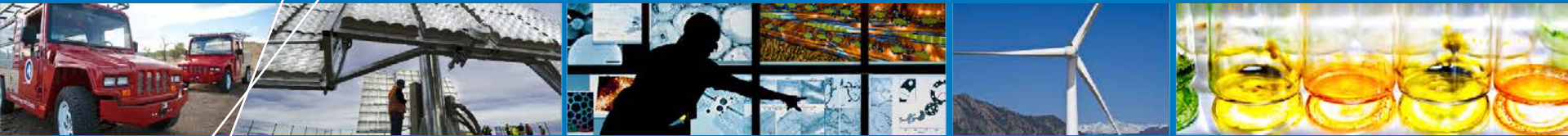


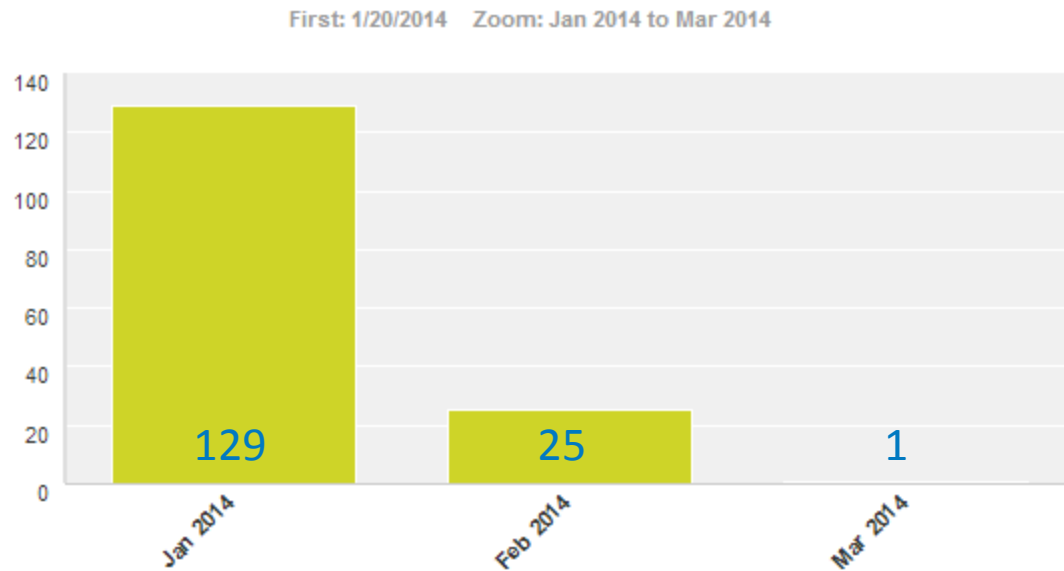
SAM Survey Results Summary



Nate Blair and Paul Gilman

April 29, 2014

155 Total Responses



Survey open from January 20 to March 3
Last response was on March 1

General Feedback

- **Generally very positive**
- **People like ease of use, speed, and availability for free**
- **Access to databases is great**
- **Some comments associating NREL with reliability**
- **People like flexibility, versatility, ability to model multiple technologies**

International Use

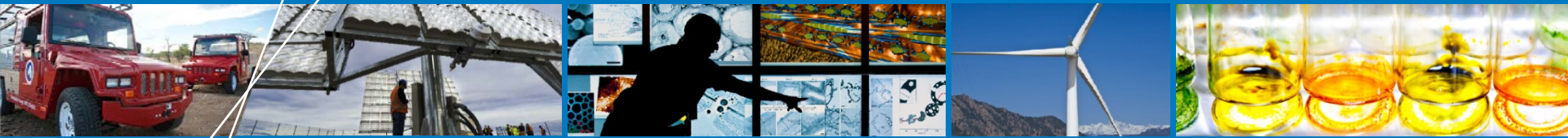
- **72 of 155 respondents from outside U.S., about 45 countries**
- **Many comments about non-U.S. weather data and access to databases**

User Profiles

- **More respondents represent engineering and consulting companies than universities and labs**
- **Many respondents are modeling distributed systems**

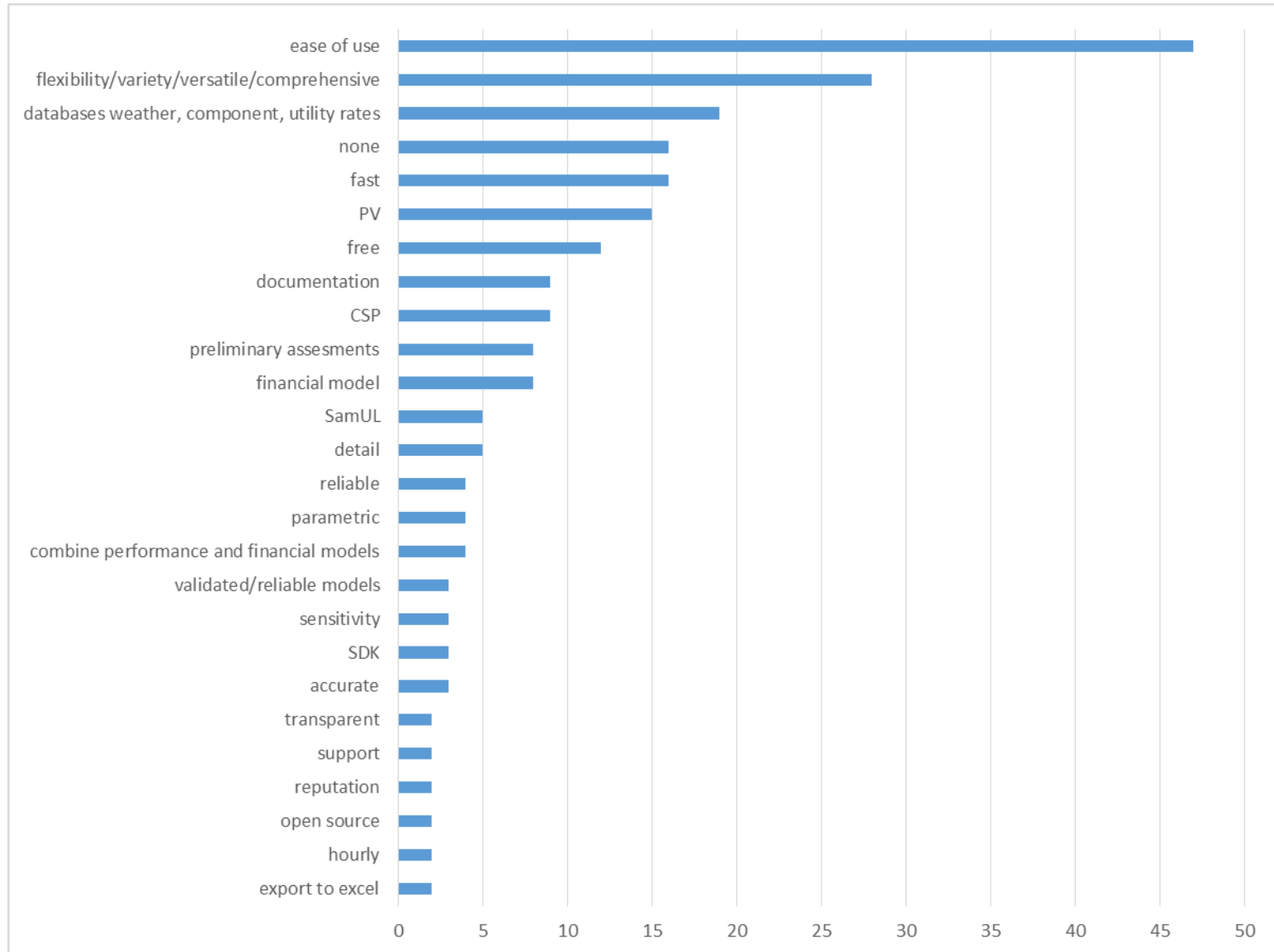
Things to improve

- **Access to weather data**
- **Avoid hidden UI features (some requests were for things already in SAM)**
 - General workflow
 - Results, reports, input summary, etc.
- **Make it easier to “sanity check” results**
- **Several respondents mention large number of inputs**
 - Facilitate editing in one place
 - Facilitate generating list of inputs to review
- **Continue making residential/commercial models more realistic**
 - Monthly energy bill as input for electric load
 - Refine utility rates: Tiers
- **No financials?**



