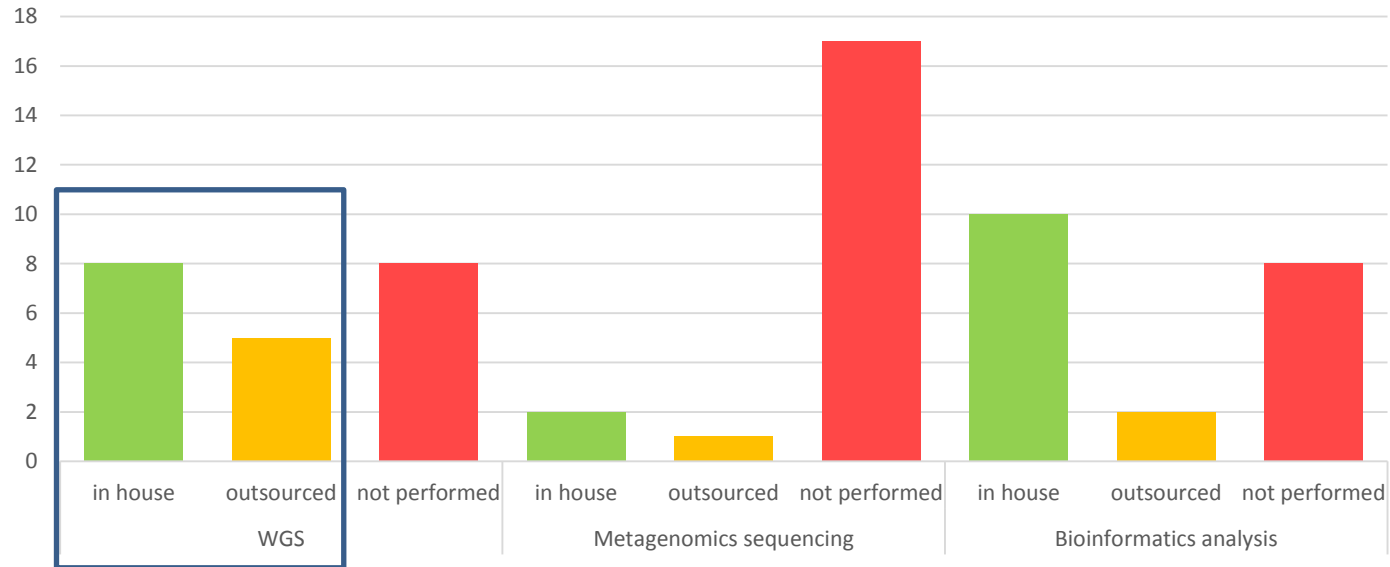# *E. coli* network: Survey results

35 Labs surveyed

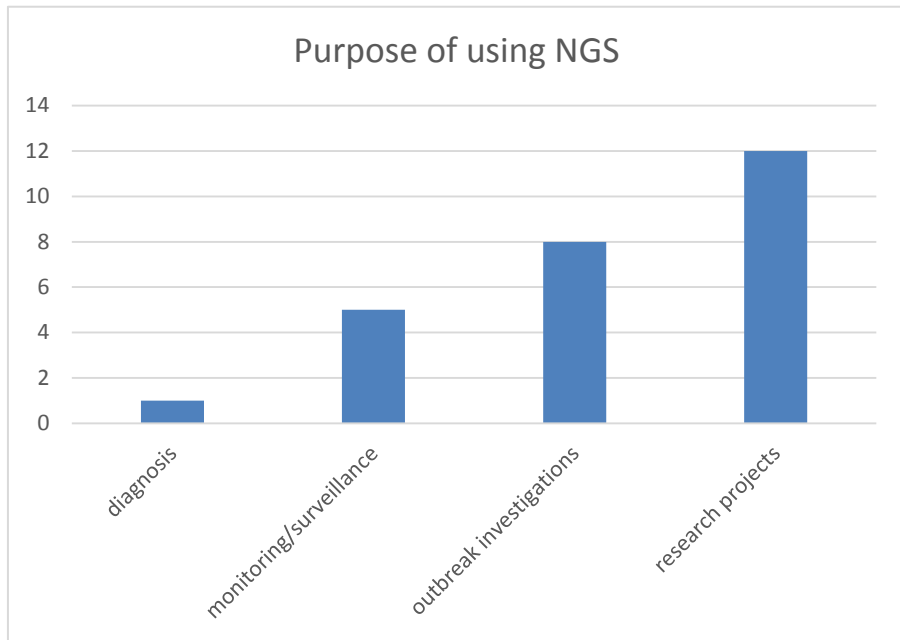**20 replied**

NGS activities performed

12/20 labs work with WGS

