

Where are we from?

Uruguay



- Population: 3.300.000
- GDP per capita: USD 14.500
- Long tradition of public education



Origins



- Social Inclusion
- Equality of Opportunities
- Teaching and Learning

**Plan Ceibal is not a an ICT
Program or Laptops**

Law of Creation of Centro Ceibal 18.640

Promote, coordinate and develop plans and programs of support to educational policies for children and adolescents designed by the relevant institutions
Promote, coordinate and develop plans and programs for educational use of ICT.
Contribute to the enforcement of the right to education and social inclusion through actions that allow equal access to knowledge.

Board of Directors Centro Ceibal

MEC - Ministry of Education-Director of Education

ANEP - Director

MEF - Delegate of the Minister

Presidency - Delegate



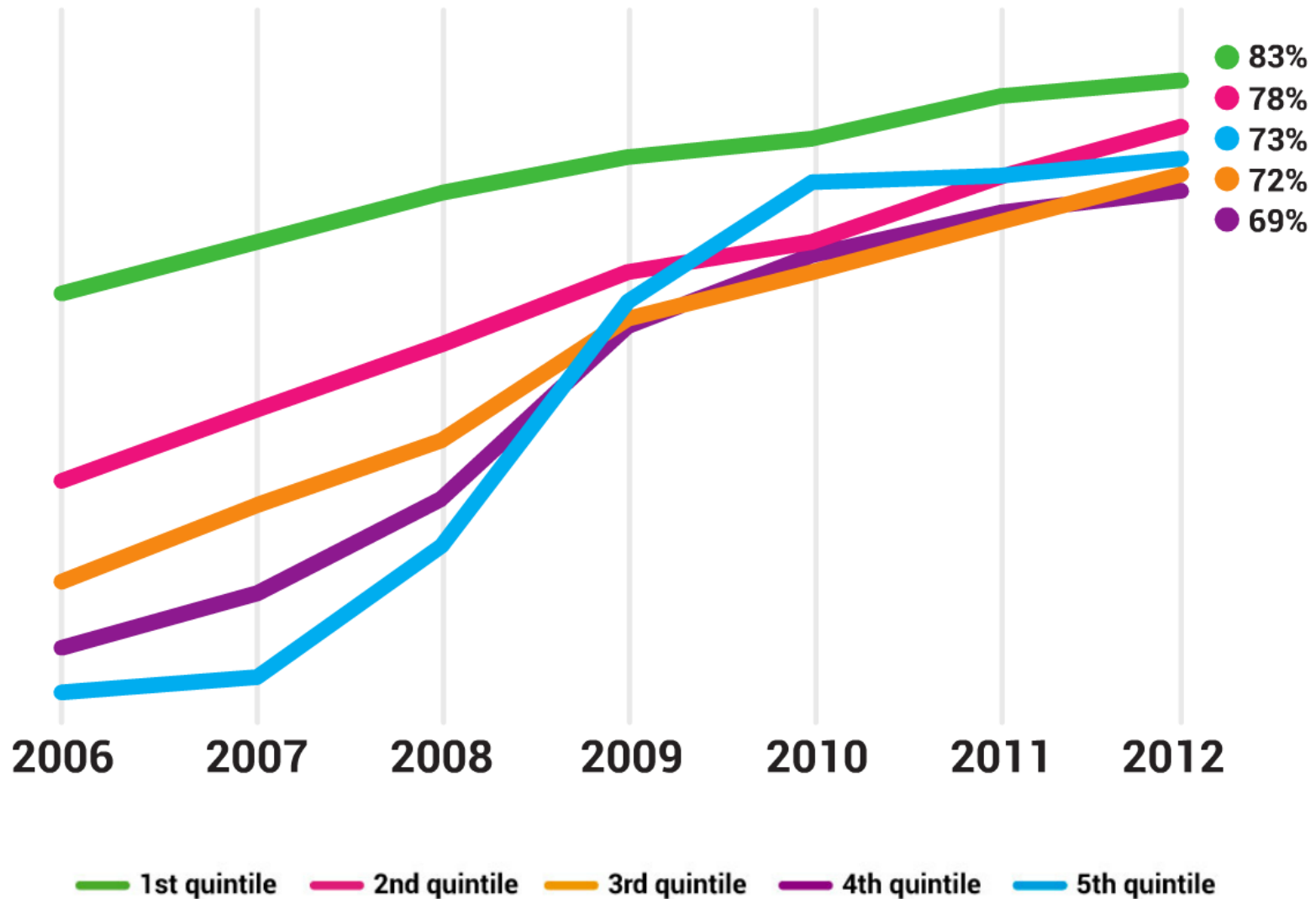
626.000

users with laptops, tablets and Internet

Equality and Access



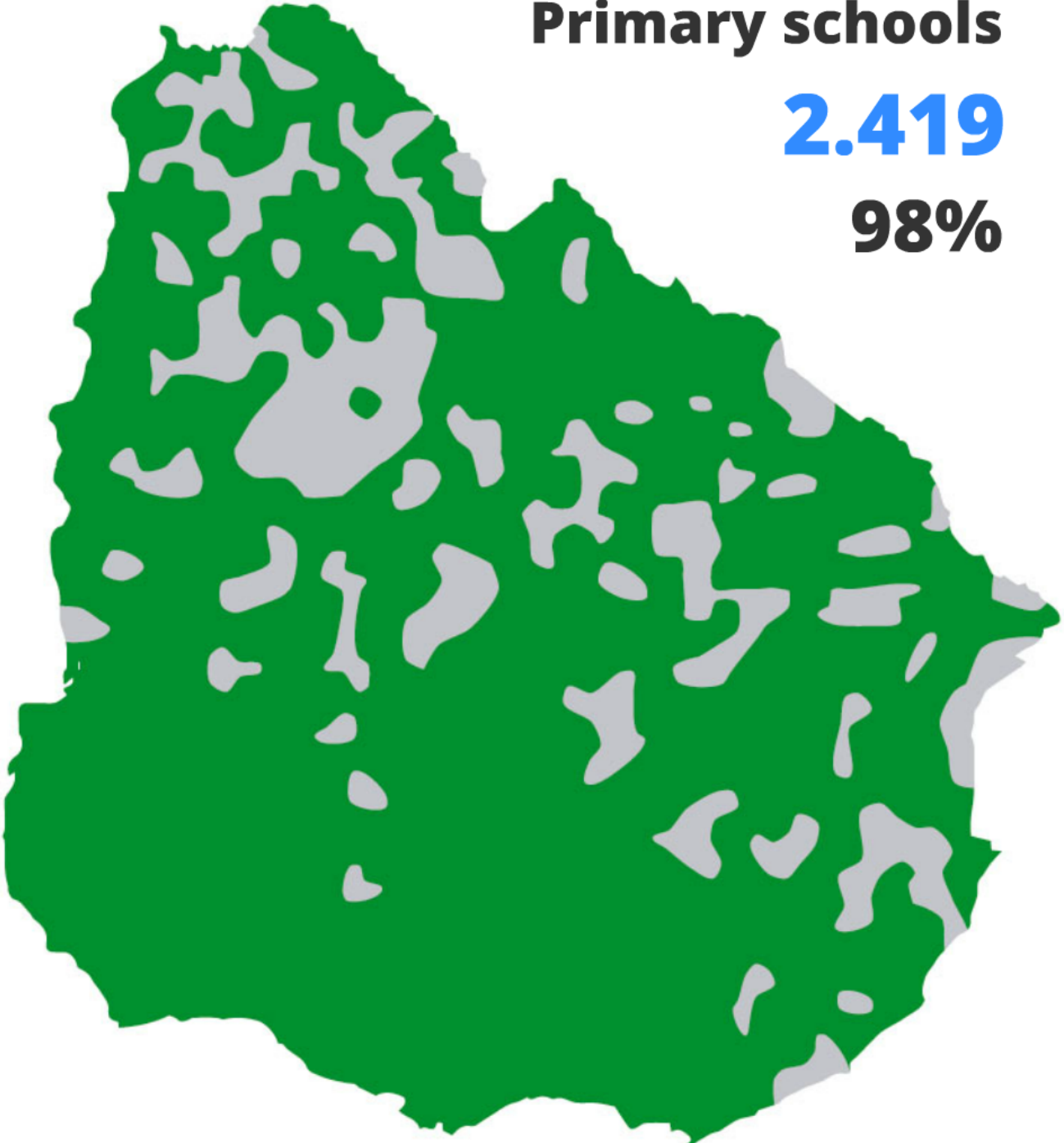
Access to a PC by fiths of income by person



