



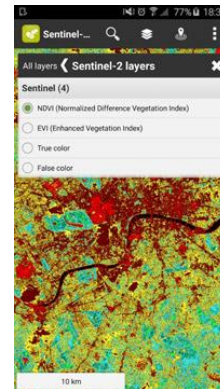
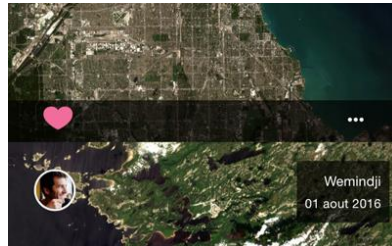
Developing a mobile application with Copernicus

Copernicus for Entrepreneurs and Developers



Mobile applications for citizens

- Copernicus often used in B2B
- Some companies have started offering B2C services, and provide citizens with information:
 - Wave – the city assistant (Subzero): air quality in the city
 - WeSenselt (University of Sheffield): flood monitoring
 - SnapPlanet: Social media network
 - Sentinel-2 NDVI Maps (Sinergise): vegetation monitoring





User
Uptake

Use case: Wave – the city assistant

- Navigating and real time information on air and water quality on your phone
- Available for Vienna
- Uses the following Copernicus data:
 - Water temperature
 - UV index
 - Ozone and pollen levels
- Natural language processing:
 - Where can I swim today?
 - What is the air quality today?



© subzero.eu software



User Uptake

How Wave got started

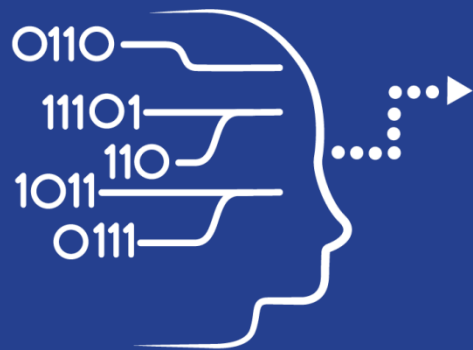
Copernicus for entrepreneurs



User
Uptake

The entrepreneurial journey of Wave

- iOS developer of many apps
- Winner of the 2015 ESA App challenge
 - Receives a support package, which can include tech support, design, marketing, ...
 - Has chance to develop their idea further in one of the ESA Business Incubation Centers (BICs) in Europe



User Uptake

Demonstration

Copernicus for Developers



DEMO: INTRODUCTION

- Creating a web map or web app with open source and ESRI tools, and open Copernicus data
- Links:
 - QGIS: <http://qgis.org>
 - ESRI: <http://www.arcgis.com>
 - Copernicus Services:
 - CAMS: <http://atmosphere.Copernicus.eu> - <https://software.ecmwf.int/wiki/display/MACSUP/Accessing+public+CAMS+WMS+products#space-menu-link-content>
 - CLMS: <http://land.Copernicus.eu>
 - CMEMS: <http://marine.Copernicus.eu>



User
Uptake

EXPLORE DATA

The screenshot displays a web browser window with several tabs open, including 'Copernicus', 'Catalogue', 'European a...', and 'Copernicus'. The active tab shows a map viewer interface with a search bar and a map of Ireland. A 'Convert' dialog box is overlaid on the map, showing the following details:

- Source:** screen://
- Type:** screen
- Settings:**
 - ☒ Convert
 - ☐ Display the output
 - ☐ Deinterlace
 - Profile:** Video - H.264 + MP3 (MP4)
 - ☐ Dump raw input
- Destination:**
 - Destination file:** and developers\Submodule E\Ireland_ArcGIS1.mp4

The dialog box has 'Start' and 'Cancel' buttons at the bottom. The background map shows a satellite view of Ireland with a scale bar indicating 0, 10, and 20 miles. The bottom of the screen shows a Windows taskbar with various application icons and a system clock showing 6:16 PM on 10/30/2017.



User Uptake

ADD TO ONLINE APPLICATION

Convert

Source:
Type: screen

Settings

☒ Convert

☐ Display the output
☐ Deinterlace

Profile:

☐ Dump raw input

Destination

Destination file:

from surface up to 5000m. Format GRIB edition 2.

▶ ESRI Imagery World 2D

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6:21 PM 10/30/2017