BI / DATA ANALYTICS

At this 08.30.22 Roundtable 55, *NOREX Select Members from Fortune / Forbes 1000 organizations discussed the structure of their data team; self-service reporting and analytics; expected level of technical ability of users in a self-service model; yearly adjustment of KPIs and metrics and frequency of review with leadership; different reporting tools with Cloud and on-prem applications vs combing the data for a single reporting tool; migrating to Cloud reporting tools; issues with on-prem systems and real-time reporting; data analytics / BI tools; lessons learned from replicating on-prem data sources to a Cloud data warehouse; and BI / data analytic trends.*

EXECUTIVE SUMMARY

On the topic of a data team being more centralized, hybrid, or embedded with a business team, an Enterprise Architect stated his organization at one point had a data team running through IT and a team of analysts that worked closely with business partners. They have since combined and organized those two teams under IT with the goal of providing everything from one group. A Member with a utility company provisions the data integrations for self-service analytics and reporting for the business. He and his team are working towards leveraging Agile methodology and partnering these teams with other teams that do advanced analytics in the business areas. A Data Analytics Director and his team started as a localized recording team with external dependencies. They had a dependency on a DATAMARK team and dependency on architecture to help set the stage for where they needed to go. A few years ago, they changed this because they started moving at a speed whereby they could not count on those dependencies anymore. They brought the DATAMARK side into the reporting shop, and then the data engineering team and data analysts started to grow. More recently, they brought in some dedicated data governance individuals.

For organizations that have deep roots in their on-prem reporting tools, a Data Warehouse Analyst questioned how their migration to the Cloud has gone so far. Her organization is just starting to move widely-used, on-prem sources into the Cloud in order to get recording moved over. They use BusinessObjects for on-prem recording. They have a large user base, and there is a lot of near real-time reporting done out of that environment. An IT Manager felt that it is really what your users consider source of truth. If you want to switch to a different source of truth, you are going to have skeptical users until it can be proven that it is a like-to-like area. It has got to be ground up in some cases to get that adoption, but sometimes it is going to take a C-suite mandate to say this is it and this is what we are going to use. A VP Information Technology with a 900 member team is migrating everything to the Cloud utilizing Google tools. They are not as robust as Microsoft Power BI or Tableau, but they are functional. One organization, when determining their data strategy, went through a new tool selection and ended up with Snowflake for Cloud platform. They utilize ThoughtSpot, which plays in the realm of Qlik and Power BI, but it pairs really well with Snowflake in terms of getting access to data. The goal with this tool is to make it as easy as possible for users to get access to data to ask questions. One of the highly touted features of ThoughtSpot is the ability to type in a sentence or question and the application will spit back the analytic answer.

Additional headline topics:

- **Expected technical ability** of self-service users.
- **User acceptance** of reporting tools with Cloud / on-prem applications.

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Moderator: Good morning and welcome to our discussion on BI / Data Analytics. Michael has a very good question for starting things off.

TOPIC: Data Team Structure

Moderator: Structure of your data team(s). Are they more centralized, are they more embedded so that you have people within the business team fully taking part in a specific area of the business team? What do you have right now, Michael?

Michael W.: For the most part I would say it's completely centralized. We had at one point in the past a data team that was running up through IT, and then a team of analysts that worked more closely with our business partners. We've since combined those two teams with the goal of providing everything from one group that's organized under IT. Just curious what other groups are doing, whether they're leveraging embedded analysts in other areas and things of that nature.

Moderator: So you don't have any embedded analysts?

Michael W.: Correct. I think that may be somewhere we evolve to, but we're probably light in the data analyst department right now.

Moderator: And we'll talk about that, too. I think that might have been your other question on self-service tools and how skilled your end users are in those areas. We'll be taking some polls too. Anyone want to raise your hand and share a little bit about your data team structure? We'll take a poll in a moment too. So in general, our data team structure is more centralized, meaning works centrally on all requests from business. Is that more your style, or what your trend is at your company? Hybrid, a little dedicated for specific business departments or units, an embedded one. We've got someone sharing that right now that they have it more embedded.

POLL: In general, our data team structure is:

Michael E.: We're a utility company primarily centralized. My team provisions the data integrations I would say, for self-service analytics and reporting for the business. We do have a small utility analytics group of data scientists that are in the organization in the business area. Then we have advanced users throughout the different business areas that have taken on skills for developing

visualizations and dashboards and things like that. We support them. But we're centralized in the fact that we provision the data and integrate the data for them primarily so, hope that helps.

Moderator: Thank you. Are there any particular strides or trends you're seeing in the data analytics or BI space?

Michael E.: One of the things we're working towards is leveraging the combination of the Agile, some of the Agile methodology, partnering with those other teams that I mentioned that do the advanced analytics that are in the business areas. Sort of doing more of an Agile methodology to play with the data quality and provision the data quickly to them if it's not already provisioned. Looking at starting out with that.

Moderator: Thank you Michael. I'm going to end our poll. Trending higher on centralized, some hybrid too, and one mentioned embedded. Other comments please? Even in general, on some of the trends you're seeing. Michael had mentioned Agile.

Cory C.: Actually, I love the question. I was just chuckling because I was thinking about our journey. I've been in this space for the last eight years. My team's not an enterprise data team. We serve one of the specific organizations, specifically information risk management. We started as a more localized recording team with external dependencies. When I say external, I mean external from our organization, it was all internal to us, obviously. But we had a dependency on a data mark team. And then dependency on architecture to help set the stage for where we needed to go. A few years ago, we started changing all of that because we started moving with speed that we couldn't count on those dependencies anymore. We brought the data mark side like into the reporting shop, and then the data engineering team started to grow, and the data analysts started to grow. We just most recently brought in some dedicated data governance folks. I've really enjoyed that journey so far, and I was the one who answered, "probably hybrid", if I'm interpreting the question correctly, because just a few months ago we really put a lot of energy into standing up a self-service reporting capability for our organization, We did that because probably three prior attempts had failed at successfully being able to scale to the needs of just a roughly 240+ person organization. Everybody was counting us to create their dashboards, curate their data, manage it all effectively, and it just fell on its face every time. It starts off really well, and then the wheels start to come off the wagon. So, for us we just had to take this idea seriously of data is an asset and data literacy has to occur in order to scale successfully. It has been disruptive to implement this self-service reporting idea, because you've got change management concepts heavily at play right now with a lot of people saying that's not my bag. I'm not a data person. I don't want to do this. We're trying our best to enable them, to empower them, to make them feel like they're not alone. We didn't just like drop the mic and walk away. But that's our current challenge right now, so I don't know if that counts as hybrid in your mind, Michael, but that's what we're up to right now, and it's been an evolution over the past eight years.

Moderator: Thank you, Cory. Are there certain platforms you use?