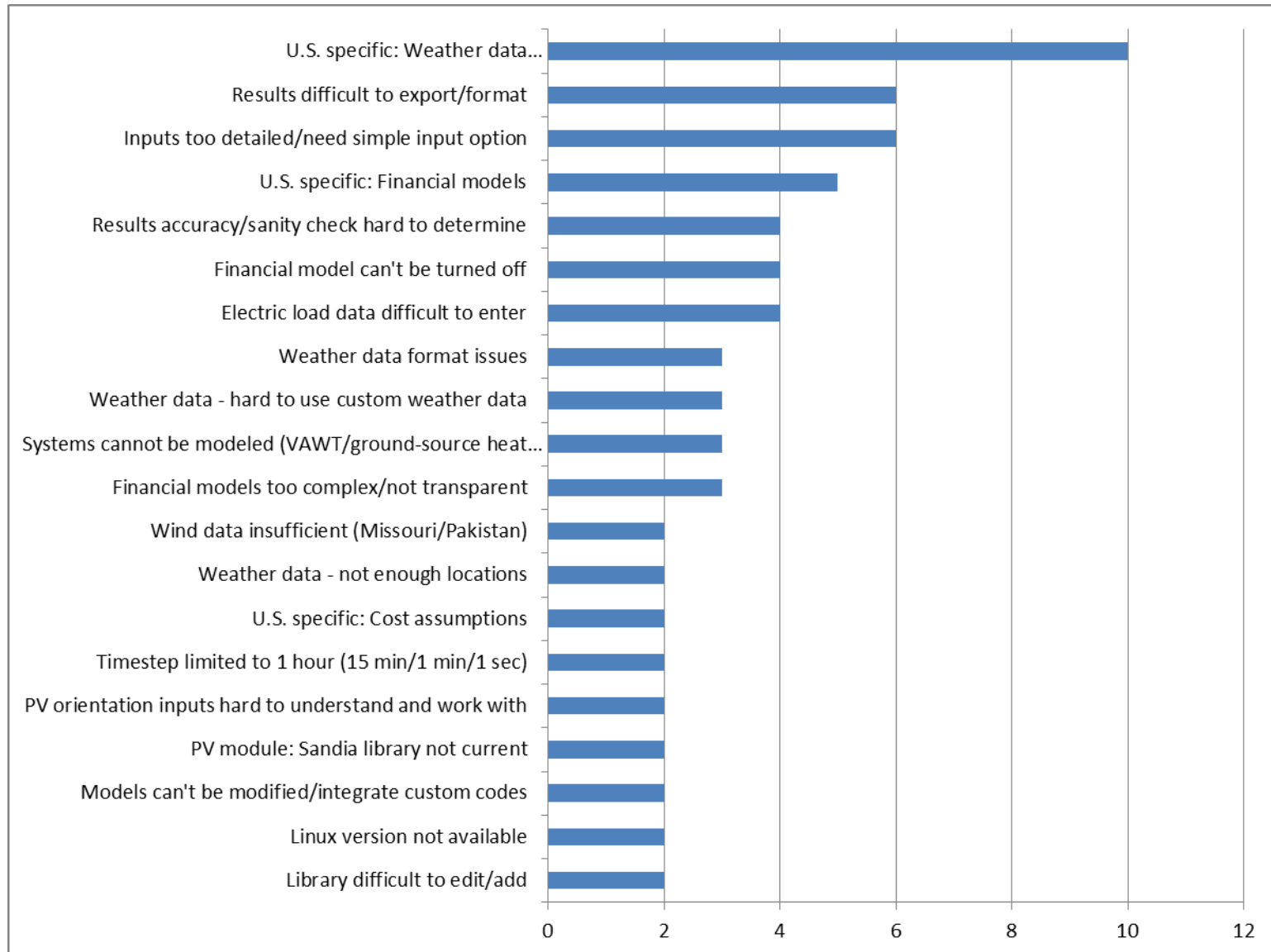
Detailed Survey Results

What do you like best about SAM?

