

# STATE OF THE ART OF GEOPAPARAZZI: TOWARDS GVSIG MOBILE



12th International gvSIG Conference

Valencia - 1st of December

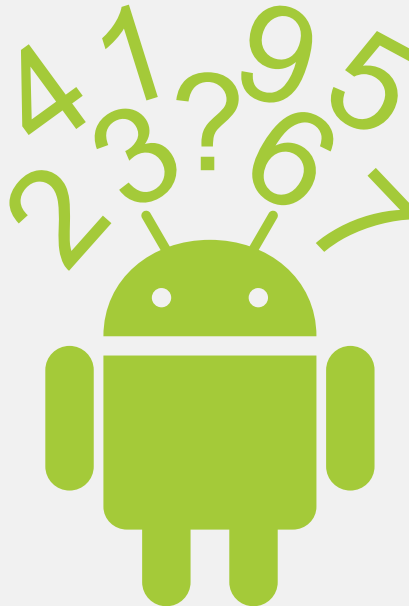
Andrea Antonello, Silvia Franceschi

# WHO AM I?

- cofounder of HydroloGIS ([www.hydrologis.com](http://www.hydrologis.com))
- HydroloGIS is member of GvSIG Association
- Osgo Charter Member and GFOSS advocate
- develop and coordinate Geopaparazzi ([www.geopaparazzi.eu](http://www.geopaparazzi.eu))
- develop and coordinate the JGrasstools project ([www.jgrasstools.org](http://www.jgrasstools.org))
- working on integration of JGrasstools and Geopaparazzi in gvSIG

# WHERE DO WE COME FROM?

Do you remember how that mobile thing all started????

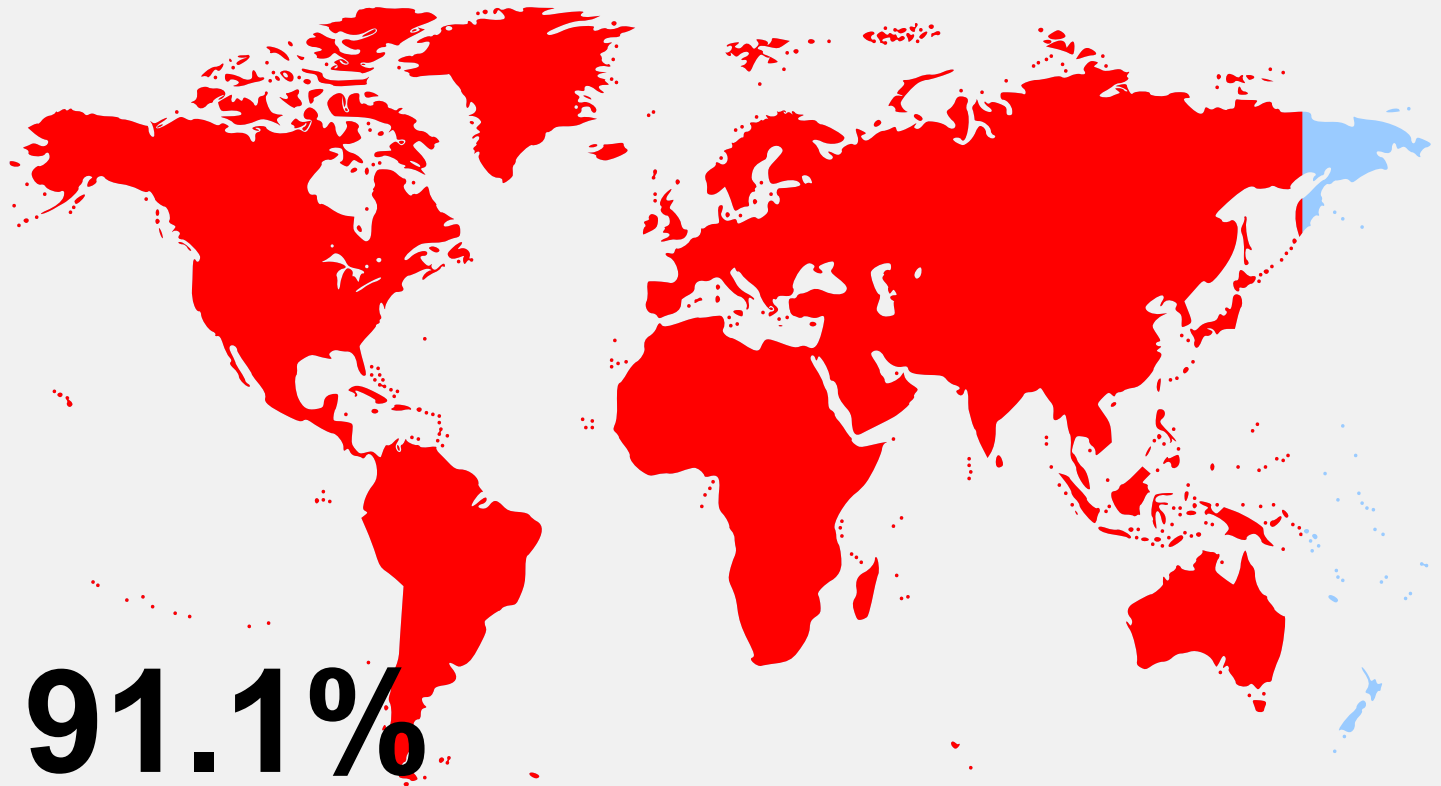
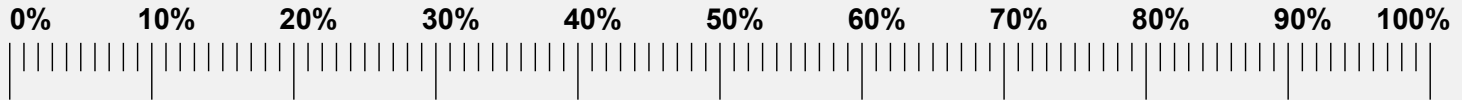


