RIPE Atlas Hackathon Results

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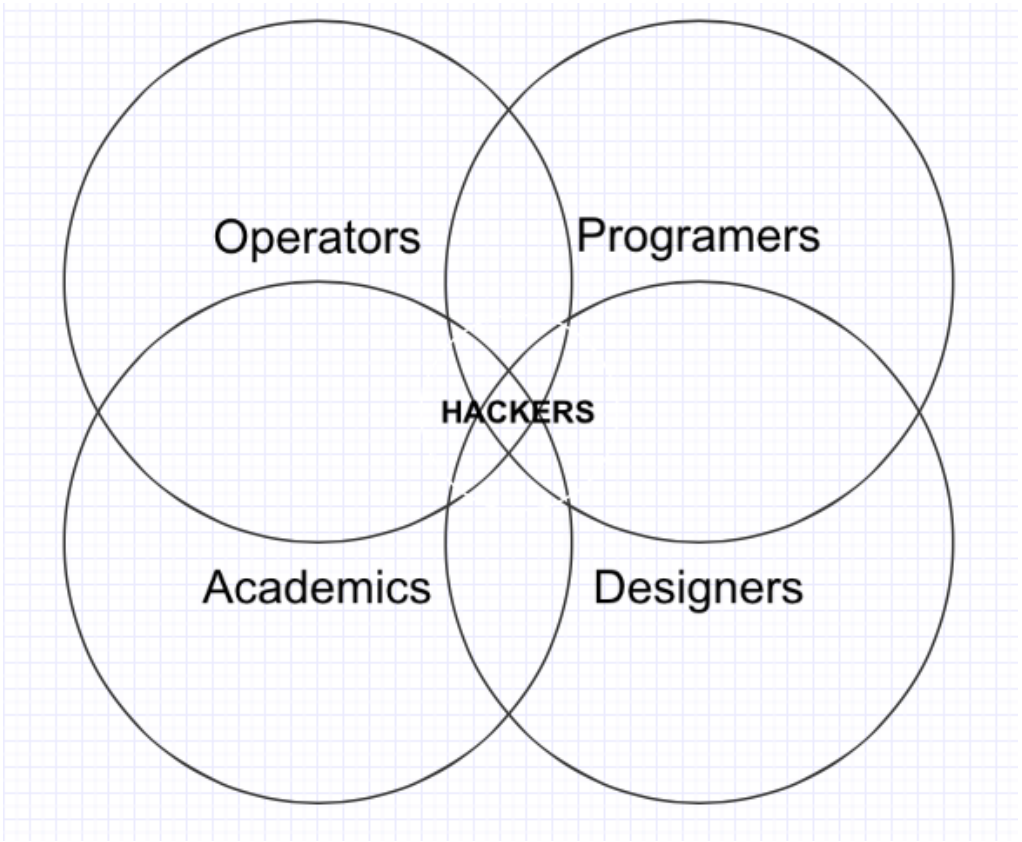