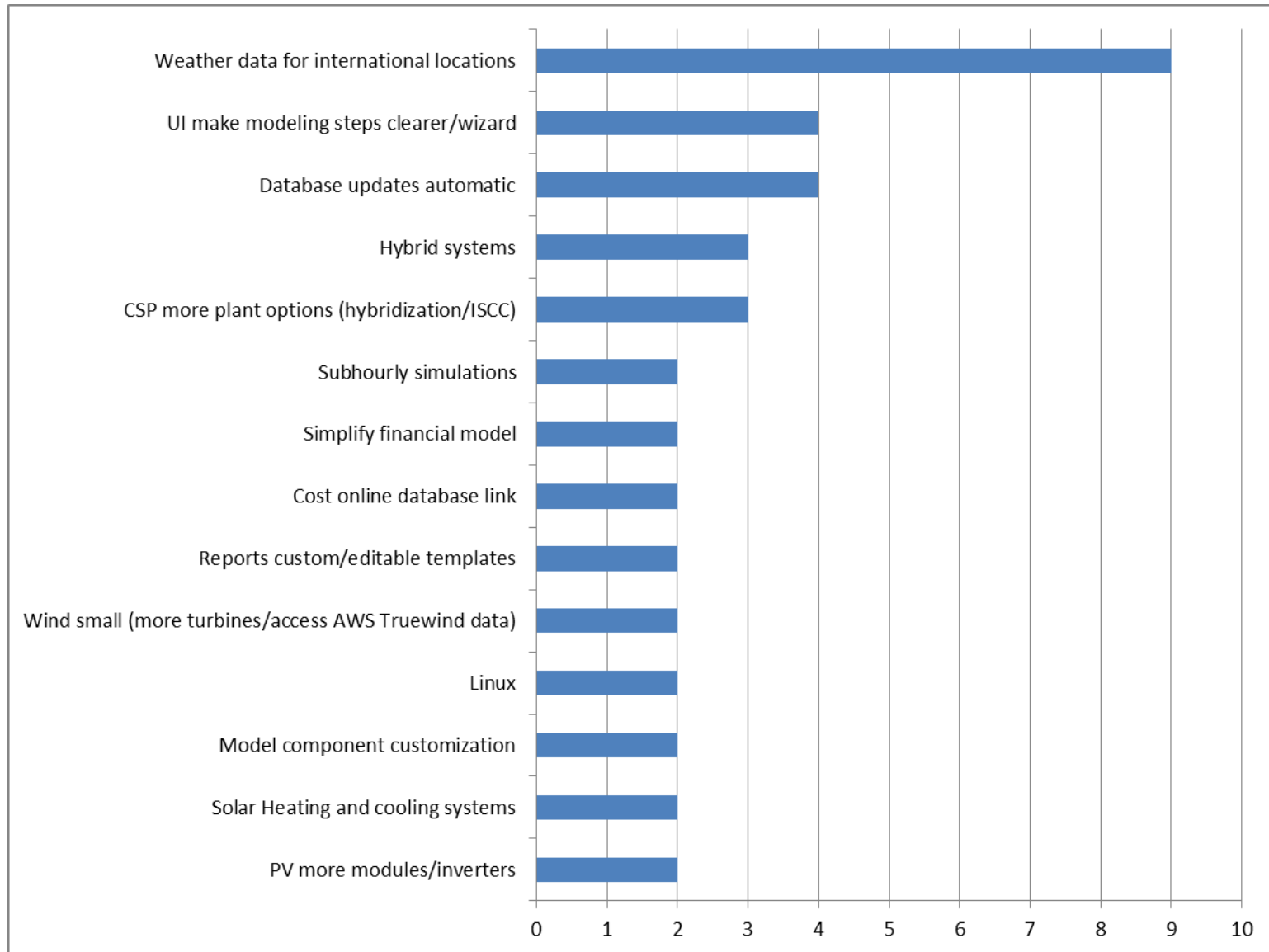


Graph shows keywords that appeared in two or more responses

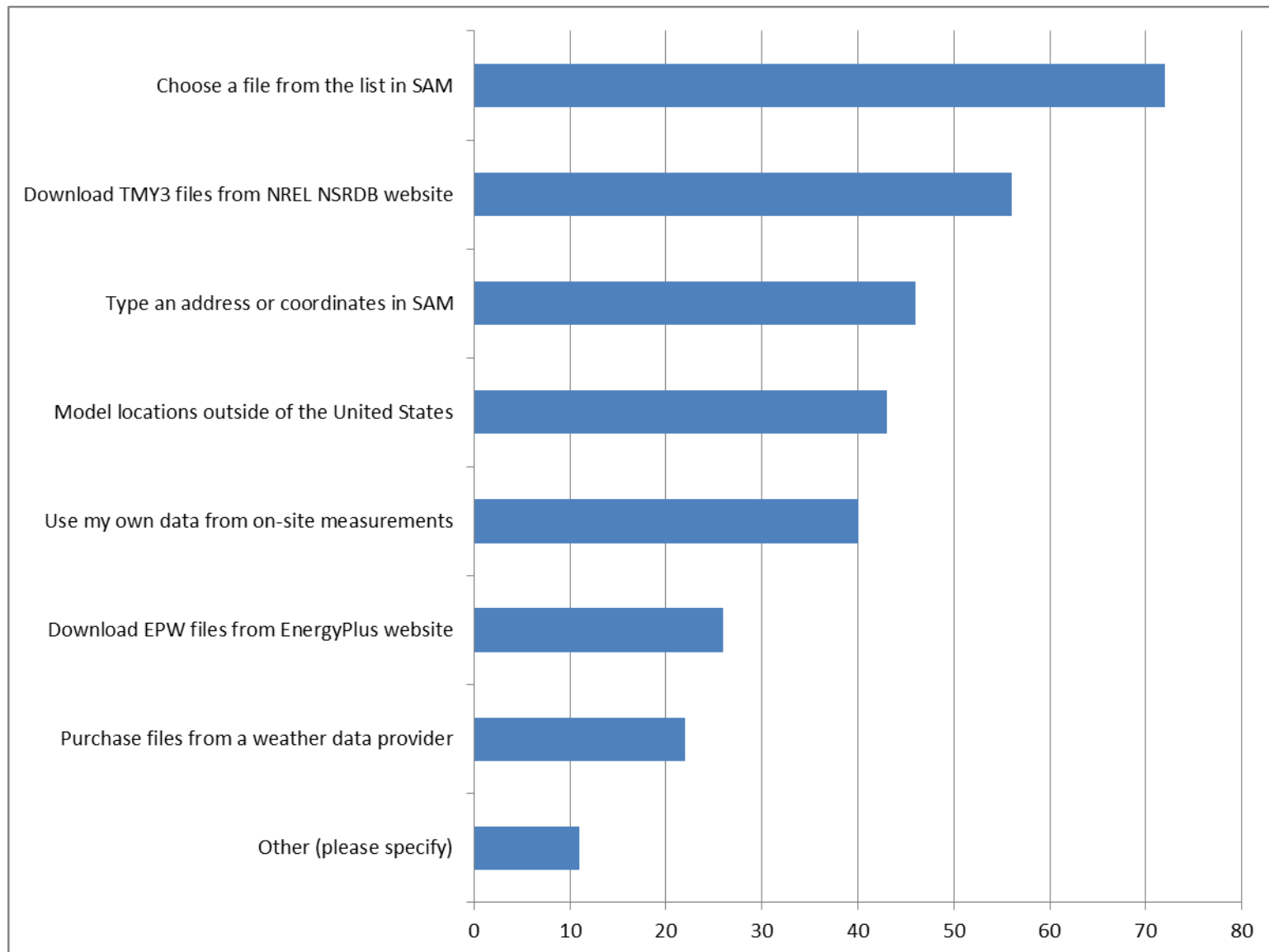
What do you find most annoying or inconvenient about SAM?



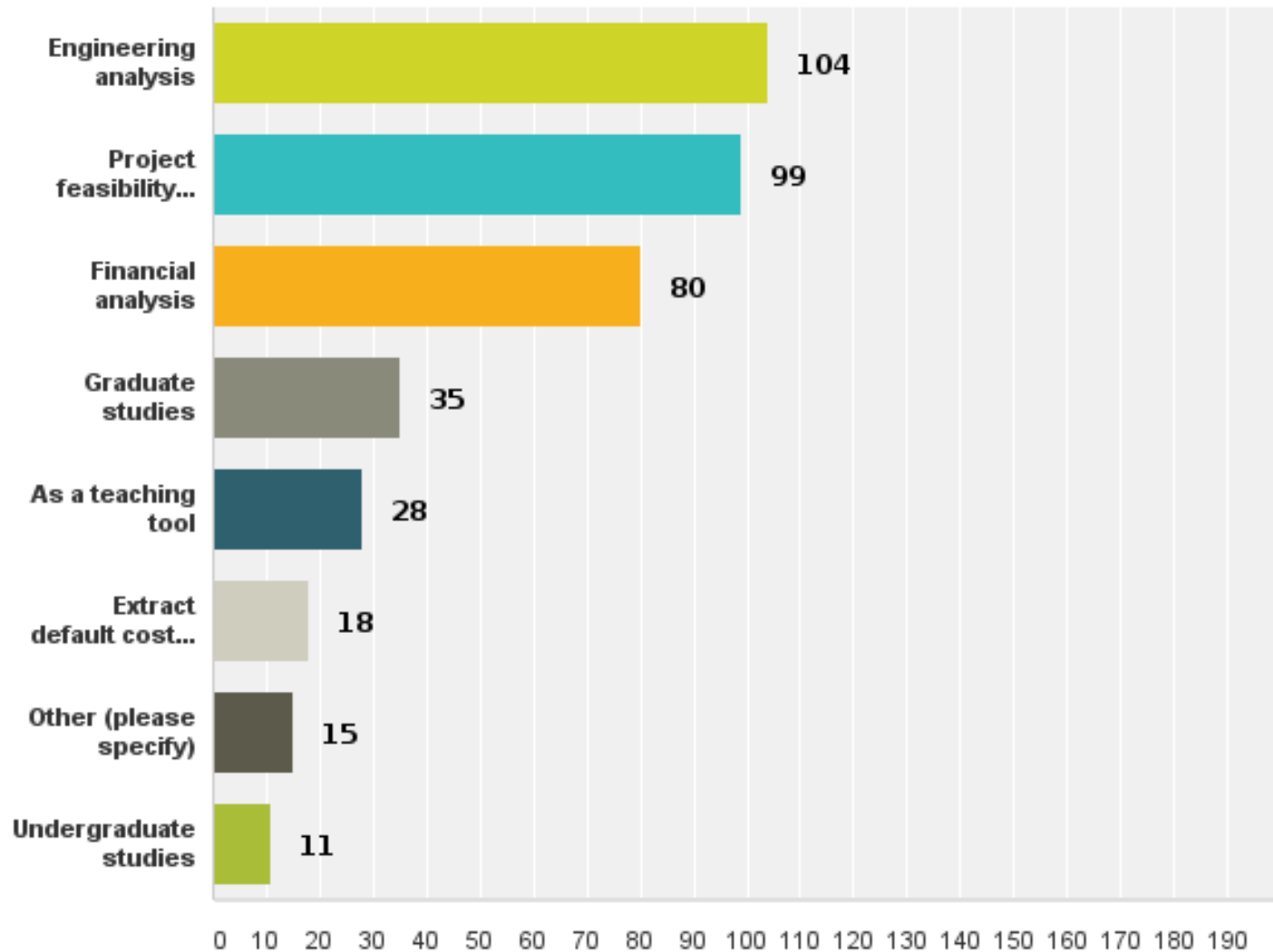
Please describe any improvements to existing features you would like to see in SAM.



Which of the following applies to your choice of weather data?



For what purpose do you use SAM?



For what purpose do you use SAM?