Primary schools

2.419

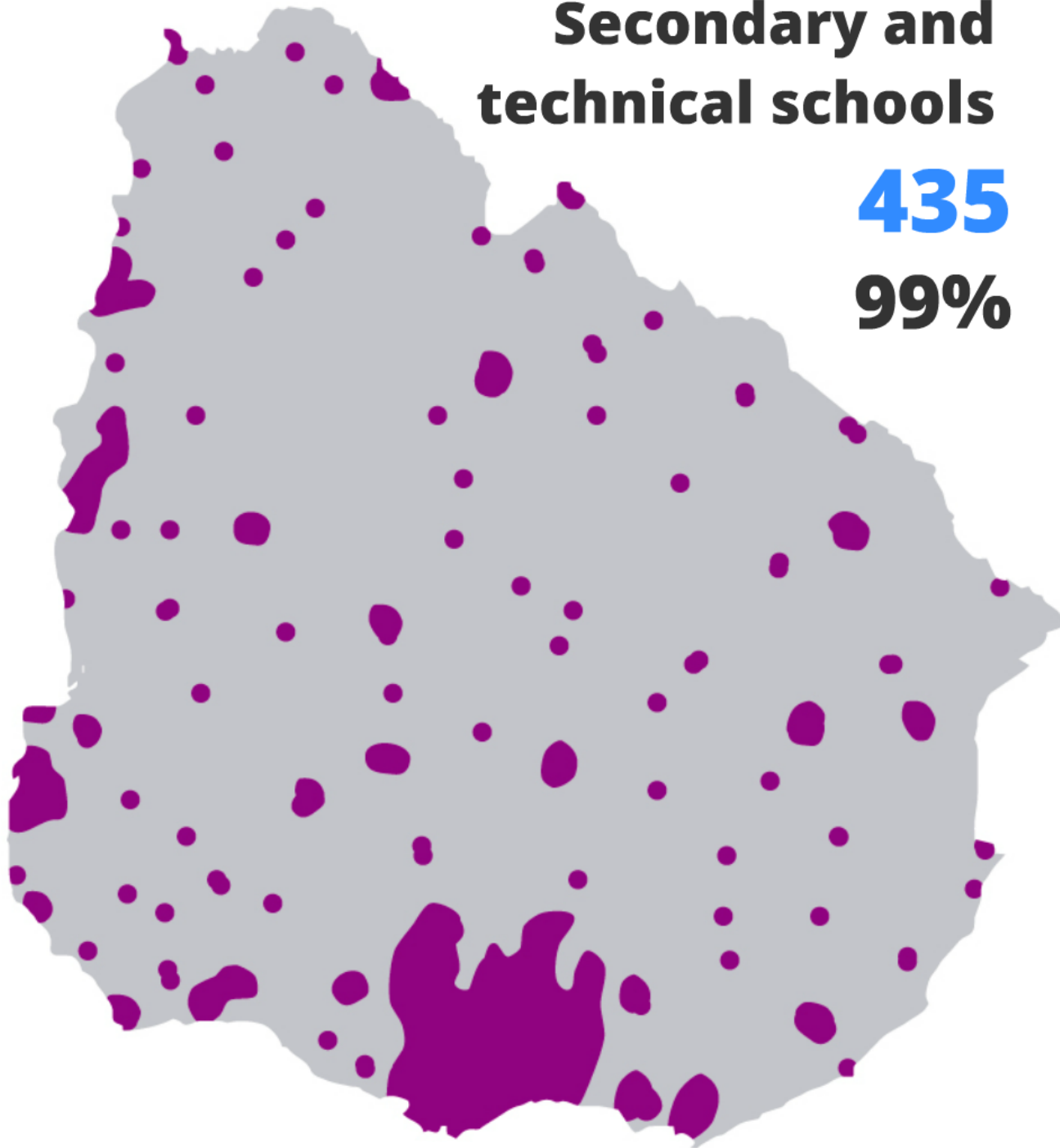
98%



Secondary and technical schools

435

99%

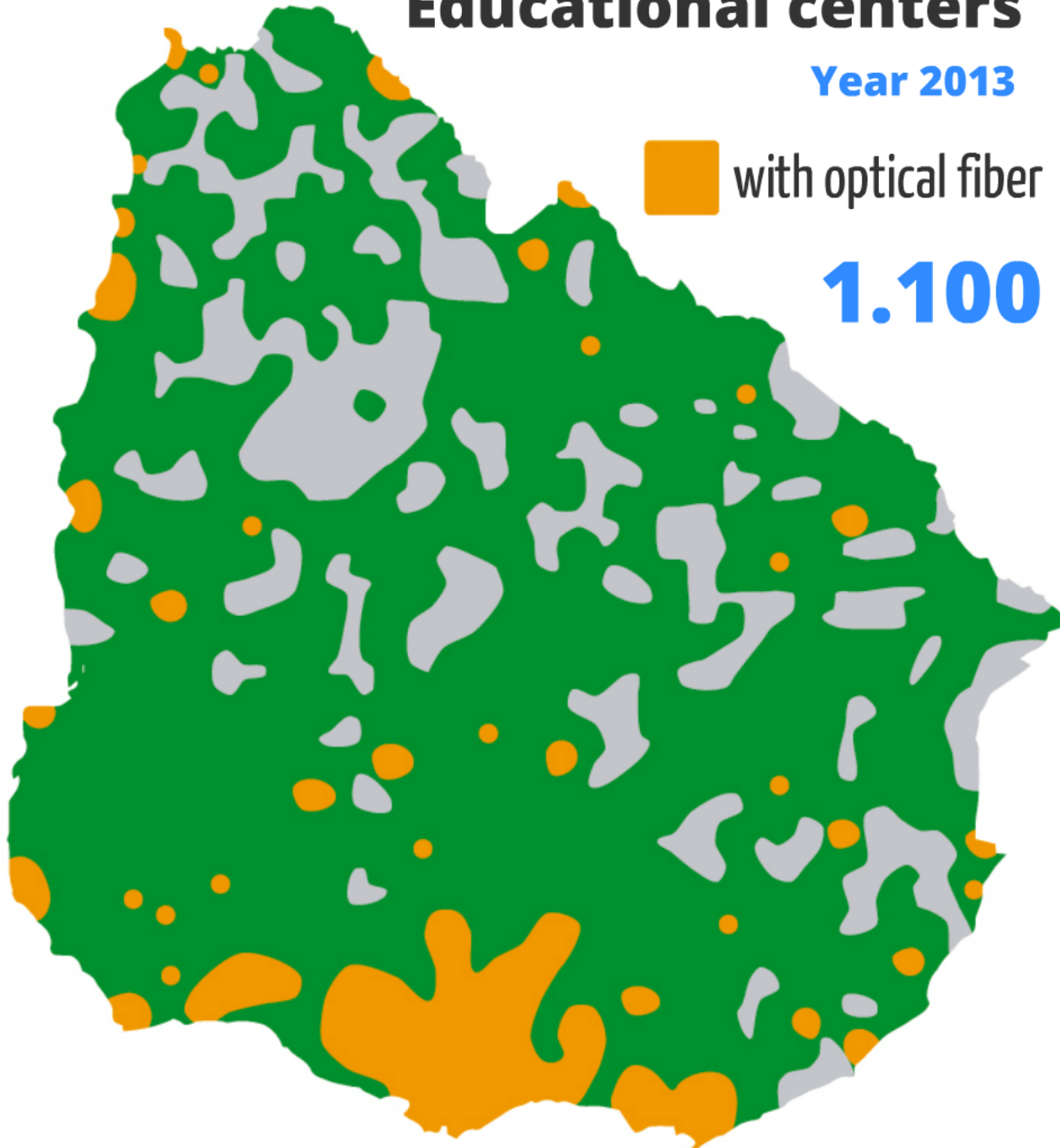


Educational centers

Year 2013

 with optical fiber

1.100

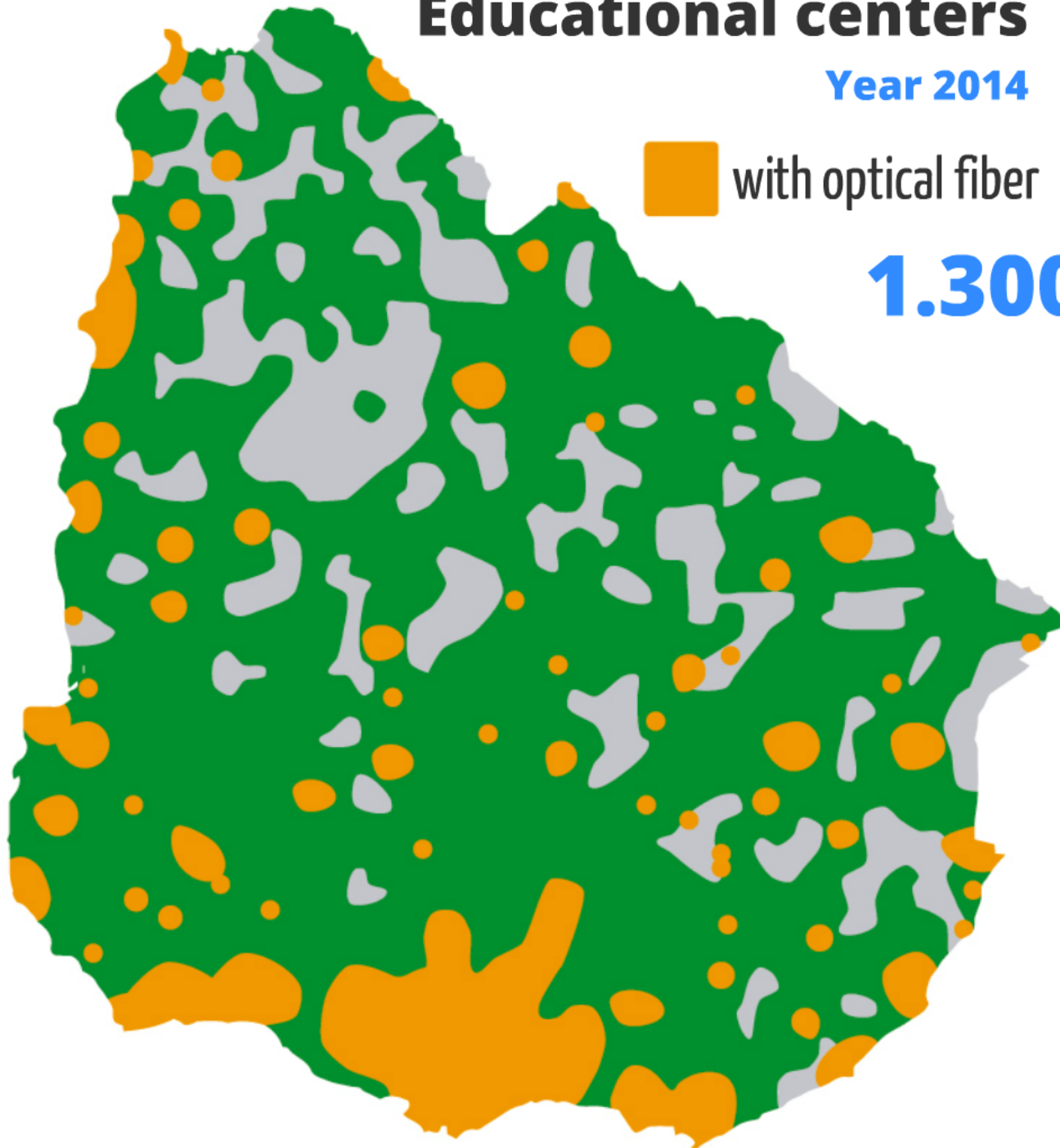


Educational centers

Year 2014

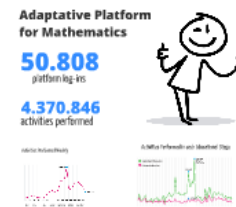
 with optical fiber

1.300





Platforms and Challenges



Reading
 Purchase of digital books
 Purchase of reading books



On line Evaluation
 On line tests for Science,
 Mathematics and Reading



Teaching English
 Partnership with The British Council
 Classes through Videconference (Remote Teachers
 working with Local Classroom Teachers)
 2012: Pilot (50 groups)
 2013: 1.000 groups at 198 schools
 2014: 2.000 groups
 2015: All students from 4th to 6th grade