# MOBILE MARKET PENETRATION IN 1991





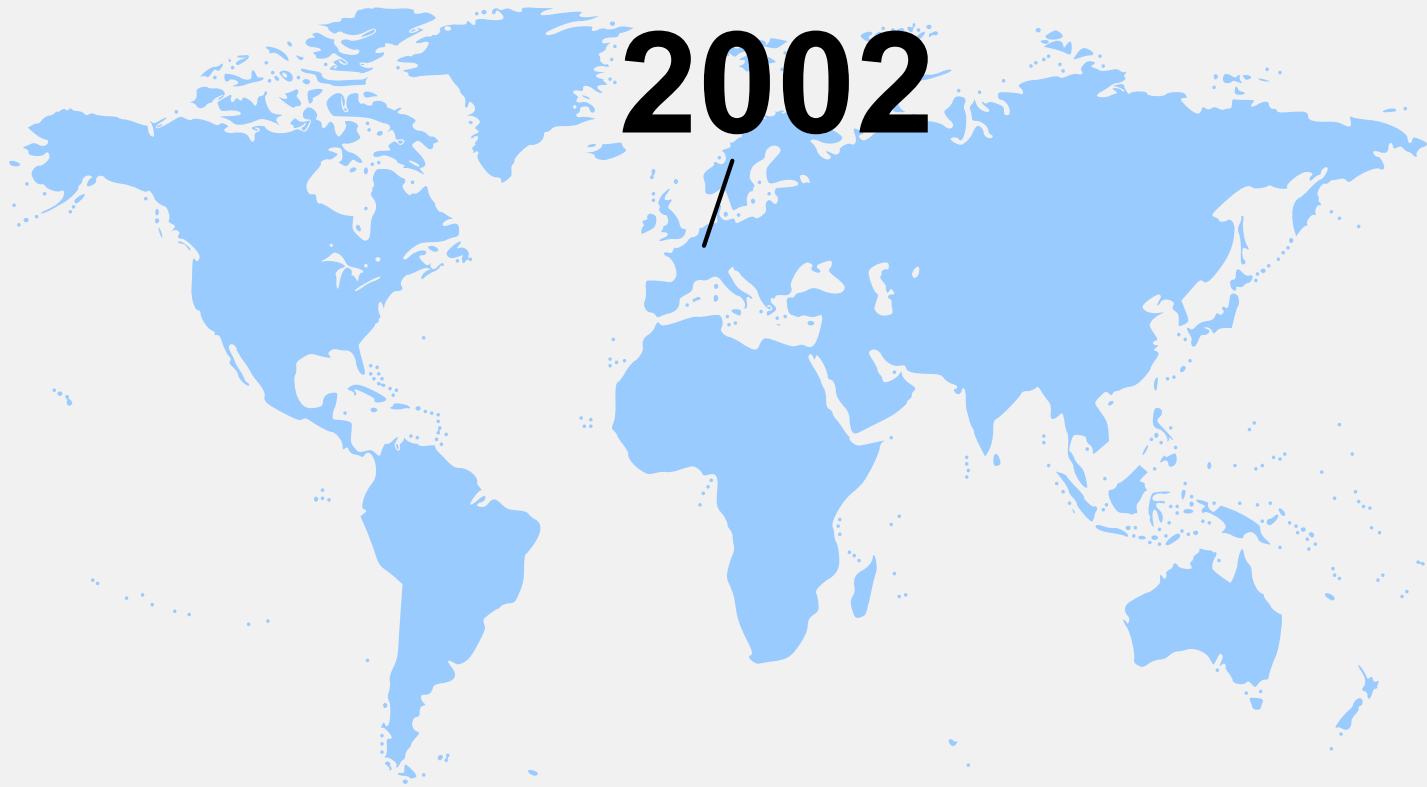
# MOBILE MARKET PENETRATION IN 2010



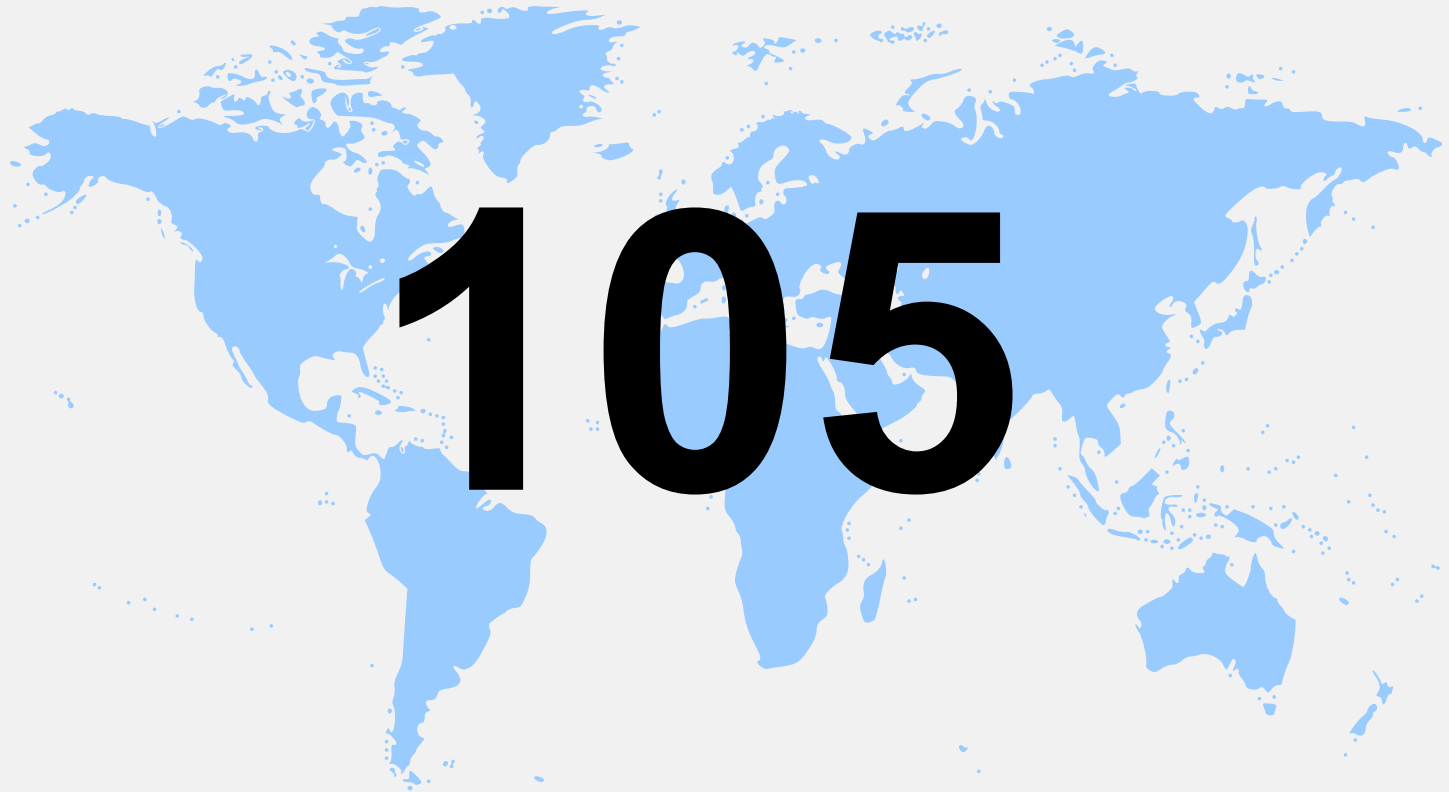
91.1%



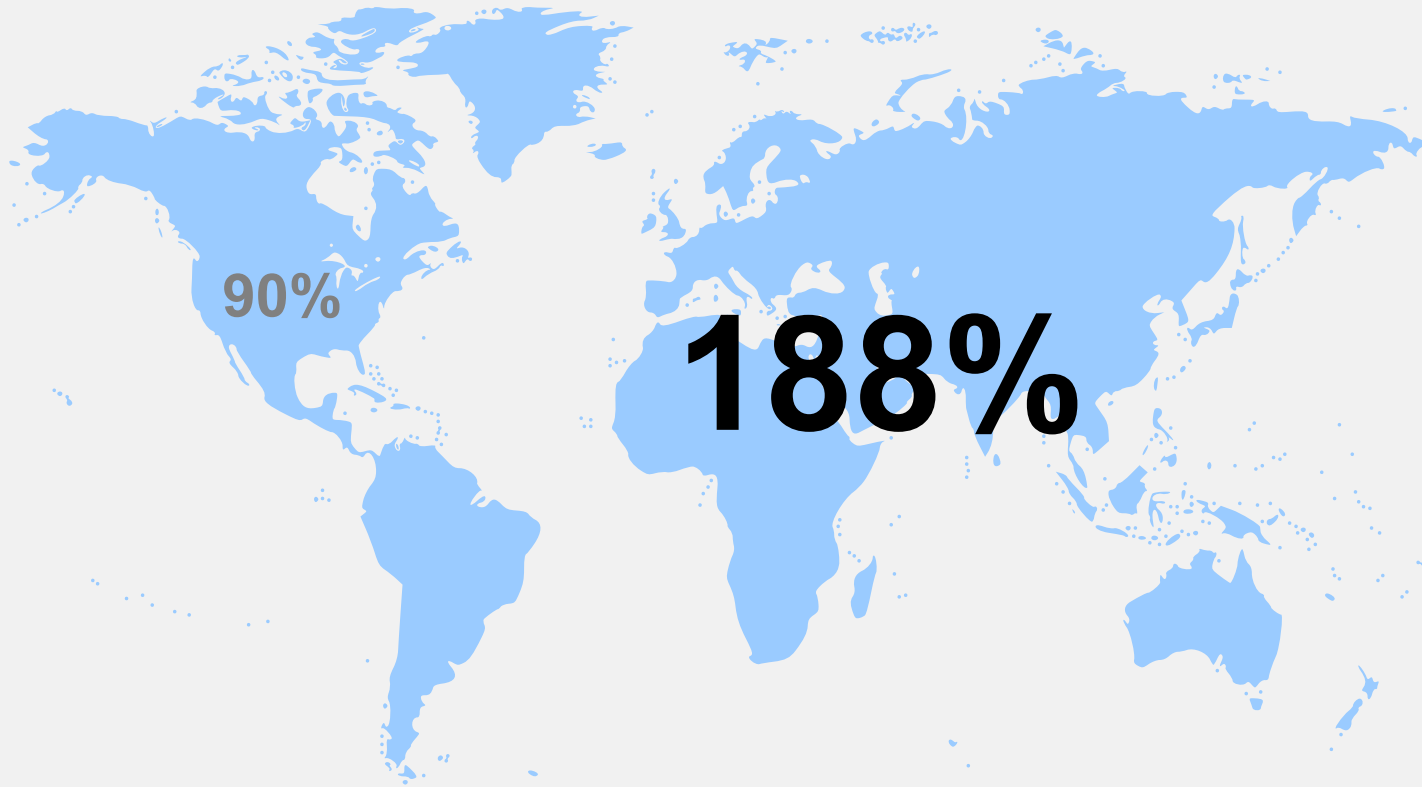
# LUXENBURG AT 100% OF MOBILE PENETRATION



# COUNTRIES WITH MORE ACTIVATIONS THAN INHABITANTS IN 2011



# MOBILE PENETRATION OF SAUDI ARABIA IN 2010



# ACTIVATIONS IN INDIA IN 2011



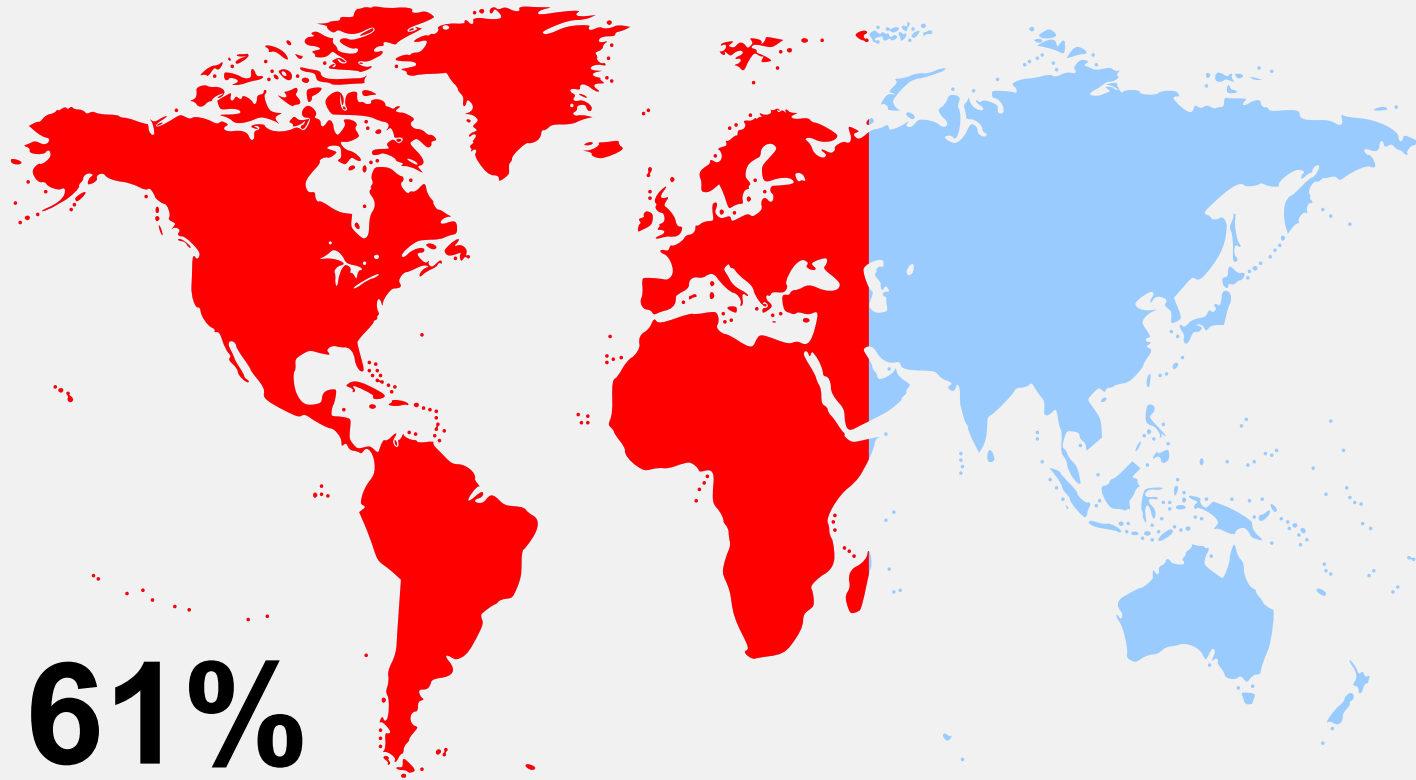
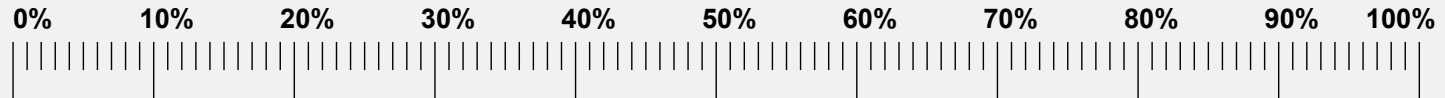
**145.000.000**

**India > Europa + Russia + Arabia**

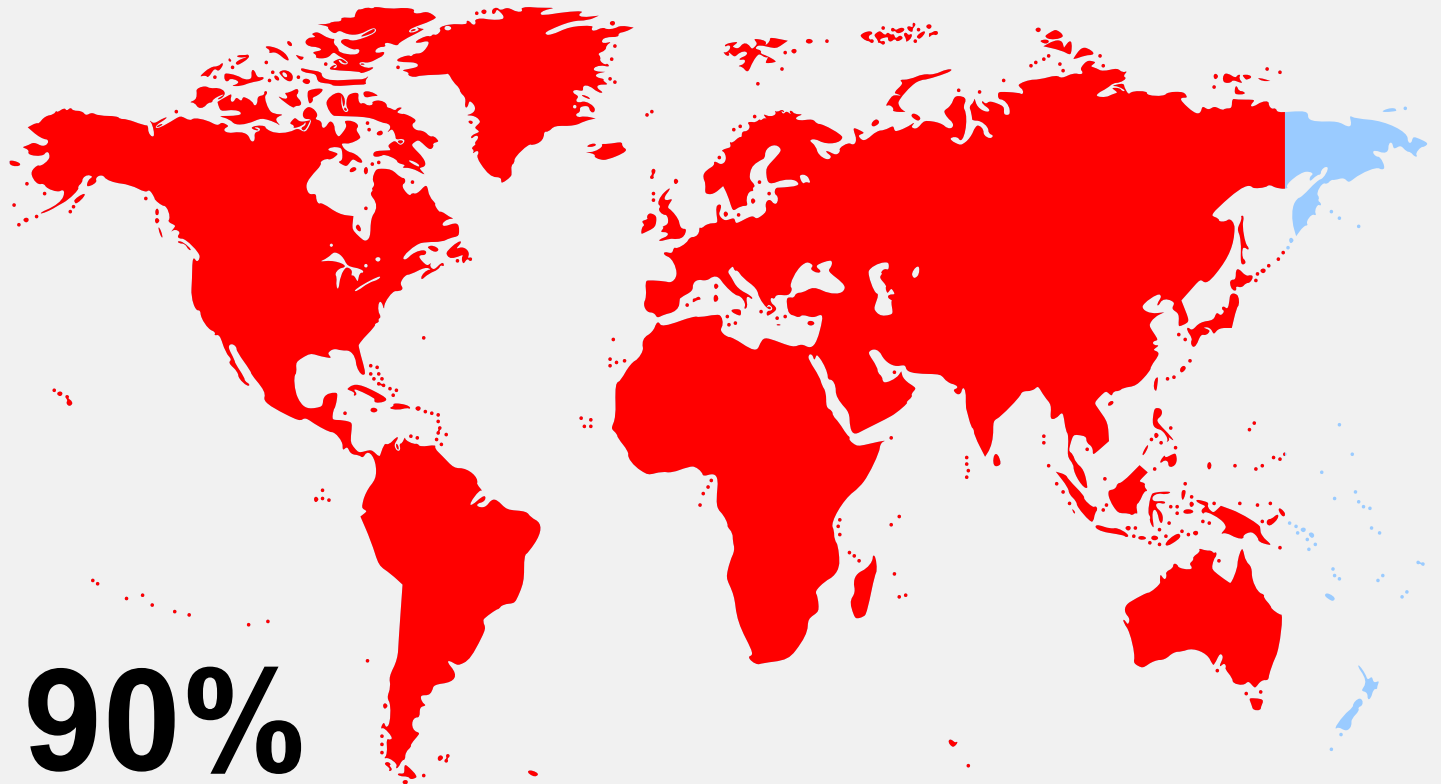
# INTERNET TRAFFIC SINCE TABLETS/SMARTPHONES



