



## ➤ Summary of the results of the FAANG survey\* and next steps.

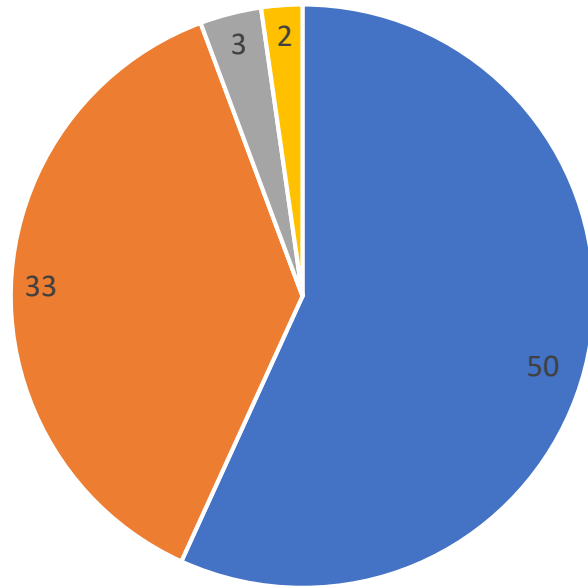
### **Aims of the survey:**

- Get the inputs and participation of the community to best orient and optimize our future actions.
- Attract new members from both academia and industry
- Reinforce/create links with other groups and project consortia.

**This first survey provides a basis for organizing new thematic Task Forces that will replace (or update) the current FAANG working groups**

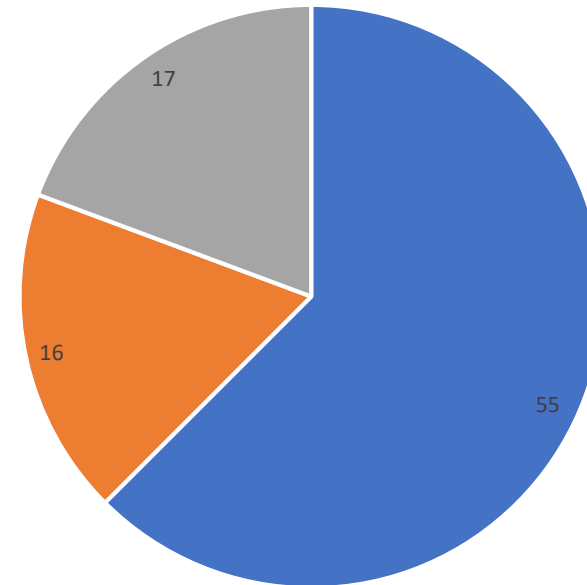
➤ In total 88 respondents (with 17 new potential FAANG members)