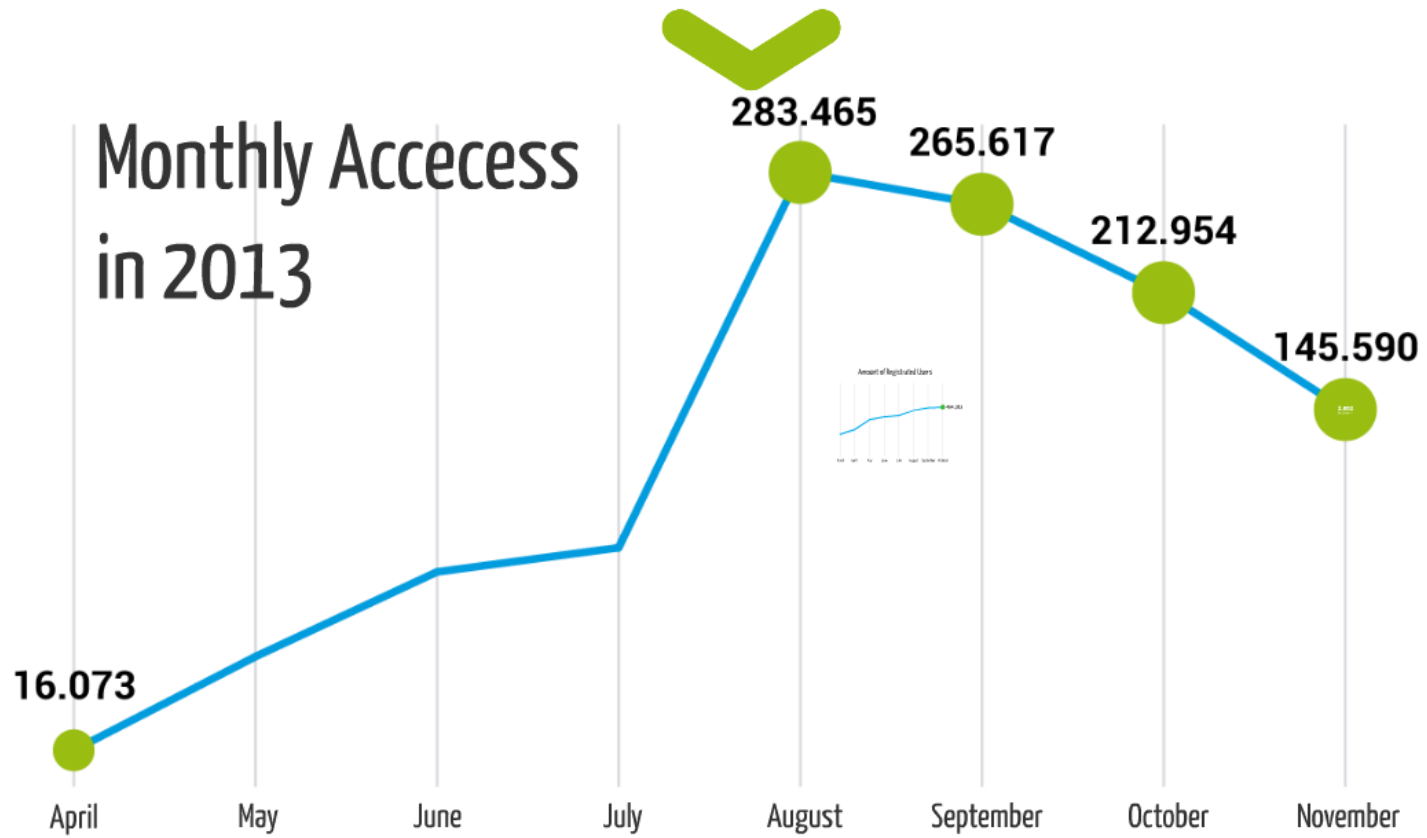


Logic and Programming
 Robotics Kits for Students
 Scratch Activities
 MOOC Programming Course (October 2013)

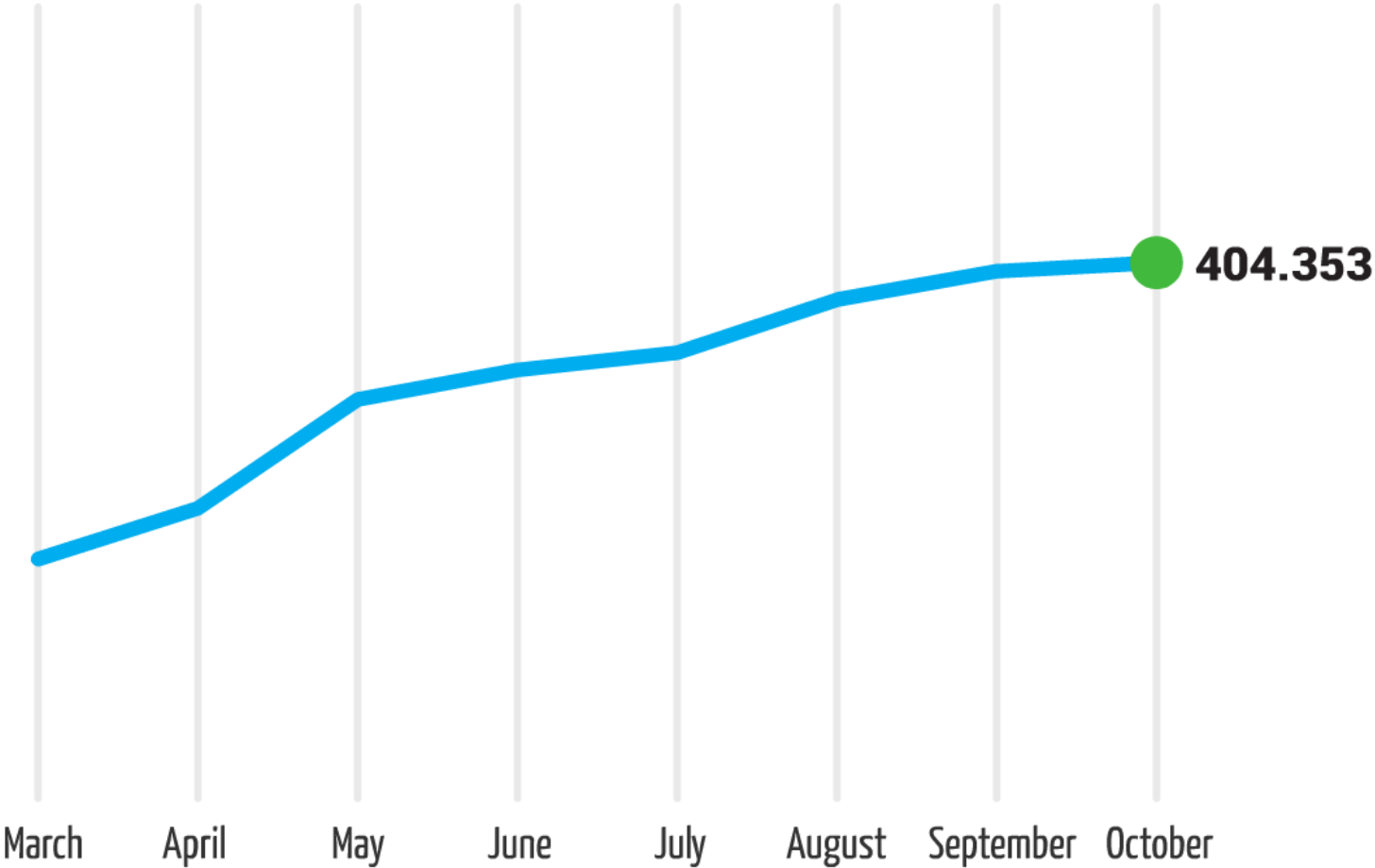
Available Educational Resources



- More than 3,000 learning objects created by uruguayan teachers
- Khan Academy in spanish
- Maths Videogames
- Chess Videogames
- More than 1.200.000 Visits to Ceibal Web Page