# WORLD COVERAGE IN 2003



# WORLD COVERAGE IN 2010



90%



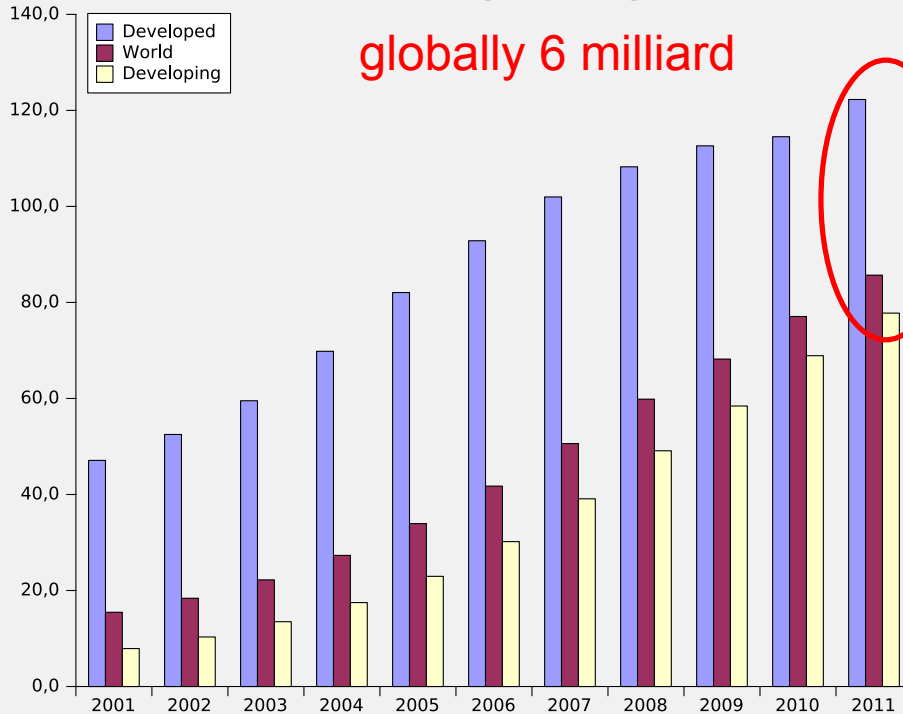


# ACTIVE LINES PER 100 INHABITANTS

## PHONES

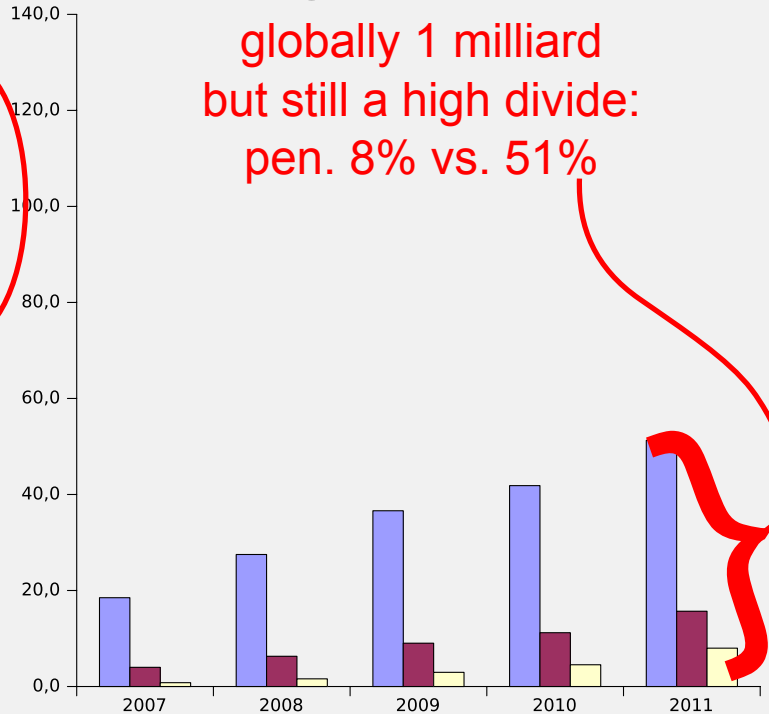
source: ITU

globally 6 milliard



## BROADBAND

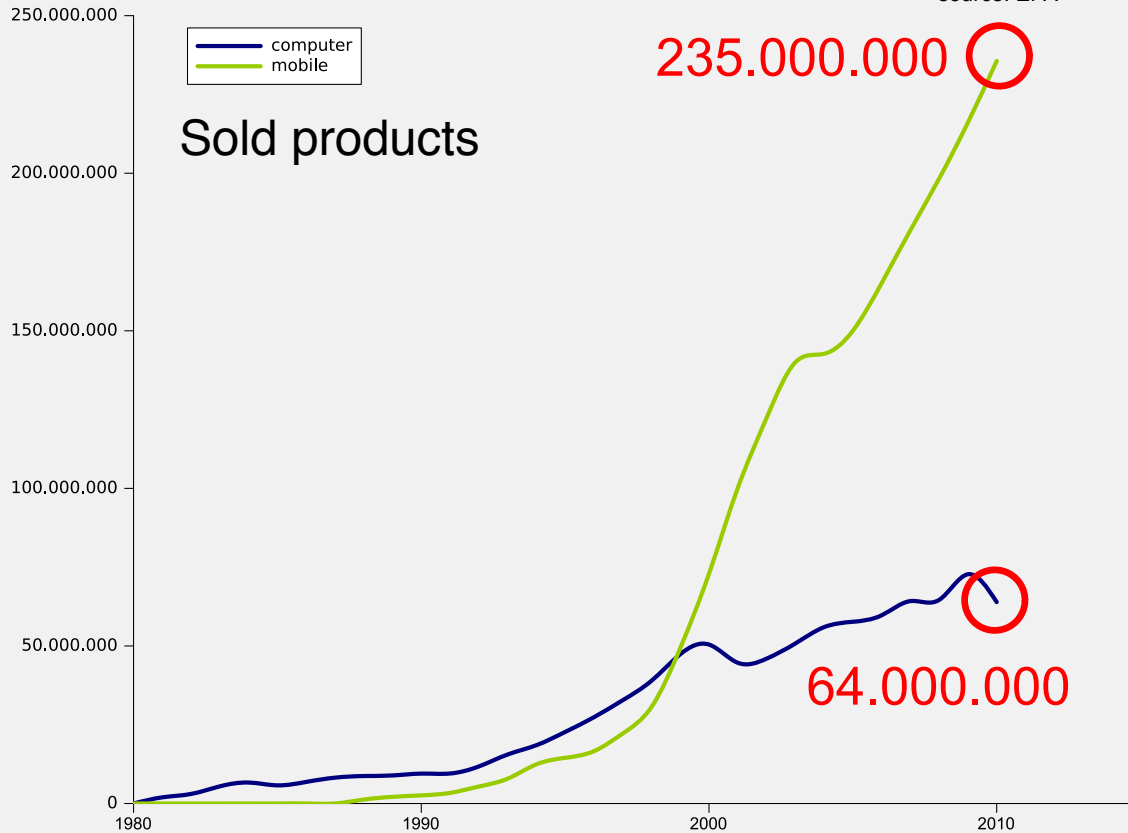
globally 1 milliard  
but still a high divide:  
pen. 8% vs. 51%



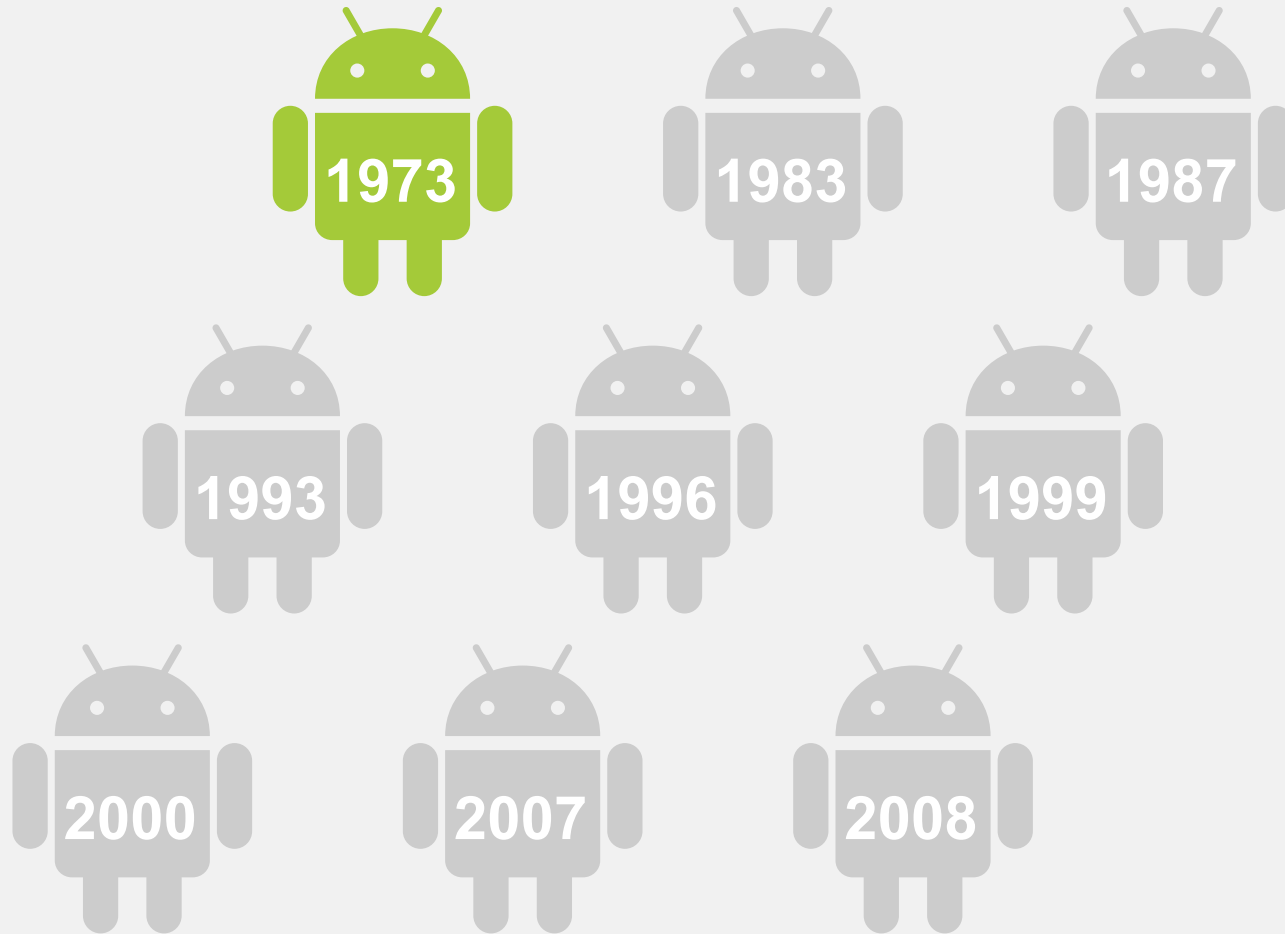
# HOW MUCH TRASH DO WE PRODUCE?

## EPA baseline report - data for USA

source: EPA



# THE EVOLUTION OF THE SPECIES



# 1973: THE YEAR WE MAKE CONTACT

- after years of research of Motorola and Bell Labs first mobile cellphone prototype by Motorola
- the 3rd of Aprile Martin Cooper (Motorola) makes the first mobile call to Engel of Bell Labs



Specs:

