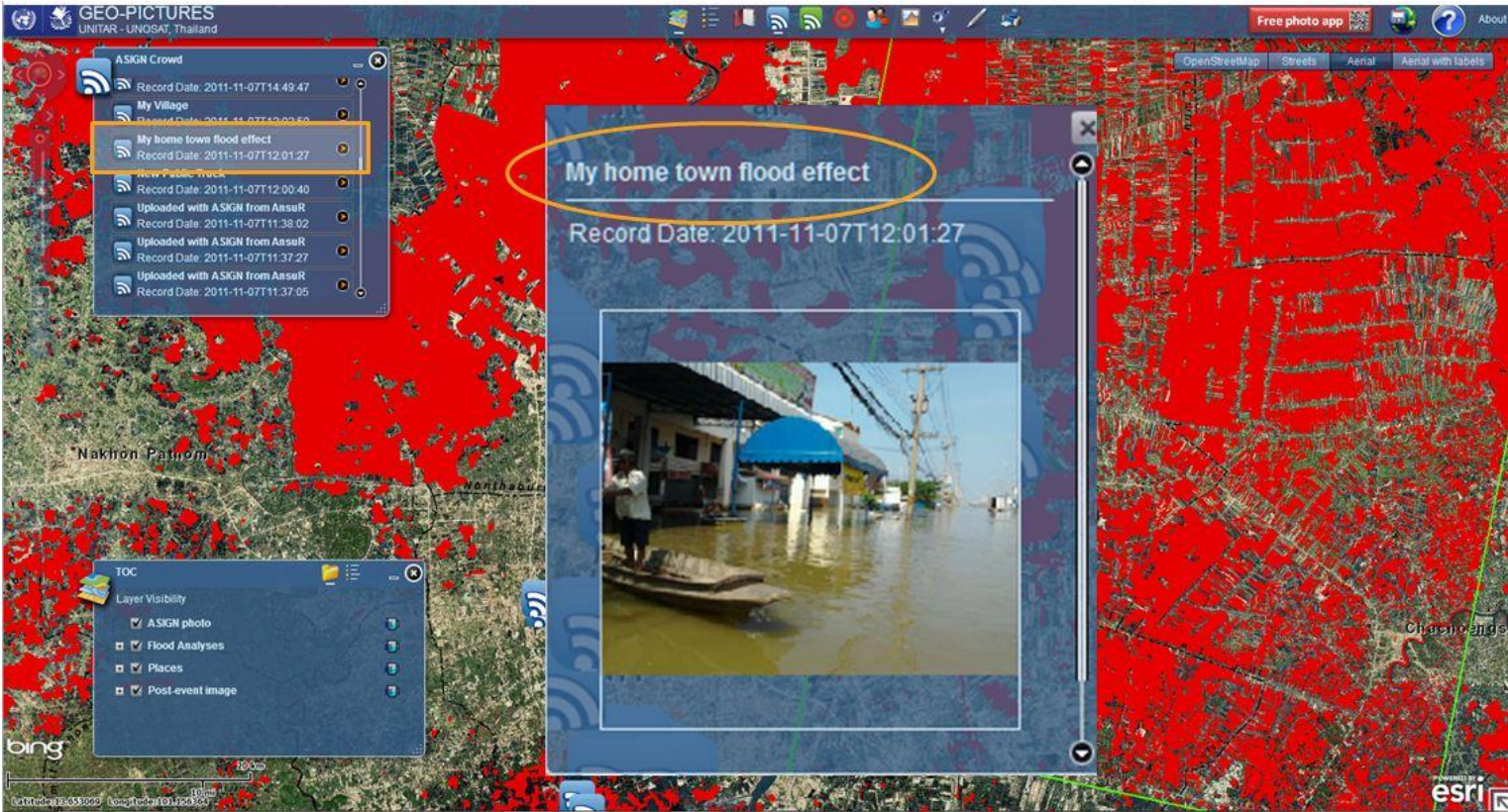
# FMS FESTIVAL EMERGENCY RESPONSE



Professional healthcare supporting charities worldwide



# BEING USED BY THE UN TO REPORT DISASTERS



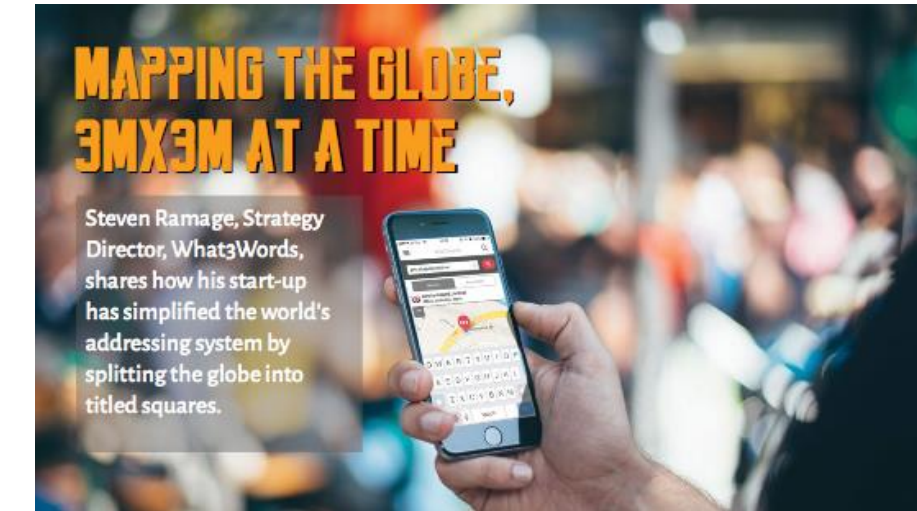


# MULTI AWARD WINNING





# GLOBAL THOUGHT LEADERSHIP & PRESS COVERAGE



## Move aside Google Maps, the future of navigation is just three words

What3Words looks to challenge traditional coordinates with words

By **Lee Bell**

Wed Nov 18 2015, 10:16



Tanzania: the smartphone apps putting Africa's fastest-growing city on the map

## THE SPECTATOR

The best navigation idea I've seen since the Tube map

Meet the British company that can take you around the world in three common words

Rory Sutherland | 23 October 2014



Last week I heard of another British idea which may be as important as Harry Beck's in making navigation mentally easy: [www.what3words.com](http://www.what3words.com) divides the entire surface of the earth into 3m x 3m squares and identifies each with just three common words. So the middle of the Spectator garden is [what3words.com](http://what3words.com), [lied4.foods.loudly](http://lied4.foods.loudly) -- while the front door is [take.notes.thus](http://take.notes.thus). There are about 60 trillion such combinations available.

## Geospatial solutions

Home News Opinions Applications Technology Resources

## what3words: The geospatial advancement of the year

December 3, 2015 - By Art Kalinski

# Bloomberg Business





# ADVANTAGES OF USING WHAT3WORDS



## Ready to go

The world's 3 word addresses are pre-assigned, and can be used instantly and cost effectively.



## Words beat numbers

3 words are significantly more memorable than the equivalent alphanumeric characters or lat/long coordinates required to define the same location, and much quicker and easier to say.



## Uniformity

One uniform word-based system for everyone eliminates the confusion caused by conflicting numeric and alphanumeric codes.



## Offline

It functions without a data connection. This solves a perpetual constraint when in remote and unaddressed locations, or in areas with poor connectivity.



## Empowerment

Words in a local language will provide unaddressed communities with a voice to communicate their needs.



## Multiple Languages

what3words is currently available in most of the official UN languages, as well as several others. It can also be functional in languages such as Hausa, Swahili or Vietnamese.



## Universal

It's a small piece of code that works across platforms and devices and works alongside existing geo systems and devices.



## Validation

The 3 word addresses have been pre-assigned in a very specific way so as to offer a built-in validation system to correct input errors.



**Steven Ramage**  
Director of Strategy

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steven@what3words.com

@what3words  
what3words.com