Amount of Registered Users



Adaptative Platform for Mathematics

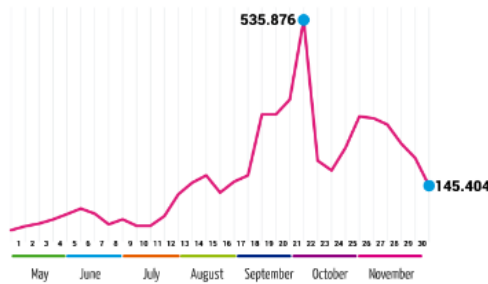
50.808
platform log-ins



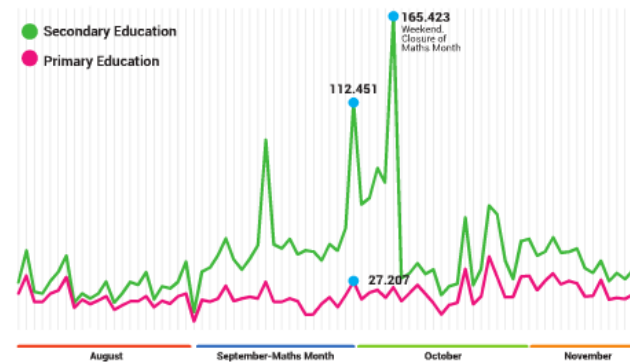
4.370.846
activities performed



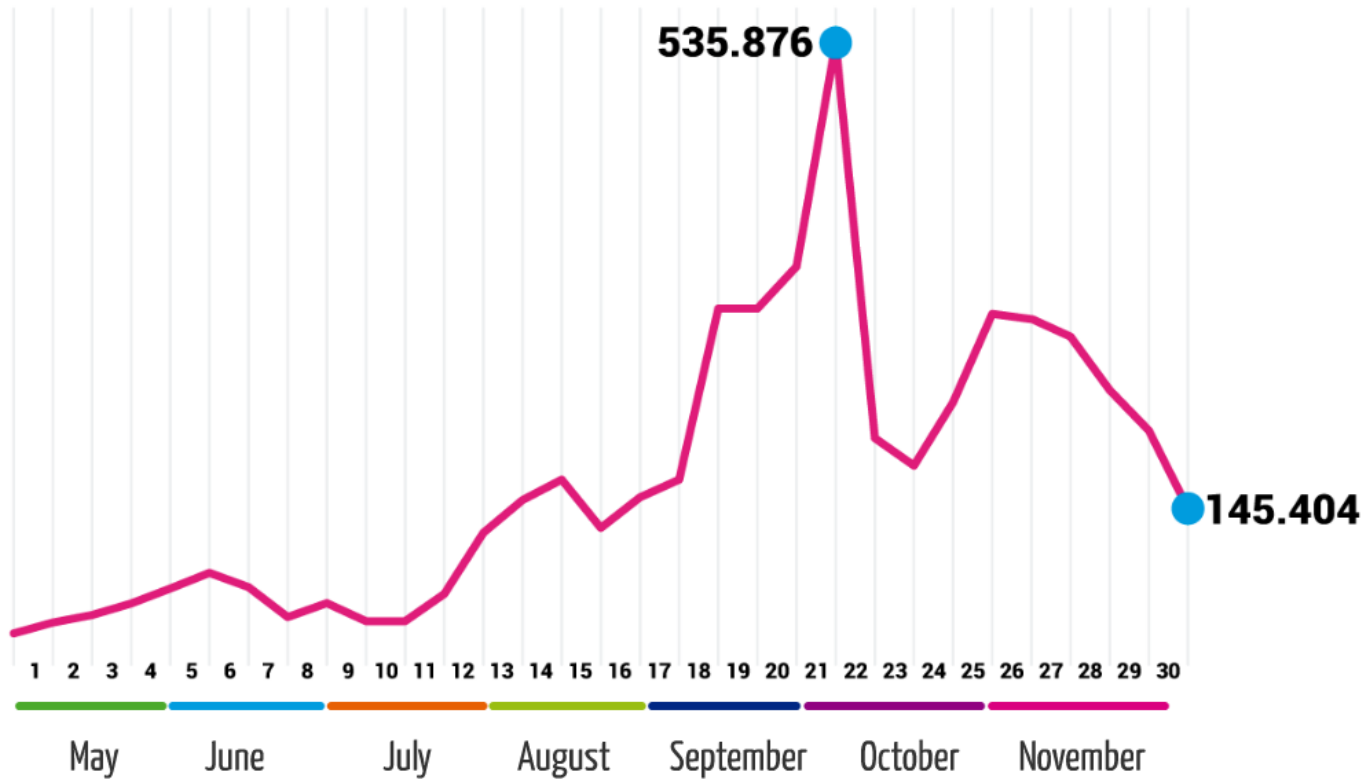
Activities Performed Weekly



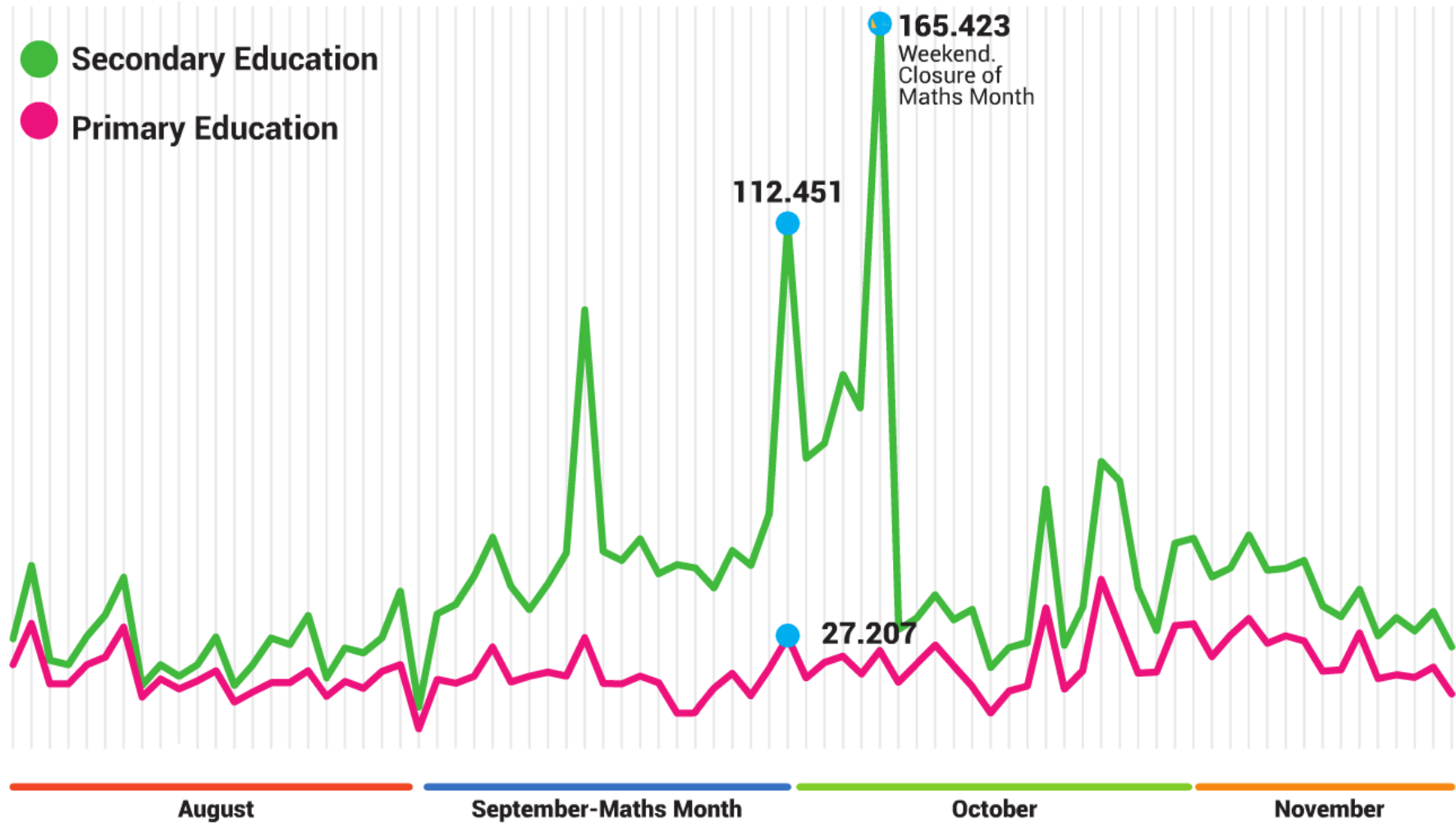
Activities Performed in each Educational Stage