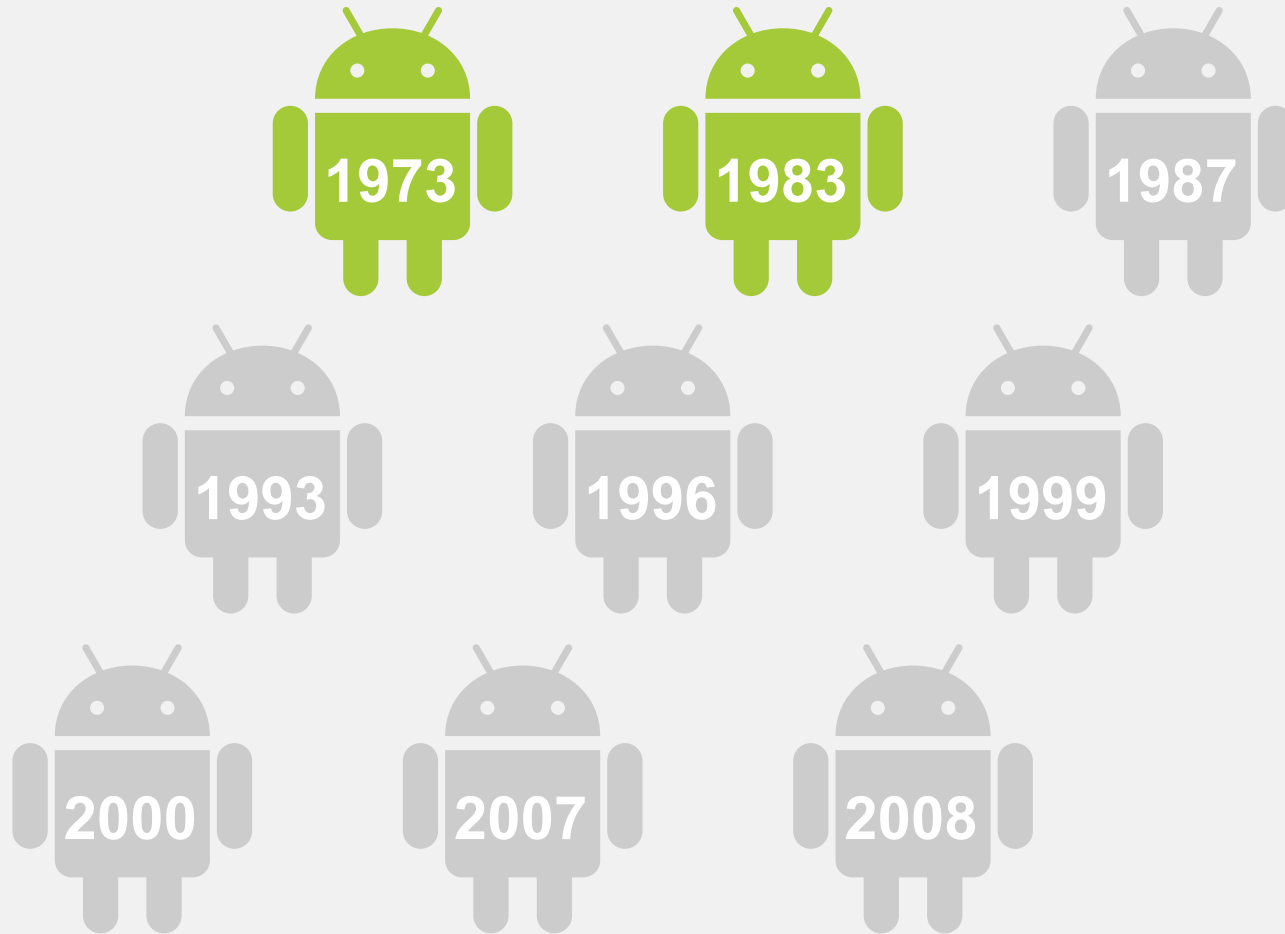
~1.5 Kg,

~23 cm long

10 hours to charge

30 minutes communication

# THE EVOLUTION OF THE SPECIES



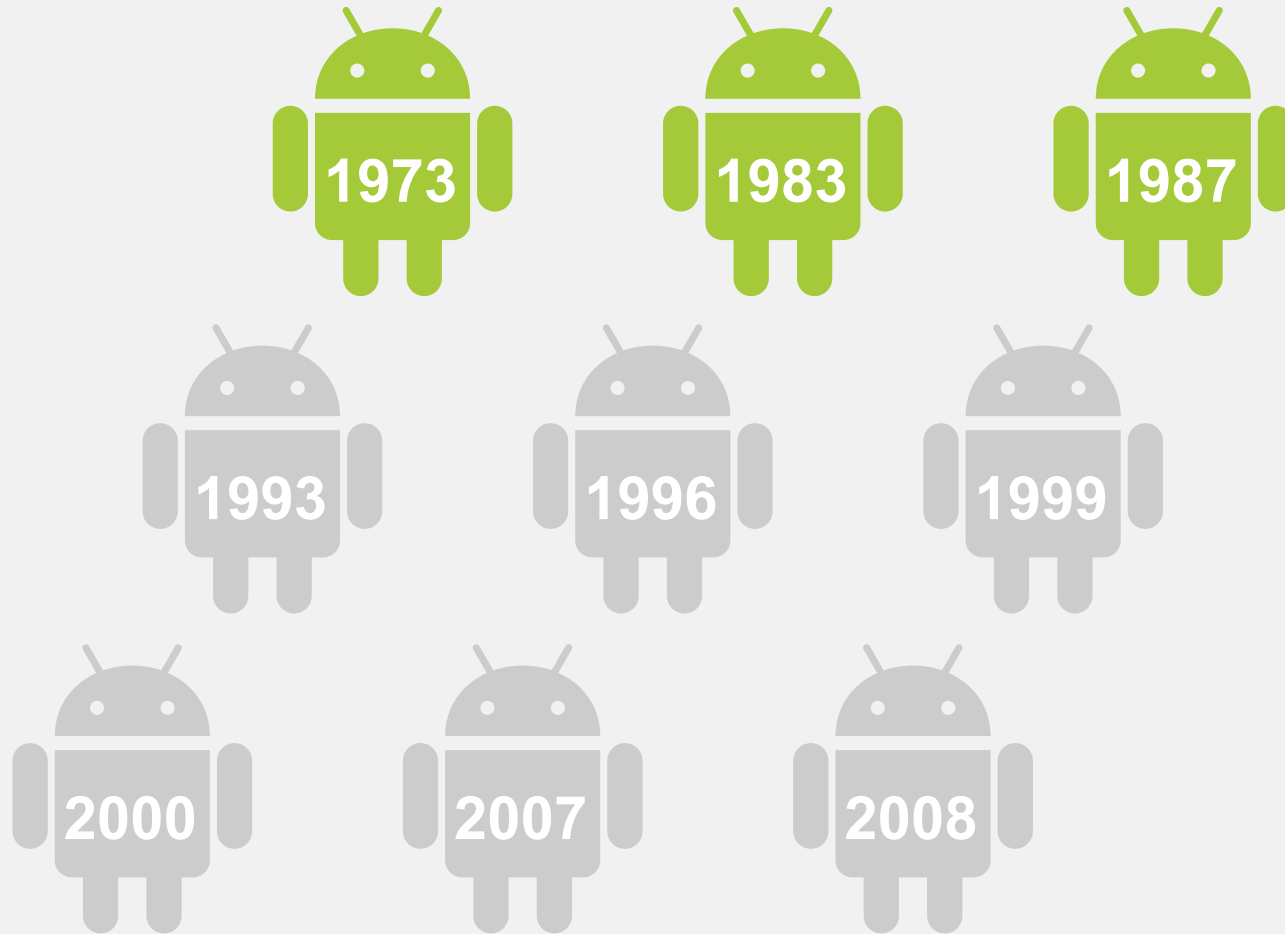
# 1983 - THE DYNATAC 8000X

- Dynamic Adaptive Total Area Coverage
- first cellphone commercially available
- first buyers were businessmen



Movie: Wall Street, 1987

# THE EVOLUTION OF THE SPECIES



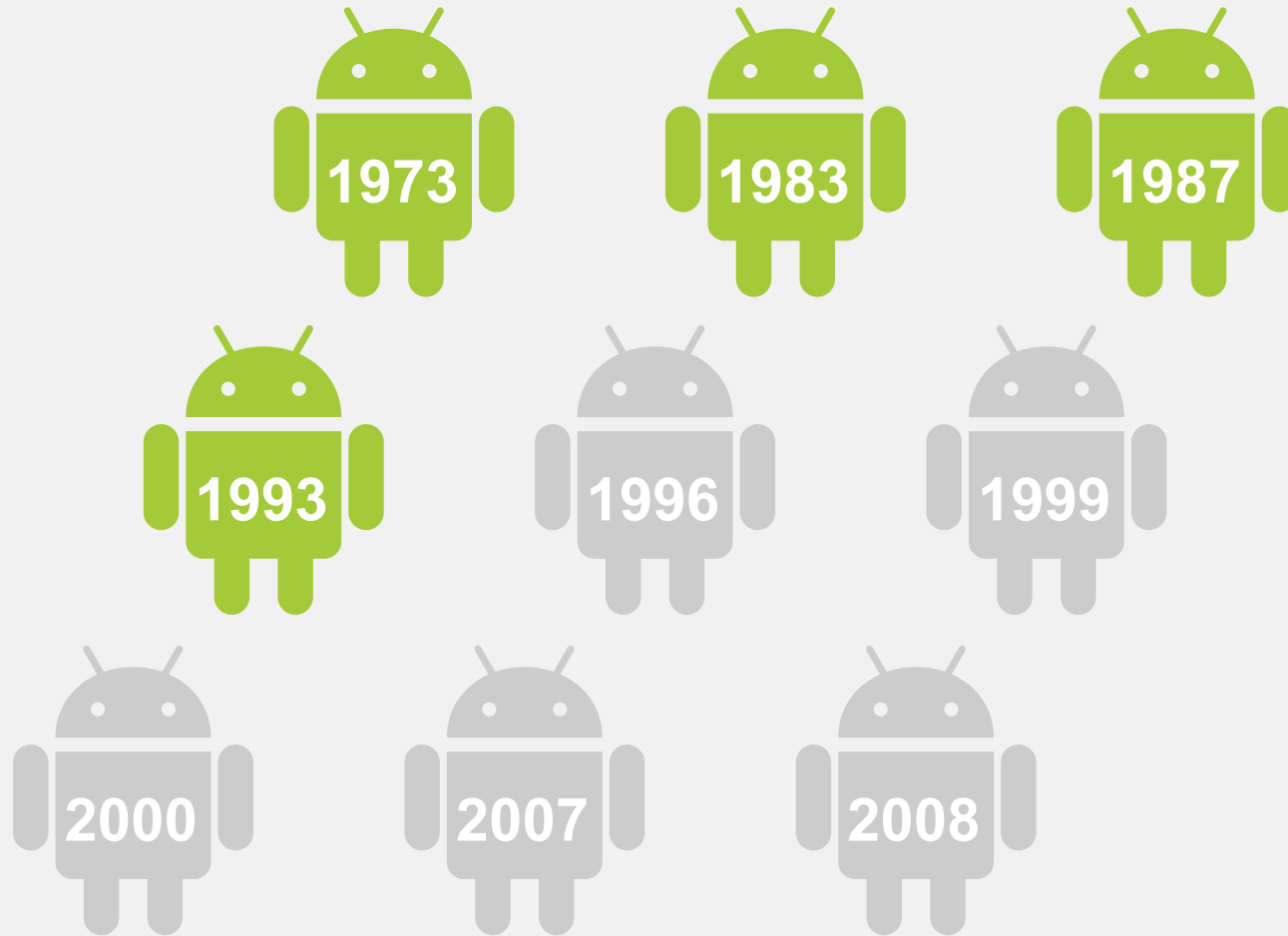
# 1987 - NOKIA MOBIRA CITYMAN

- gained notority because of the phone call of Gorbaciov between Helsinki and Moscow
- phone got the name "Gorba"





# THE EVOLUTION OF THE SPECIES



# 1993 - IBM SIMON

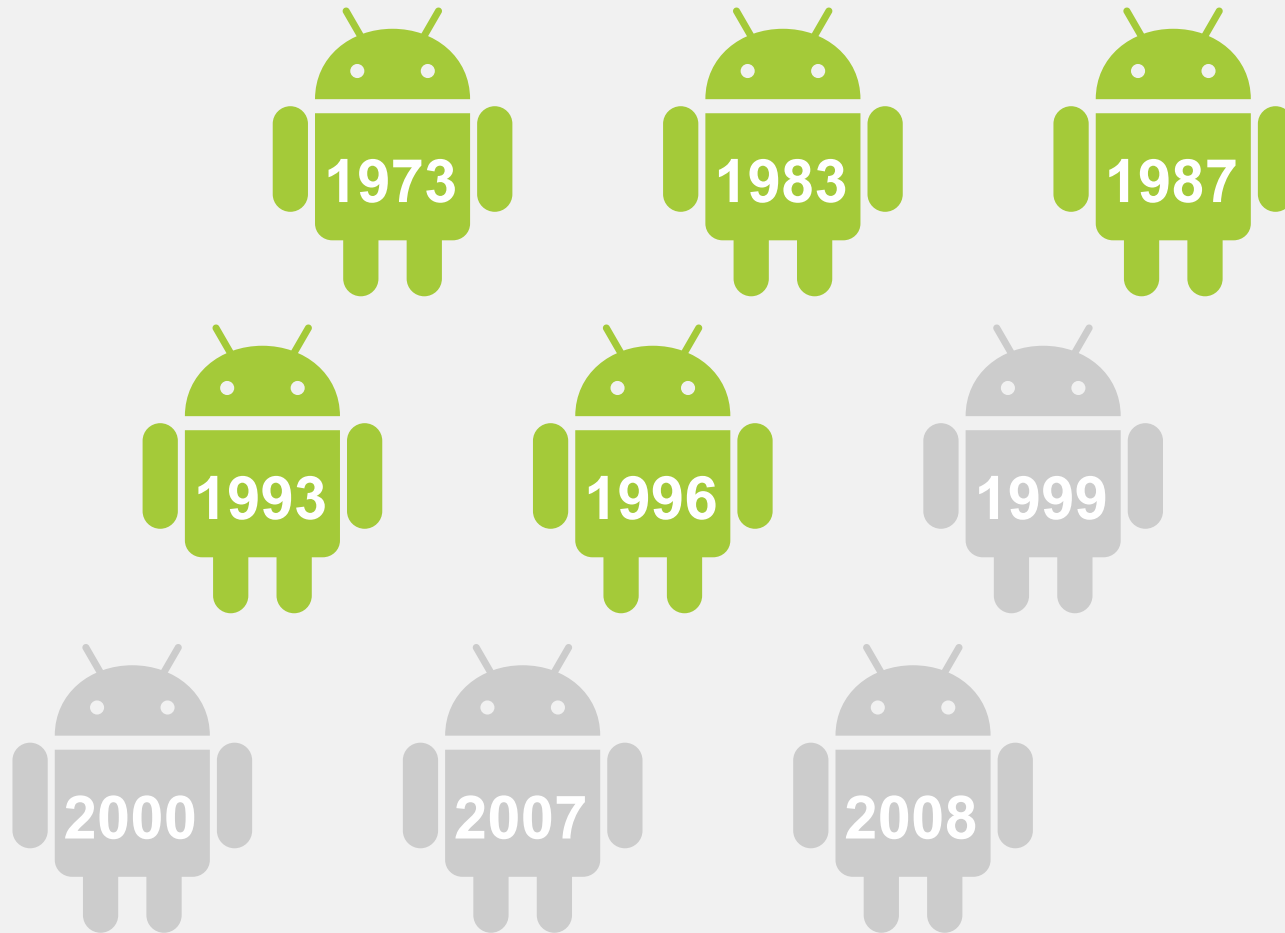
- it is the smartphone precursor
- has a touchscreen