Cory C.: Yeah, just briefly to answer that, I would say there's a cocktail of tools at play across the enterprise, and I am one for simplicity and simplifying the stack. I struggle with justifying spreading the team's knowledge base across a litany of tools. So, Snowflake's a big part of the self-service reporting model that connects those citizen data developers to the curated data sets that they can actually make use of without us being around.

Moderator: Thank you, Cory. Megan where are you from?

Megan R.: I am at the same company as Michael. I'm manager of the engineer team and some of our engineers and our architects on our enterprise data team.

Moderator: Thank you. Anyone else want to speak on Michael's topic and the poll we took? Anything you want to add, Michael, before we move on?

Michael W.: Uh no, not specifically. I resonate a lot with what Cory just said though, with respect to the self-service analytics journey, the grab bag of tools, making available curated data sets, and trying to lower the bar in that nature for our data consumers. So yeah, all good stuff.

Moderator: And you've got some kudos from Buzz here, saying you do a great job of juggling all those glass balls. Also, Christopher, thanks for your chat. Largely decentralized, more of a hub-and-spoke model. You mentioned embedded data teams. Dave is not on, but it's a great question. Every user wants self-service reporting and analytics. Can other share lessons learned or positive experiences with the self-service reporting implementation effort? Cory spoke to that a little, about we're not going let this fail. We're going to make this happen after a couple of rounds, and it sounds like it's going better. But for self-service reporting and your end users. We'll also take a poll on just what the expectations are. I think that's Michael's next question on skill levels. Do you find that people say yes, give us these tools, we want to do this ourselves? What are some great lessons learned or positive tips that have helped improve self-service?

Buzz W.: Well, one of the things is, we have an every-other-week review of these requests that are coming through that Cory keeps track of. I think that adds a lot of accountability. I don't think, I *know* it adds a lot of accountability to the process. Because sometimes people will just put in requests and then there's never that follow up and follow through. And this is still important. The meeting that's run does just that. Ok, you requested this, tell me more. This is my observation. If it's really important, you attend those meetings, right? They're almost like a backlog rooming type of meeting. If you don't attend them, then you got to question what's the real importance of that? Right? Because just like every other company there's very limited resources and you've got to make sure everything's got the right priority. I think that's something that Cory and his team have done that have really helped move things along.

Moderator: Thanks, Buzz. So, these requests that come in, they're not exactly in the project management area. Something more unique to the BI group or the Data Analytics group? Or are they considered one of the projects?

Cory C.: No, I would actually say what you probably should understand from a context standpoint is that we provide a service to the information risk management organization. That service is, the name of our team is IRM Data Management and Governance. So, our focus are those two big buckets. There's a data management set of operations and there's data governance set of operations. From a data management side of things well, really from both, in order to provide the service to our constituents we have to understand what data you need to be successful. And so the conversation that I want to have with those individuals is let me know. We will do all of the data management and all of the data governance work. We will help set you up for success. I am not going to build your dashboard for you. We did that business for years, and that's what we had struggle scaling. That's what I was talking about earlier. So, when Buzz, for example, says I would love to have X, Y, and Z so that I can answer these questions that pertain to this strategic goal, that's one hundred percent the work that we want in our backlog. We do review that every two weeks. We look at that with all the product owners that choose to show up. Attendance is definitely hit or miss. I think sponsorship comes into play in a big way when it comes to this type of capability or this type of service. That expectation has got to be set at the top of the house. Because if it's not talked about that's dangerous

because assumptions are made. If it's not vocalized at whatever the top level sponsor you can get, then the assumption will be well I don't do data, but you do, so that means everything.

CHAT:

Christopher H.: We are largely decentralized. We follow a "hub and spoke" model with our central IT team providing platforms and data to embedded data teams.

Buzz W.: Cory does a GREAT job juggling all the glass balls!

Cory C.: ☺ Thanks Buzz!

Christopher H.: We've had a lot of success with self-service via our data virtualization platform. It lets us control what we publish and make sure that people have access to the right data. Our biggest obstacle has been documentation and cataloging of our assets and making sure people know when to use certain data sets.

Michael W.: @Christopher are you using a data catalog?

Moderator: Okay, thank you. Cory. Christopher chimed in with a chat, too, that they've had some good success with self-service in their data virtualization platform. Christopher we'd love to hear a little more. And Michael's asking if you're using a data catalog. Can we hear more about that success and what you're using?

Christopher H.: Years ago, we started down the self-service BI route. We use the TIBCO family of products. We have TIBCO data virtualization, which was originally CDB but TIBCO acquired that. So that's where we federate all of our transactional systems and make it available to people for use across the enterprise. We're also using TIBCO Spotfire for our data visualization and reporting. For the most part people across the organization are fairly well-versed in that tool. We will occasionally help people understand what it takes to develop dashboards, but we generally try to stay away from developing the assets for them. We try to let them do that on their own. Some larger projects we might have a hand in and help with that a little bit, but for the most part we try to keep it self-service. Cataloging and governance is admittedly a little bit of a problem for us. We have some of that, but it's not as robust as it could be. I find that new people coming on often have a hard time figuring out what data to use, what it represents, and what all of their options are. As we've grown in our analytical acumen, we are also seeing a bit of sprawl in terms of some of the third-party data sets and things that are outside of that ecosystem now. We're working on how we better address that need with some platform modernization.

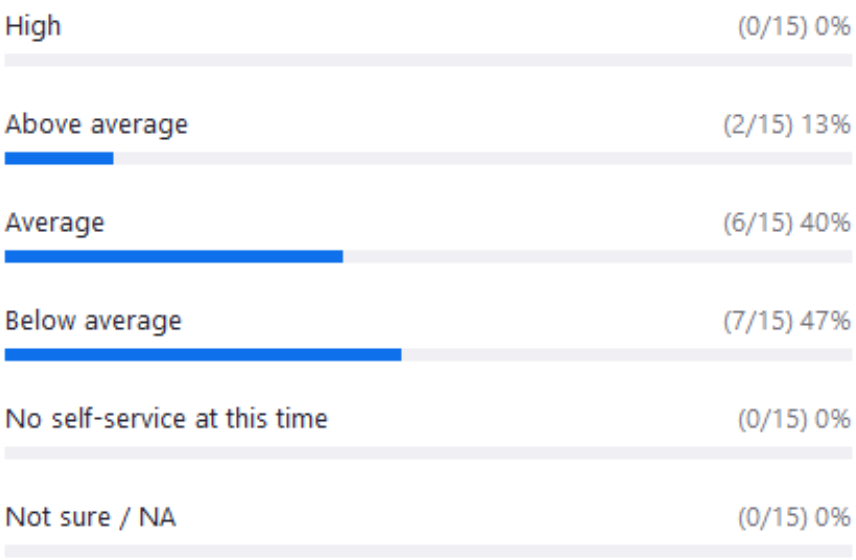
TOPIC: Level of users technical ability for a self-service model

Moderator: Thanks, Christopher. I'm going to move to the next topic on a level of technical ability. What are the expectations you have of your users in that self-service model? What is your expectation at this point, Michael?