Activities Performed Weekly



Activities Performed in each Educational Stage





Reading More than 100

Purchase of digital books

Purchase of reading books



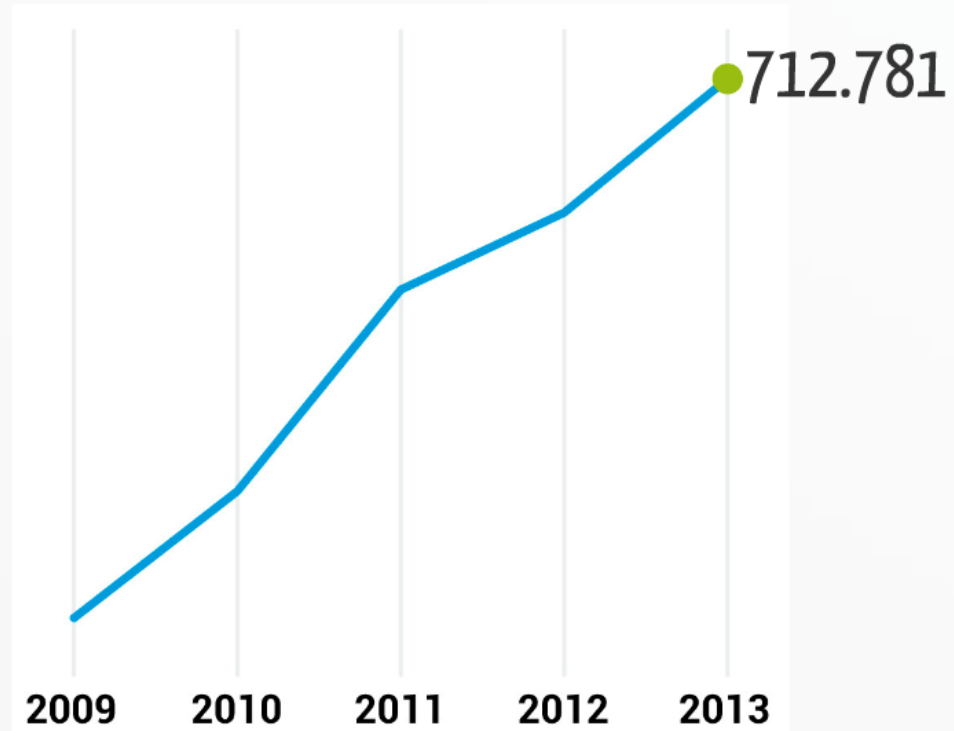
**More than 500
digital books available**



On line Evaluation

On line tests for Science,
Mathematics and Reading

On line Evaluation Done



185.000

**students from 3rd to 6th grade
participated**

Available Educational Resources



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Logic and Progamming

Robotics Kits for Students

Scratch Activities

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Teaching English



Partnership with The British Council
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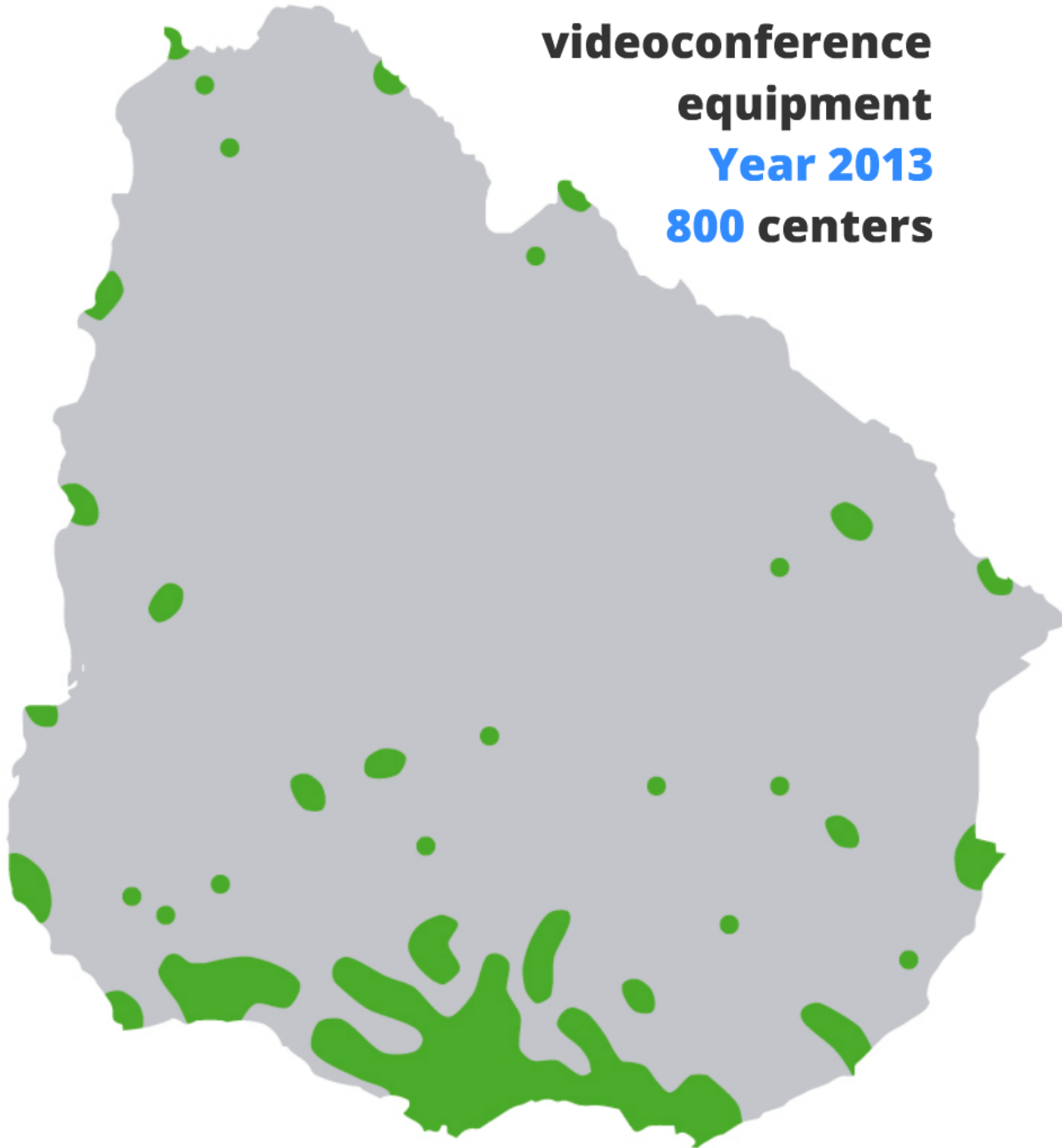
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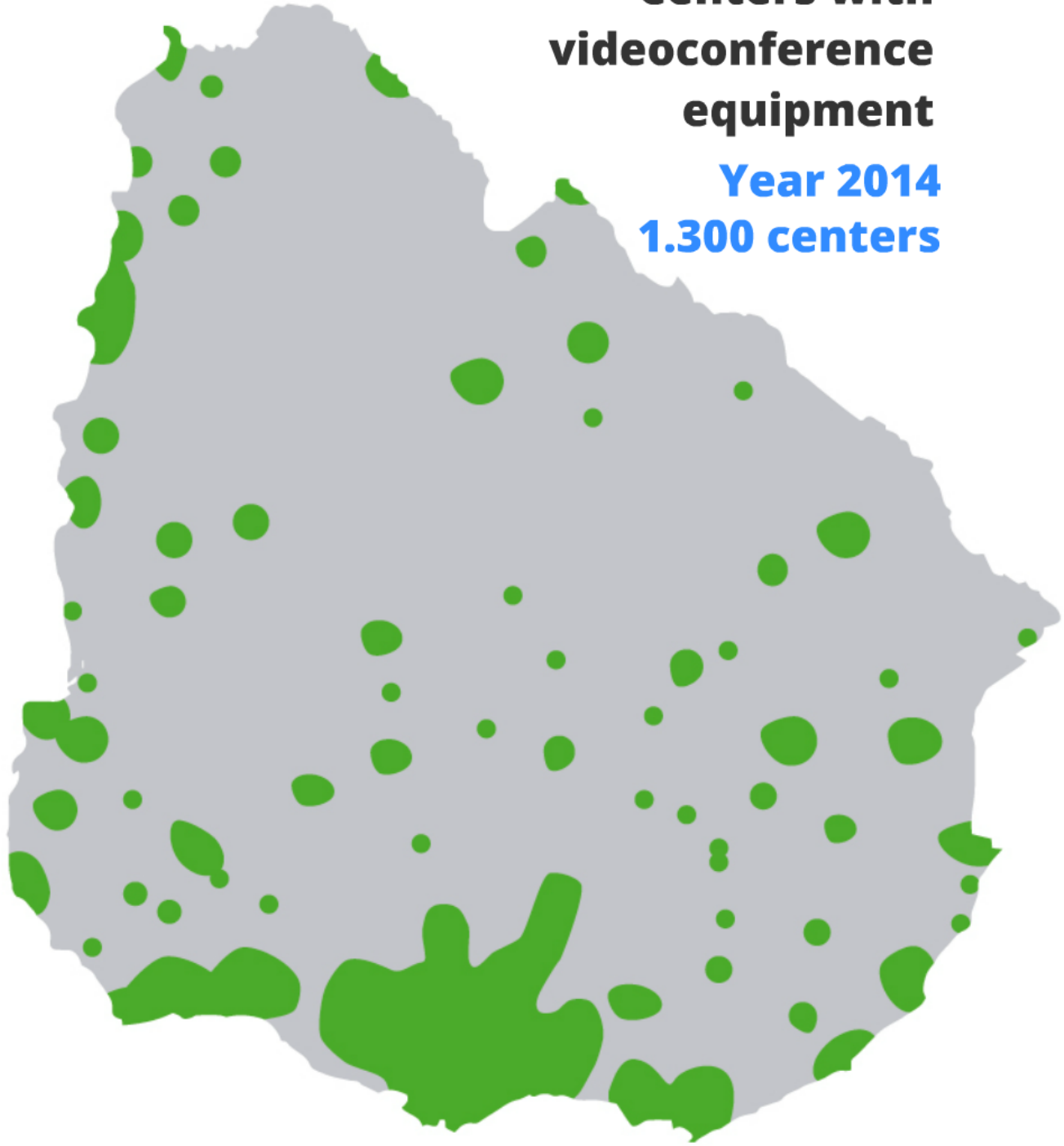
2015: All students from 4th to 6th grade