Geographical distribution



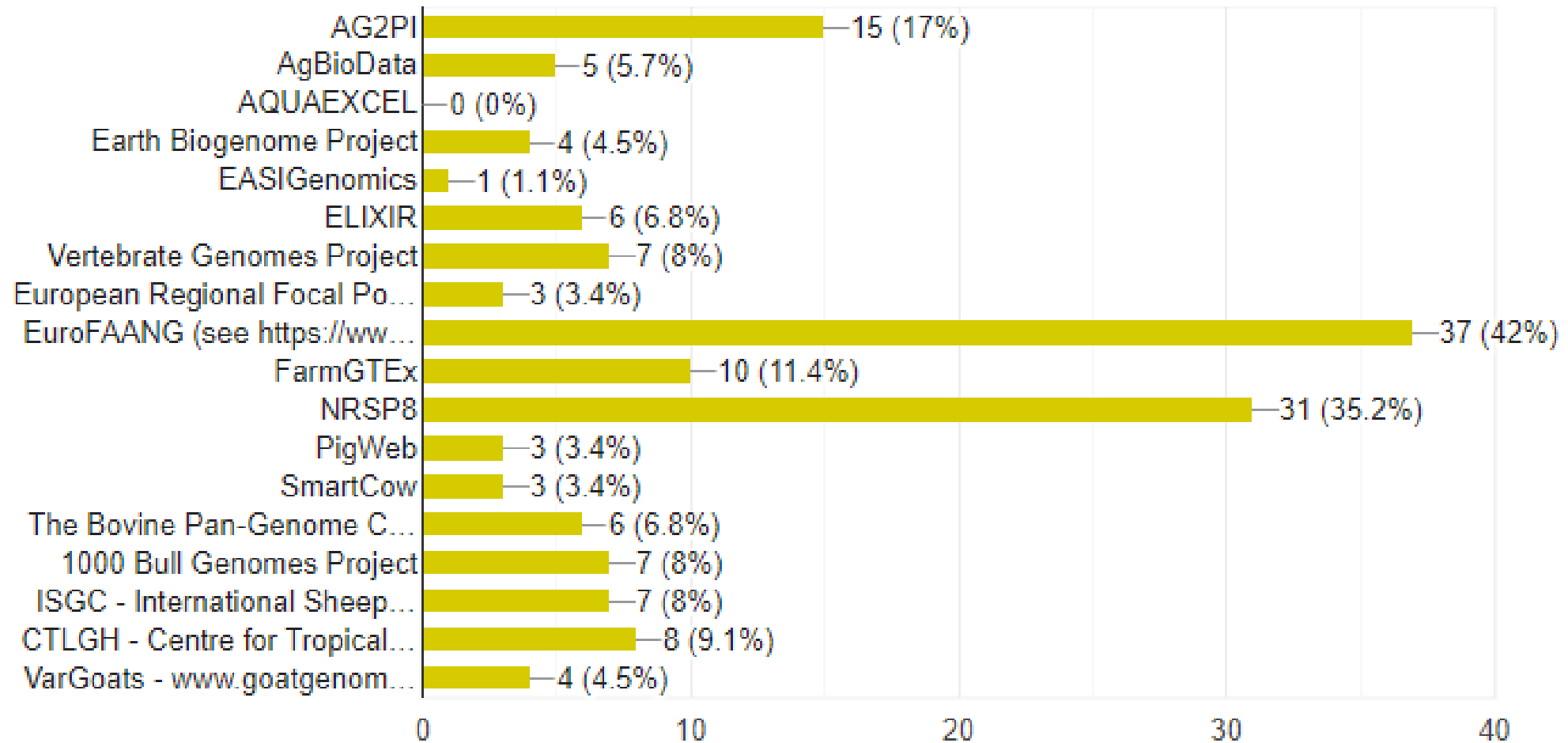
■ EU & UK ■ US & CA ■ AU & NZ ■ NA & Other

Already a FAANG member?