Post-graduate studies

Post-graduate Master's dissertation analysis

Research in academia

Research on the renewable energy

Perform real time estimates of expected production to compare against meter output

To calculate expected generation for monitoring purposes

Rough benchmark comparison

Benchmarking of internal tools, if ever

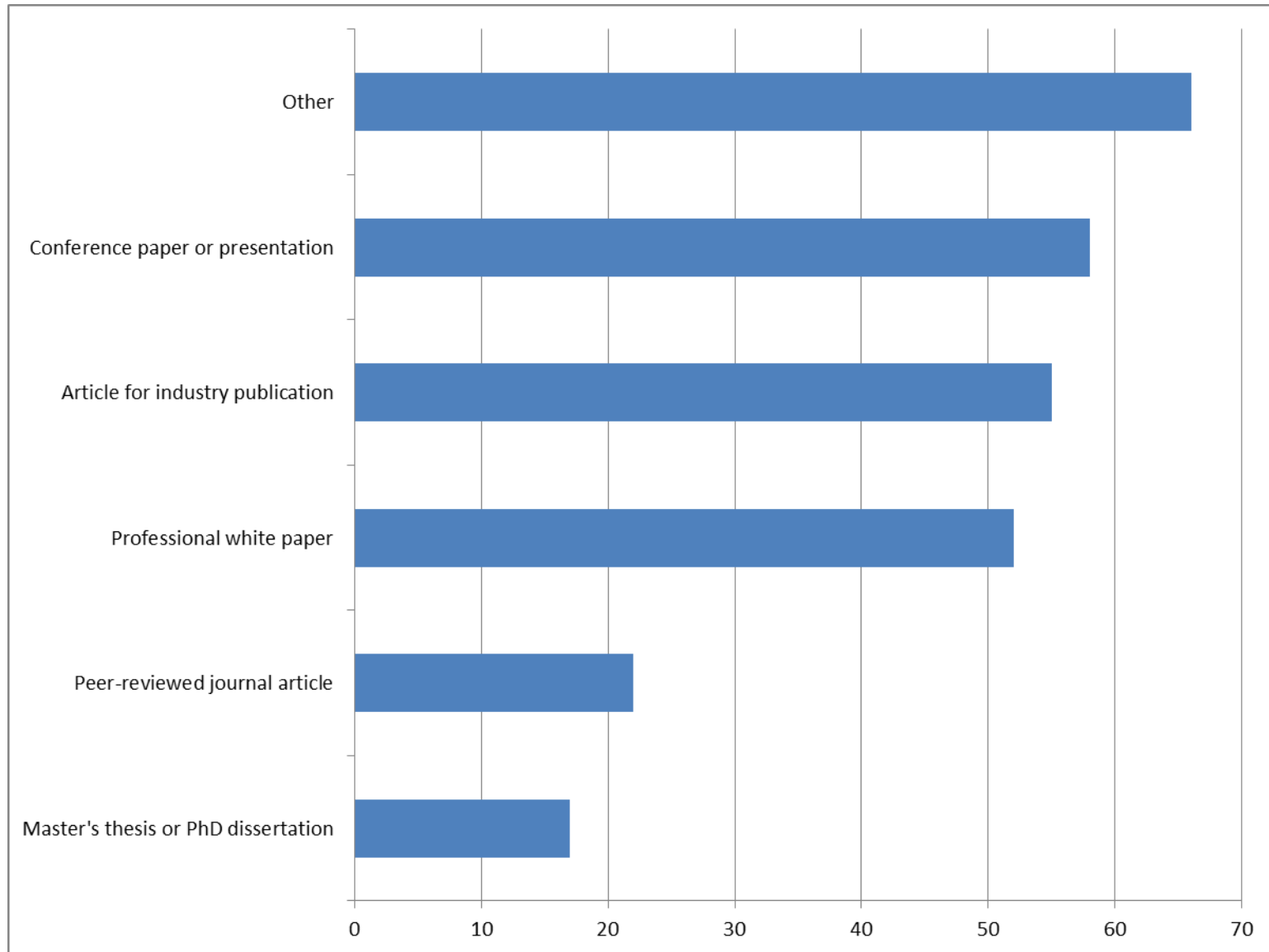
Project development

Outreach

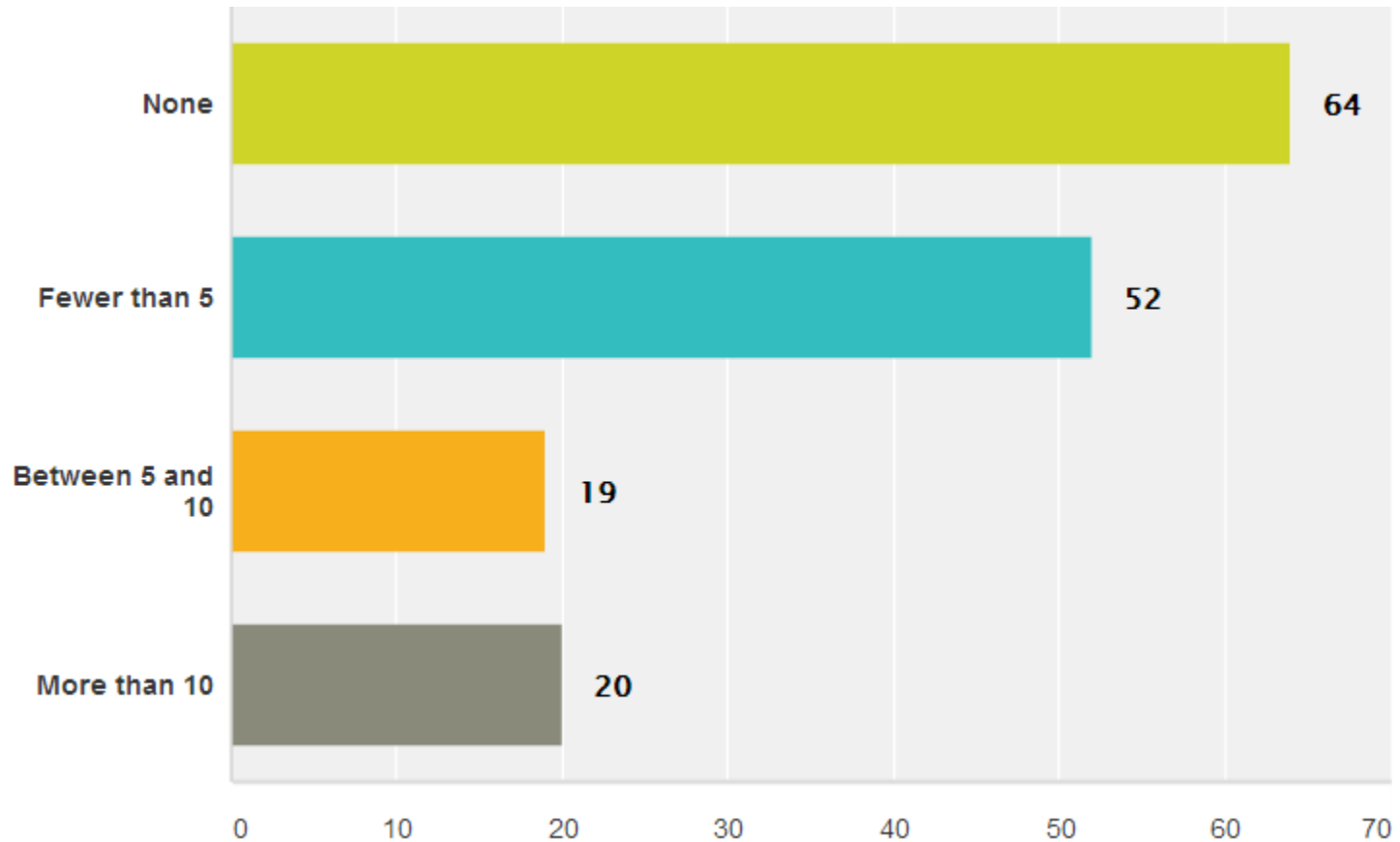
Learning tool

Market, economic and policy analysis

How many publications have you written based on your work in SAM?



How many operating renewable energy systems have been planned, designed, or evaluated with the help of your SAM analysis?



How many operating renewable energy systems have been planned, designed, or evaluated with the help of your SAM analysis?