Michael W.: Personally, my expectation for what I consider our non-technical business users, the vast majority of our data consumers is pretty low. I think that we have a long data literacy journey ahead of us. But also, I think we probably have a gap there too, where we need to maybe as a company hire a little bit more data analysts into the business just to bridge that gap from us having a centralized team to getting to our users. Enabling self-service is really important to us and making sure that we can get data in as relatable a format is possible with really easy-to-use tools to our

users. They think there's still going to be that gap there. Now that you have the data, what can you do with it? Not only just learning how to ask good questions, but literally having the skills necessary to do some of that work.

POLL: Expectation of technical ability of self-service users is:



Moderator: Below average and average are most commonly selected here from those taking the poll, with a couple above average. Might one of those be your organization, Christopher? You mentioned above average?

Christopher H.: I actually assume average is where we're at. So, it wasn't us.

Moderator: Opportunities here for improvements in the self-service, it looks like. It's probably a revolving, continually moving part.

Cory C.: So, Michael, I'm sitting here grinning because this morning in huddle we were actually talking about this very topic. What came up was I made a dangerous assumption at some point along the way. Like you, below average technical ability, I don't really have any expectations. What I did expect though that got me in a little bit of trouble regarding the implementation of this model was that the leaders of these citizen data developers would understand their inherent strengths, where their passions lie, and who might be genuinely interested in jumping into this space and doing it on some sort of part-time basis instead. The reality is that they didn't know in all cases, and that a vetting process is something that I'm now being asked to consider making sure that the right people are getting on the right bus, in other words. So that was a new and insightful conversation this morning, and also the idea of bringing this concept to the teams in a roadshow type fashion. I put it out there, made the big announcement, reinforced it with some communications here and there to try and do my part of what I thought was OCM. But the reality was we've got a lot more work to do in this space. We just revised our 2023 roadmap to include about six months of just roadshow focus and trying to build this capability. I mean it's a muscle, right? And so you got a lot of people that don't know what they don't know, and I think my job now is going to be to help build that muscle for these other teams.

Moderator: Thanks, Cory. Great analogy of that and the goals to come. You're not alone, Michael, on the average. Maybe a little below average, a little bit above.
Anything more? Is there training that happens that's more internal to your company?

Christopher H.: I think one of the things we've done that we've had a lot of success with - we just have office hour sessions where we've got some of the people that are a little bit more skilled on the analytics side. And then people from our different teams across the business can come in if there is a particularly like challenging problem they're trying to solve or they're just not sure how to implement something from a data visualization perspective. Or maybe they need a little extra help with some of the code. We've got people that can help them out with that. We're also large enough that we have a luxury of being able to set up a small mentorship program for people that do have that analytical acumen across the enterprise where they can get paired up with someone that is maybe a little bit more experienced in the skill set that they're interested in.

TOPIC: KPIs & Metrics

Moderator: Our next question is a great one on KPIs, metrics that you have to match how you're doing goals and objectives. Do you have new ones, or do you maintain a base of metrics and add one or two seasonal ones?

Tim S.: Sorry. No problem. What I was looking at here is how do you create those metrics that are subject to what's the yearly G's and O's, right? What's that current issue we're having, not something that's ongoing? Or do you always review along with that?

Moderator: Any direction others are going when it comes to your key performance indicators and metrics as they relate to BI data analytics? How they potentially match to your corporate goals?

Michael W.: I'm chuckling because I would just be happy if everybody's definition of what their KPIs matched rather than whether they aligned with corporate goals or not.

Tim S.: Good point

Moderator: Do people have a list of KPIs you look at? Are there lists?

Michael W.: Yeah, I mean, not really so much. I mean, that's part of the effort that we're going down with our data catalogue initiative that we're rolling out and also rebooting our governance programs. We want to get more of that standardization in there, and the blessed calculation that goes into a metric. But yeah, at the moment it's more of the typical two people have the same name for a KPI, but two different calculations. How do you reconcile that?

Moderator: So, Tim, do you have some more formally identified?

Tim S.: Yeah. If you look at their basic ITSM type metrics, like number of open tickets, closed tickets, how long have they been open? What our customer satisfaction numbers are based on the responses back, what our response rates are. So, your basic ITSM ones. But some places we wanted to elevate that. So, this year I implemented saying we want to have more customer focus and attention. So, I created a KPI based upon what our current days open on a ticket or hours, depending on what it is compared to the same type of metric last year, an average from last year. So, are we doing better or worse than last year? And then I added on to that for this year, for the first half of the year. How do they do on all their closed tickets? I'm comparing are you better than last year, and are you improving on the first part of this year? That's one of them that's driving what I would call that seasonal. Our focus this year was that he was looking at the end user experience. And I thought, having a faster response time looking at the open tickets, the review by a service owner is that would be a check, like this would be impactful. Besides looking at just their total open ticket volumes, etc. Okay. So using that example from a little bit of a data analytics perspective.

Moderator: Got it. Michael, your hand is raised.

Michael E.: As I mentioned, we're a utility company. I found that we do have the core metrics that we talk about based on ITIL, if you will. But also, business value. How do we share business value and things like that? So, using their metrics, partnering with them on metrics that show value with the work we do. One example we did with asset management and partnering with our folks in asset management is really improve that user experience in the field with the field users using mobile, what we call an asset 360 mobile application where we're focused on improving the data quality, capturing the collection in the field. By doing so and simplifying that within the field, we're improving the data quality and therefore the analytics. And it's shown because we gathered in doing this use case of the implementation, we gathered from them what success looks like with metrics, and they've shown that before and after. They had a lot of work orders that were mis-categorized prior to us doing this implementation, a lot of corrective work orders. They will just do these things. Now they have accurate data, it shows all the different types of work orders that were corrected versus reactive work orders and proactive work orders. And so now we're getting quality and able to do more analytics with it because of that, focused at the collection. So, use cases with the business on some metrics that are important to them to me is that partnership that shows value. That's that case-by-case metrics that we're talking about.

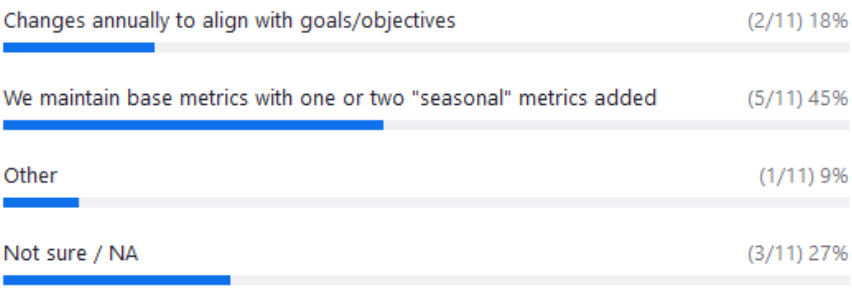
Tim S.: Nice, thank you.