**Centers with
videoconference
equipment
Year 2013
800 centers**



**Centers with
videoconference
equipment**

**Year 2014
1.300 centers**

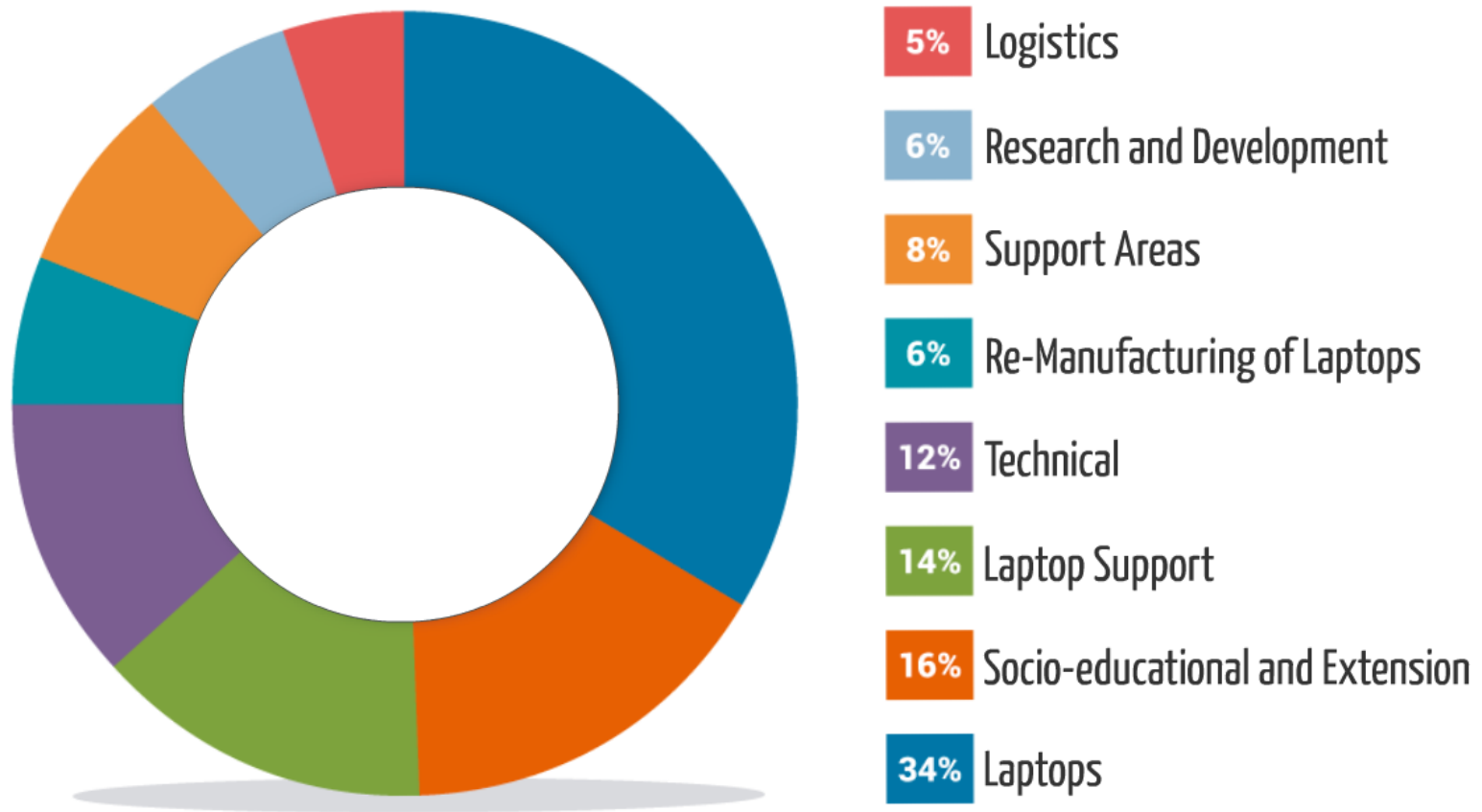




Total Cost in 4 years

- \$u 2.140 per student per year (includes laptop change every 4 years). \$u 170 per month.
- Less than 5% of the budget of Primary and Secondary Education.
- 2011-2015 Year Budget less than 0.12% of GDP.