Movie: The Net, 1995

- at same time the Newton MessagePad from Apple appears
- the time of the personal digital assistant (PDA) has come

# THE EVOLUTION OF THE SPECIES



# 1996 - MOTOROLA STARTAC

- first phone with "flip"
- light and fashion, it puts the roots for the design trend for cellphones
- it is the first with vibration



Movie: Star Trek



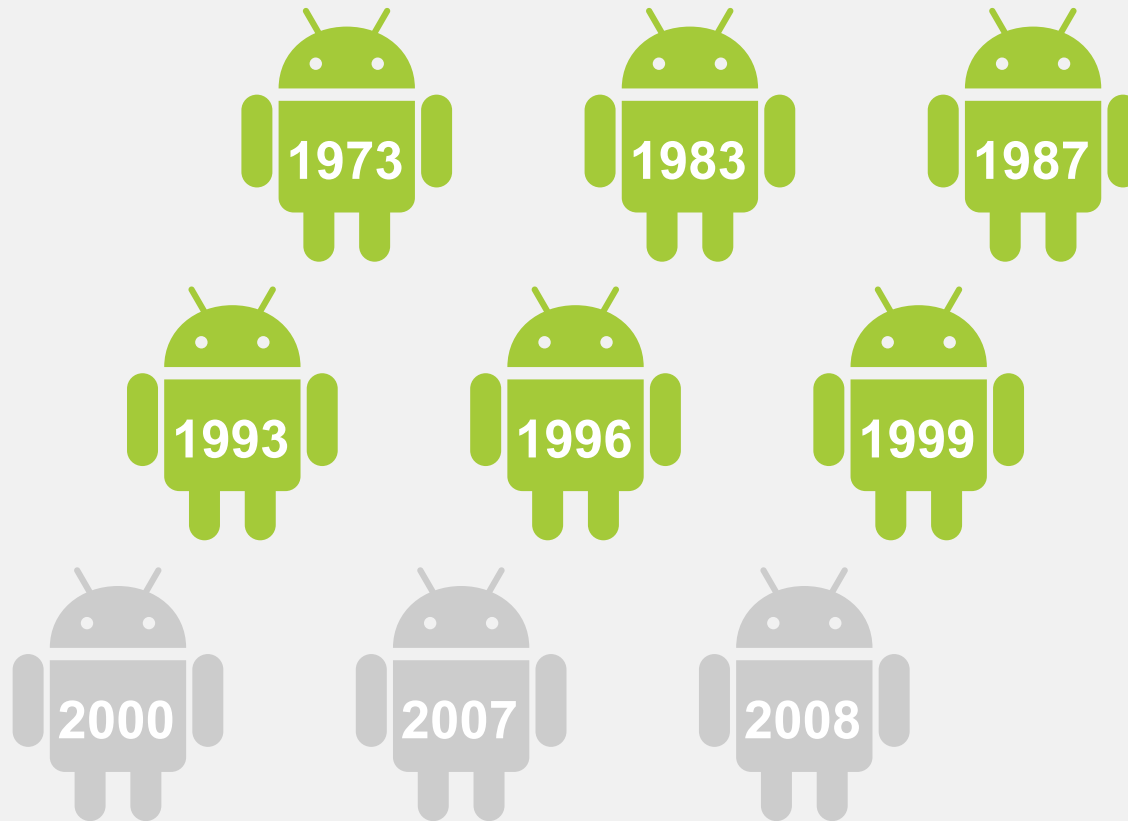
# 1996 - NOKIA 9000 COMMUNICATOR

- it is the first smartphone
- has a qwerty keyboard



Movie: The Saint, 1997

# THE EVOLUTION OF THE SPECIES



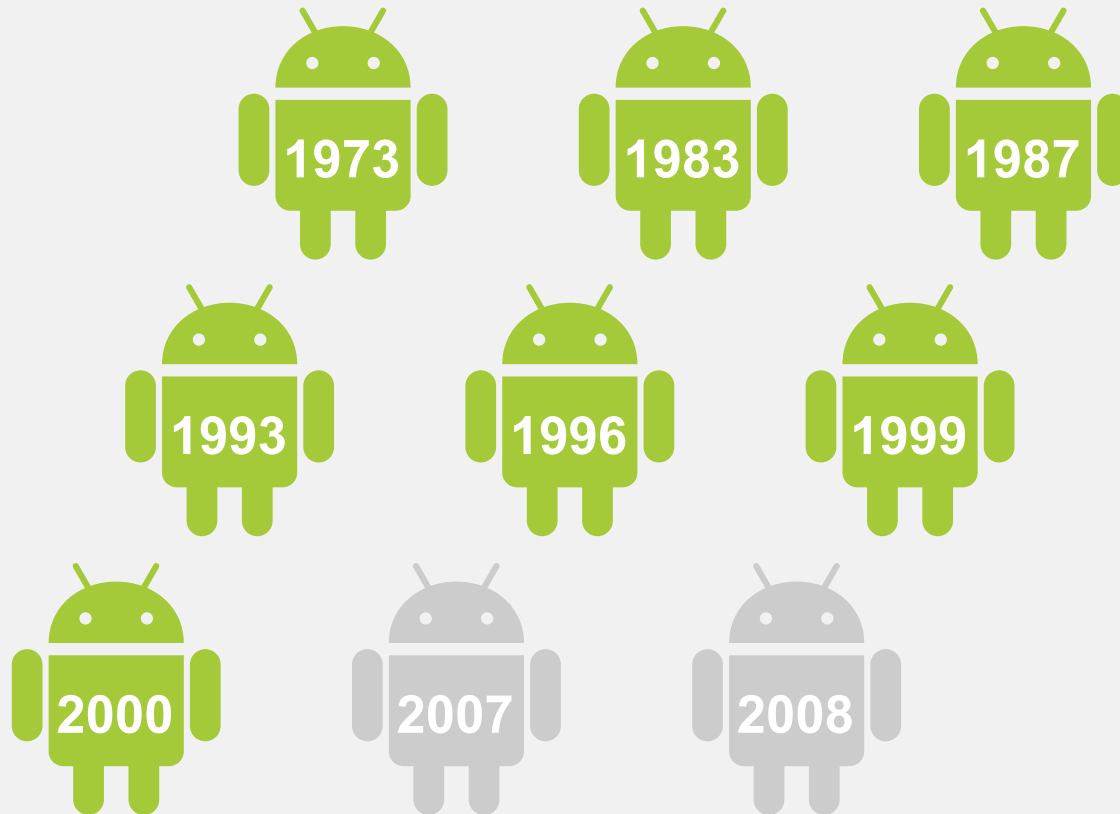
# 1999 - NOKIA 8110

- it is the first that supports the WAP (wireless access protocol) and permits internet navigation



Movie: The Matrix, 1999

# THE EVOLUTION OF THE SPECIES



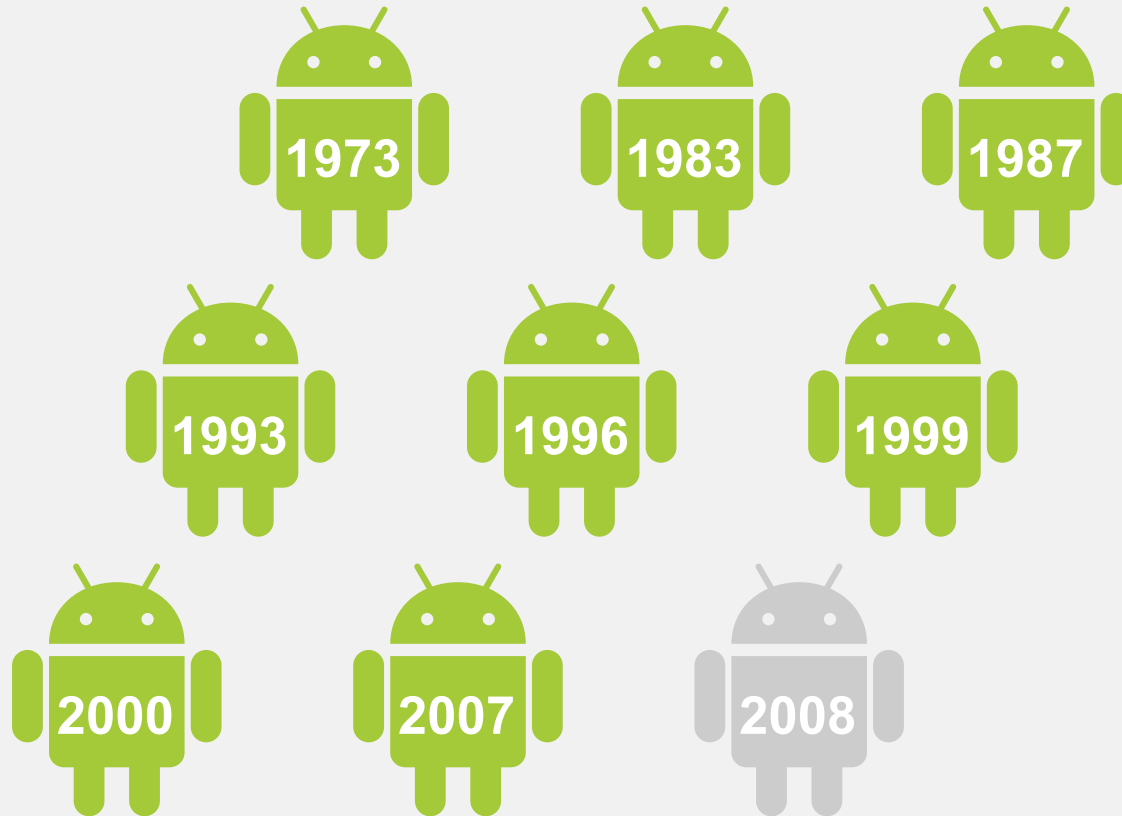


# 2000 - SHARP - SAMSUNG - NOKIA T9

- Sharp J-SH04 is the first with camera (0.1 megapx)
- Samsung SPH\_M100 the first with MP3 player
- the Nokia 3210 the first with T9 internal antenna



# THE EVOLUTION OF THE SPECIES



# 2007 - NOKIA N95

The monster phone: WI-Fi, GPS, accelerometer, 3G, camera, mp3 player, TV-out, bluetooth, flash, java, 8GB



It is the last nokia phone I owned...

# 2007 - IPHONE, ANDROID, OPEN HANDSET ALLIANCE

Apple breaks the market with the all-in-one: phone, internet and mp3 player in a new type of smartphone: beautiful, design, multitouch...