7/20 labs sequence in house
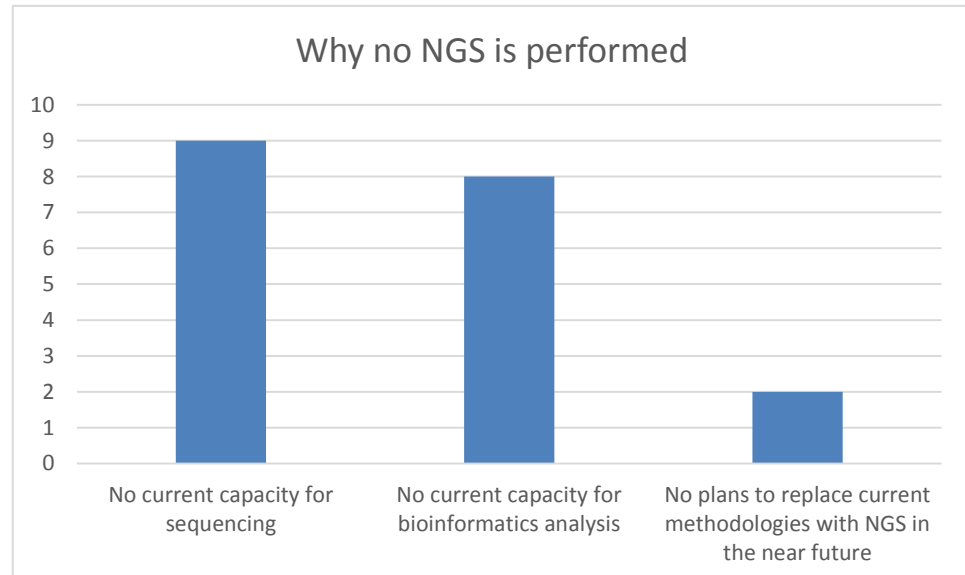
4/20 labs outsource WGS

1/20 labs use both resources
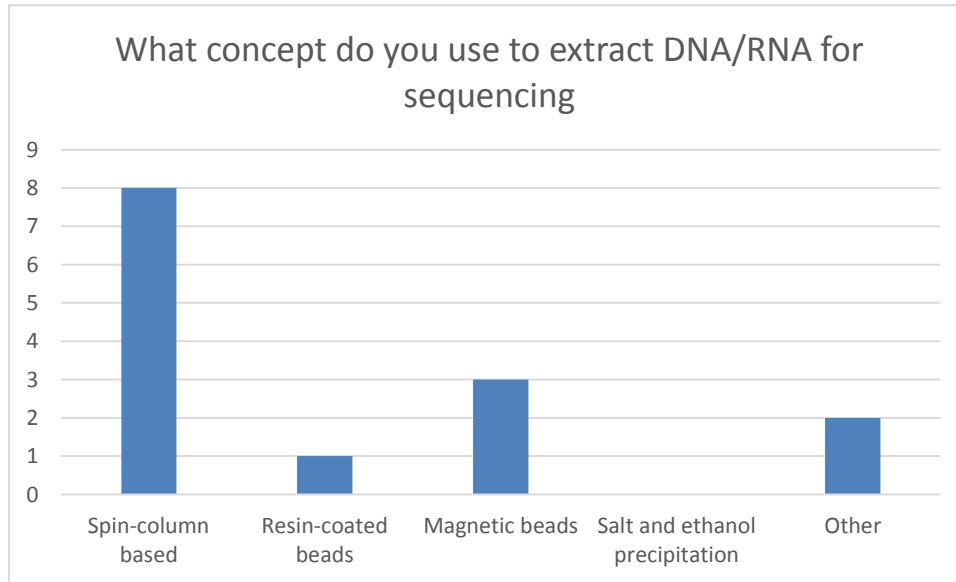
2/13 labs performing WGS
outsource data analysis