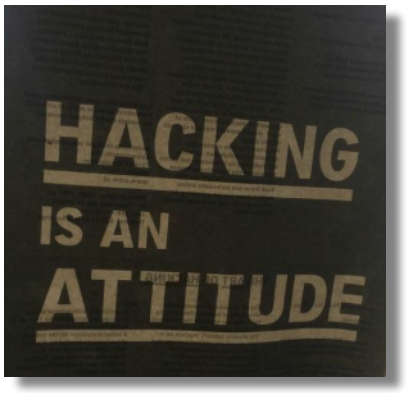
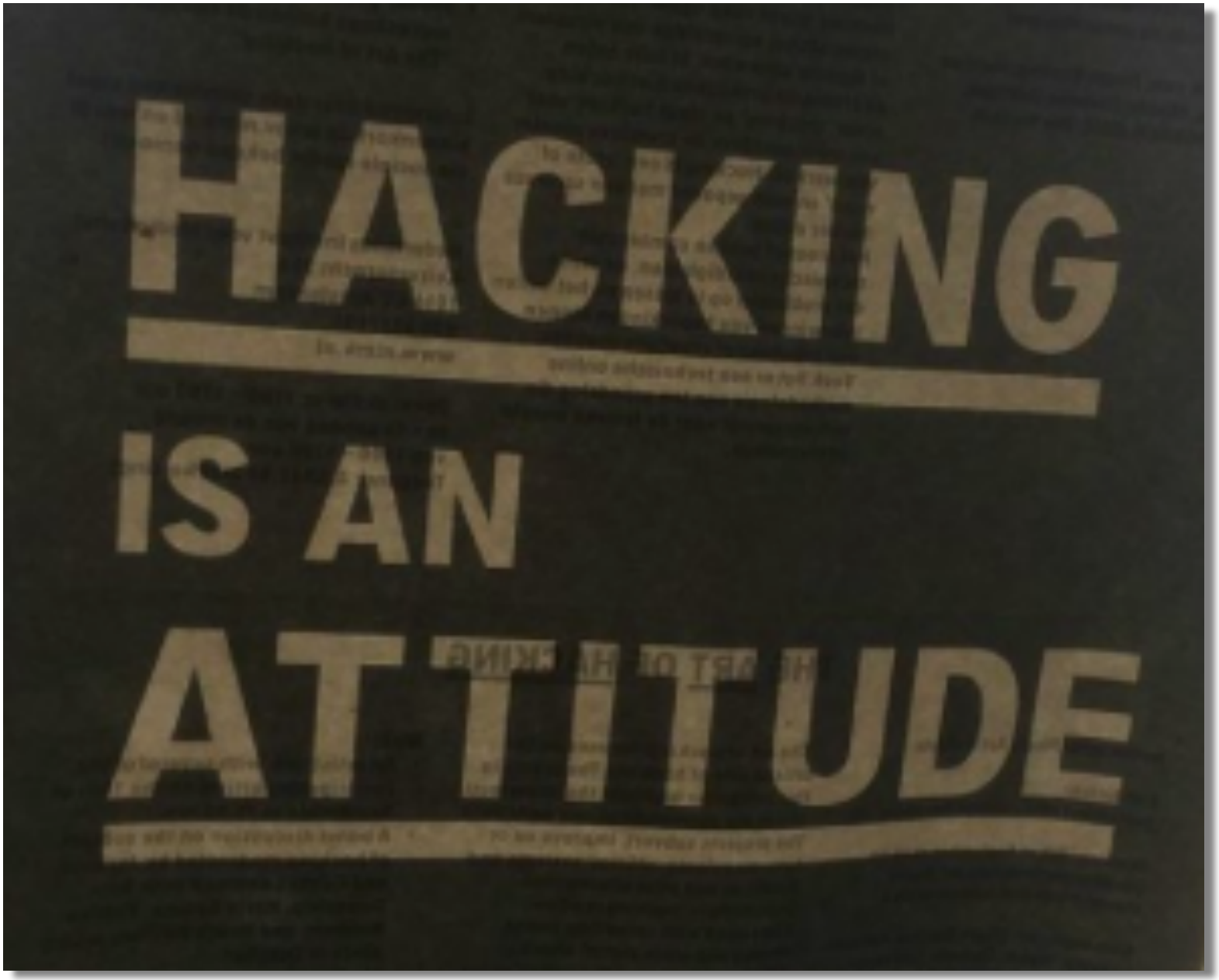
Community Builder for Measurement Tools
RIPE NCC