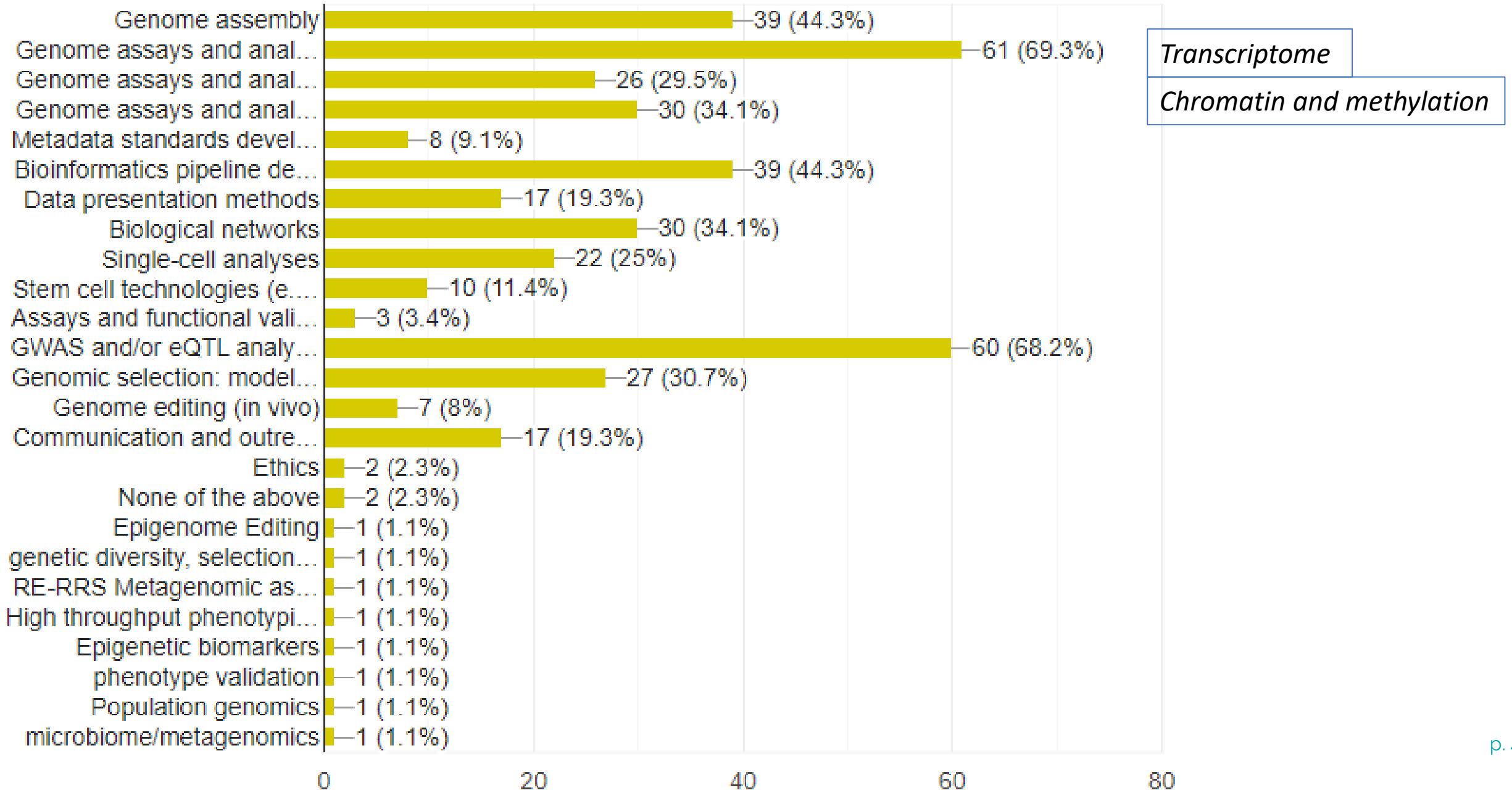
■ Yes ■ No ■ Not yet, but I intend to join