Purpose of using NGS

Bar chart showing purpose of using NGS:
- diagnosis: 1
- monitoring/surveillance: 5
- outbreak investigations: 8
- research projects: 12

5/13 labs performing WGS use it for monitoring and outbreak investigation

8 declared they don't perform NGS

Why no NGS is performed

Bar chart showing reasons no NGS is performed:
- No current capacity for sequencing: 9
- No current capacity for bioinformatics analysis: 8
- No plans to replace current methodologies with NGS in the near future: 2

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European Union and National Reference Laboratory for *E. coli*, Rome, Italy

EU-RL VTEC

DNA extraction methods

What concept do you use to extract DNA/RNA for sequencing

(Bar chart. Y-axis from 0 to 9.)
- Spin-column based: 8
- Resin-coated beads: 1
- Magnetic beads: 3
- Salt and ethanol precipitation: 0
- Other: 2

1 lab outsources also DNA extraction

DNA quality and quantity

Method used for the estimation of the quality of the extracted DNA/RNA
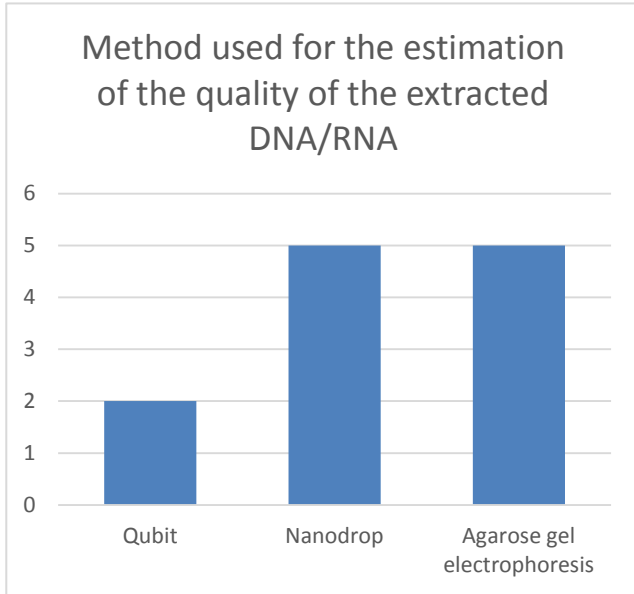
1 lab did not report any DNA quality check method