Why hackathon?

- Instead of throwing more resources on the problem, get people together for:
  - Inspiration
  - Sharing ideas
  - Multidisciplinary approach
  - Working hard + having fun
- Amazing results!





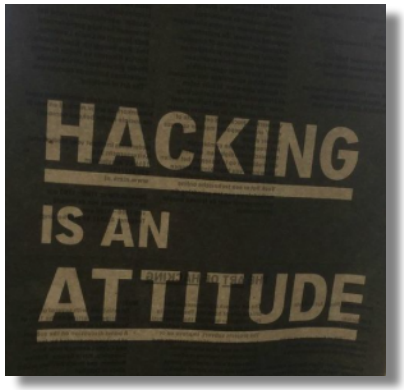

HACKING
IS AN
ATTITUDE

Goals and organisations

- Make cool, free #dataviz software with RIPE Atlas data

- Organisers:
  - RIPE NCC: data, tools, support staff and venue (weekend)
  - Comcast: sponsored awards and travel costs
  - TechInc: local hackerspace

- Locations in Amsterdam
  - Work and lunch: RIPE NCC & TechInc
  - Dinner and party: Radion & Tara

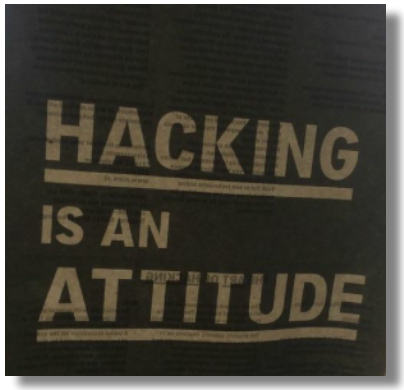


Participants, teams and projects

- Participants:
  - 24 participants, six jury members and 11 support staff
  - More than 70 applications

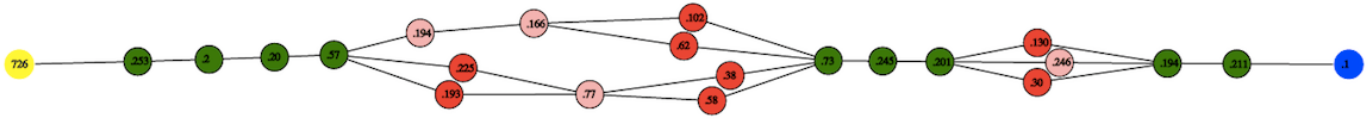
- Diversity:
  - Six out of 25 participants were women (24%)
  - Three jury members were women (50%!)
  - From 10+ countries worldwide (mostly Europe)

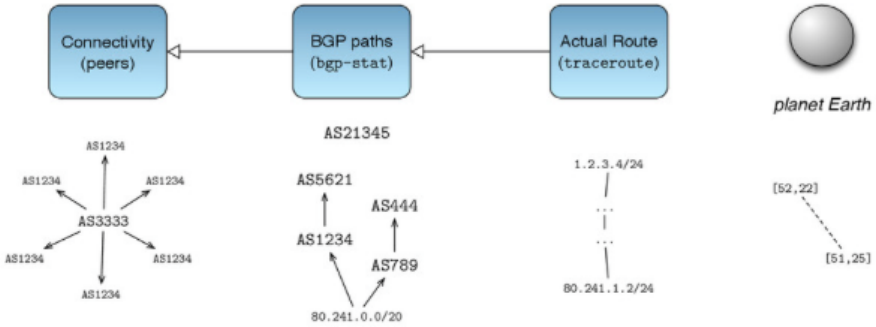
- Ten final projects were presented
  - 14 free & open source software projects published on GitHub
  - Four projects were awarded prizes

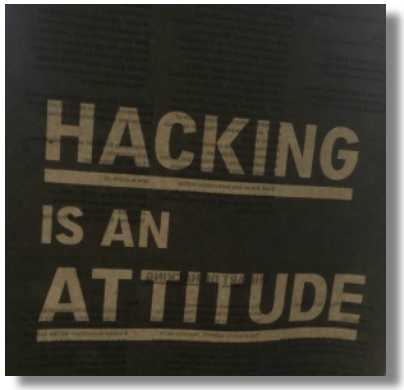


Winning projects: Traceroute (x 2)

- Shared between: BGP+traceroute (by Jelle Herold) & Traceroute Consistency Check (by Valentino Di Donato)
- Combining RIS & RIPE Atlas data in a tool that maps traceroute measurements towards anchors and correlates with ASN information, then draws traceroute paths changes