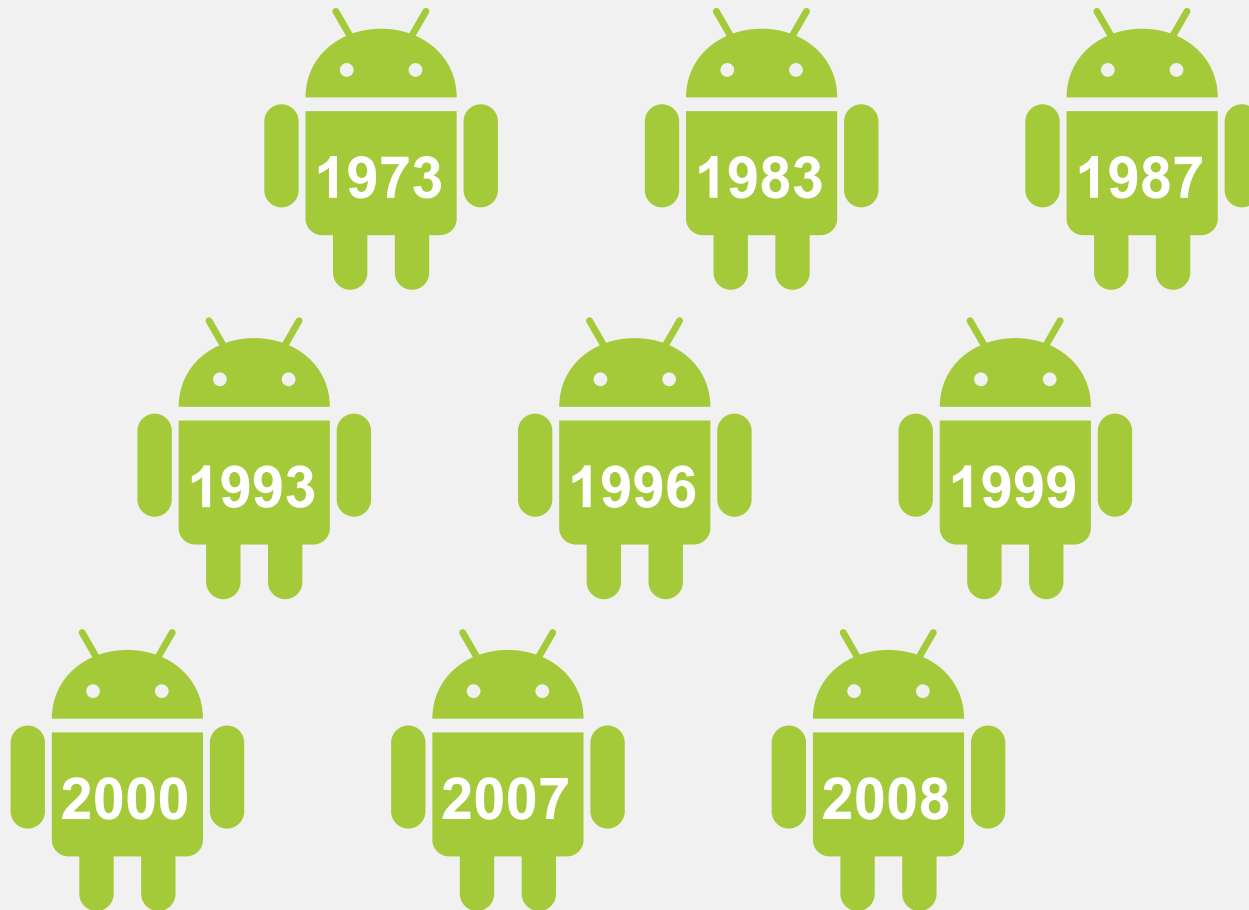
Hundreds of people camped for over 100 hours outside of the Apple store in New York for its release.

# 2007 - IPHONE, ANDROID, OPEN HANDSET ALLIANCE

In 2005 Google buys Android and in 2007 the Open Handset Alliance is created: about 80 companies that develop open standards for mobile devices.



# THE EVOLUTION OF THE SPECIES



# 2008 - HTC DREAM

The HTC Dream is the first Android phone.



(Windows Phone 7 is released in 2010)

# THE GFOSS MOBILE WORLD - BEFORE ANDROID

For a long time only the myth of GRASS on ipaq/zaurus existed...

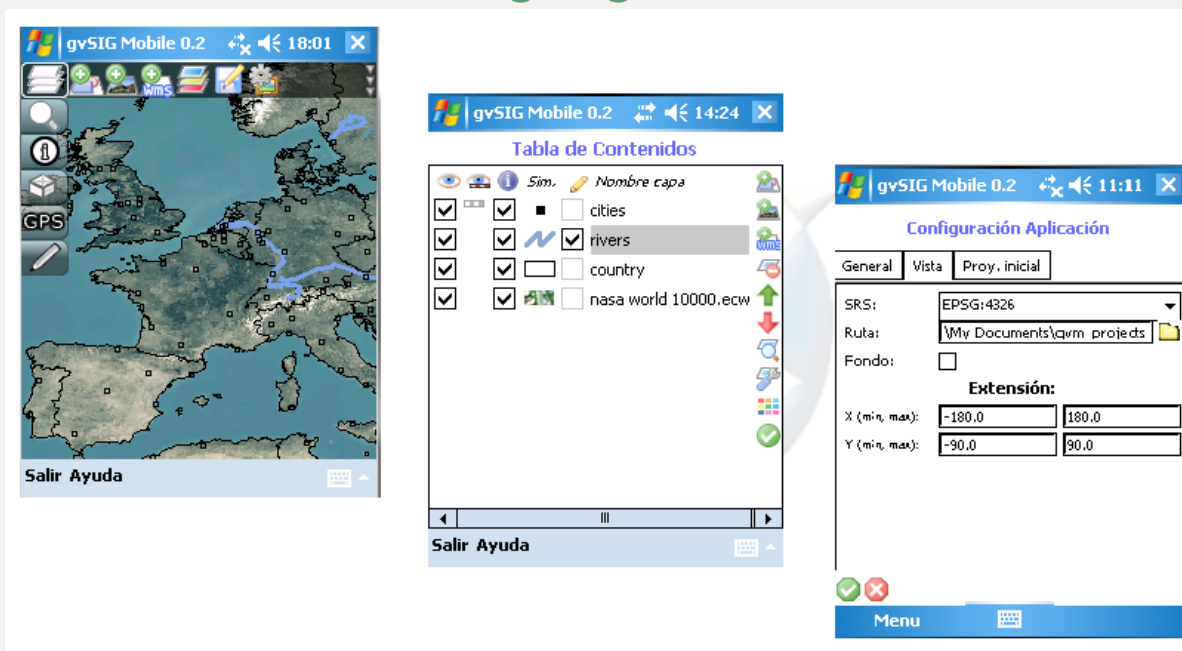




# GVSIG MOBILE - THE FIRST

After years GvSIG mobile crashes the party:

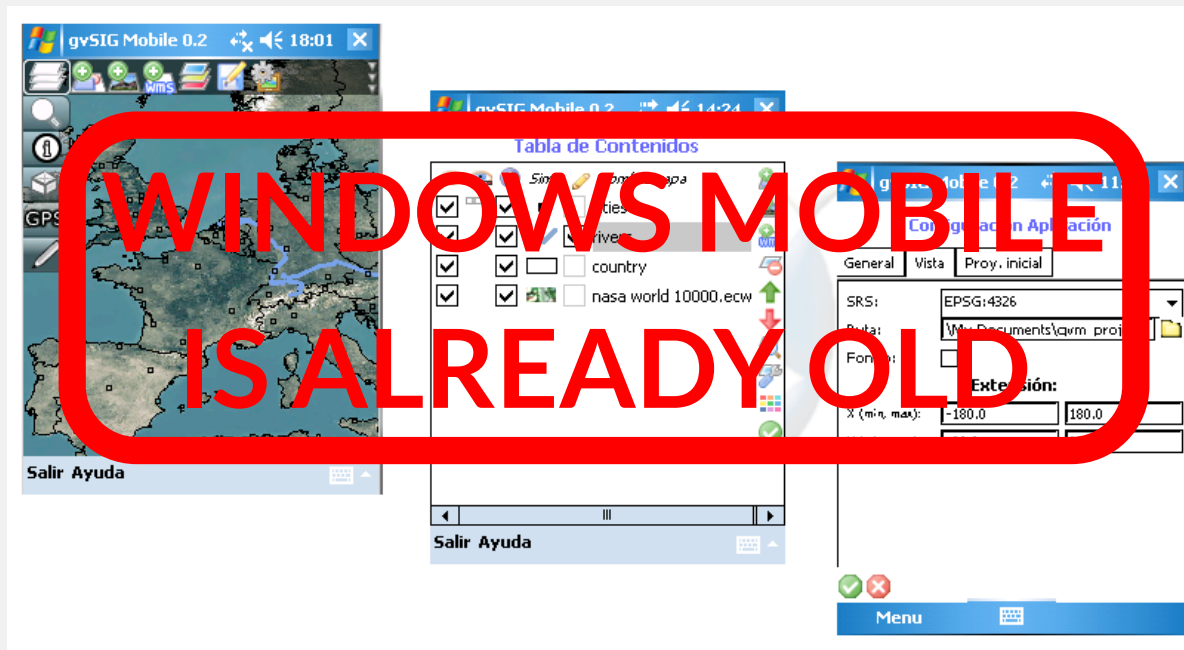
- it supports shp, gml, kml, gps, png, gif, ecw, WMS
- selection and editing of geometries, custom forms



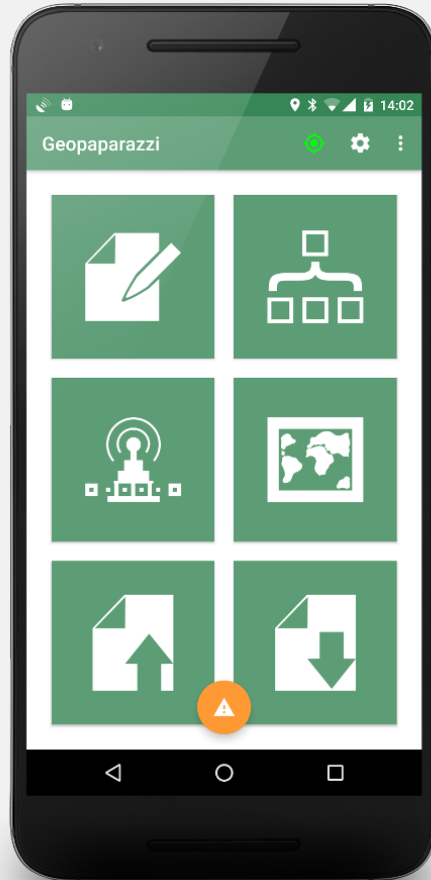
# GVSIG MOBILE - THE FIRST

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- selection and editing of geometries, custom forms



# GEOPAPARAZZI



Basically a survey tool...

...if necessary, something  
to just have in your pocket...

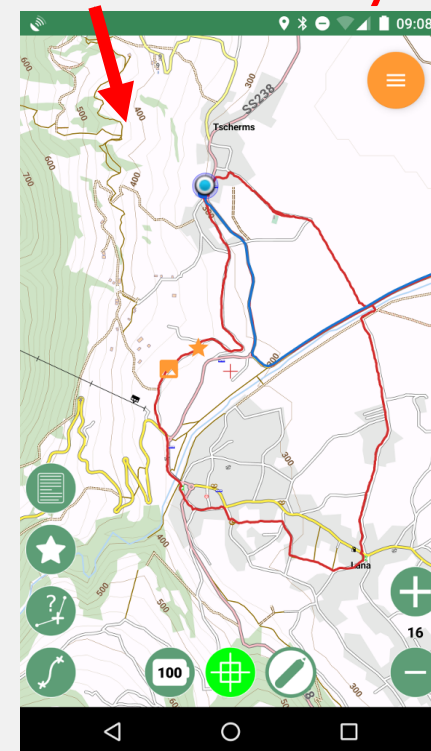
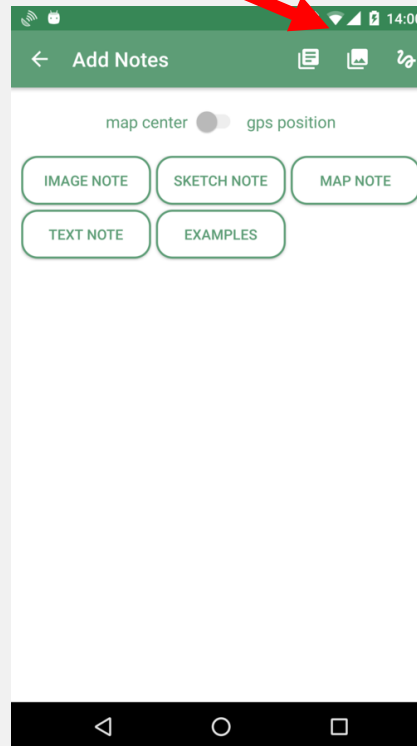
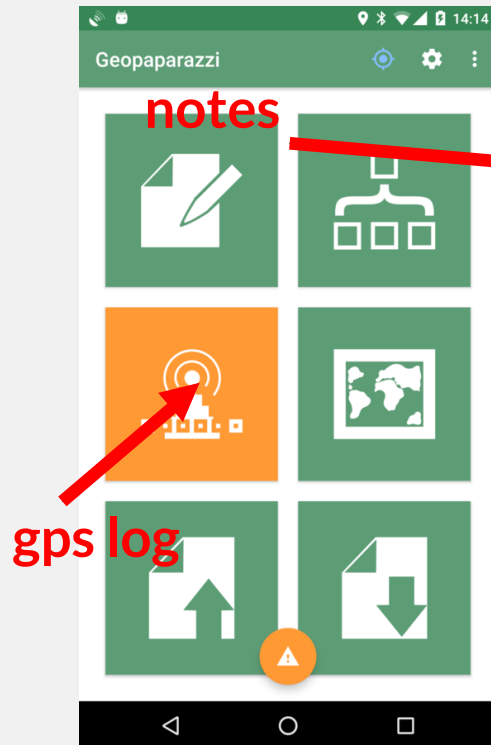
...to easily map the important  
professional targets...

...and in general important  
things in life...