10 labs use spectrophotometers

Method used for the estimation of the concentration of the extracted DNA/RNA
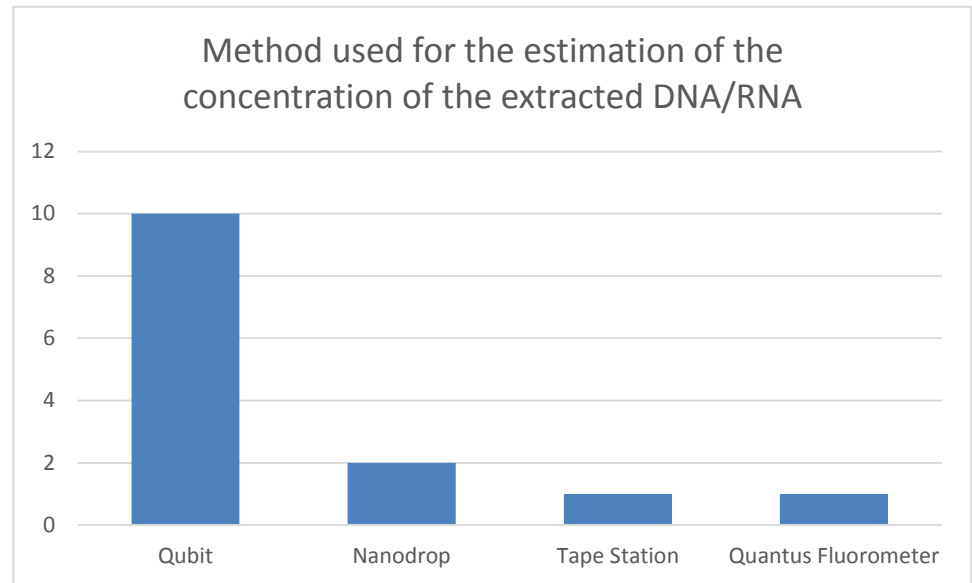