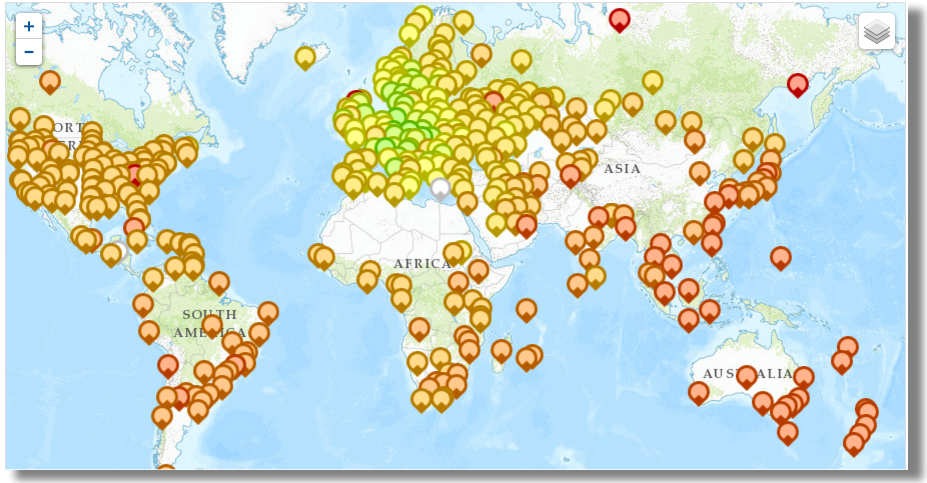






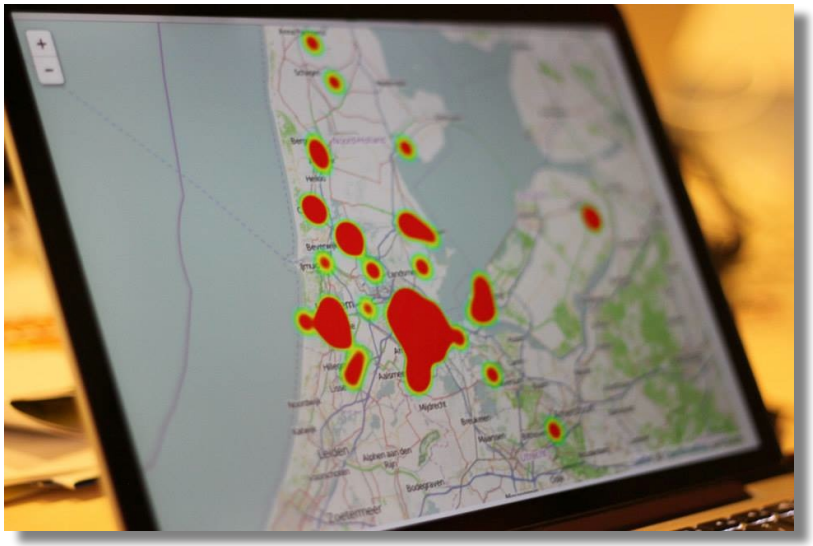
Winning projects: “Piketty” ;-)

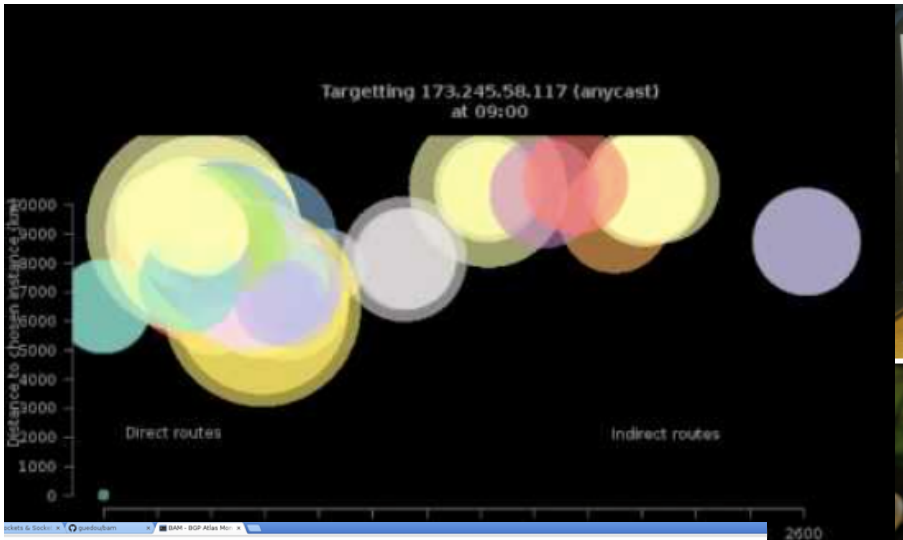
- Spatial Bucketing of RIPE Atlas Probes on Map Projection (by Julian Hammer)
  - Problem: when scheduling measurements from many probes, requesting a "random worldwide selection" currently results in a selection biased towards Western/Northern Europe and the USA
  - Solution: more distributed selection, plus alternatives to Mercator projection



Winning projects: Disco!

