

What if the worst thing happens in Iceland? NKS NUCSEM

Oslo
2.-3. November
Gísli Jónsson



GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

IRSA

Icelandic Radiation Safety Authority

- IRSA is the national competent authority in Iceland in case of nuclear or radiological emergencies.
- Deal with everything related to ionizing radiation (and some more)
- Inspection and licensing
- Monitoring and research (environment and foodstuffs)
- Emergency preparedness
- Currently 10 staff members



GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

What kind of worst thing

- A nuclear terrorist weapon ~10kt ?
- A Tsar bomb, 50 og 100 Mt ?
- What would the target be?

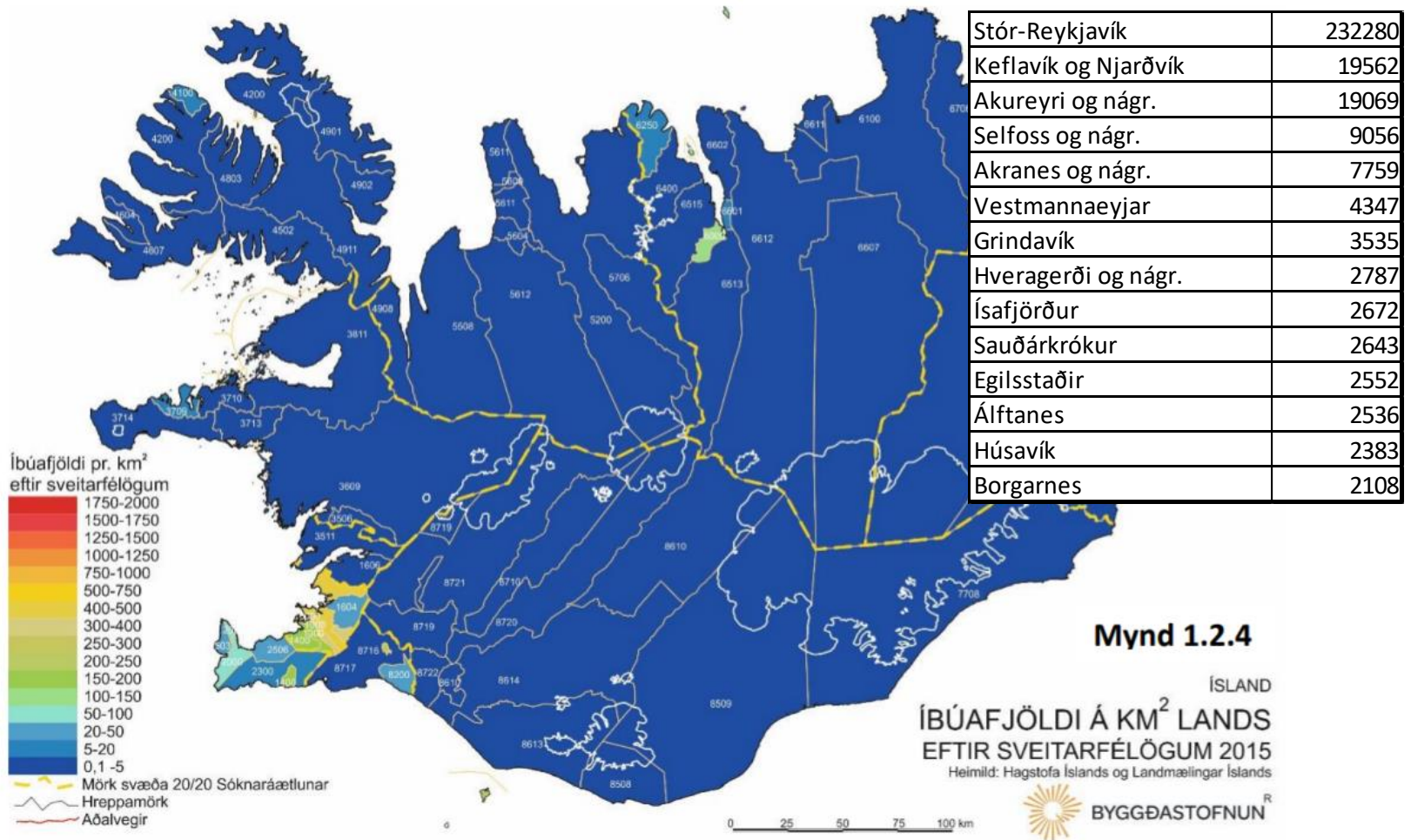


Iceland in numbers

- Size: 103.000 km²
- Population: ~375.000 inhabitants, Okt '21
- 2 hospitals
- The population lives around the coast

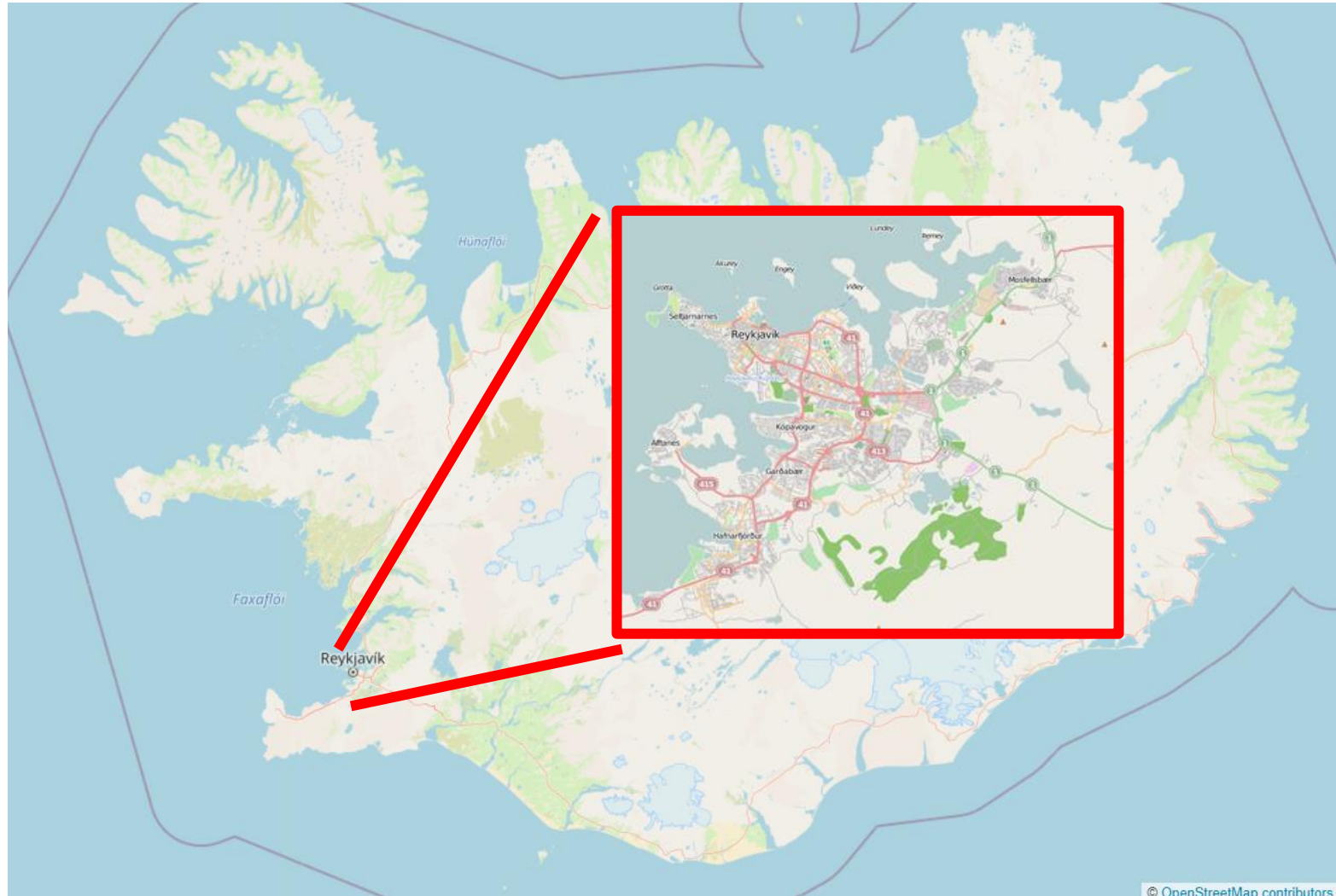


Population density

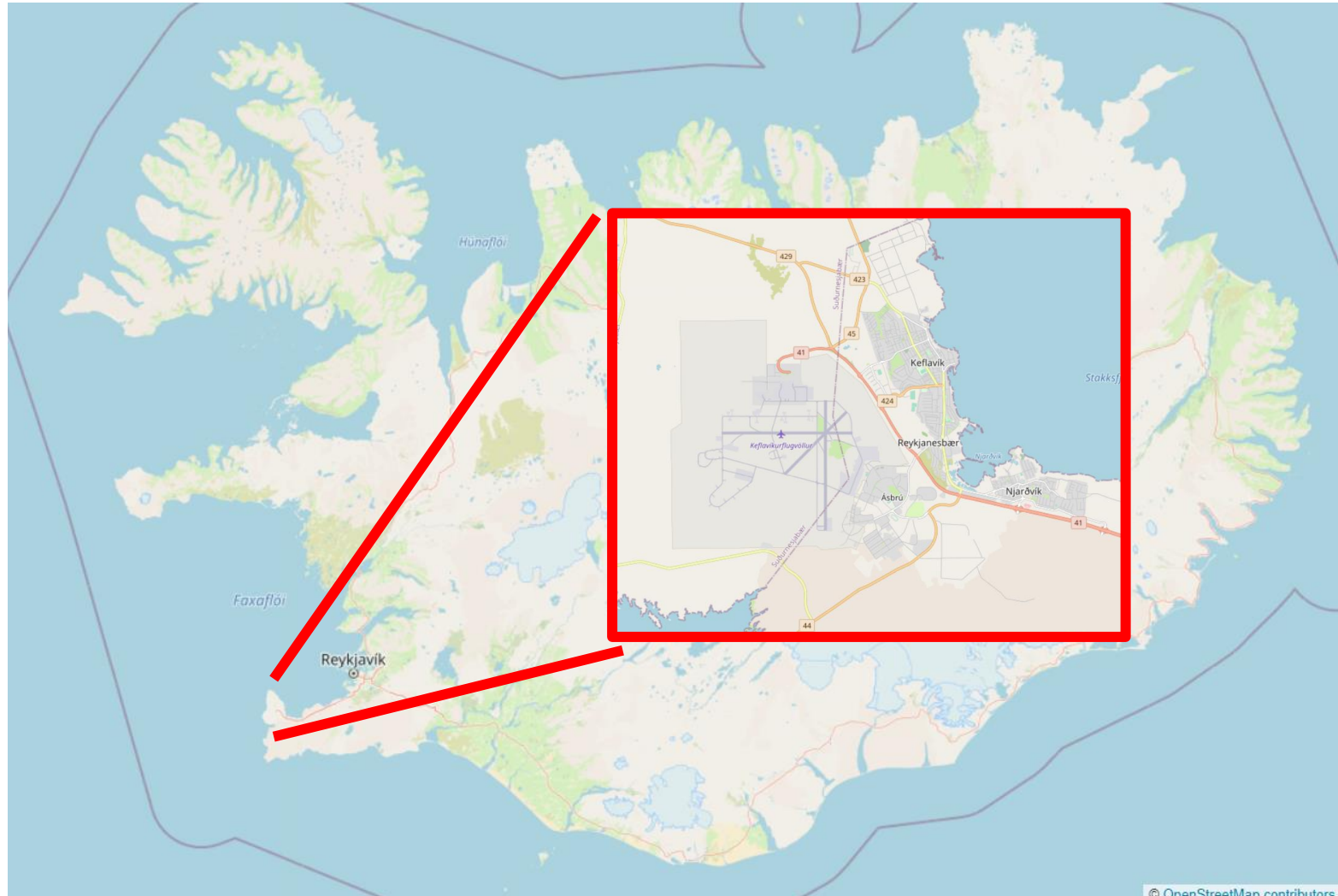


GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

The capital area, 63% of the population



Keflavik airport, former US base. 5% of the population



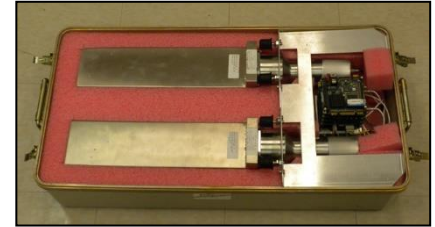
The capacity for responding to disaster

- Have a very competent first responders and volunteer rescue service
- Many disaster dealt with on semi regular basis
 - Bad weather
 - Volcanic eruption
 - Earthquakes
 - Snow and mud avalanches
- 2 major hospitals in Reykjavik and Akureyri
- A serious bus accidents puts a lot of strain on the healthcare system
- A nuclear bomb would be devastating



EPR equipment and competence

- Information exchange, communicate with others
- Measurements
 - SPARCS mobile systems
 - Backpack systems (G, N)
 - Handheld instruments
 - Portable air samplers
 - Portable HPGe detector
 - Analysis
 - IXP Narac
 - Triage
 - MetNet
 - Met. Office
- Laboratory
 - 2 HPGe detectors



GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

Emergency preparedness

Streamlining with existing emergency preparedness infrastructure is vital for a small, specialized institute in a small country

Focus on role as NCA, build on existing, general infrastructure

- Coast Guard
 - 24-h desk (NWP towards NEP, IAEA).
- Police
 - Members of special forces trained in search for and recovery of sources
 - Civil protection involved in training activities
- Meteorological Institute
 - Dispersion models, participation in MetNet, exercises
- Academia (e.g. University, Marine Institute)

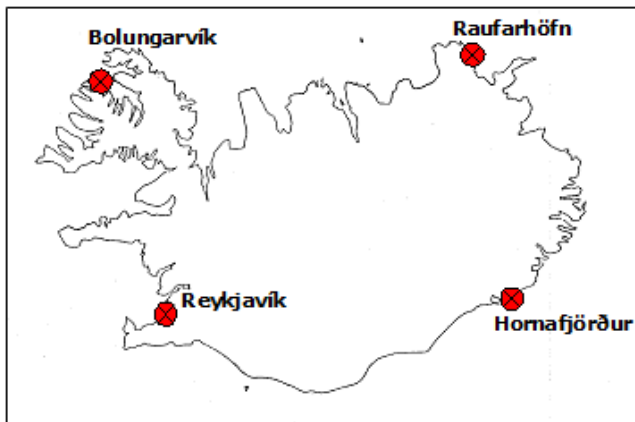
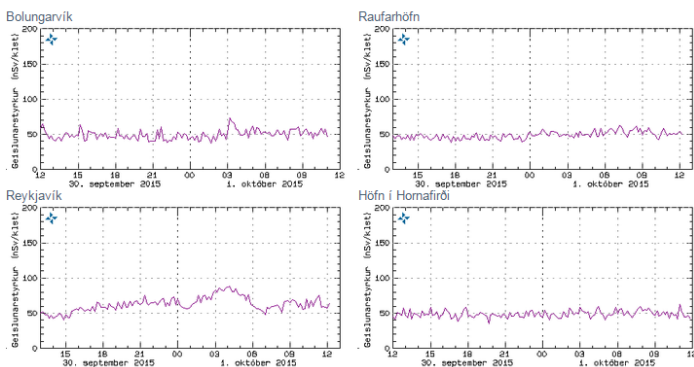


GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

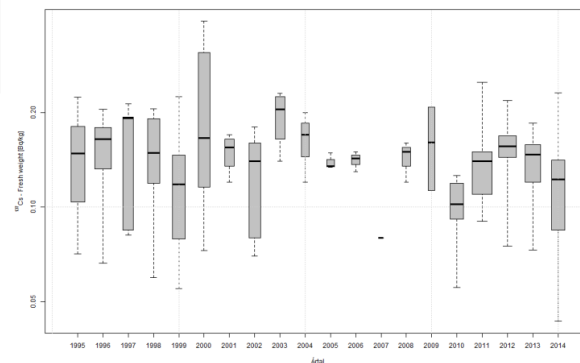
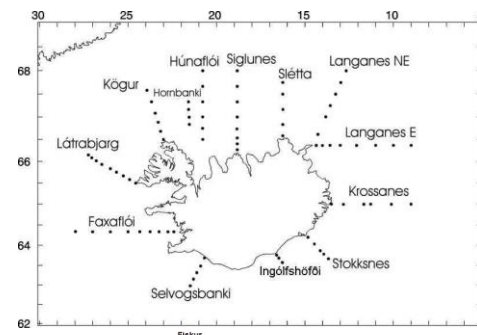
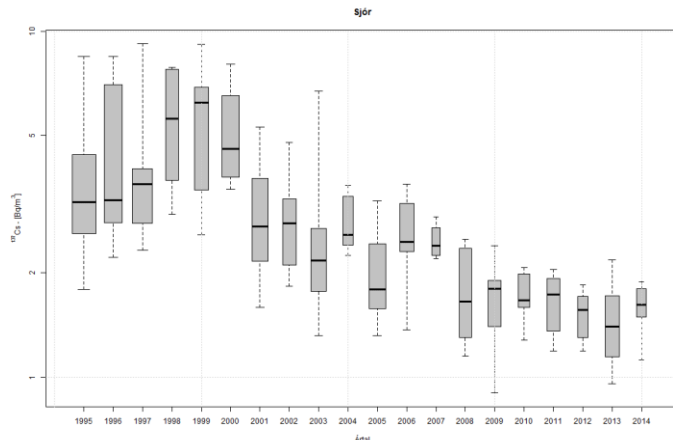
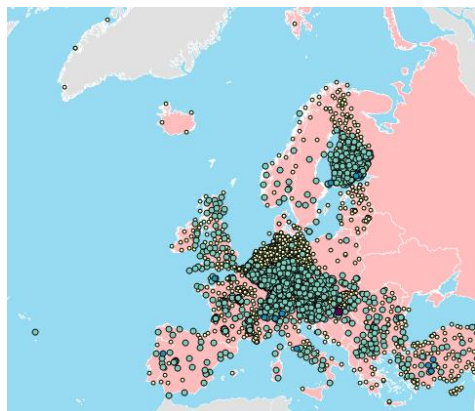
Monitoring

■ Total Gamma dose rate

Gammageislun

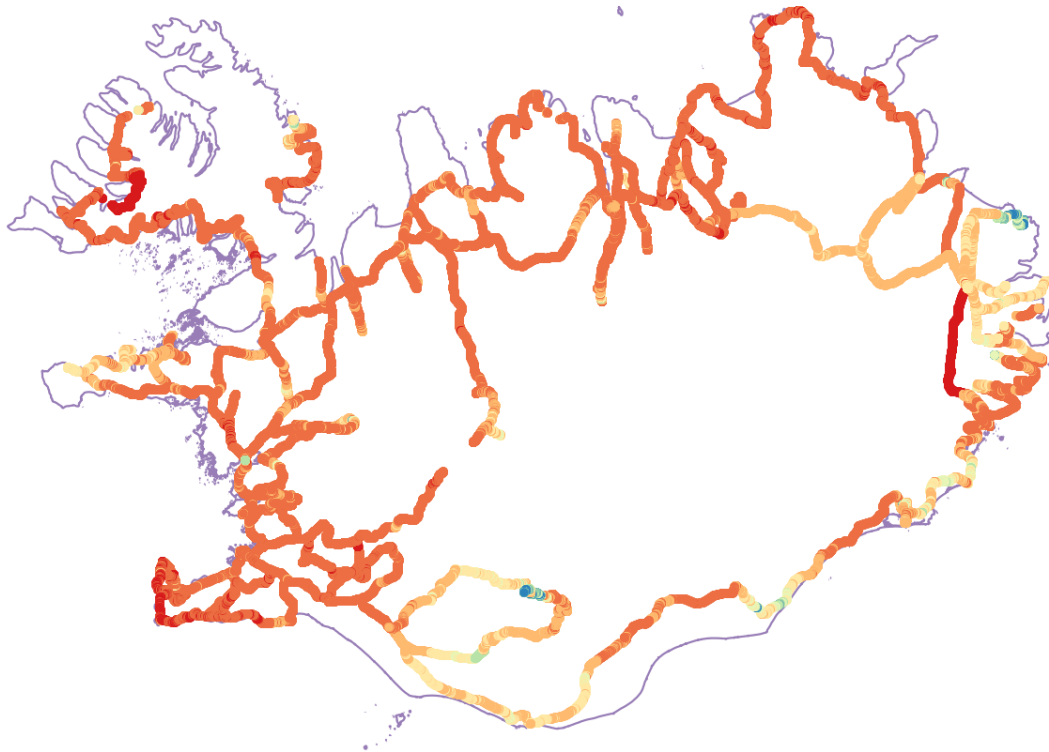


■ EURDEP



GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

Monitoring



Geislavarnir „eiga“ 3 SPARCS mælikerfi, eitt er í notkun hjá GR, annað hjá tollstjóra og það þriðja hjá Landhelgisgæslunni



GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY

Thank you



GEISLAVARNIR RÍKISINS
ICELANDIC RADIATION SAFETY AUTHORITY