30 kW

30 kW

75 kW

300 kW

1 MW and greater

1 MW CSP LFC AS STUDY CASE CSP TC 1MW AS STUDY CASE PV 1MW AS STUDY CASE

2,000 kWp of PV systems evaluated, but only 1,000kWp installed and in operations.

2500 kW

5 MW

5.3 MW

3.3 MW

20 MW biomass power plant in Pakistan but the problem was not enough residue data and lack of weather data .

30 MW for 6 projects in Eastern Indonesia

50 MW

100 MWe

300 MW

500 MW

How many operating renewable energy systems have been planned, designed, or evaluated with the help of your SAM analysis?

First system planned with SAM shall be under construction by 2015.

hoping to change this shortly, have just won a contract to study 3 MW total over ~10 systems

I am a new user of SAM and I make some practices before the beginning using this software

I am starting a PV Array installation business and in the process of installing a small 2.4 KW top of pole mount system to use as a learning tool and a sales tool

I don't use it for specific projects, but for design of incentive programs and for potential estimates

I haven't had any systems installed yet, but I have analyzed several and SAM would be very helpful if I did.

I only use SAM for climate data, not for solar design / installation

I use SAM for solar product design optimization, not installations. Installation design was done for proof of concept only at this point.

just found the SAM site.

Just getting started

Just learning.

Just started using SAM.

My work involved simulations for 7 Power Tower plants which I wish to see one of them installed. The largest of the simulations was 50MW capacity. Note that my work was for academic purposes.

none yet, I am studying the industry and have an internship with a local advocacy group. They asked me to get to know SAM.

The use of SAM was to verify the modeling a 3rd party was doing against PVSYST modeling that I was performing. I was using PVSYST. They used SAM to verify my PVSYST. I used SAM to verify their SAM model.

Unknown.

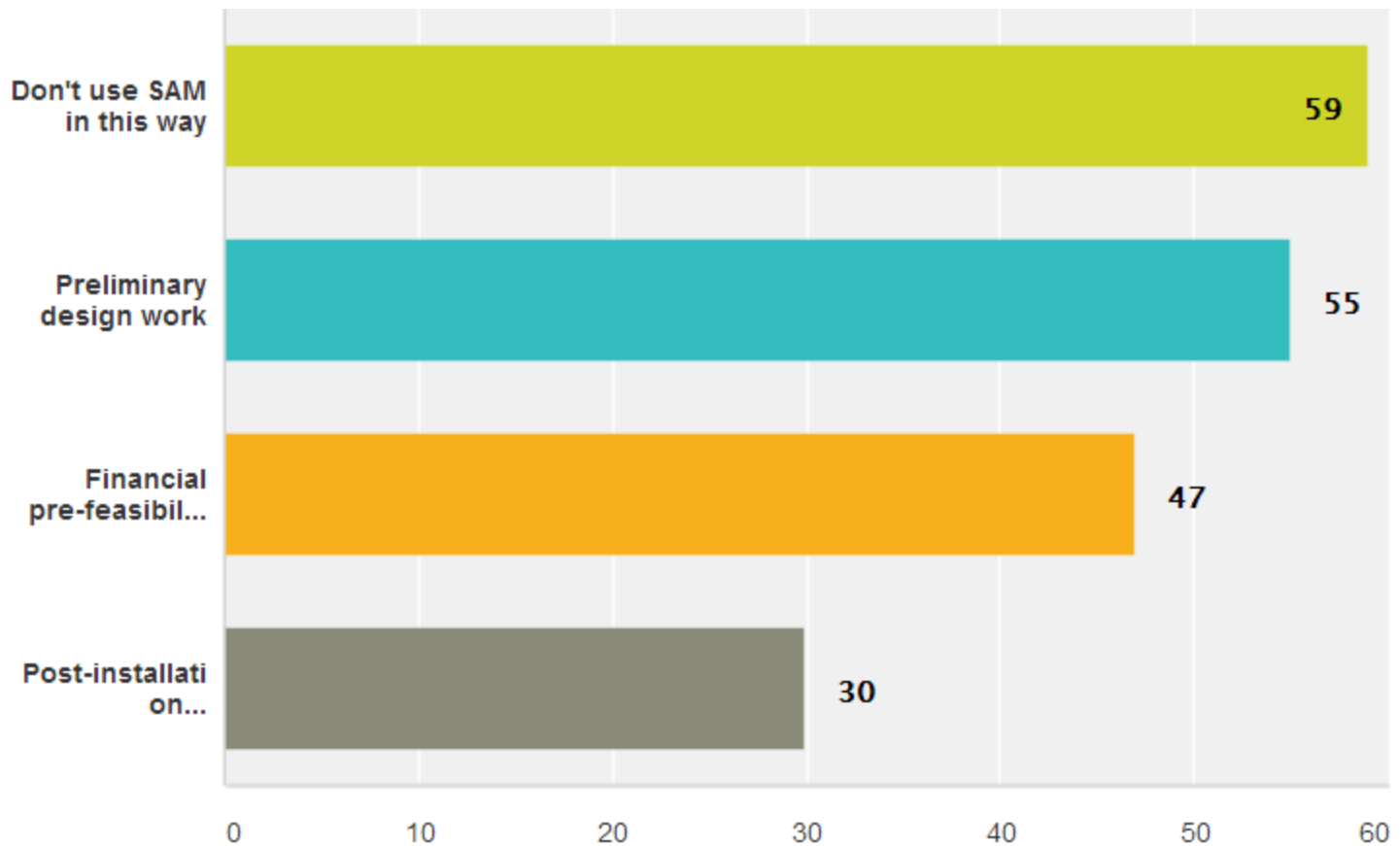
Used to estimate hourly performance for more detailed loss analysis

We have evaluated/audited over 300 kW of PV using SAM

We mostly work with our own tools. SAM is sometimes used for preliminary analysis. Sometimes suggested for use by banks or non technical users as a reference analysis vs. EPC models.

We're just getting started

If your SAM work involves installed systems, how do you use SAM analysis results?



If your SAM work involves installed systems, how do you use SAM analysis results?

But I hope to some day.

I probably should.

Evaluation of SAM as a modeling tool.

Rough Benchmark comparison.

For a feasibility study to construct a solar thermal power plant.

Will plan to present various analysis results to local municipalities and others interested in the knowledge.