# GEOPAPARAZZI - BASE FUNCTIONALITIES

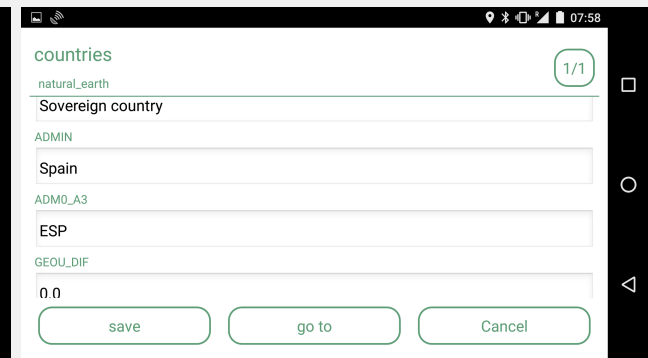
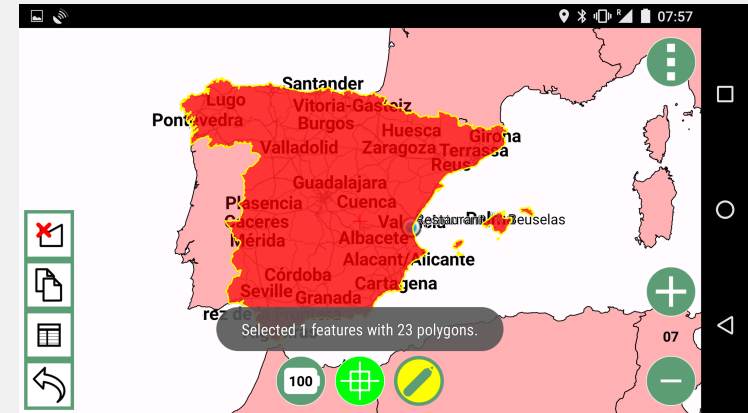
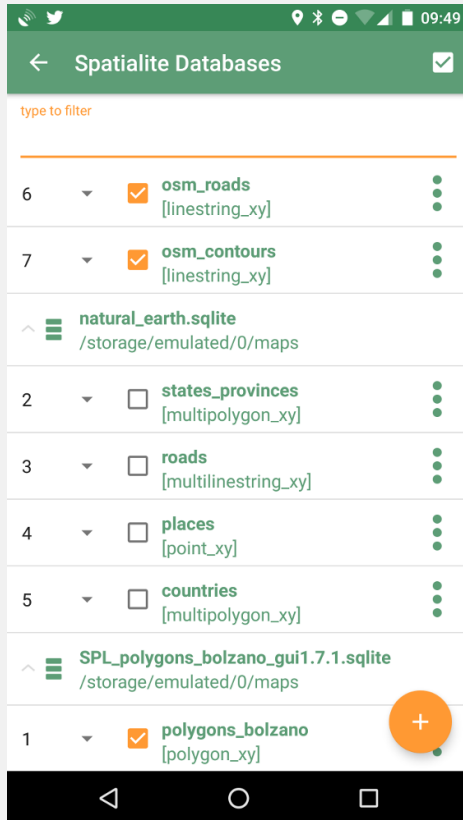
raster or mapsforge vector  
basemaps, spatialite  
vector overlays

text, picture,  
sketch

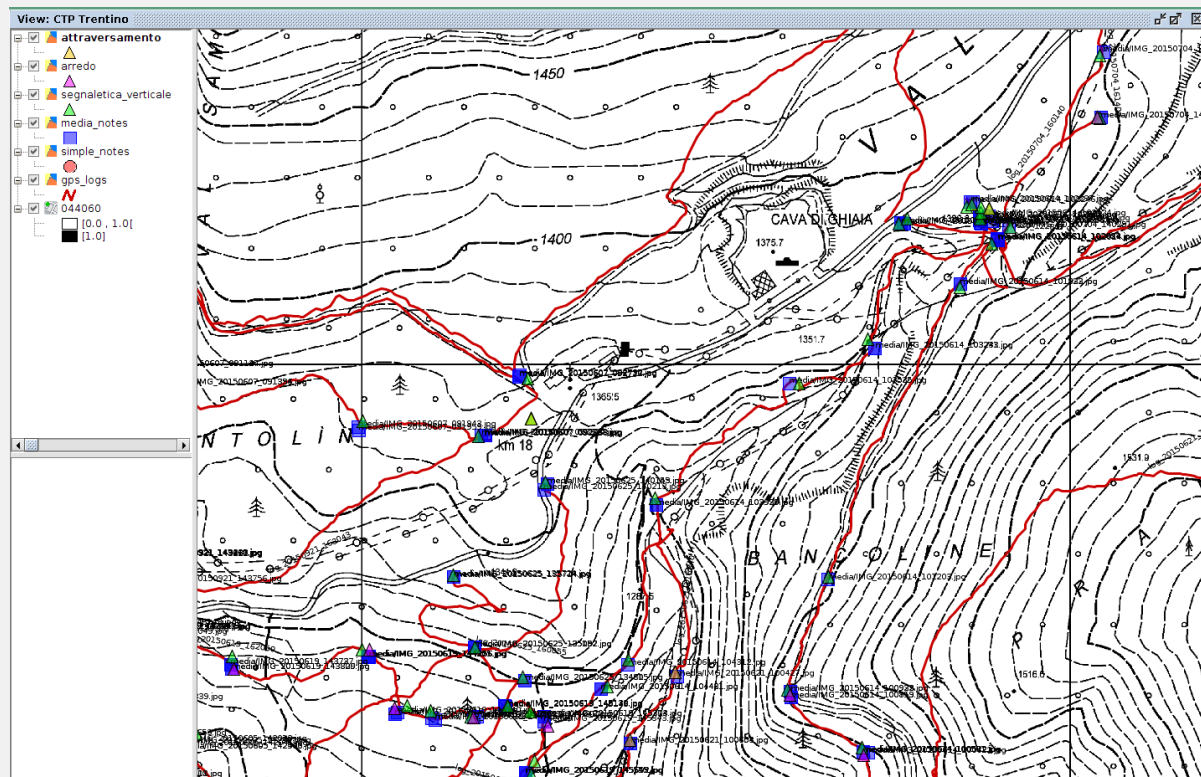
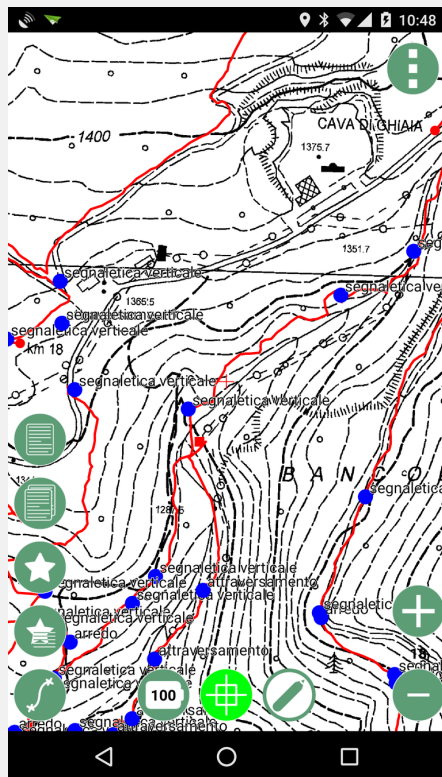


# VECTOR EDITING

Editing of spatialite layers is supported with simplified tools.



# PROFESSIONAL SURVEYS





# OSAKA: DISASTER MANAGEMENT

Disaster Management System of Osaka with Geopaparazzi and MapGuide Open Source.



Use case of Disaster Management System by using Geopaparazzi and MapGuide Open Source



FOSS4G2015 Seoul SESSION 9-3: Disaster and Disease

**Hirofumi Hayashi**, Venkatesh Raghavan, Kozawa Hiroshi

APPLIED TECHNOLOGY CO., LTD. GICC



## Initial Screen (Smart Phone)



The initial screen of the DMIS40WGS app on a smartphone. The screen displays a status bar at the top with the time 2:17PM and various icons. Below the status bar, there is a header with the app name 'DMIS40WGS' and a 'GPS' indicator. The main area contains several large, colorful icons: a green icon with a white arrow pointing up (labeled 'New Inspection'), a green icon with a white arrow pointing right (labeled 'Edit Inspection data'), a green icon with a white arrow pointing left (labeled 'Map'), and a green icon with a white arrow pointing down (labeled 'Transmit Inspection data'). A blue hand icon is pointing at the 'New Inspection' icon. In the bottom left corner, there is a small inset image showing a map with a red box highlighting a specific area, labeled 'Valve Search'.

# THE NEW YORK NATURAL HERITAGE PROGRAM

Mapping invasive species in the iMapInvasives program with Geopaparazzi



**iMapInvasives**  
*Sharing information for strategic management*

Login Now

About iMap Who We Are Resources Action! Contact Us

What is **iMapInvasives**?

**iMapInvasives** is an on-line, GIS-based data management system used to assist citizen scientists and natural resource professionals working to protect our natural resources from the threat of invasive species.



# 2015 - INTEGRATION WITH GVSIG

**Add layer**

Geopaparazzi

File | WCS | WFS | OGR | WMS | WMTS | WebMaps | GeoDB | OSM | PostGIS Raster

Geopaparazzi database:  ...

**Project Description**

Name	Value
name	geopaparazzi_20160816_172638_bo...
description	HydroloGIS @ Foss4G 2016 in Bonn
notes	-
creationts	2016-08-16 17:26:49
lastts	-
creationuser	Andrea Antonello
lastuser	-

**Available Layers**

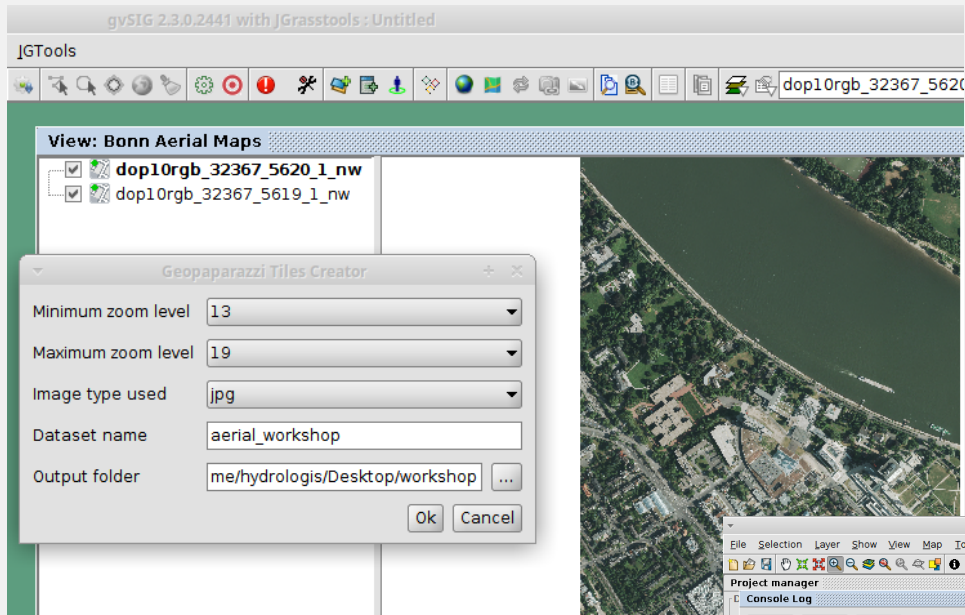
- Simple Notes
- Media Notes
- GPS logs

☒ export layers to shapefile (see tooltip)

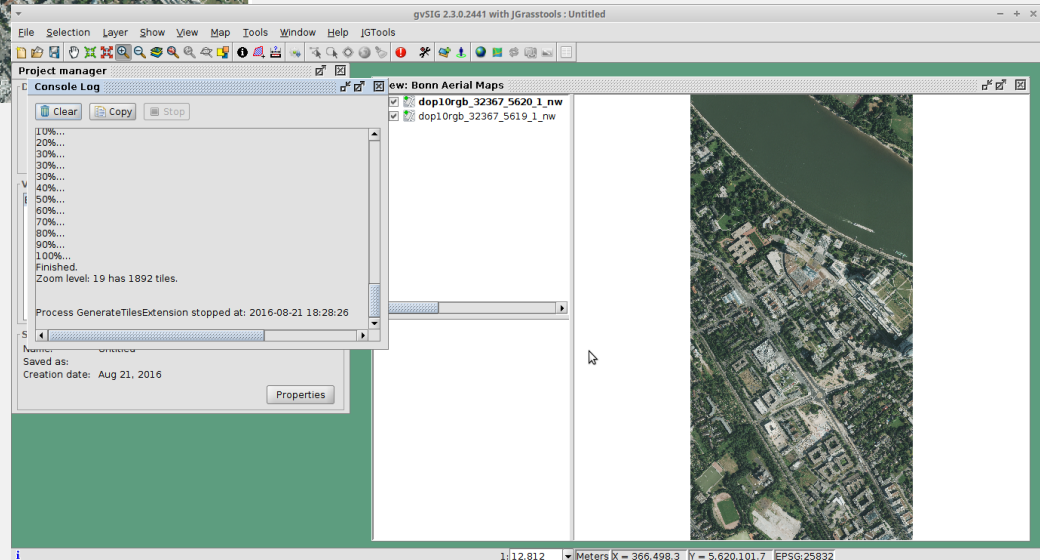
Ok Cancel

The Geopaparazzi database is a supported import format .