# Collaborations with other projects/infrastructures

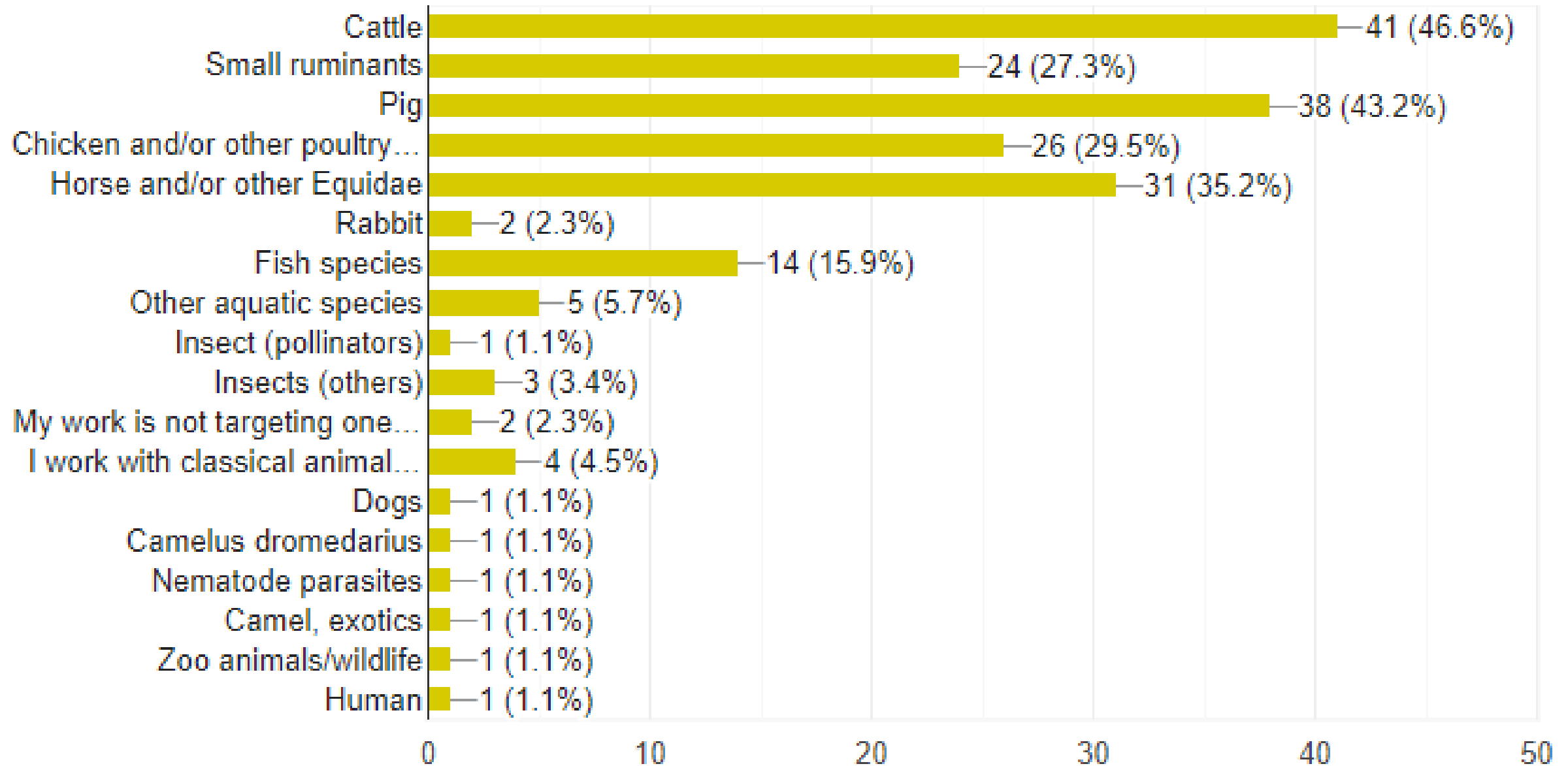


**Others indicated:** AngFarmBioDiv, ASGGN <http://www.asggn.org/>; GENE-SWitCH, BovReg, GEroNIMO, RUMIGEN (EuroFAANG project); Equine FAANG; FarmGTEx; International Camel Consortium for Genetic Improvement and Conservation <https://icc-gic.weebly.com/>; NAGRP animal genome; PQ-Inn (<https://www.ssica.it/en/portfolio-item/pq-inn-project/>); TARGET-TB: <https://recombinetics.com/recombinetics-launches-target-tb-researchers-republic-ireland-northern-ireland-develop-genome-editing-solutions-bovine-tuberculosis/>; USDA NIFA Grant 2019-67015-29340

# What global methodological approaches are you currently using in your research?



## What is/are your target species?



## ➤ The Task Forces

**Each new Task Force will be expected to:**

- **hold periodic seminars and discussions on target scientific and methodological topics** emerging from ongoing FAANG projects;
- **uptake new needs from groups and individuals** working with the genomes of emerging species and/or on novel research subjects, on methodological developments in model species, on ethics and societal topics, etc.;
- **be active to disseminate actions and to outreach stakeholders** through social media communications (e.g. through the already established twitter channels: @faangomics, @EuroFaang).

## > The Task Forces

*(...Please select those that are most relevant to your research):*

1	FAANG/FarmGTEx: to study the correlations between genotype and tissue-specific gene expression levels in animal populations	53	60%
2	Comparative genomics/multi-genome assembly visualization and analysis	50	57%
3	FAANG <sub>SingleCell</sub> : single-cell atlases from animal tissues for the fine-scale dissection of complex traits	37	42%
4	High throughput Phenotyping and Data storage	33	38%
5	Training for standardisation and future generation of scientists	22	25%
6	Metadata, ontologies and FAIR data recording	15	17%
7	Biorepositories of tissues and complex cell systems (e.g. organoids) representing genetic diversity	11	13%
8	High throughput in vitro modeling and genome editing	11	13%
9	None of these	5	6%