Costs by Area in 2012





Foreign Consultancies and Cooperation



Region: Karabakh

Implemented by: Eurnekian Group
Project: NUR
From November 9th to December 26th - 2010



Country: Ecuador

Implemented by: SITEC (Ministry of Education)
Consultancy for the Project "Mi Compu" at the
Ministry of Education of Ecuador.
From March to June 2012



Country: Colombia

Implementd by: Alcaldia del Municipio de Itagüí
From October 22nd to 26th, 2012



Country: Paraguay

Implemented by: Paraguay Educa Foundation
Project: Paraguay Educa
From September 2nd to December 2nd, 2012



Country: Argentina

Implemented by: Local Government
Project: Clichear
From August 5 to 9th, 2013



Country: Brazil


Bi-national Seminar Brazil-Uruguay on
Technological Modernization of Education.
From August 29th to 30th, 2013



Summary


- Transformation of Privileges into Rights
- Personalization of Education through Collaborative Work
- Individualized Learning through Technology
- New Role for the Teacher

End user devices – OLPC laptops




XO 1.0
OS:
- Fedora 14
GUI:
- Sugar

CPU: AMD LX700 433 MHZ.
RAM: 256 Mbyte DDR.




XO 1.5
OS:
- Fedora 14
GUI:
- Sugar
- Gnome

CPU: VIA C7-M 1 Ghz.
RAM: 1 Gbyte DDR2.



XO 1.75
OS:
- Fedora 18
GUI:
- Sugar
- Gnome

CPU: Marvell Armada610 @800MHz (ARMv7I).
RAM: 1 Gbyte DDR3



XO 4.0
OS:
- Fedora 18
GUI:
- Sugar
- Gnome

CPU: dual Marvell PJ4 ARM cores @1GHz (ARMv7I).
RAM: 1 Gbyte DDR3

802.11g

End user devices – JP Couto laptops

MG 1

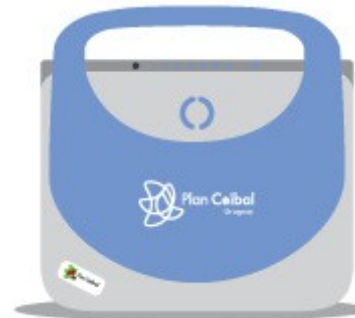


OS:
- Ubuntu

GUI:
- Sugar
- Gnome

CPU: Intel Atom N270 1,66 Ghz.
RAM: 1 Gbyte DDR2.

MG 2



OS:
- Ubuntu

GUI:
- Sugar
- Gnome

CPU: Intel Atom N450 1,66 Ghz.
RAM: 1 Gbyte DDR2.



MG 3



OS:
- Ubuntu

GUI:
- Sugar
- Gnome

CPU: Intel Atom N455 1,66 Ghz.
RAM: 1 Gbyte DDR3.

802.11n
still single radio

End user devices – OLPC tablet

XO tablet



CPU: Rockchip RK3066, dual core 1.6GHz.
RAM: 1 Gbyte.

OS:
- Android 4.1.1
(Jelly Bean)

GUI:
- Sueños
(Dreams)

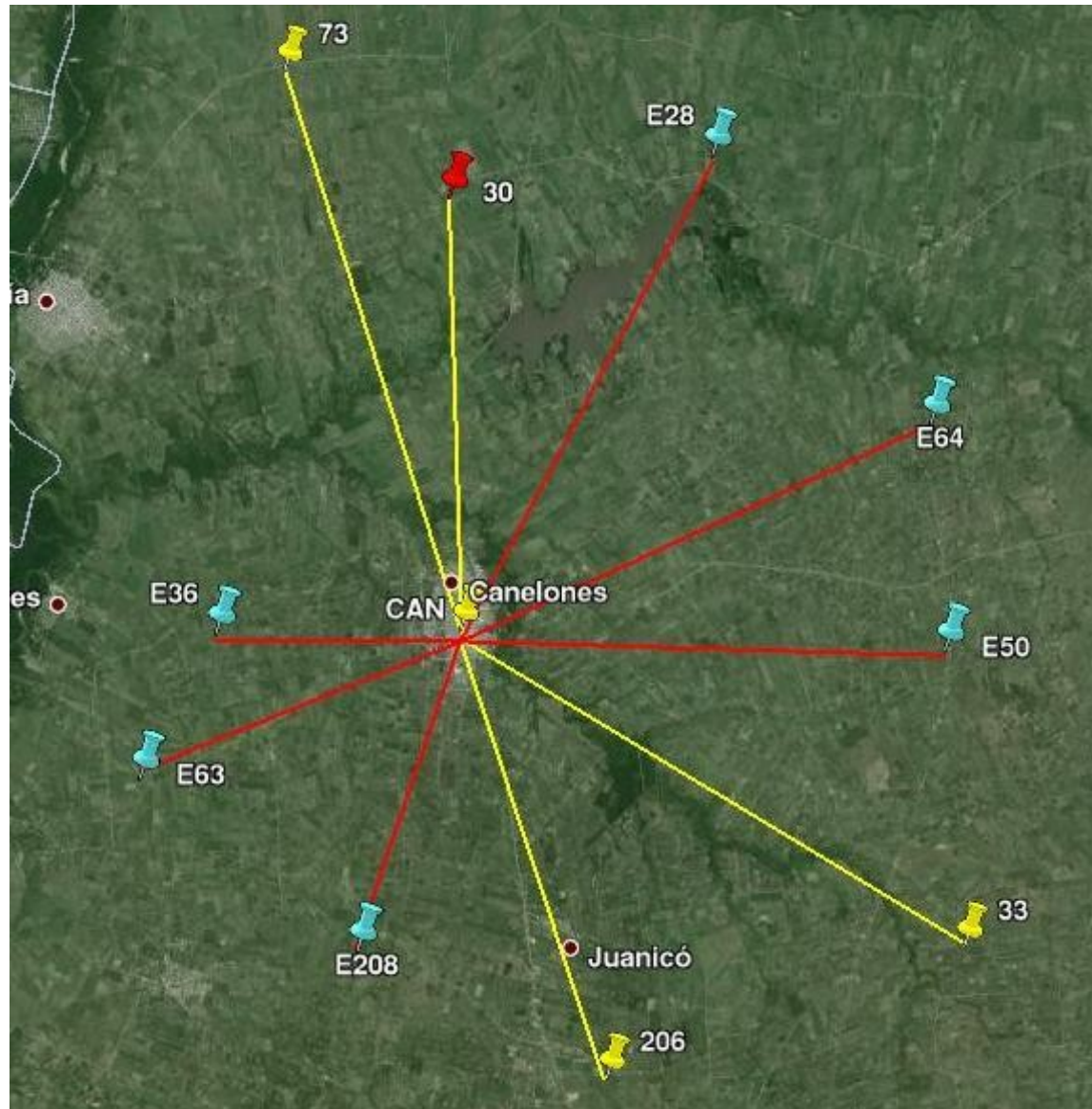
802.11n
still single radio

What's next?

TVWS Pilot

- DTTV is being deployed in Uruguay
- There is not going to be many TV Broadcasters
- There will be numerous channels available
- A convenient way of providing Internet in rural schools with EDGE or 3G access

TVWS Pilot



TVWS Pilot - Details

- 6 Harmonics equipment
- 3 BS (GWS 3000) mounted in a cellular base station tower 76 meters high
- 10 CPEs (GWS3002) located at schools
- 5 MHz channels from 20 to 24 UHF (513.25 MHz – 531.25 MHz)
- 7 dB Rx antennas, 3 meters high
- 11 dB Tx antennas, 76 meters high

THANK YOU

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Plan Ceibal



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