- Appetite for Disconnection (by Merlijn Tishauser, Nana Klok-Manojlovic, Anna-Kaisa Pietilainen and Igor Rinkovec)
- Combined multiple data sources:
  - Live RIPE Atlas data showing disconnection events
  - Twitter feed
  - Weather information
- Specific to zoomed-in area
- Heat map visualisation of disconnected probes



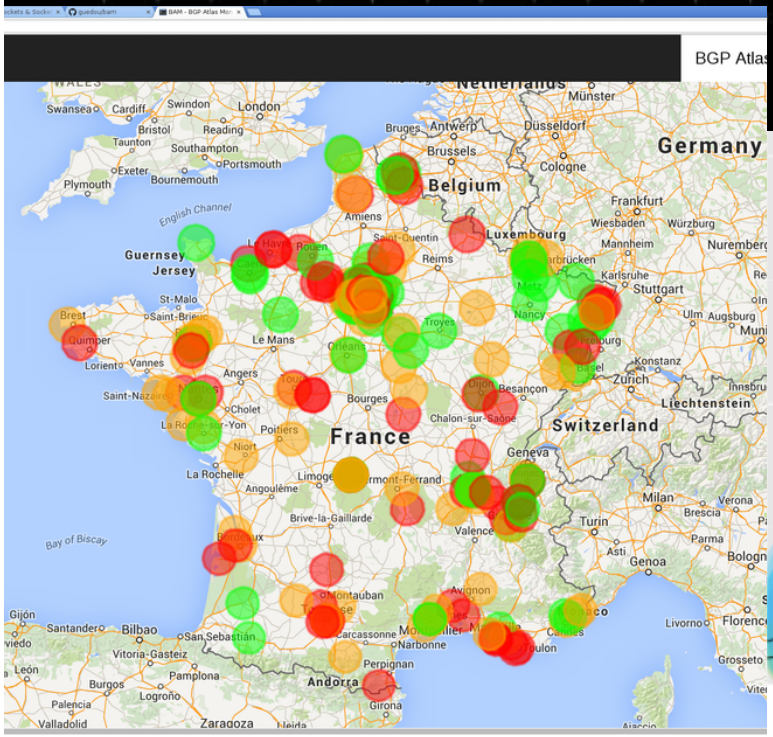

Targetting 173.245.58.117 (anycast)
at 09:00
Distance to chosen instance (km)
Direct routes
Indirect routes

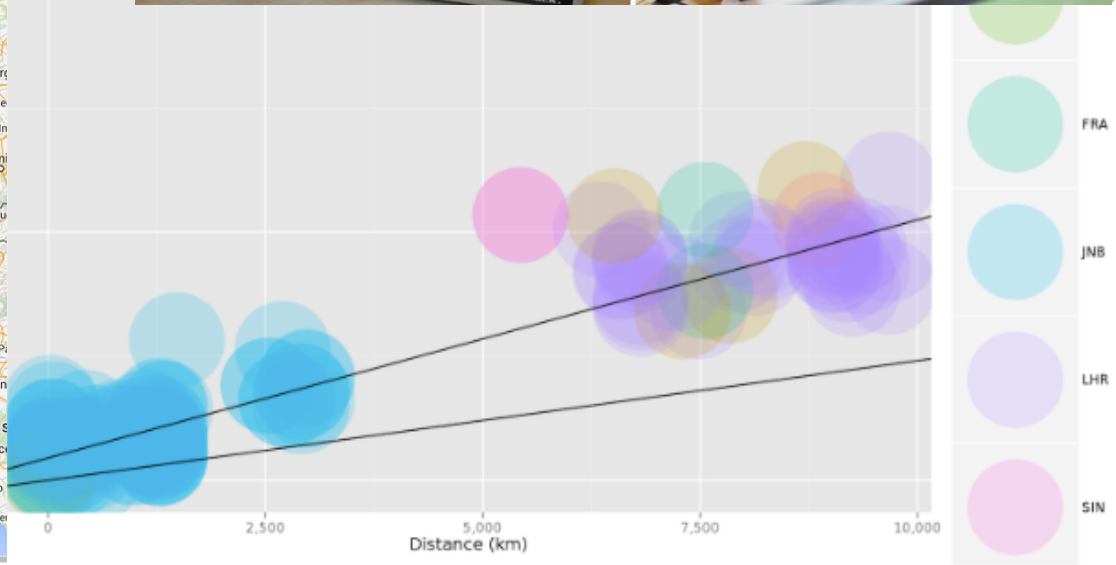
DATA LOVE
A PONY NAMED OLGA
WE MAKE DATA PORN
WE MAKE META DATA PORN
willkommen zuhause.
liebe.freiheit.alles.