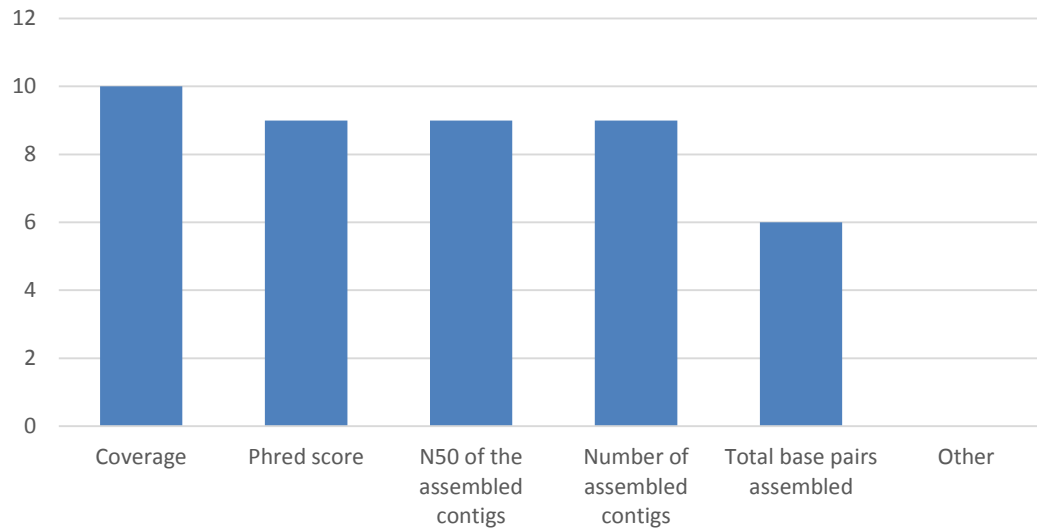
NGS platforms used
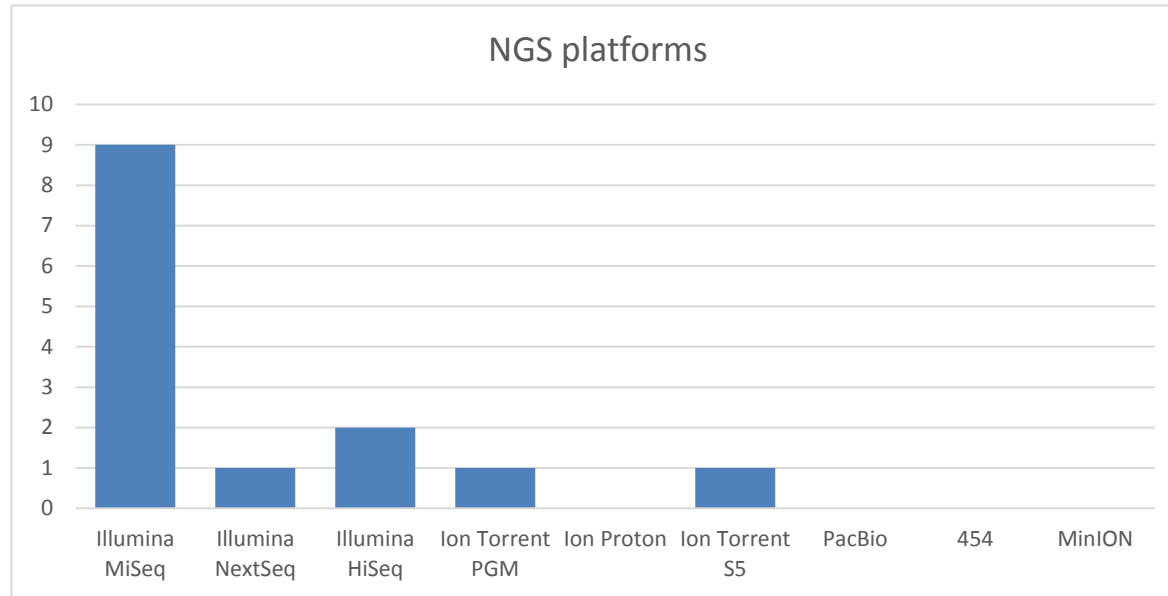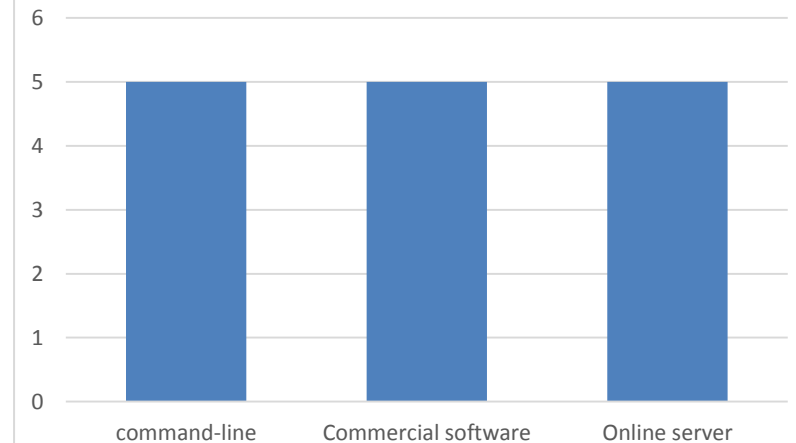