Michael E.: Great point, Michael.

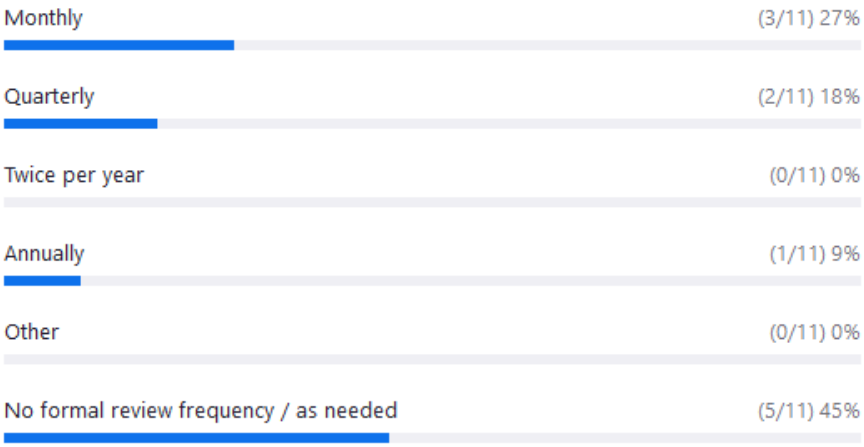
Moderator: Anything more Tim?

Tim S.: No, that's good.

POLL: The following best describes our BI KPI / Metrics status:



POLL: Manager / Senior Leadership review frequency:



TOPIC: User acceptance of reporting tools with both Cloud and on-prem applications

Moderator: How open are your users to the different reporting tools with Cloud and on-prem applications versus effort to combine the data for a single reporting tool? Chuck is not on, but is anyone else on from his organization to take that one?

Christopher H.: I'm here, but I didn't have any insight on this question. We're largely on-premise with our reporting tools right now. We are making some effort to start to move to the Cloud. I would say that we don't have a significant footprint on any of the Cloud-based reporting or BI options at this point, but I could see where Chuck would be interested in if other people have had any exposure to this, or maybe if you're using Cloud-based platforms for your analytics or BI, how users were responding to some of those tools.

Moderator: Sure. Well, let's see if we can get some folks sharing what they're using. Michael says ServiceNow. No on Tableau. Anyone using ServiceNow ITSM? That was from Scott. Great stuff here. Thank you. How is ServiceNow working for you, Michael?

Michael W.: From a data and analytics perspective, we really haven't tapped into that data. Just was responding to Scott's question in the chat.

Moderator: Got it. Let's put a few tools up, and maybe it'll prompt some questions. Things, even tools that haven't worked well for you, why you moved away from that, things like that. I don't think I have ServiceNow on there, but some of the larger tools from Oracle, SAP, Power BI, Microsoft. TIBCO was mentioned in earlier conversation. Select all that apply here, folks, if you've used them, you're moving towards, or you're curious on any of these. Maybe folks have done some evaluations on different tools. Right now Power BI is being mentioned, Tableau, TIBCO, Cherwell. Cherwell and Tableau says Tim. Are you happy with that Tim?

Tim S.: Uh, one out of two ain't bad, right? So yeah, we're happy with Tableau. Not so much with Cherwell.

Moderator: That would be a big move to move away from that to ServiceNow or something else, I suppose.

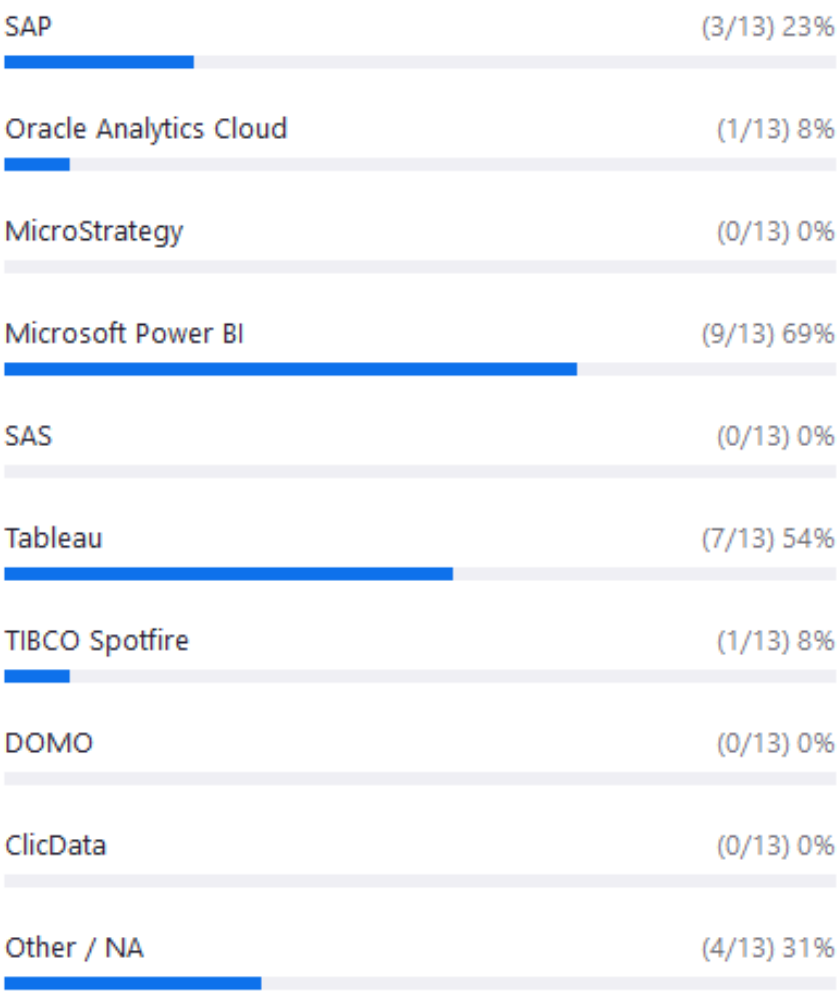
Tim S.: Yeah, it's a bit of an investment.