**Several respondents, as expected, indicated interest in many proposed areas (eg: FAANG/FarmGTEx & FAANG<sub>SingleCell</sub>)**

## ***Please indicate other areas that are most relevant to your research***

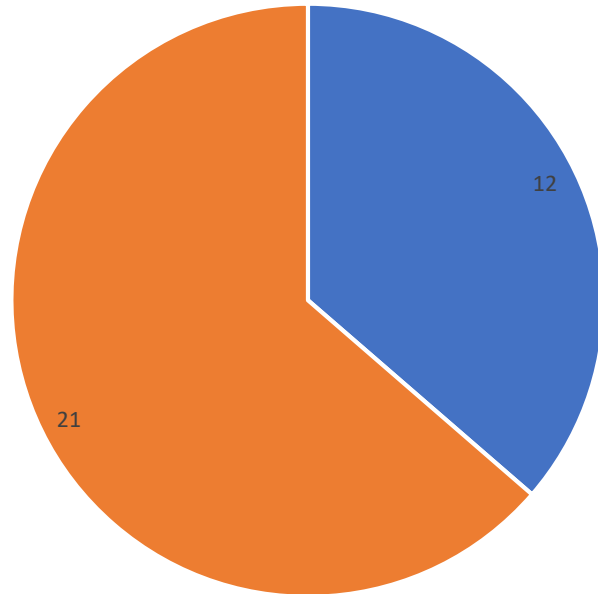
- Epigenetic plasticity and adaptation of genome to environment
- Epigenome editing
- Genomic tools and circular economy
- Global methodological approaches
- High throughput epigenotyping and the use of epigenotypes for precision farming and selection
- Host genotype and microbiome and/or parasite interactions
- Host/microbiome interactions
- Incorporating FAANG data into routine genetic evaluation of animals
- Microbiomes
- Prediction of phenotypes and breeding values
- Predictive phenomics using machine learning
- Repository of bio-informatic pipelines
- sequencing-based genotyping
- Transgenerational epigenetic inheritance

**To be evaluated: as new Task Forces, or for broadening proposed ones, or for targeted discussions events....**



# Would you be willing to take a leading or co-leading role in a future Task Force?

Possibly (33)

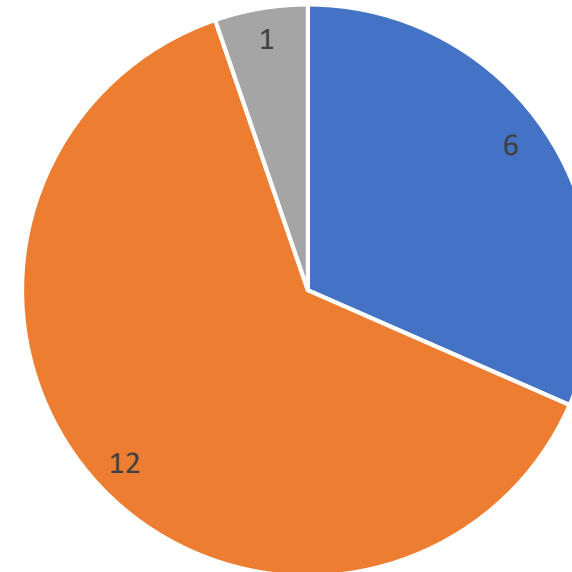


■ US & CA ■ EU & UK

**30 email contacts:**

- 16 FAANG members
- 8 intend to join FAANG
- 6 don't intend to join FAANG

Yes (19)



■ US & CA ■ EU & UK ■ Other

**16 email contacts**

- 4 intend to join FAANG

## ➤ Follow up (after Steering Committee meeting on 7 March)

- We are getting in touch with people willing (or “possibly willing”) to lead/co-lead a Task Force (based on answers in slides 7 and 8).

*We expect that by end of April each Task force will be self-identified, with coordinators and co-coordinators appointed.*

- Hold a Steering Committee together with Task Forces coordinators to discuss together organization and future work (May-June).

**Again a big thank to all of you who responded!**