NGS platforms

2 labs use Ion Torrent platforms

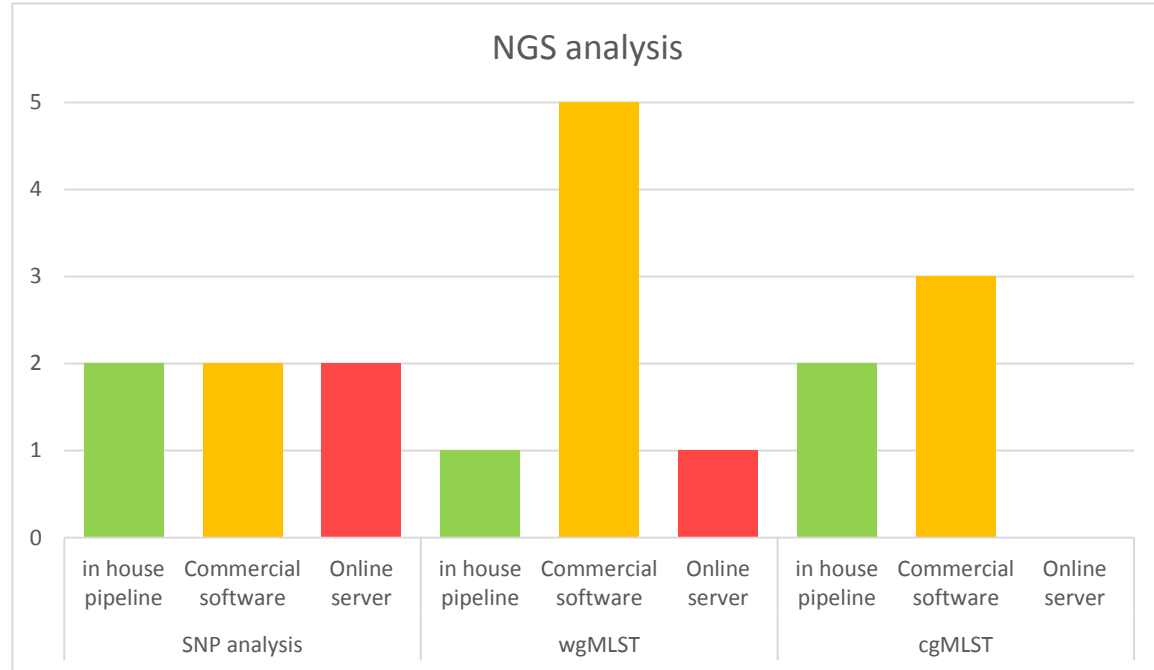12 labs use Illumina technology

Data analysis/1

Parameters used in evaluation of sequence data

NGS data analysis approach
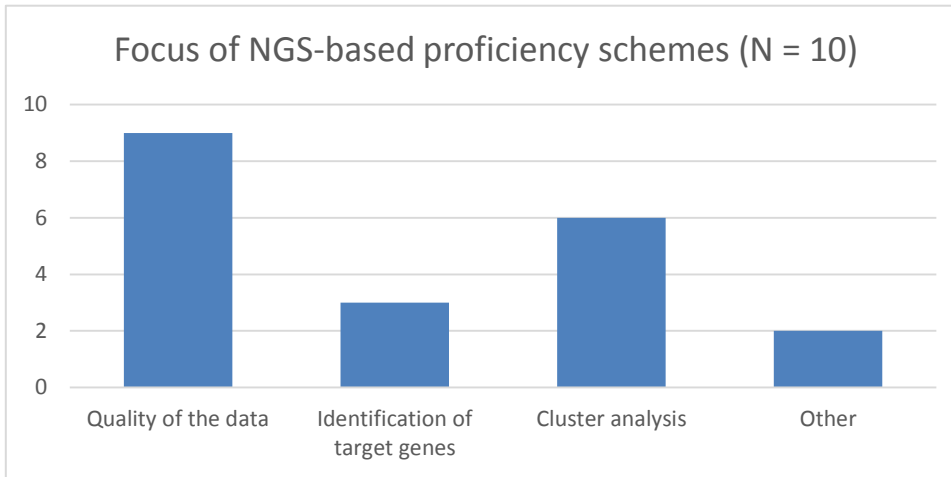
Data analysis/2
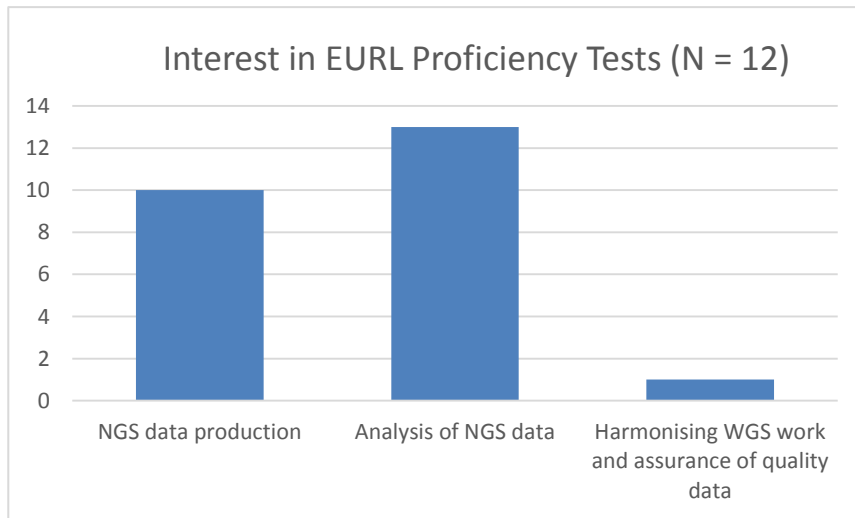