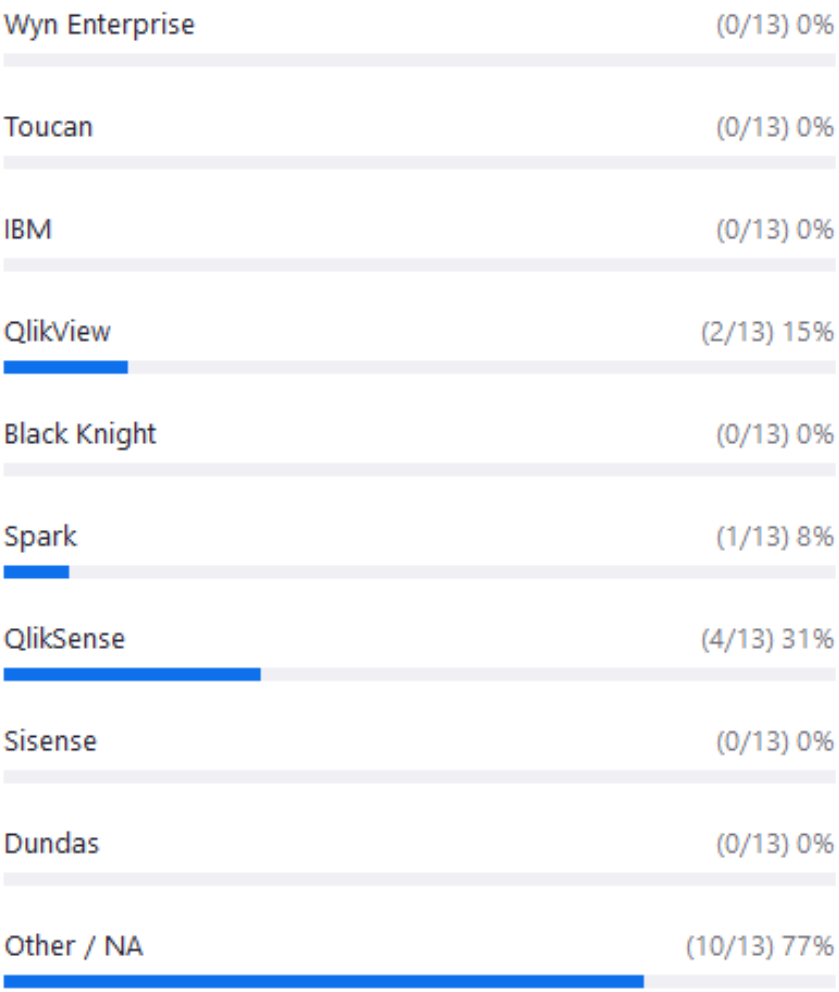
Buzz W.: Tim, when you say Cherwell, are you talking about their data analytics abilities? I mean Cherwell's like IIQ [IdentityIQ], SailPoint IIQ. I mean, excuse me, like ServiceNow. So are you trying to do the same type of thing?

Tim S.: I have not seen much any of data analytics capabilities in Cherwell, it's just our ITSM and ITAM and software management piece. Literally, I've either had to make my own custom stuff, get it out to Excel to manipulate, or get it to Tableau and then do some manipulation.

Buzz W.: Okay, thank you.

POLL: BI tools in use / moving towards:





TOPIC: Migrating to Cloud reporting tools

Moderator: Megan's got a question in here. Those that have deep roots in their on-prem reporting tools, how has the migration to the Cloud gone for you? Are you starting that journey, Megan?

Megan R.: We are starting on that journey, and I think we're just starting to dip our toe into the water. Some of those widely-used, on-prem sources to get them into the Cloud so that we can even get some of that recording moved over. I'm just curious on what the experience has been for others for some tools. We use BusinessObjects for on-prem recording. It's very widely-used, it's been here a long time. We have a large user base, and there's a lot of near real-time reporting done out of that environment. I'm just curious how others have handled the migration of a tool like that and if others have any experience with that near real-time reporting, and how that's been done in the Cloud.

Tim S.: I think it's been touched on before. It's really what your users consider source of truth. We want to introduce another aspect of this, switch to a different source of truth. You're going to have a lot of skeptical users until it can be proven that it's a like-to-like area. We've done this - I've had it at some past companies where they were one hundred percent spreadsheet-based. One group is yelling about another group because those metrics are different. It's got to be basically a ground up in some cases to get that adoption. But sometimes it's just going to take a C-suite mandate to say this is it and this is what we're going to use.

Moderator: Thank you. And it looks like Joey mentions they're using the Google BigQuery and Google Data Studio. So that would be Cloud tools, correct Joey?

Joey C.: Yes. We have around nine hundred team members. I've been with the company thirteen years. They were already on the Google platform, so it was an easy step for us to take to start with Google's tools. They're maybe not as robust as Microsoft Power BI or Tableau, but they're functional. So we went through quite a few ETL services, trying to migrate everything to the Cloud. We're still at the beginning of our journey but we have a process that seems to be working now. We're curious, is anybody else using similar tools? Is there a better route versus just taking the step that was closest and easiest for us?

Christopher H.: I would say the vast majority of our stuff is TIBCO Spotfire right now. I think we definitely have the direction that we should be focusing more Cloud first on our existing. As we implement new solutions we will be focusing more on Cloud, and so we will likely be using some of the tools like Google BigQuery, Amazon QuickSight, or some of the stacks that pair really nicely with those we'll likely start using some of that more in the future.

Moderator: Thank you for jumping in there. Michael mentioned Snowflake is our Cloud data platform. In the process of introducing ThoughtSpot Cloud as our self-service tool. Good chats happening here. A big one from Scott, thank you. So ThoughtSpot Cloud. Michael, is that part of Snowflake, or is that something completely different for your self-service?

Michael W.: A completely different tool. When we went through the process of determining what our data strategy was going to be with it we went back and we also went through a completely new tool selection and ended up with Snowflake for the Cloud platform. ThoughtSpot is a BI visualization tool. It plays in the realm of like Qlik and Power BI, though it works very differently from the back end. But it pairs really well with Snowflake in terms of getting access to data and things of that nature. The goal with that tool is really to make it as easy as possible for users to get access to data to ask questions. One of the highly touted features of ThoughtSpot is the ability to type in a sentence or question and have the application spit back the analytic answer to that. Whether or not that's used exactly as advertised is another question. But that kind of approach to analytics for our non-technical issues was what we wanted to accomplish with that tool.

Moderator: Thank you.

Buzz W.: Michael, I have a follow-up question. Is all of your data completely in the Cloud right now, or are you migrating? Or are you just saying we only use the Snowflake for this portion of it?

Michael W.: Yeah, we're on that journey. The goal is to centralize all of our data sources into Snowflake. Then we can manage the security out of there and try to limit the number of BI tools that we point at it, but also know that we'll never be able to. The goal is to get at one place, secure it there, and then essentially deal with whatever tools are the right tools at that point.

Buzz W.: Thank you.

Moderator: Thank you. And Scott mentions how they've got ServiceNow and they want Tableau to work well with it in all ways and some of the challenges you're having there, Scott. There's probably a lot of ServiceNow folks on today.

