BME VIIIAV18

Smart megoldások az Internet világában

Statisztikai alapok & smart környezet és sport

Bevezetés - ICT based smart services in long-distance running competitions

Dávid Berke & Kálmán Kovács

Contents

Automatic Runner Monitoring System
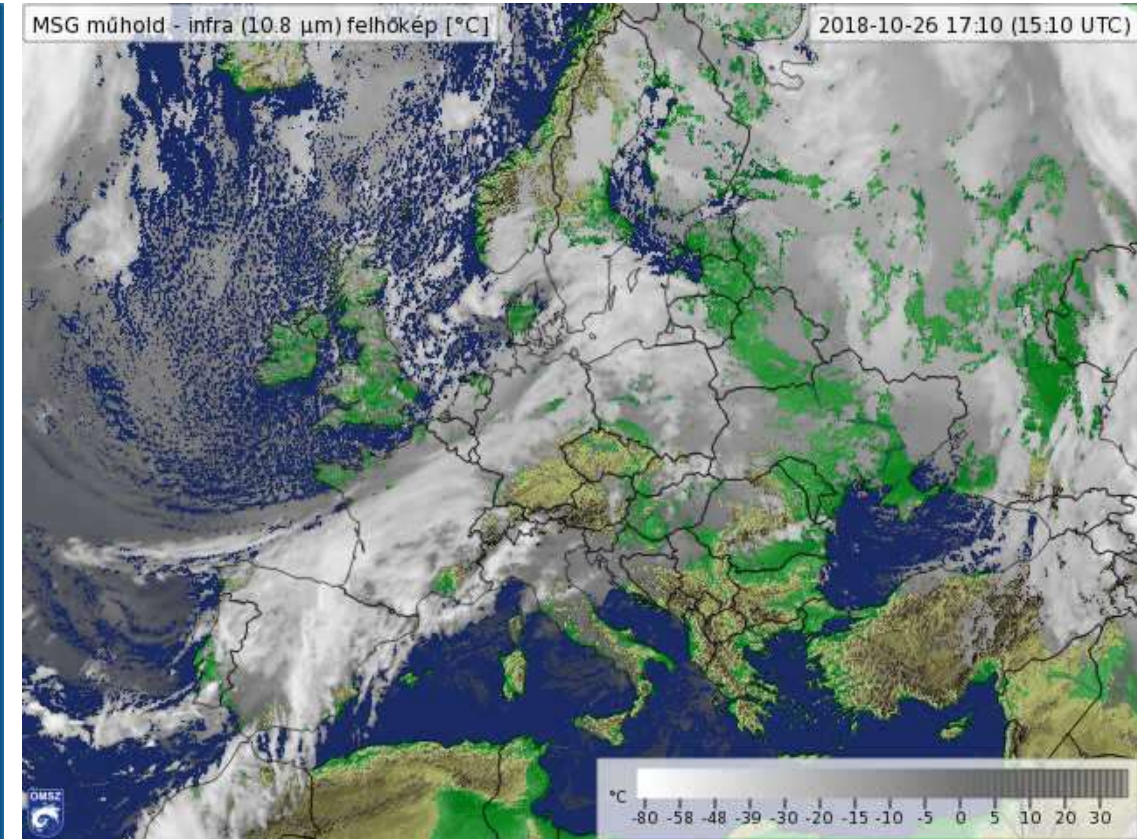

4G

RS

4G

4G

MAN*

4G

4G

4G

RS: Remote Sensing (távérzékelés)
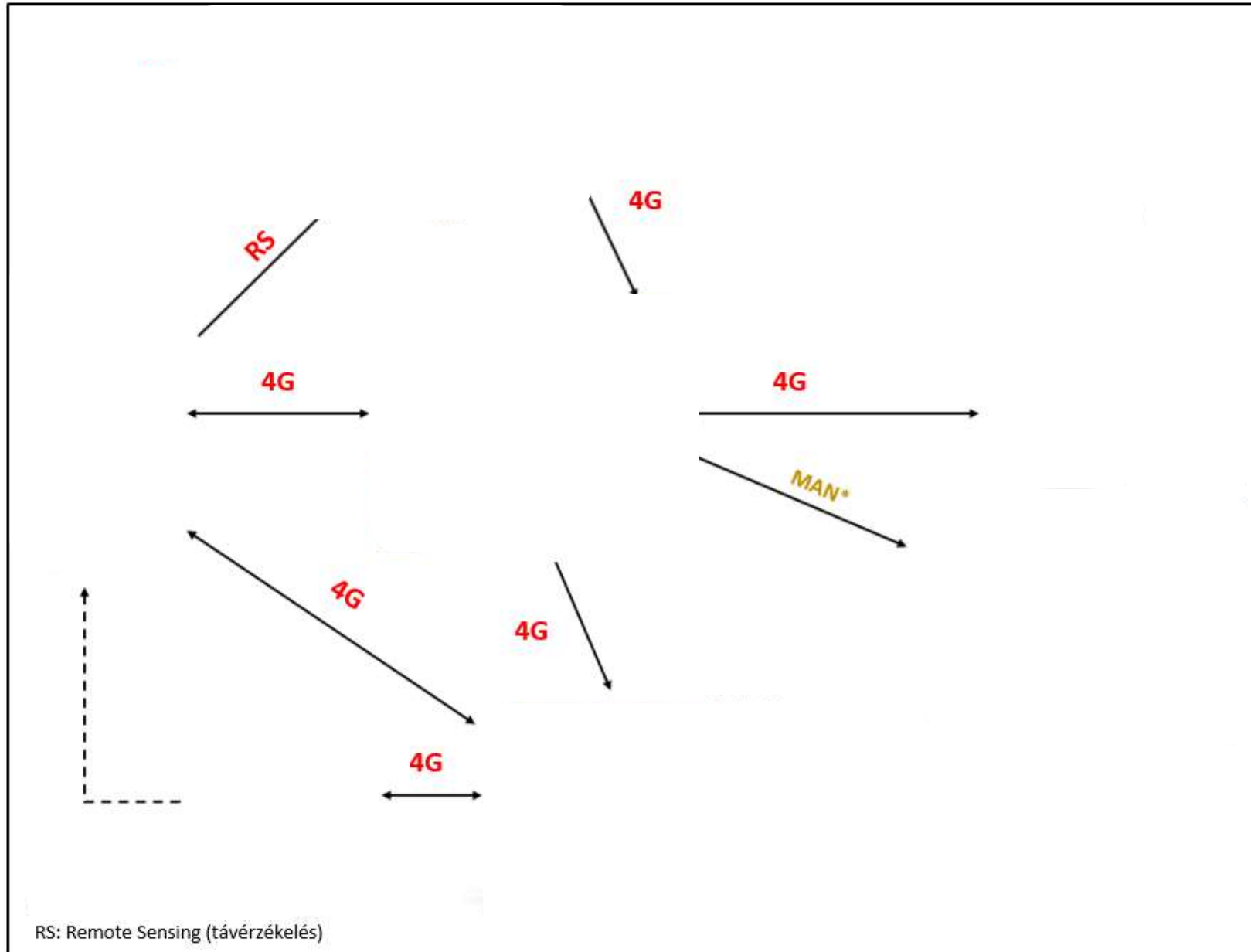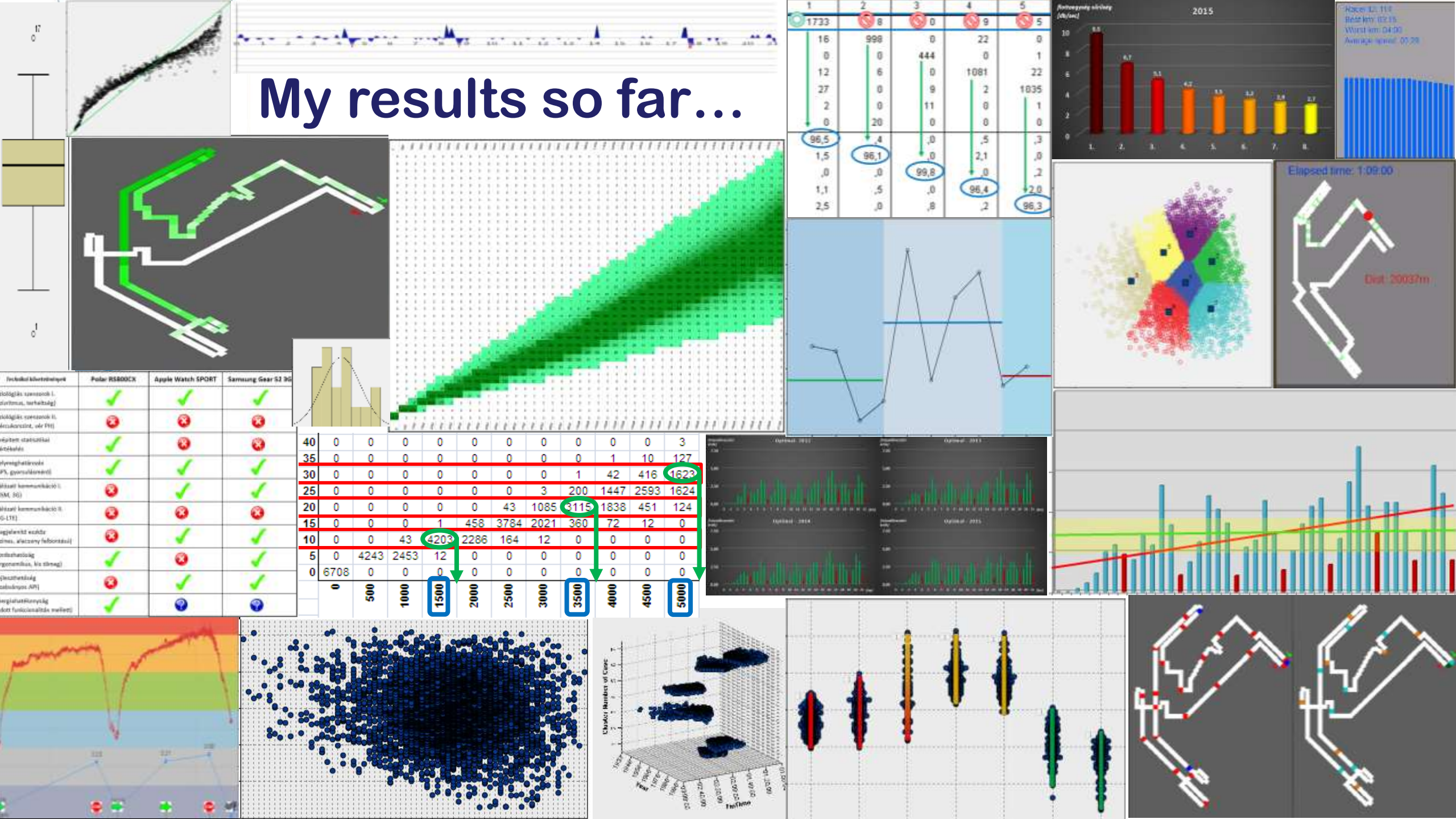
Environment - Monitoring Systems
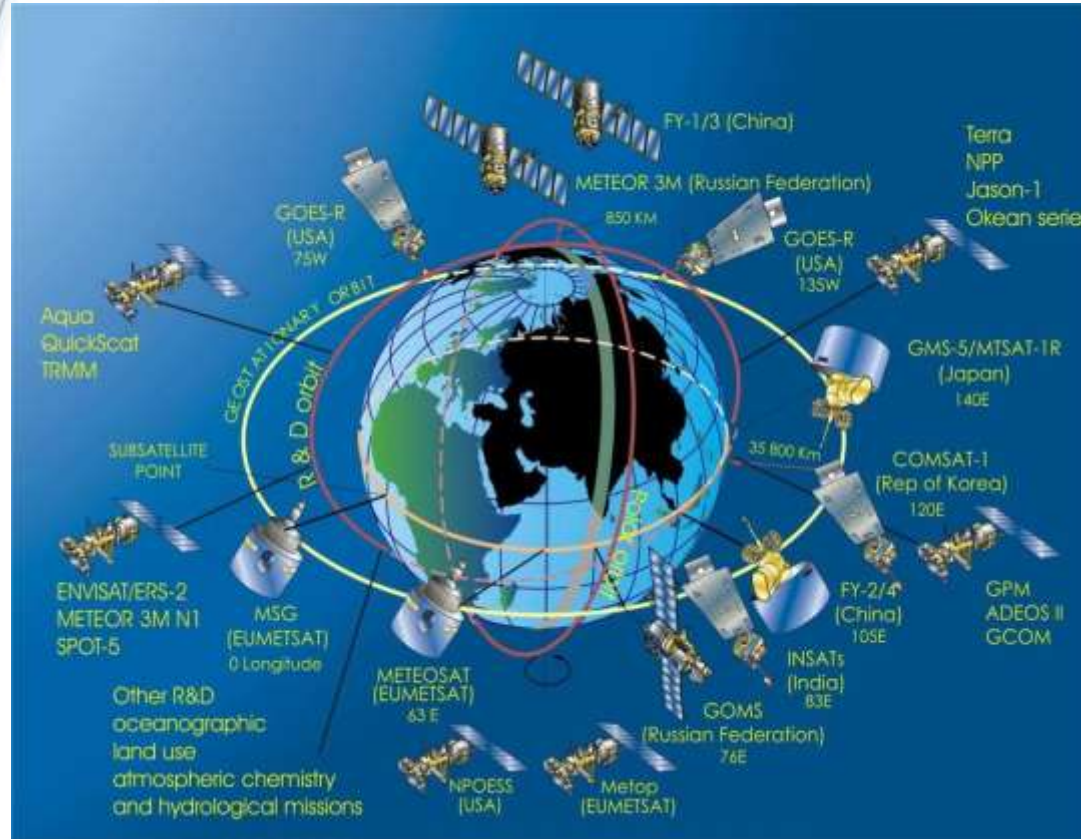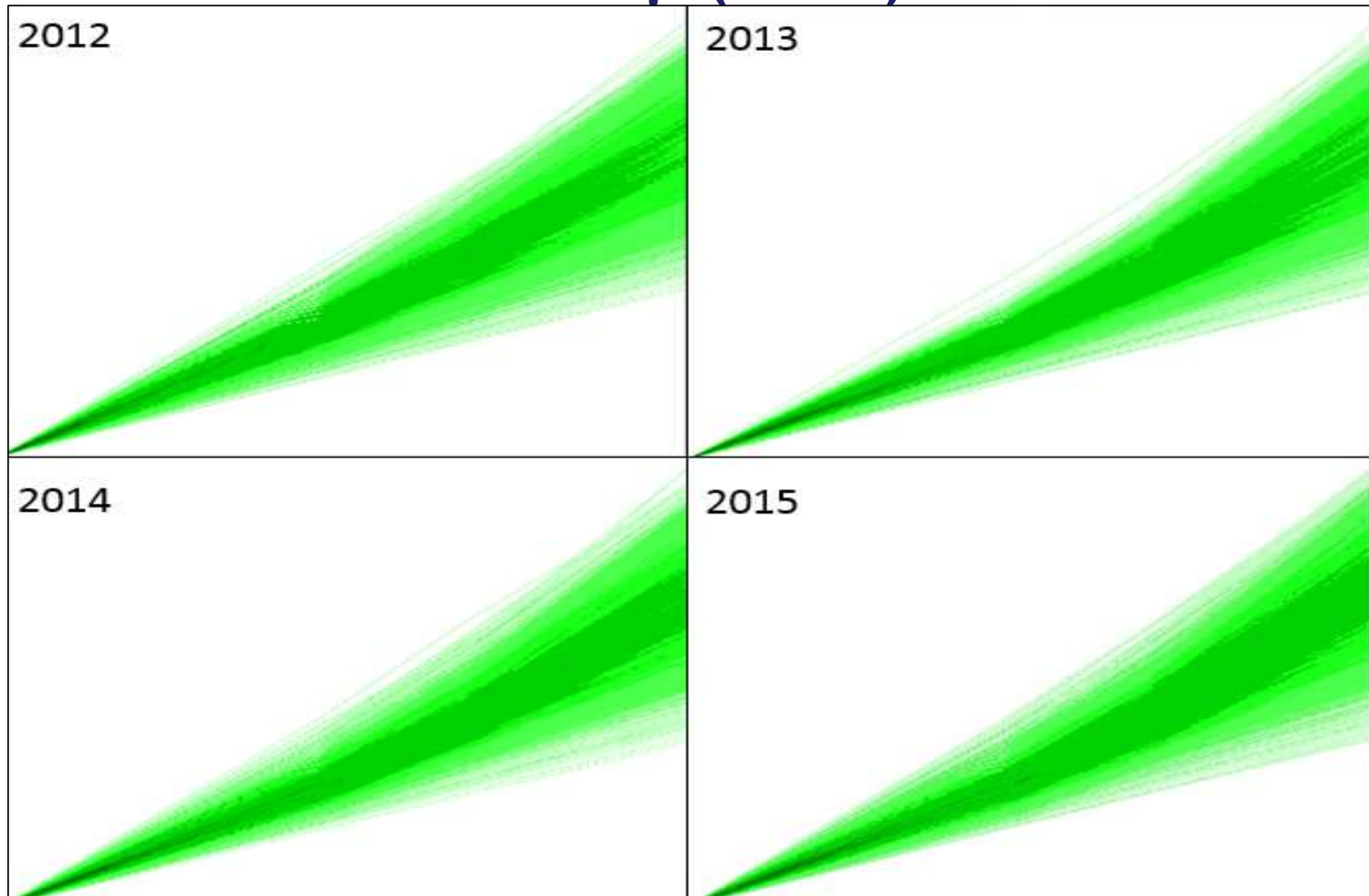

Meteorological Satellites

Temperature – Clouds – Humidity - Wind
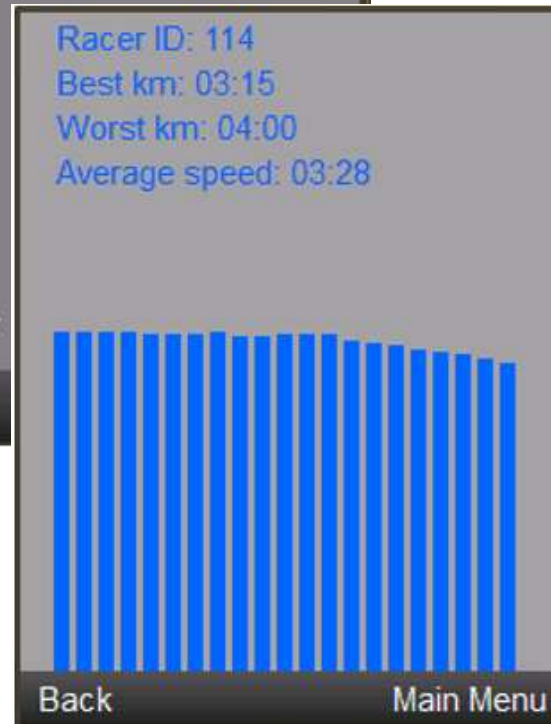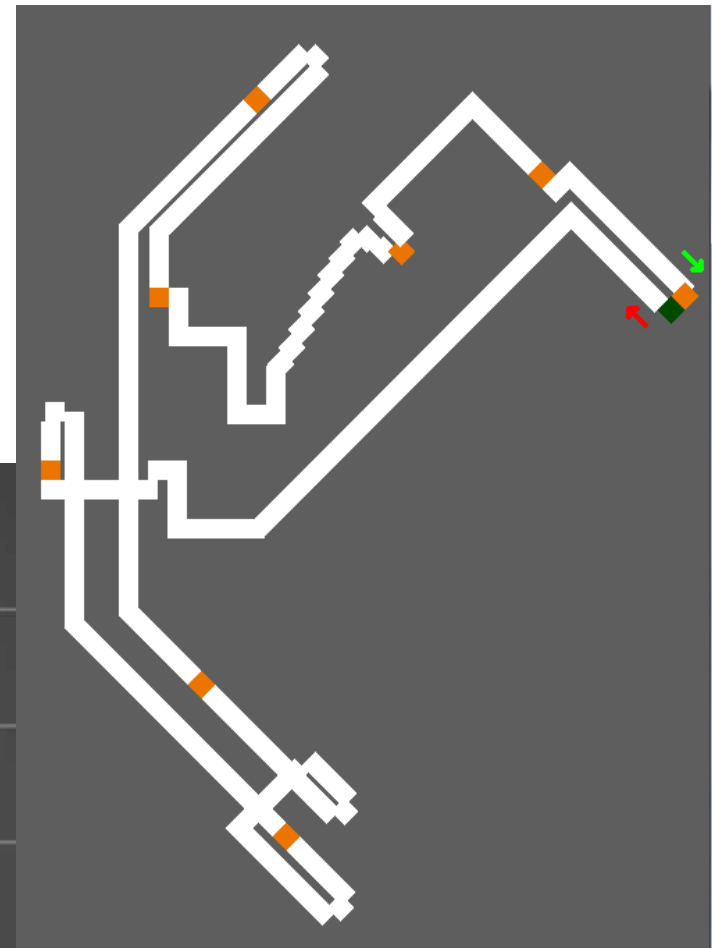
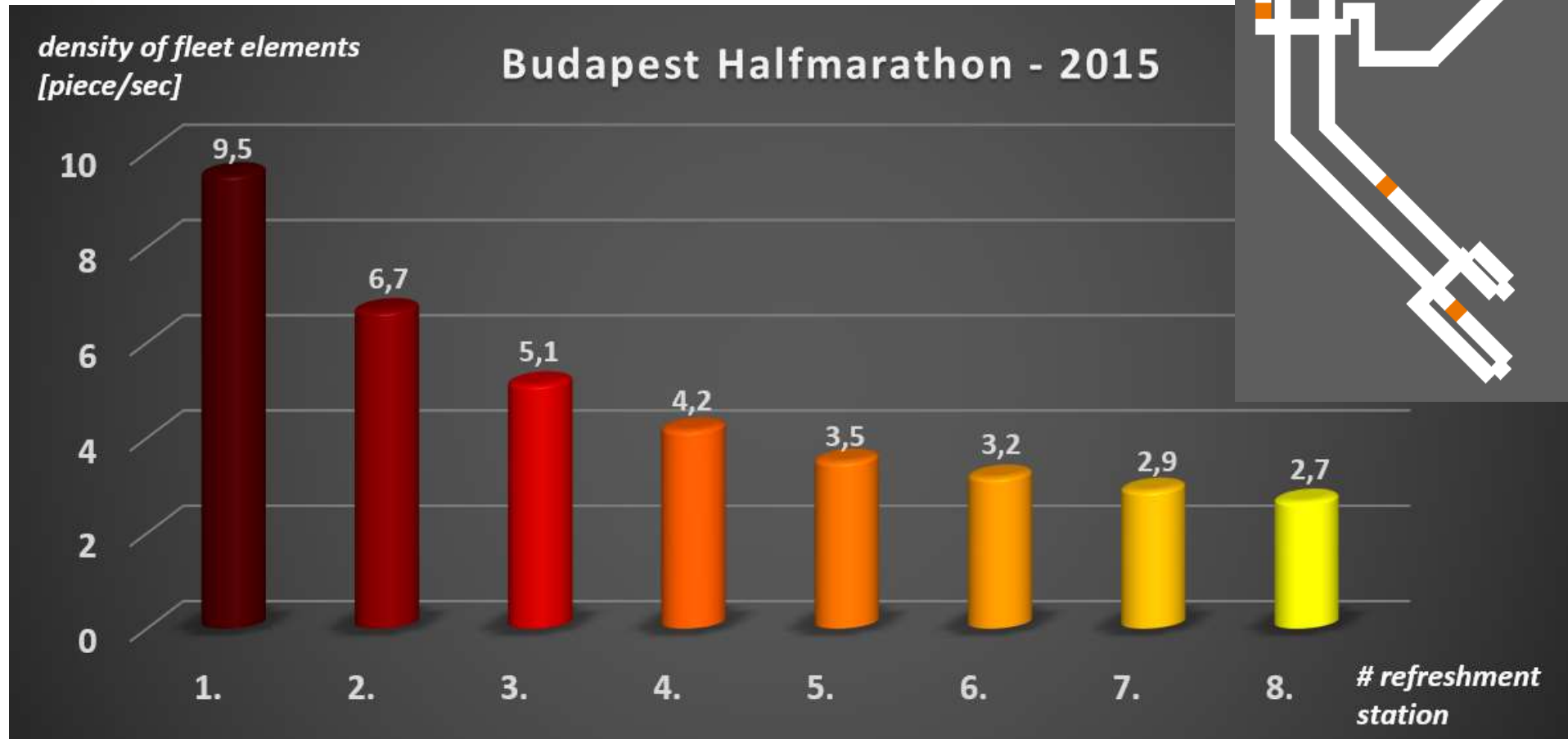# My results so far…

Distance-Time-Map (DTM)

DTM simulation
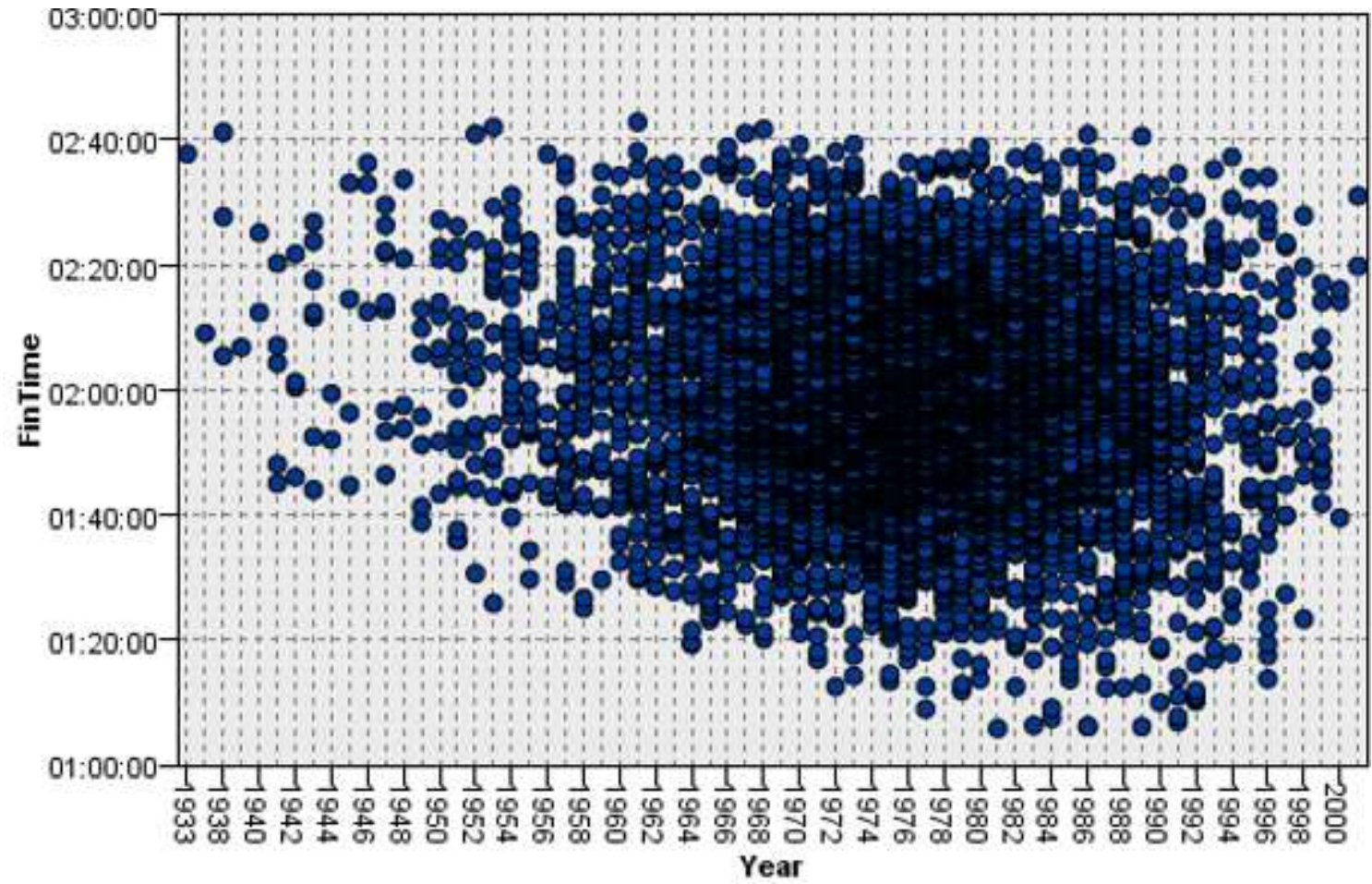
DTM based runner tracking
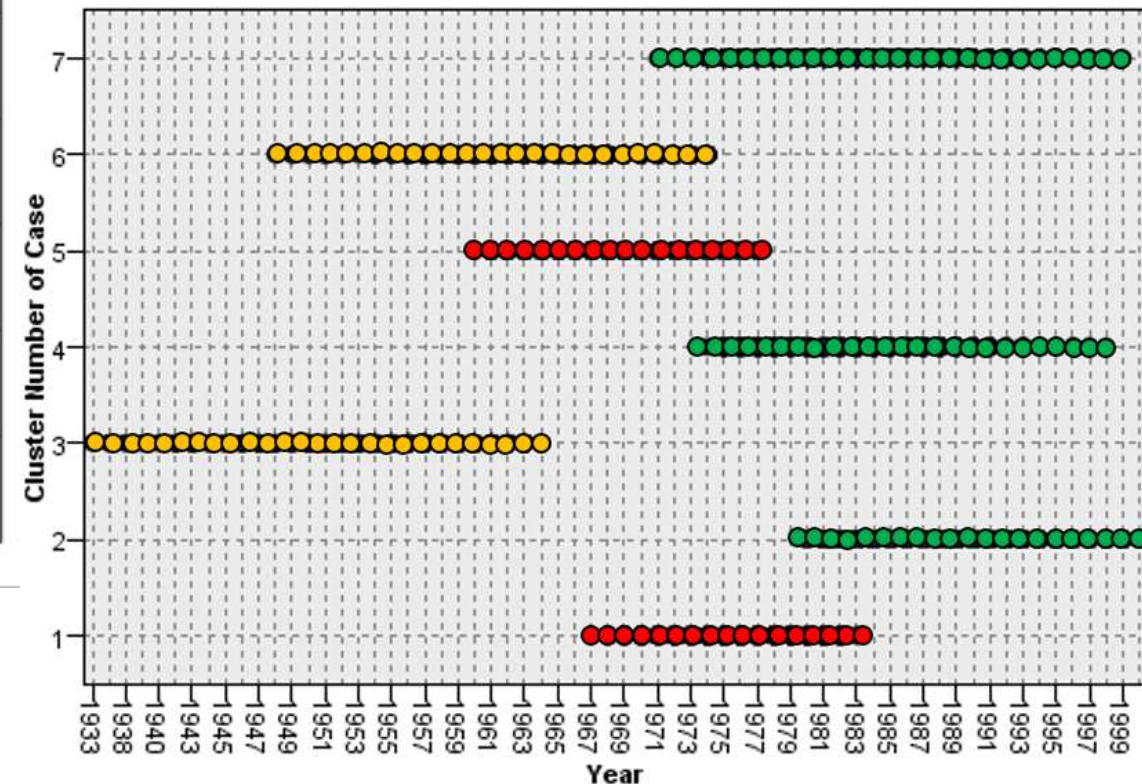
How to manage refreshment transmission?
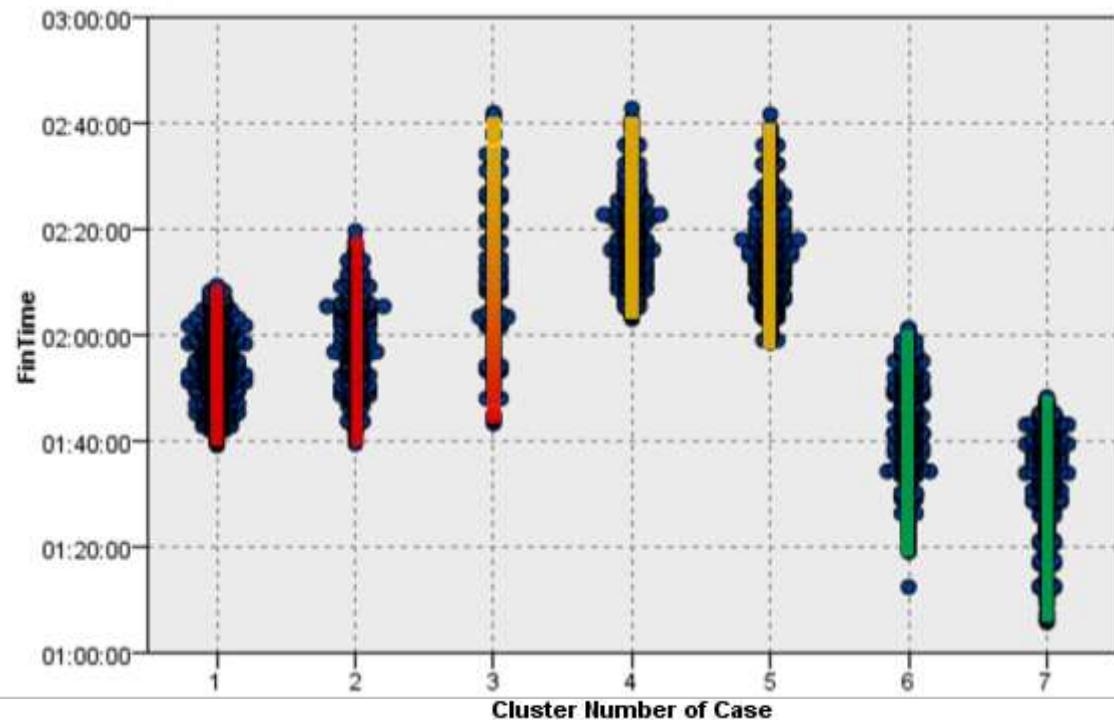

Budapest Halfmarathon - 2015

density of fleet elements [piece/sec]

# refreshment station	value
1.	9,5
2.	6,7
3.	5,1
4.	4,2
5.	3,5
6.	3,2
7.	2,9
8.	2,7

How to manage all the runners?

- **Together?**

- **One-by-one?**
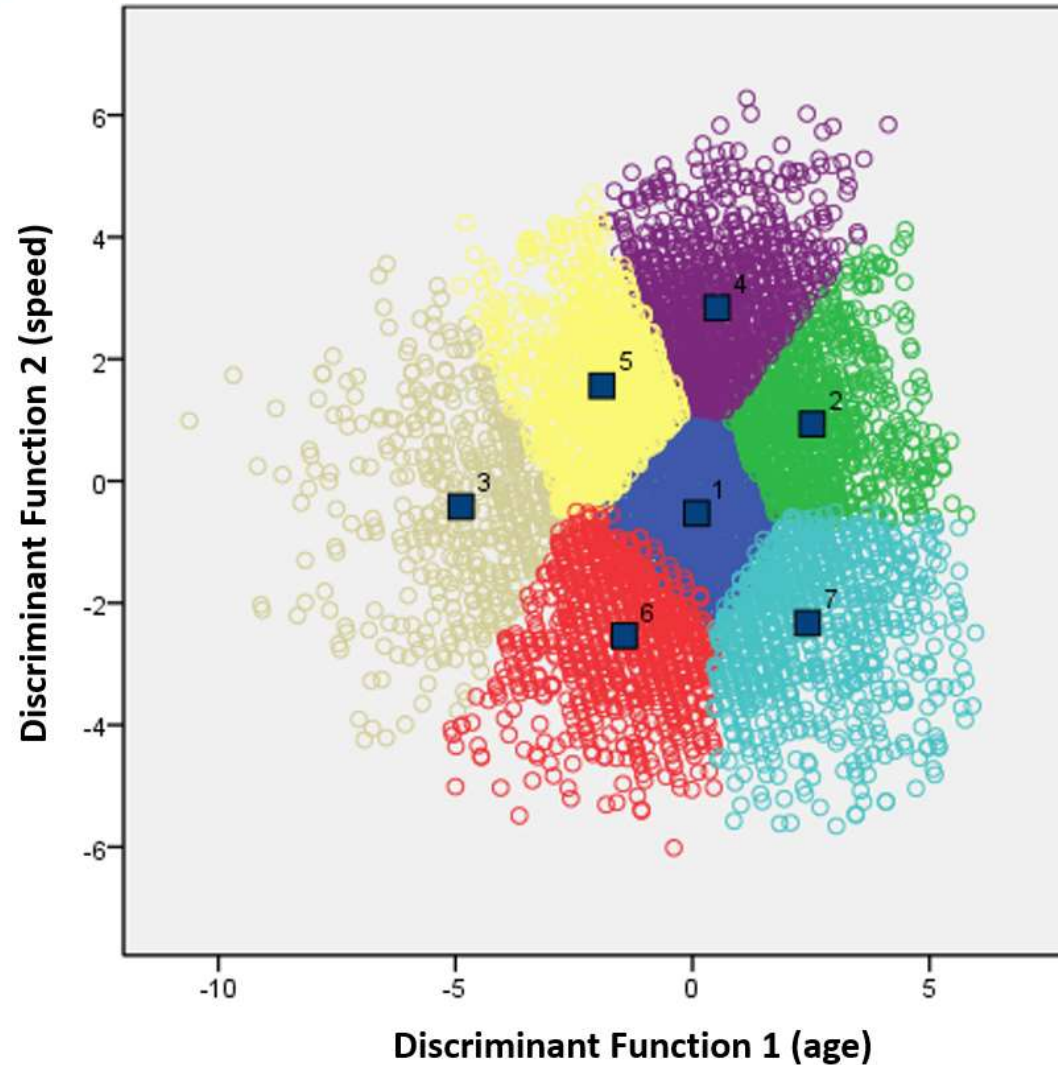
- **How else?**

Runner classification by clustering

- **Based on running performance**
  - Speed (FinTime), Age (Year)

Cluster interpretation vs. practice

Speed / Age	Elder	Middle-aged	Young
Slower			
Medium			
Fast			

Thank you for your attention!

e-mail: *berked@hit.bme.hu*