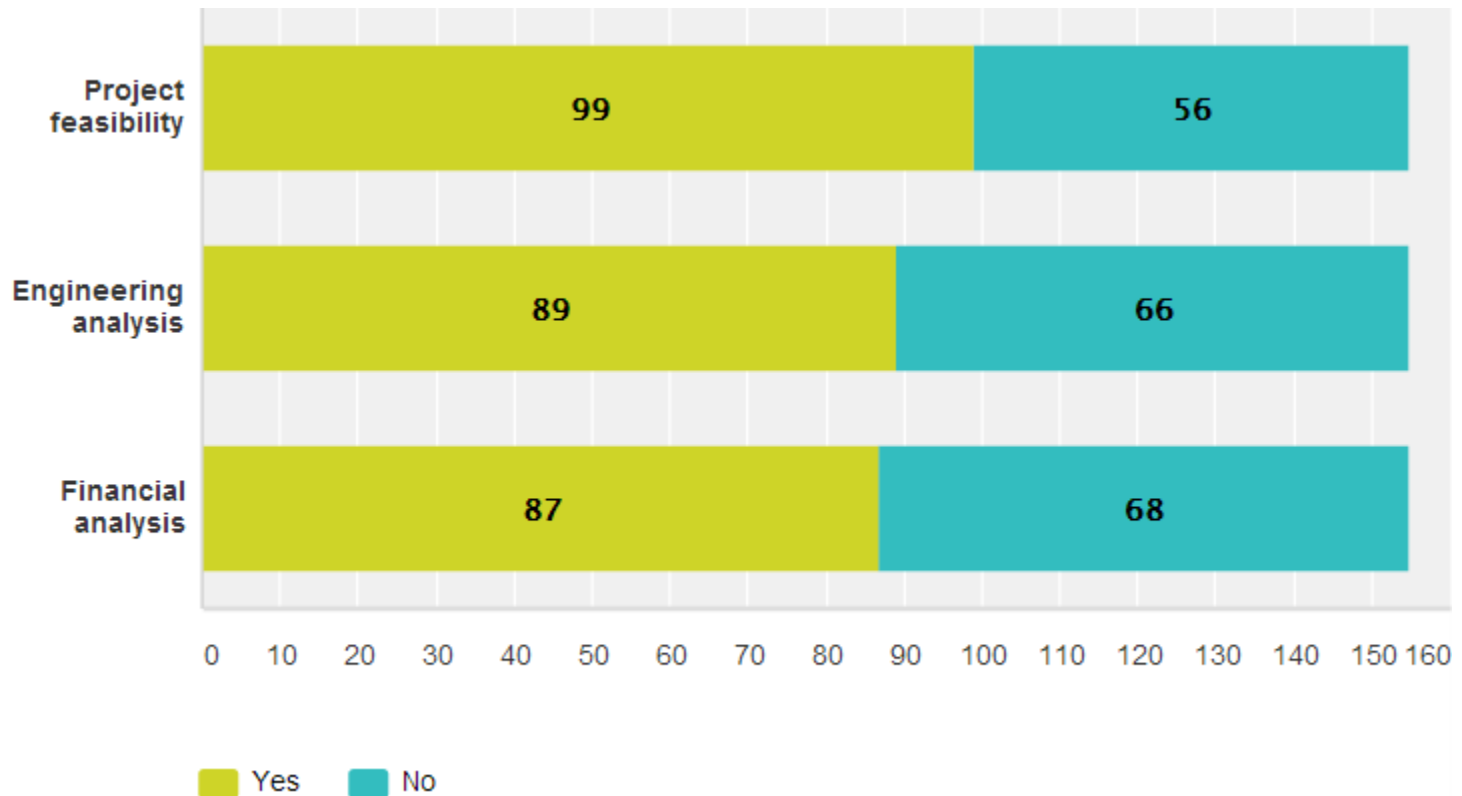
Due diligence on proposed projects.

So far such analysis not done by me.

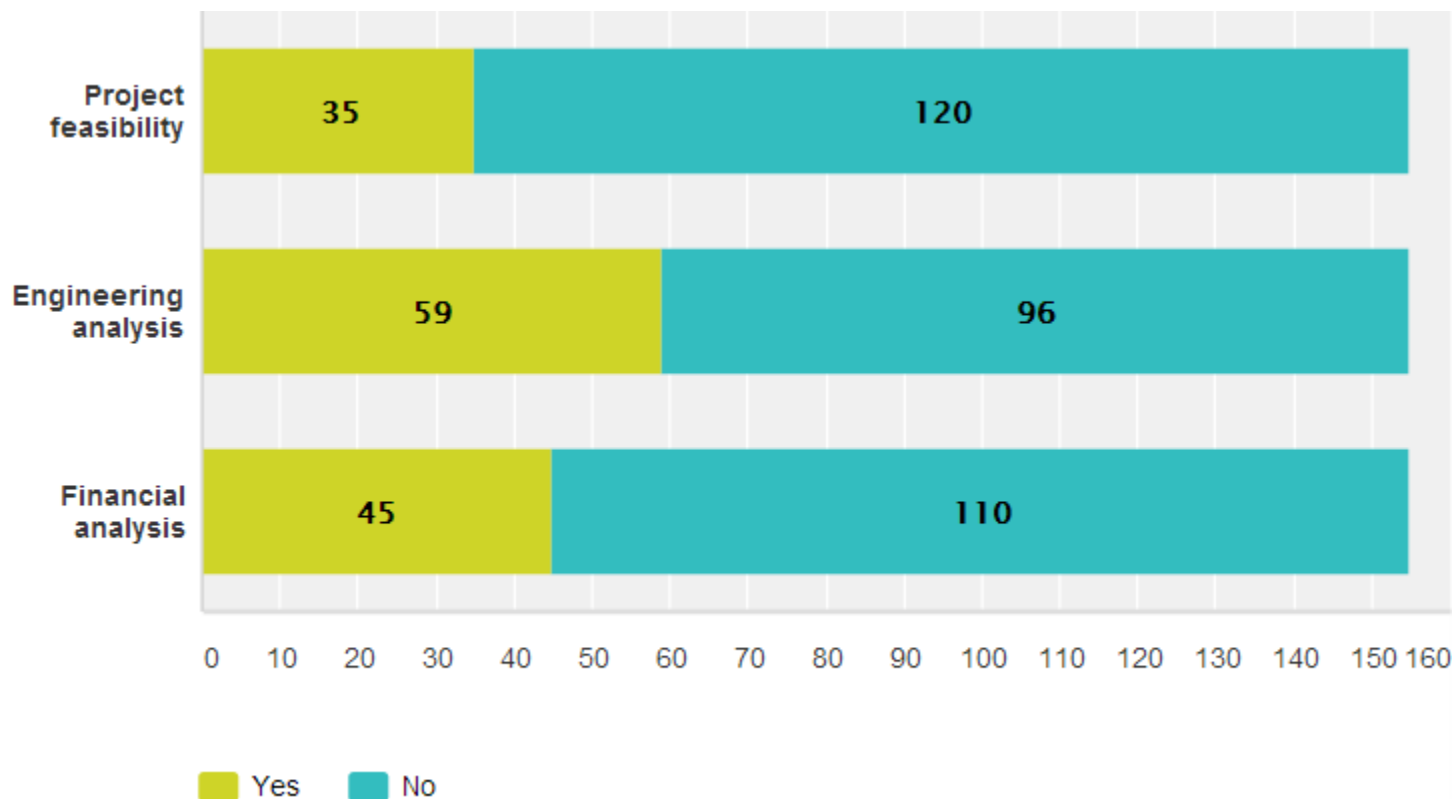
For Sam version 2014 always error when continue.

Academic work into economic feasibility of solar systems.
not yet, but a good idea when I have time.

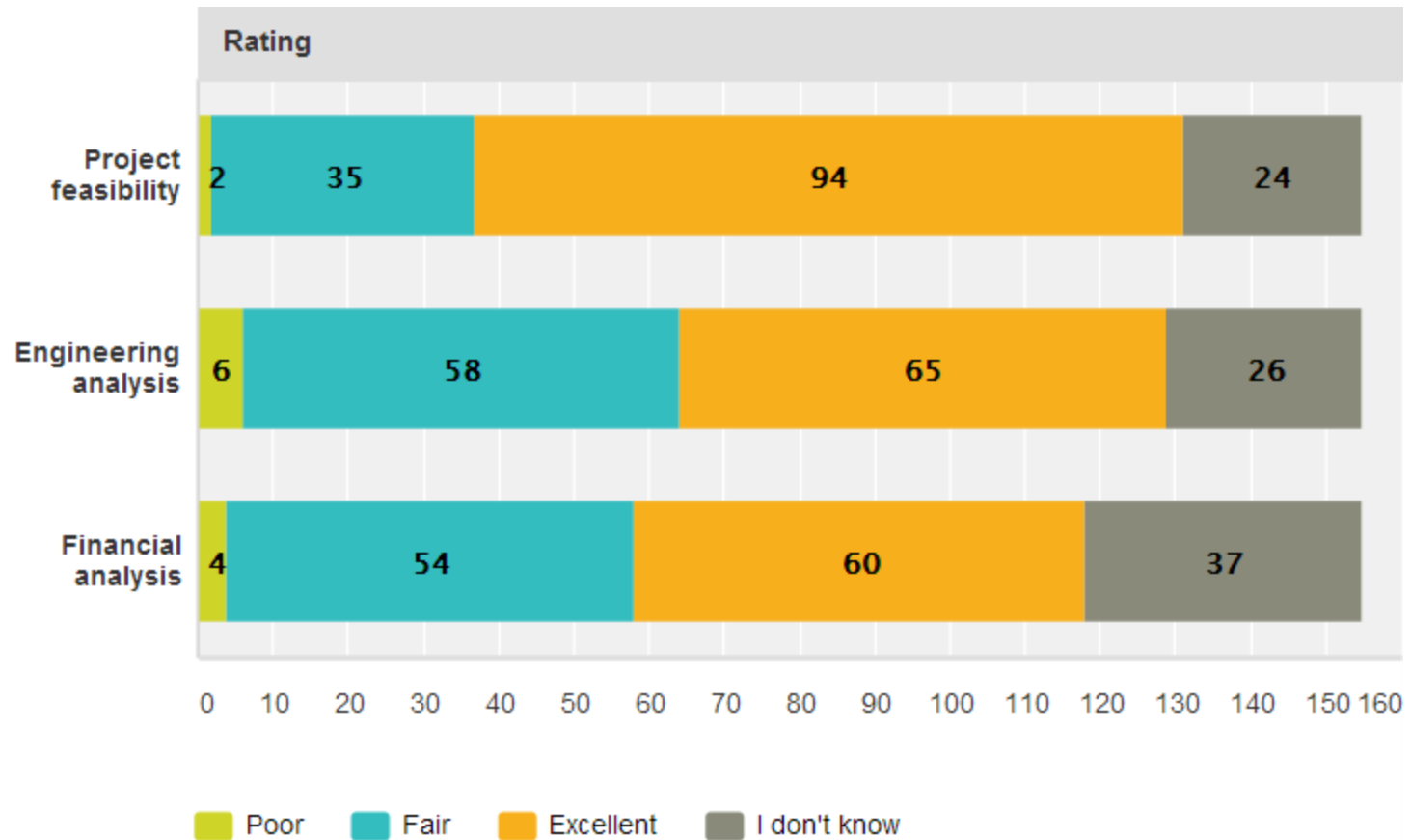
Is SAM the primary tool that you use for each of the following?



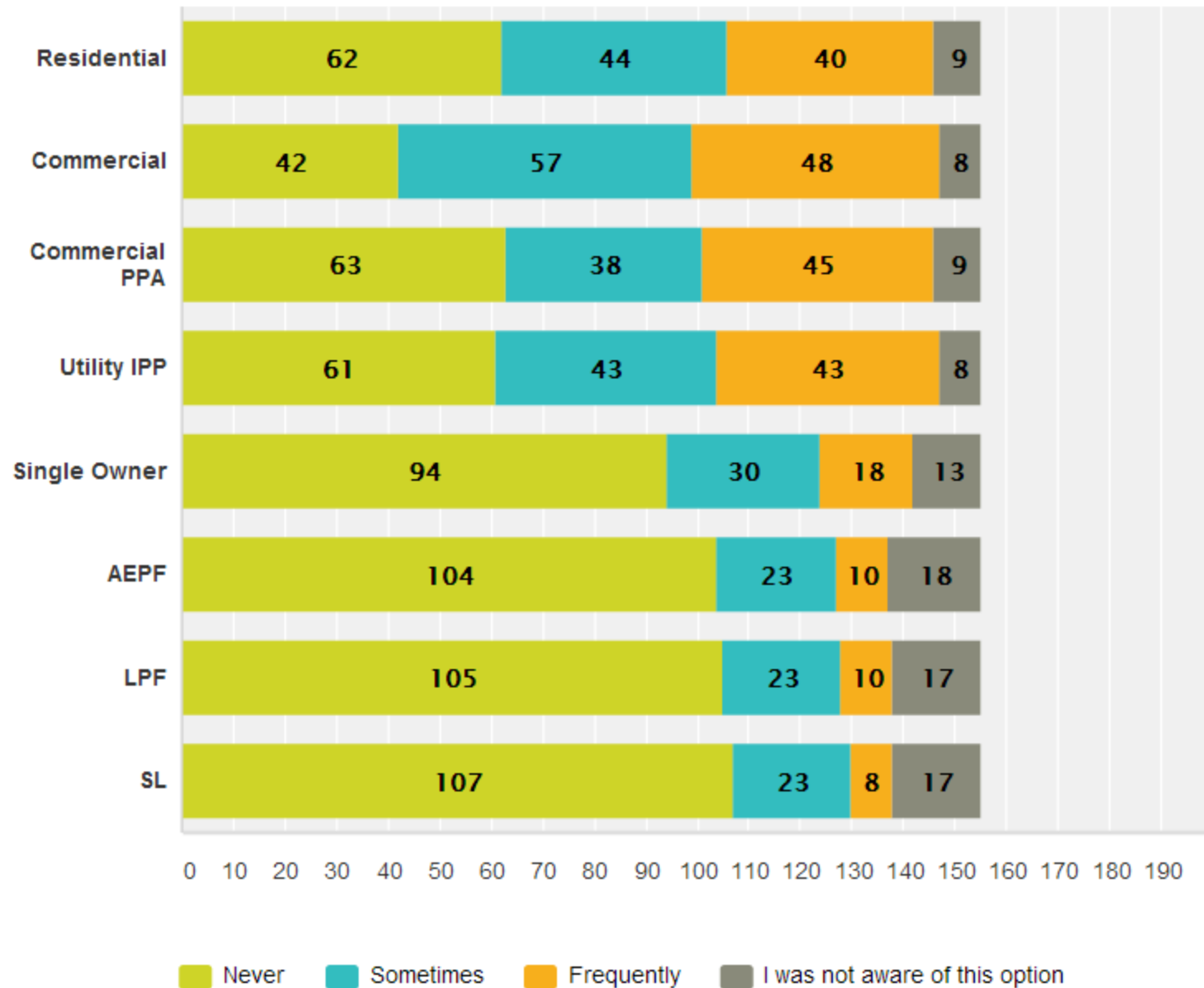
Do you have access to, or currently use a model that you think is better than SAM for the following?



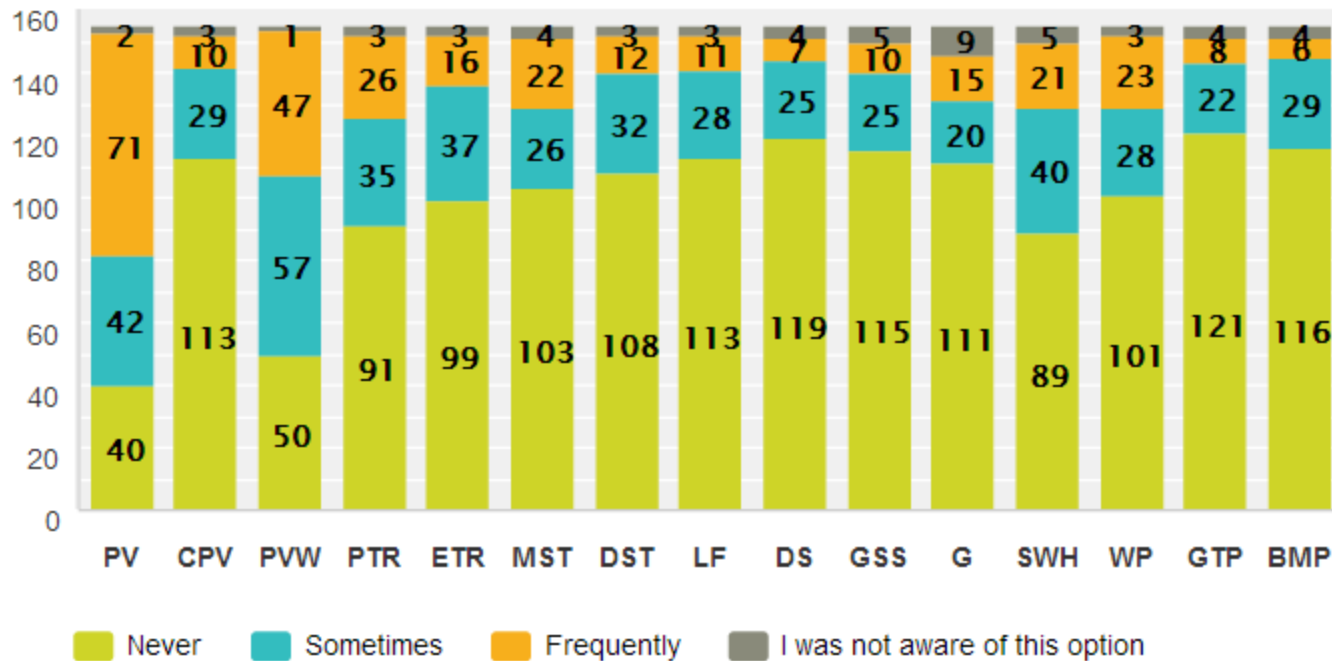
Please rate SAM as a model for each of the following.



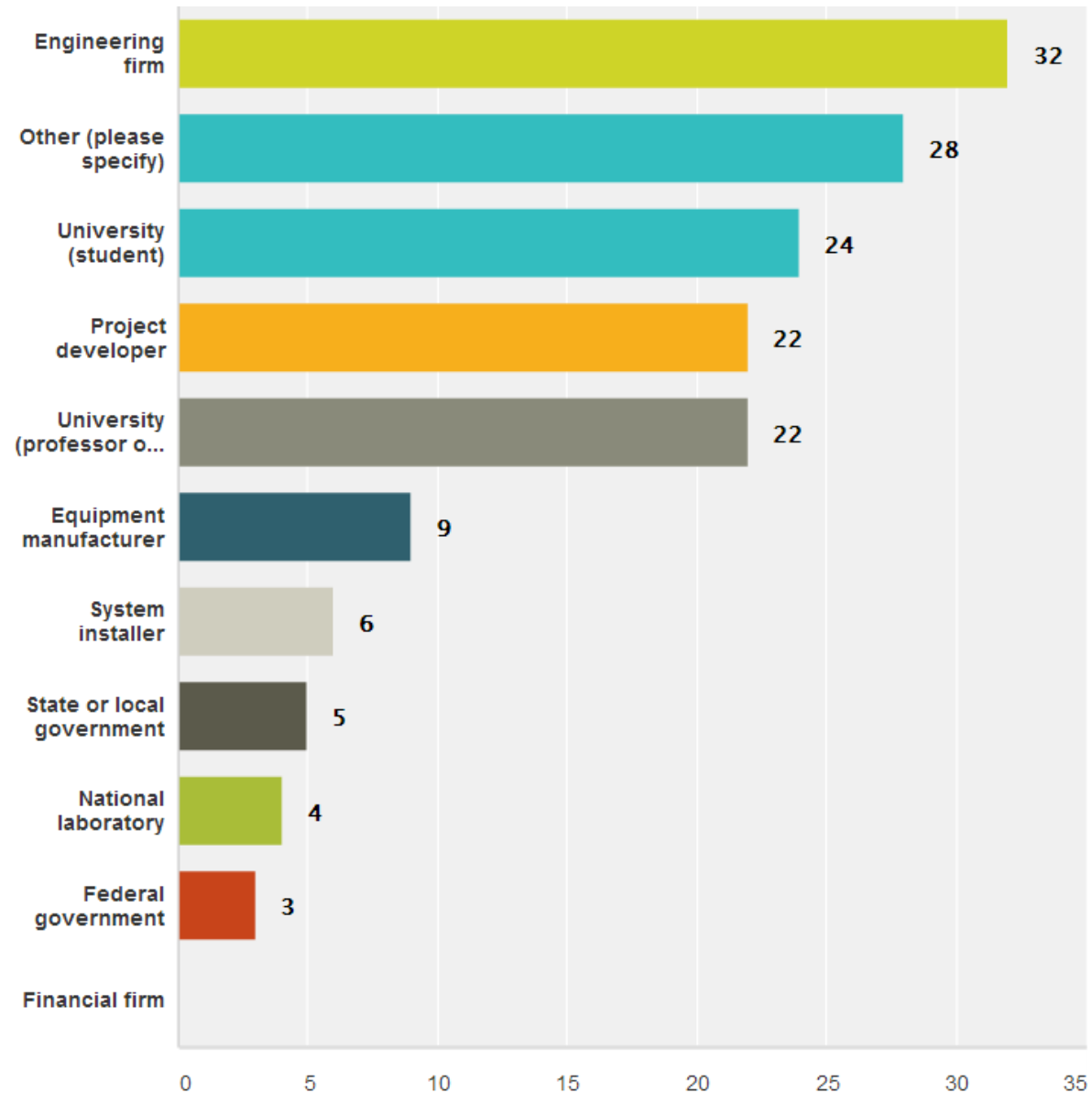
How frequently do you use the following financial models?



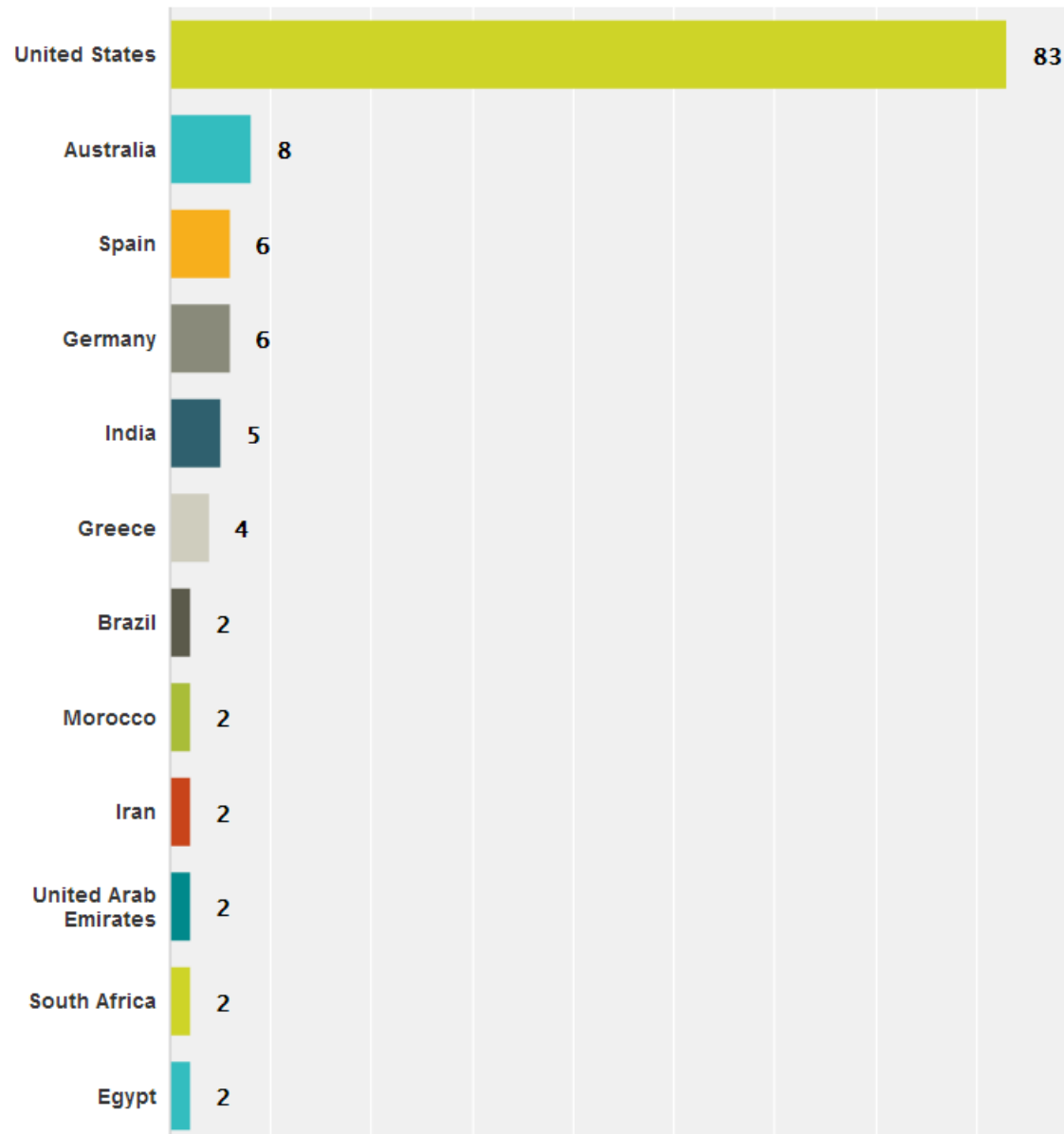
How frequently do you use the following performance models?



What type of organization do you work for or represent?



In what country do you work?



Is there anything else you would like to tell us about SAM?