Scott L.: We had I'll say Remedy, the BMC solution, before went to ServiceNow ITSM. We utilized

a data model that was provided for some certain tools. We were really given like pre-built dashboards and we talked about KPIs and it was very easy to use out of our Remedy Cloud to Tableau recording and dashboard, but now we just made the switch to ServiceNow ITSM. The talk is can we build data sources? Should we directly connect to ServiceNow Cloud? With guidance they're saying performance you can't. So, then you have to recreate all your data sources, and that can be pretty time consuming. That's where we're trying to find out what we can use within the ServiceNow platform. And one thing I did notice was there's performance analytics that you can get alongside, but I think it's more of a professional version. Wondering if people have used this or have had the struggles with building the data sources out of whatever their tool is. I don't know if that helped any, but just sharing some of the pain that we're trying to decide where to go to. We're only two weeks into ServiceNow ITSM. We had CMDB before and then we're doing a few other modules. This is a big switch for us, but it's good. It can be a lot of money, but I think it's good because we get those relationships to the CMDB. So, if you invest in the time, I think it's going to pay off. Everybody keeps saying that. I guess we'll find out if it happens.

TOPIC: Issues with on-prem systems like ERP and real-time reporting

Moderator: Thank you. Megan shares here as people are moving on-prem data sources to the Cloud, has anyone had issues with some on-prem systems like your ERP? Any latency issues with services near real-time reporting?

Megan R.: As Michael had already mentioned, we're just starting on the journey of moving our data sources to the Cloud. We have a large footprint with our BusinessObjects environment and supporting our real-time reporting there. Curious on how that's gone with others getting data sources to the Cloud and if there's been any issues with servicing those near real-time reporting needs.

Moderator: I think you're pretty close to Michael's question right now that is up here, the challenges for replicating on-prem data sources to Cloud. Is that right Megan?

Megan R.: Yup.

Moderator: Joey's hand is raised. Thank you.

Joey C.: We definitely have had some challenges. We went through a couple of different ETL services to try to get data from on-prem. A lot of ours stem from our ERP was an embedded database. It was a horrible database. Real-time reporting was out of the question. What we ended up doing was making views of just the data that we needed and then using an ETL service to replicate it to the Cloud for all of our reporting back in. It's not perfect. In the same way, I think using Google's platform, and we're using Talend Stitch as our current ETL service. About fifteen minutes is the fastest that we've been able to make it go. This may be situational to us, but our ERP, the Oracle 19c database that we had, we didn't have the licensing to access the redo logs. So a lot of our data was limited to full time, like full table replication. We couldn't just move new and updated pieces, we had to move the entire table. Something to consider as we went through different services, they don't all behave the same way. It definitely impacted our speed and how real-time we could get.

Moderator: Thank you Joey. Anyone else? Michael, did you want to add anything more? You had submitted a pretty similar question.

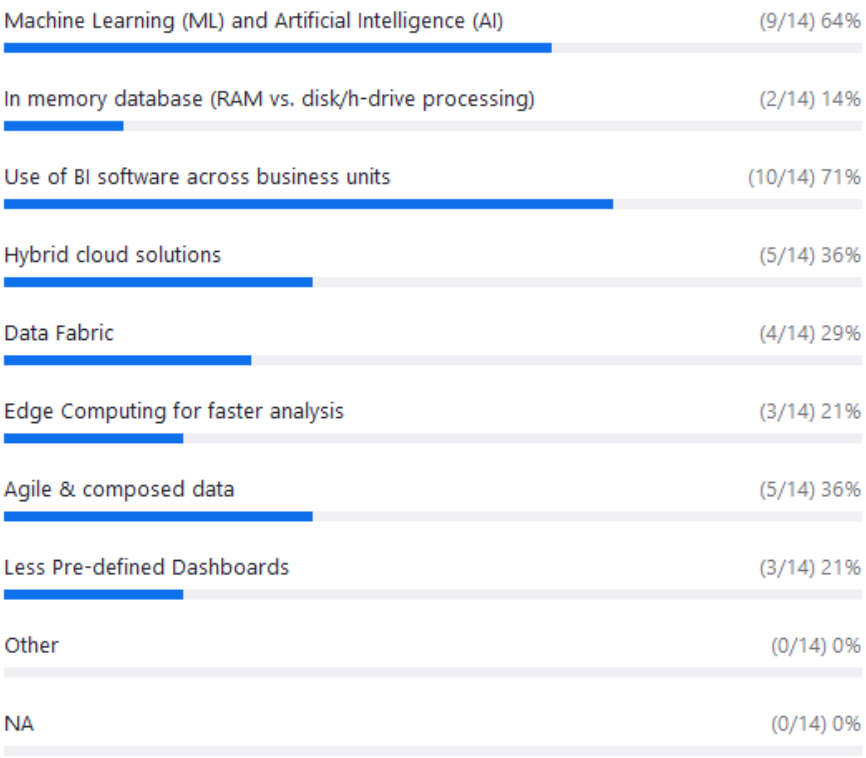
Michael W.: I just threw it in the chat there that exactly what John is describing is what we've run into. Unfortunately, we're beholden to some of the design of our ERP systems. And one of ours is very popular not to use primary keys on tables, which makes application pretty darn hard. But yeah, a lot

of back and forth with our retail provider. We're using Fivetran which very similar to Stitch (Talend). It's just trying to find the right mix of how much logging is too much logging and how fast can you replicate when the log piles are getting swapped out. It's been a bit of a challenge.

TOPIC: BI Trends

Moderator: Maybe we'll take this final poll because there weren't any other questions that were submitted by folks. Let's look at some trends in this area that might spark a couple of conversations before we end today. If you are moving towards or you have implemented some of this, just select all that apply. Business intelligence trends, data analytic trends as well, machine learning and AI, in-memory database, I guess RAM versus using disk or hard drive processing, business units using BI software. Somebody mentioned data fabric in the chat. Might have been you, Michael. What's going on there? Do we need more explanation of that? Edge computing is mentioned, Agile was mentioned in our intros. Just about everything on this list has been selected. Get moving away from the predefined dashboards. That's kind of the thing of the past, I'm learning here from you folks. Is that true? Other final comments? Are any of these trends really going to be helpful for boosting the amount of successful reporting with BI and data analytics? Hybrid Cloud solutions most likely. I'm going to end this and share the results.

POLL: BI Trends: We have embraced or are working towards:



Cory C.: I'd love to hear from anybody else that's playing in that data fabric space.

Moderator: Data fabric. Michael, did you bring that one up?

Cory C.: I brought it up and Michael, because it sounded like it applied to that situation that he was sharing. But with 29% working towards that or dabbling in that I just would love to hear where everybody's at. For us, it's very new. If you've seen the hype cycle from Gartner, it's at the peak right? It's about to land into the land of disillusionment. But there's a lot of investment in it right now, a lot of

energy. We think it's going to do some pretty amazing things. I love the modularity of it and how it is a centralized model differing from data mesh. But there's a lot of unknowns. I have a lot of questions, and we're in a heavy experimental phase right now, trying to figure out a lot of what we don't know. I just wondered if there was any other insights here.