Cluster analysis (N = 9)
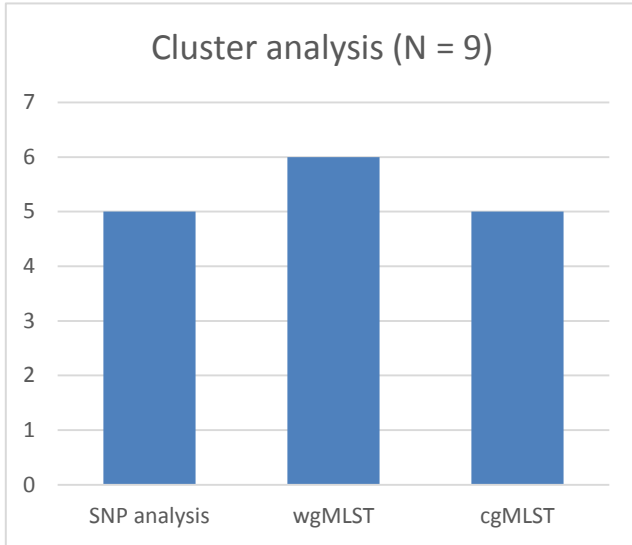
NGS analysis

Lack of harmonization in the tools used for data analysis

Two different commercial softwares mentioned for wg/cgMLST: Seqsphere and Applied Maths
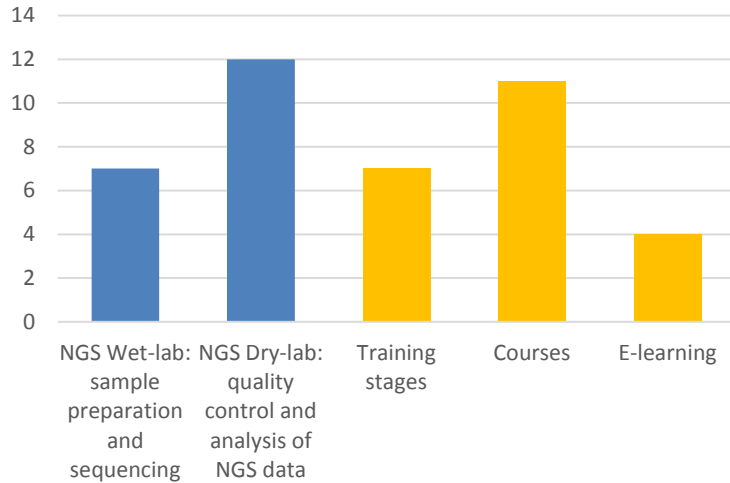
Proficiency tests

Focus of NGS-based proficiency schemes (N = 10)

6 labs reported participation in PTs including for cluster analysis

Interest in EURL Proficiency Tests (N = 12)
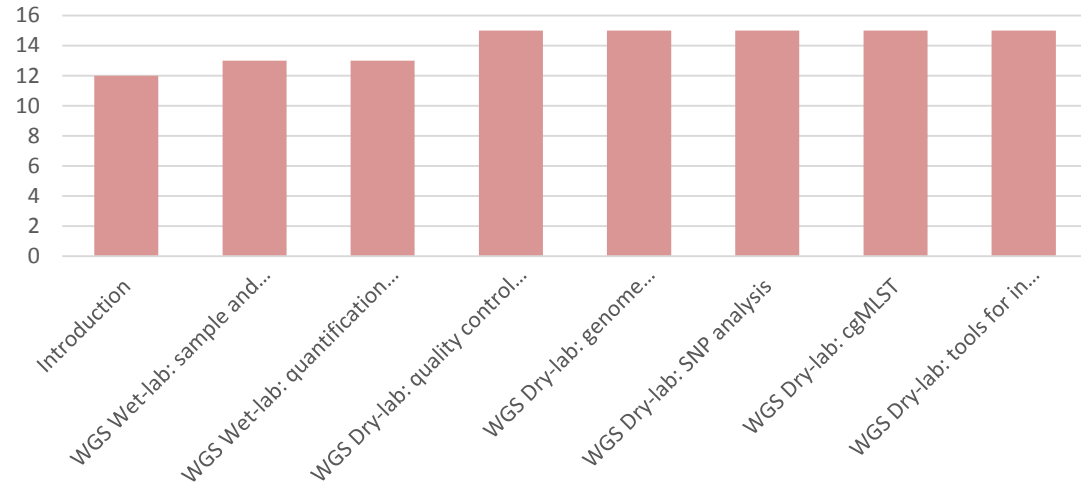

1 lab stressed the importance of PTs in the harmonization
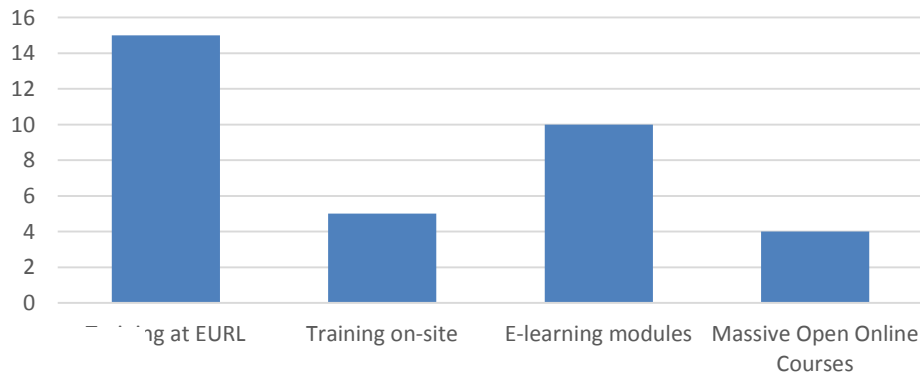
Trainings

NGS training received (N = 12)

Interest in training on NGS organized by the EURL (N = 15)
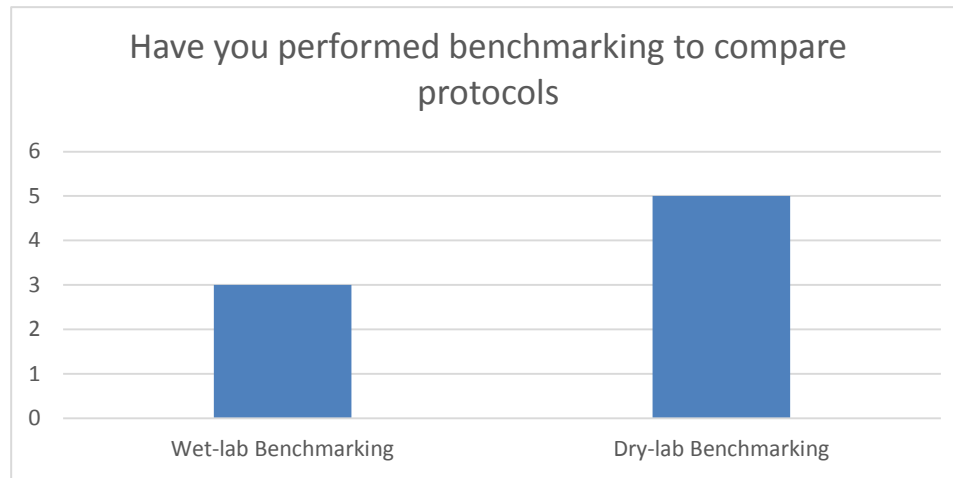

Preferred training method

Many labs have already received training but all still feel the need of training for all the steps of WGS, possibly at EURL

Benchmarking

Some benchmarking data should already be available