# 2015 - INTEGRATION WITH GVSIG

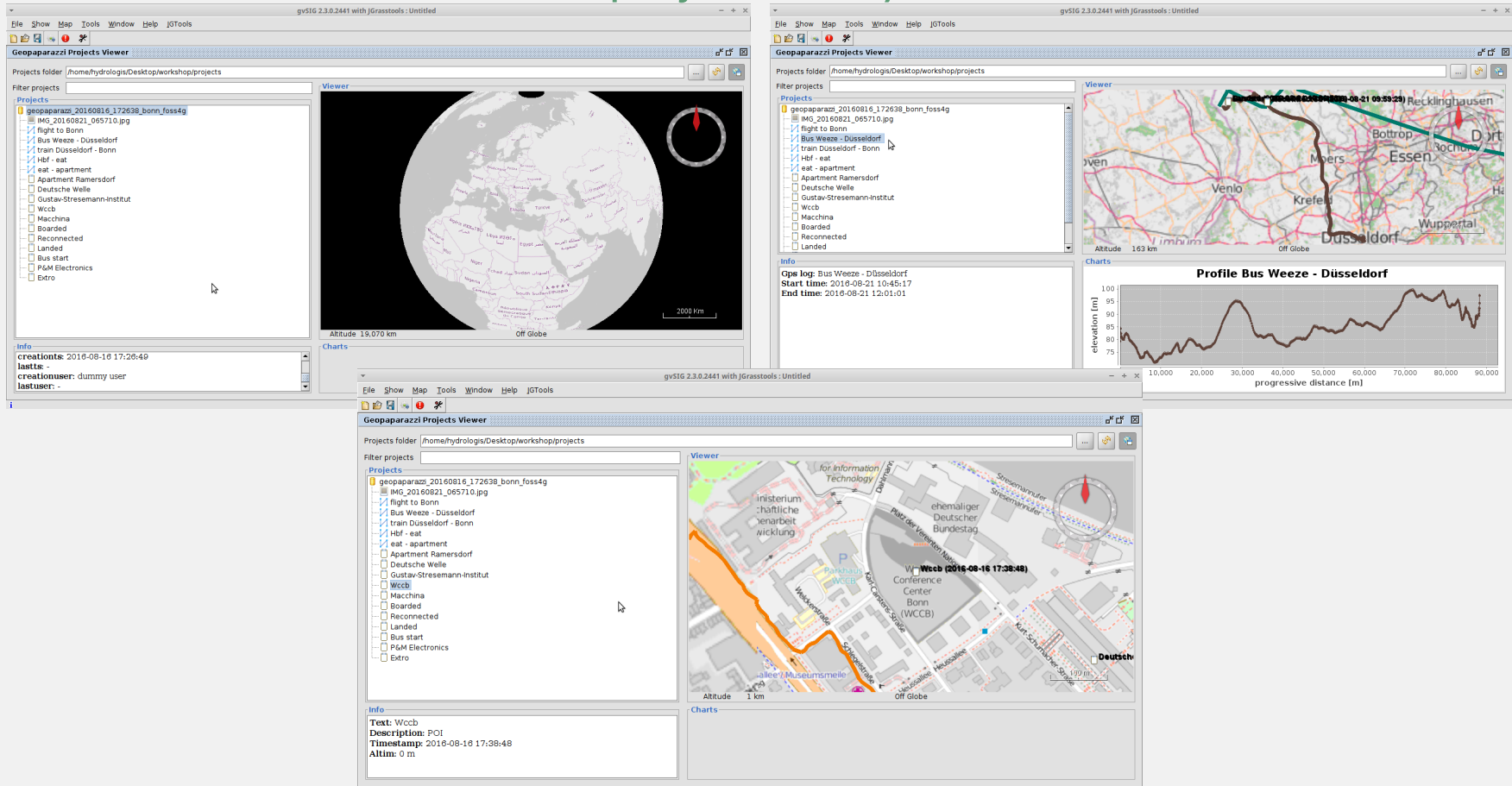


Background data/tiles can be created easily from the map view of gvSIG.



# 2015 - INTEGRATION WITH GVSIG

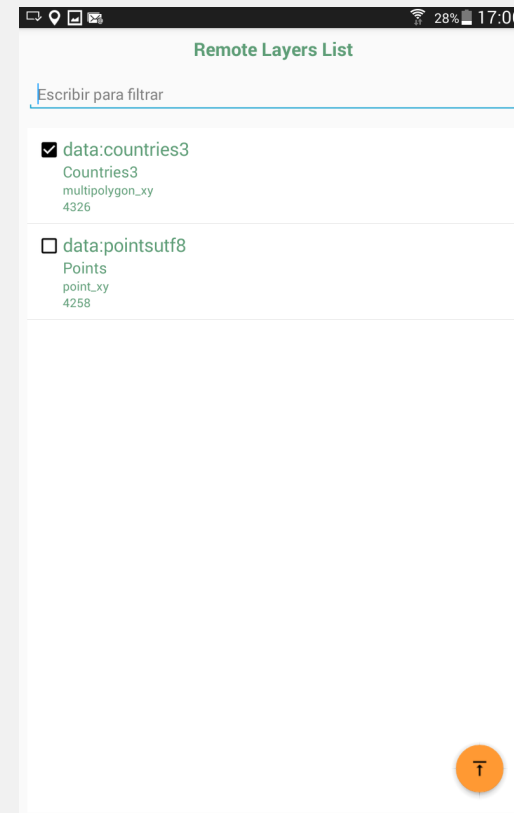
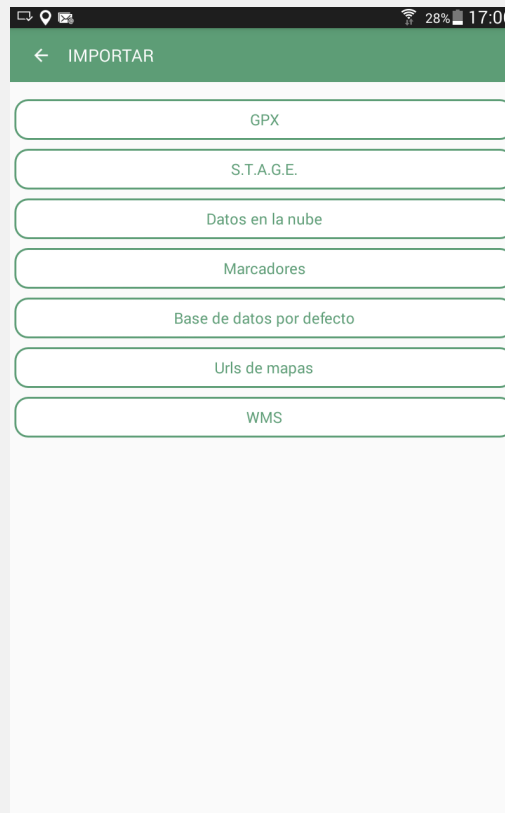
A project browser is available to handle an archive of geopaparazzi projects easily.



# 2016 - INTEGRATION WITH GVSIGONLINE

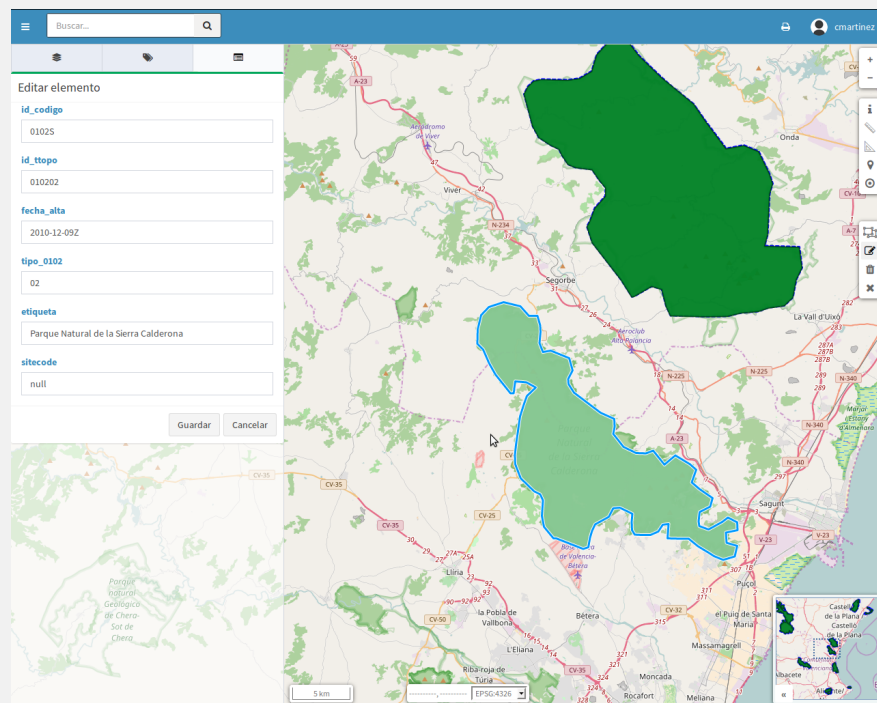
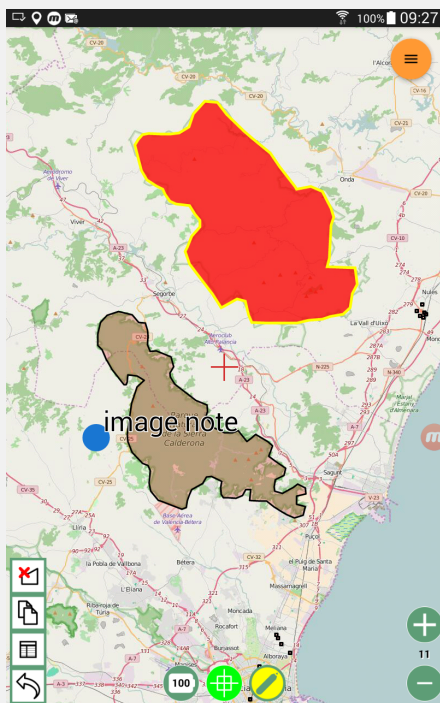
It is now possible to connect easily with gvSIG Online and download/upload spatialite databases to work on them.

Import from  
gvSIG Online



# 2016 - INTEGRATION WITH GVSIGONLINE

## Geopaparazzi vs gvSIG Online view



# 2017

# THE NEW GVSIG MOBILE?

Questions? Write to the mailinglist:

- <http://groups.google.com/group/geopaparazzi-users>

Useful links:

- <http://www.geopaparazzi.eu>
- <https://www.transifex.com/projects/p/geopaparazzi/>
- <http://jgrasstechtips.blogspot.it/search/label/geopaparazzi>
- <http://www.slideshare.net/search/slideshow?q=geopaparazzi>

## Bibliography:

- [http://en.wikipedia.org/wiki/History\\_of\\_mobile\\_phones](http://en.wikipedia.org/wiki/History_of_mobile_phones)
- <http://www.visualizing.org/visualizations/history-mobile-productivity>
- <http://www.slideshare.net/search/slideshow?q=geopaparazzi>
- [http://www.pcworld.com/article/172837/the\\_mobile\\_phone\\_a\\_history\\_in\\_pictures.html](http://www.pcworld.com/article/172837/the_mobile_phone_a_history_in_pictures.html)
- <http://www.itu.int/ITU-D/ict/statistics/>
- <http://www.portioresearch.com/en/reports/current-portfolio/mobile-messaging-futures-2012-2016.aspx>
- <http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats/a>
- <http://www.canalys.com/newsroom/smart-phones-overtake-client-pcs-2011>
- [http://www.itu.int/ITU-D/ict/statistics/material/pdf/2011%20Statistical%20highlights\\_June\\_2012.pdf](http://www.itu.int/ITU-D/ict/statistics/material/pdf/2011%20Statistical%20highlights_June_2012.pdf)
- <http://www.itu.int/ITU-D/ict/facts/2011/material/ICTFactsFigures2011.pdf>
- <http://www.franzrusso.it/condividere-comunicare/la-diffusione-del-telefono-cellulare-dal-1991-al-2010-animazione/>
- <http://www.epa.gov/wastes/conservation/materials/ecycling/docs/fullbaselinereport2011.pdf>
- <http://www.gartner.com/it/page.jsp?id=1543014>
- [http://newsroom.cisco.com/dlls/2011/prod\\_013111.html](http://newsroom.cisco.com/dlls/2011/prod_013111.html)
- [http://parksassociates.ecnext.com/coms2/summary\\_0256-11343\\_ITM](http://parksassociates.ecnext.com/coms2/summary_0256-11343_ITM)
- <https://sites.google.com/site/io/an-introduction-to-android>
- <http://grass.fbk.eu/platforms/grasshandheld.html>
- <http://www.slideshare.net/xurxosanz/gvsig-mobile-a-gis-for-mobile-devices-presentation>