wget is not a crime
FDN
GPL v3
ASYL

ENGINEERING ADVISORY
NSC
DO NOT DISTURB
PARIS • LONDON
TOKYO • WHISTLER
DNS IS SEXY
password?
PEER INTO THE FUTURE
pixie
DEFEKT
greenhost.net
IPv6 IS DA SHIT
Black Diamond
AVTOKYO
Block'Out

DIRTY PHONES
DO NOT DISTURB


BGP Atlas
Germany
Belgium
France
Switzerland
Luxembourg
Netherlands
Guernsey
Jersey
Bay of Biscay
English Channel

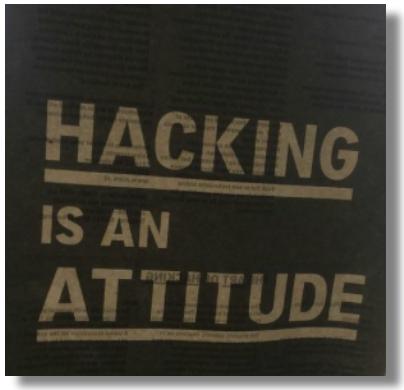

FRA
JNB
LHR
SIN
0
2,500
5,000
7,500
10,000
Distance (km)

ASYL

All results

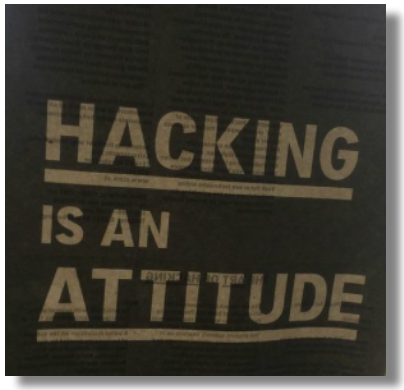
- All code on the RIPE Atlas community GitHub
- All the photos
- All the Hackathon presentations

- All of it together, in the RIPE Labs article:
- https://labs.ripe.net/Members/becha/ripe-atlas-hackathon-results



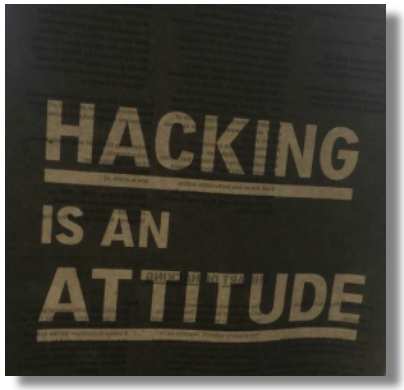
Next time at your place!

- Lessons learned: hackathons work!
- We will do it again - let us know if you are interested!
- Together, we need: workspace for 20 people, locations for dinner and socialising, some money for travel expenses for participants
- RIPE NCC will provide developers, help with logistics and organization, T-shirts



Learn more and get in touch

- Mailing list: ripe-atlas@ripe.net
- Blog: https://labs.ripe.net/atlas
- Twitter: @RIPE_Atlas
- Tickets: atlas@ripe.net
- Everything: https://atlas.ripe.net



Questions?