Moderator: Sure. Who else selected data fabric as a trend they see coming or they may be working towards? Does anyone need a better explanation? It's not a data mesh, a data fabric.

TOPIC: Migrating from Amazon Redshift to Snowflake

Moderator: Ken's got a question in the chat too. Migrating from Amazon Redshift to Snowflake.

Ken G.: Yeah, I just thought I'd throw that out there to see if anyone had gone one way or the other because we're in the middle of evaluating some things at this point. I'm a little out of my element here, but I thought this might be good platform for that, and a lot of people have been mentioning Snowflake. I haven't heard much about Redshift.

Moderator: Yeah, I don't think that one was brought up. Snowflake in use by a few, was it?

Ken G.: That's what I heard.

Moderator: Yes. Did anyone look at Redshift, Amazon Redshift? Are you leaning one way or the other a little bit Ken?

Ken G.: Personally or corporately?

Moderator: Either one.

Ken G.: Yeah, I think conversations could go a lot of different directions depending on who you ask.

Moderator: Well, how did Snowflake come into your organization? Those who have Snowflake.

Michael W.: For us in particular, this goes back a few years before we got to our data strategy that we're on now. But just we needed something that was capable of pretty low latency interaction with the Salesforce data set. Tried out a few different things, started with Azure Data Warehouse before it became Synapse. Tried a few other things, ended up landing on Snowflake. It's just the easiest to stand up and get going, and lots of extra power in there. So that's how we ended up on Snowflake.

Moderator: We'd be happy to put people in contact so you can have a little bit deeper conversation with those who are using solutions or have common areas to research. Any additional questions? Big area and growing area definitely, the space of BI and data analytics. Always moving, and a lot of trends out there.

CHAT:

Scott L.: Anyone using ServiceNow ITSM and Tableau reporting of ServiceNow data?

Michael W.: Yes on ServiceNow, no on Tableau.

Tim S.: Cherwell & Tableau.

Megan R.: Those that have deep roots in their on-prem reporting tools, how has the migration to the Cloud gone?

Joey C.: We are using Google BigQuery and Google Data Studio

Michael W.: Snowflake is our Cloud data platform, in the process of introducing ThoughtSpot Cloud as our self-service tool.

Scott L.: It looks like ServiceNow has some Performance Analytics module but it's not in a standard roll out of ServiceNow. Anyone use that? Tableau is pretty good if the data sources are put together right. Heard you can't go against ServiceNow Cloud directly in Tableau because of performance so you can't use the standard workbooks out of Tableau. So you have to create your data sources in a BI Cloud data area like Snowflake. We just implemented ServiceNow ITSM so we are trying to find what we can and cannot do in ServiceNow ITSM Dashboards / Reports.

Cory C.: Data Fabric for the win! Right, Michael W?

Michael W.: 😀

Megan R.: As people are moving on-prem data sources to the Cloud, has anyone had issues with some on-prem systems (like ERPs)? Any latency issues? Issues with services near real time reporting?

Michael W.: @Joey - very similar experience with on prem Oracle databases.

Christopher H.: I have to head out - thanks so much!

Ken G.: Has anyone on this call migrated from using Amazon Redshift to Snowflake or the other way around? Any large or glaring differences or challenges with either solution? Bonus points if you were/are using Talend with either solution

Bob S.: Thank you everyone!

Cory C.: Thank you!

Michael W.: Thank you!

Megan R.: Thank you!!

Buzz W.: Great meeting.

End of discussion

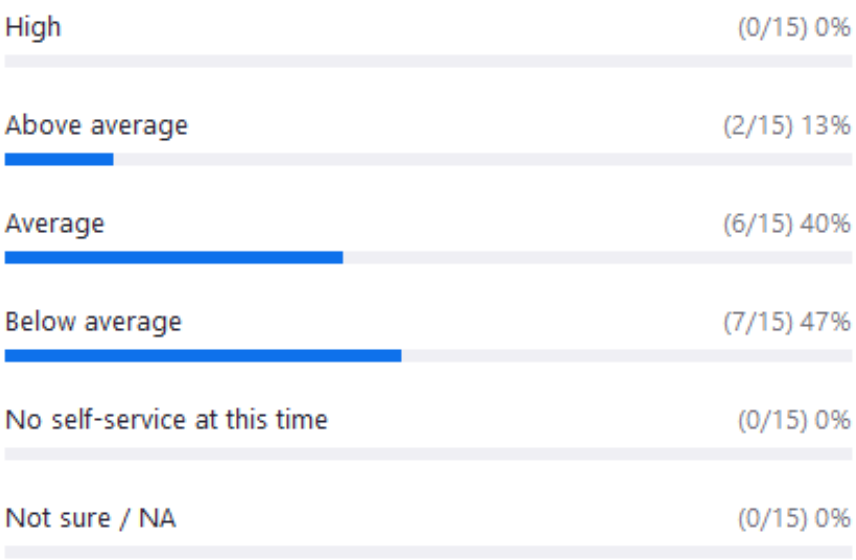
Products/Vendors/Technologies shared in this WebForum

Agile
Amazon QuickSight
Azure Data Warehousing
BusinessObjects
CDB
Cherwell
CMDB
Data fabric
Google BigQuery
Google Data Studio
Identity IQ
Power BI
Qlik
SailPoint IQ
Self-service
ServiceNow
Snowflake
Spotfire
Tableau
Talend
ThoughtSpot Cloud
TIBCO

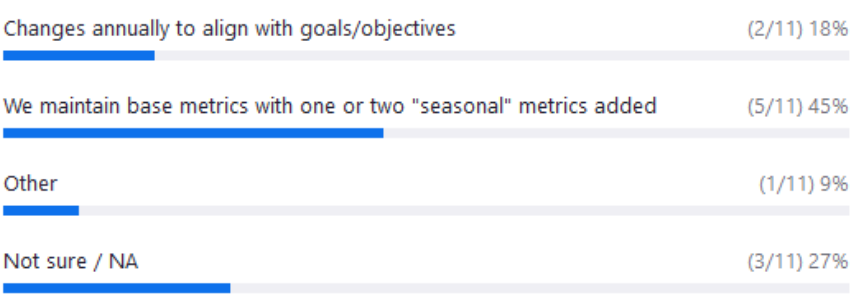
Appendix: All Poll Results

In general, our data team structure is:

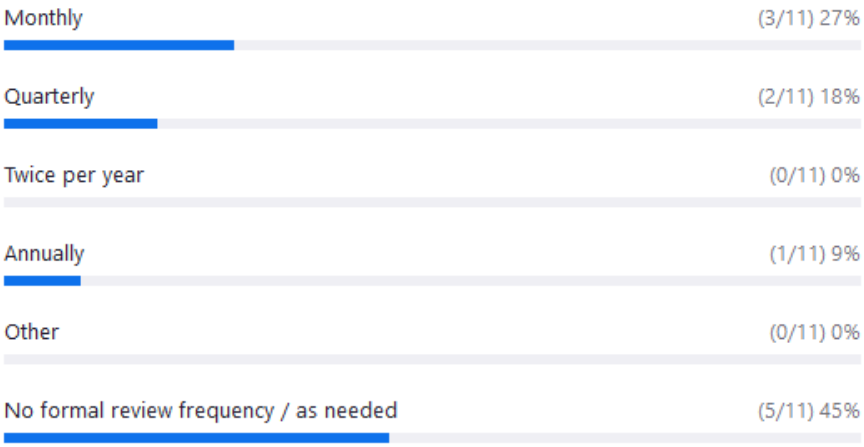
Expectation of technical ability of self-service users is:



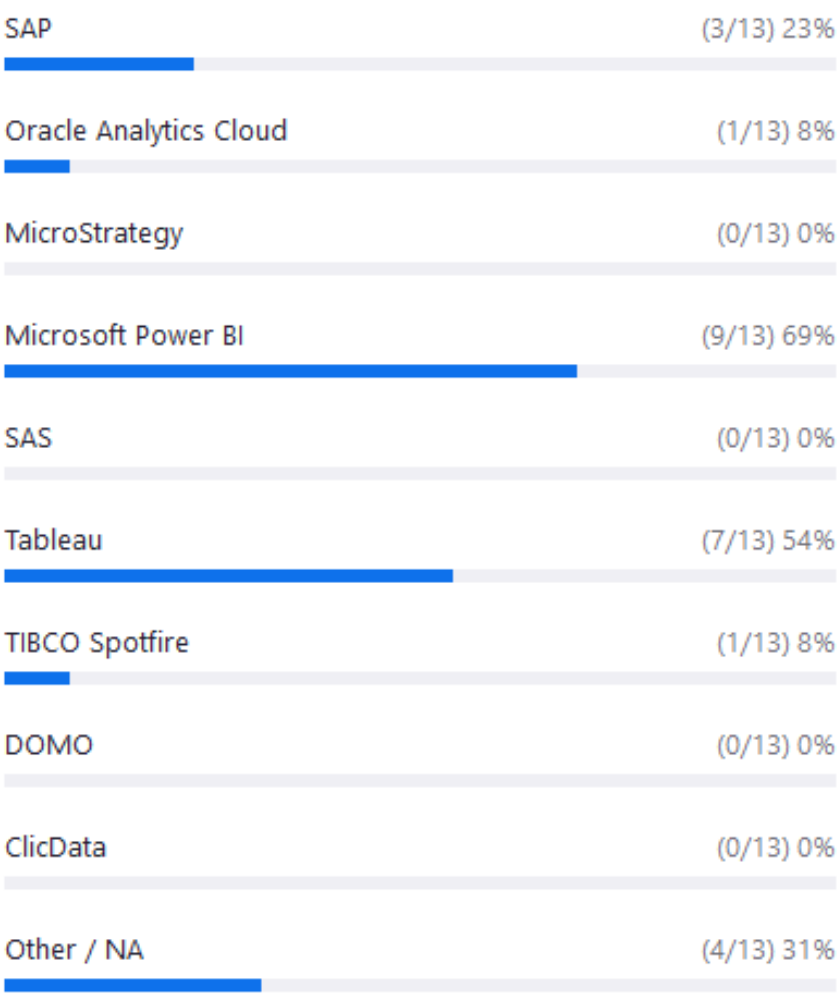
The following best describes our BI KPI / Metrics status:

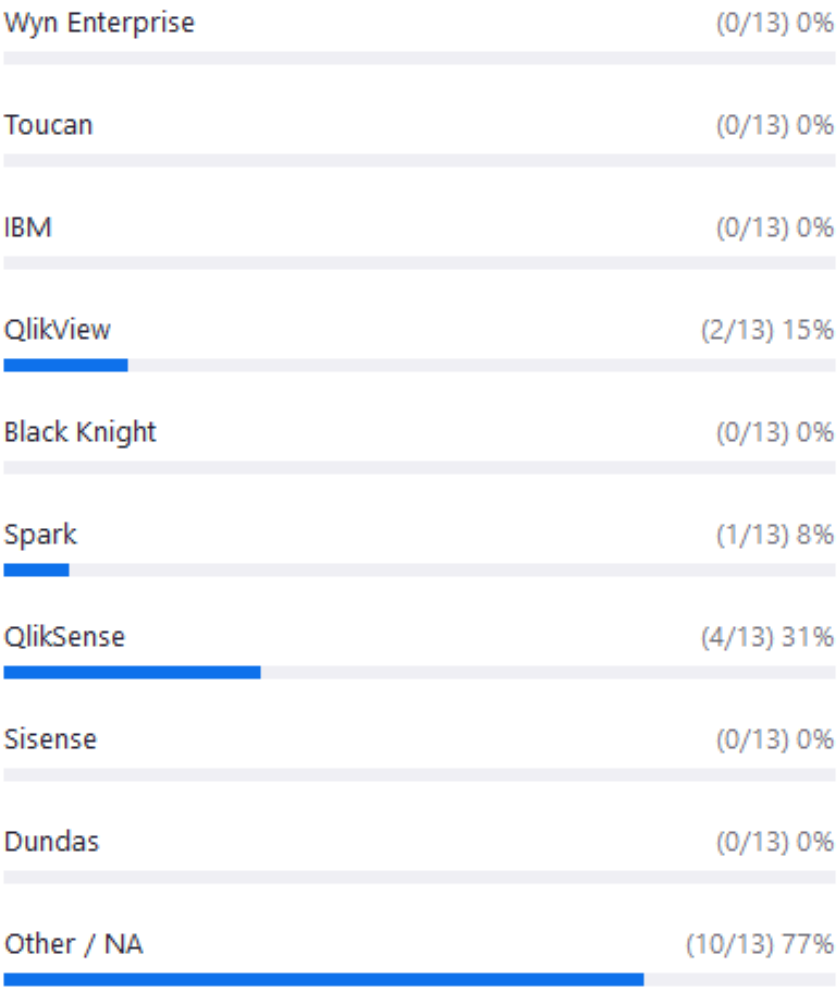


Manager / Senior Leadership review frequency:



BI tools in use / moving towards:




Wyn Enterprise (0/13) 0%
Toucan (0/13) 0%
IBM (0/13) 0%
QlikView (2/13) 15%
Black Knight (0/13) 0%
Spark (1/13) 8%
QlikSense (4/13) 31%
Sisense (0/13) 0%
Dundas (0/13) 0%
Other / NA (10/13) 77%

BI Trends: We are have embraced or are working towards: