

Podcast with Nick Cook and Francesca Hopwood Road of the Financial Conduct Authority

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- Jo Ann : [00:01](#) Okay. We are now recording. I am absolutely thrilled to say that today we have a special show with two leaders of the UK Financial Conduct Authority, new division of innovation. We have Nick Cook who is the director of innovation for the FDA and we have Francesca Road who is the head of regtech and advanced analytics, which I believe is the position that you had Nick, last time we did a recording with you. So I want to welcome both of you to the program.
- Nick: [00:37](#) Thanks very much. Good to be with you again.
- Jo Ann : [00:42](#) So we're going to talk about a couple of big developments that have happened since the last time we did a show with you Nick and the ones that we've done with Chris Willard. First of all, we want to get an update from you about your new division of innovation at the FCA. And then we also want to talk a bit about the tech sprint, which some of our listeners know you held in July. And me at my new nonprofit, the Alliance for Innovative Regulation cooperated with you and put together a satellite site for them in the United States. But for starters, let me just ask each of you to introduce yourself briefly. Nicholas, start with you. Just tell us a little bit about what you're doing in the background.
- Nick: [01:30](#) Sure. So my background is originally as an economist and then as a forensic accountant and investigator, originally in private practice and mainly focused on criminal misconduct. So fraud, money laundering, bribery and corruption, terrorist financing. Did that for a number of years, working for a range of clients in both the public and private sector. And then joined the Financial Services Authority. So the FSA's predecessor in late 2008. So around the time that the global financial crisis was kicking into full swing. And at that time I joined the enforcement part of the FSA. Basically using my skills and experience of misconduct investigations but applying them more from the side of the enforcement activities of this agency rather than assisting clients handling such investigations. So I did that for a number of years, a mix of investigations and makes a different types of regulatory for each misconduct and a range of different firm sizes and types in different sectors.
- Nick: [02:42](#) And then about six years ago, the FSA started to consider how it would become a more data driven organization. Tends to first steps I think at that point in time I moved across to, started up a

small data analysis team, very much still using the same skills, the kind of inquisitive, analytical skills and then did a series of roles in and around that department ranging from responsibility for some of the technical data systems, starting to develop new data services both for internal and external usage. And then eventually sort of worked up into something that was akin to a Chief Data Officer type role. And it was in that role that I then initiated the FSA's regtech work back in 2015 and 2016. Did that for a couple of years. So kind of a course CDO role with the regtech piece starting to build and then worked with the senior executive here to build a case for effectively spinning out the regtech activities and a new advanced analytics data science capability.

Nick: [04:00](#) And so we created the new department with the aim of developing those two capabilities and functionalities further. And then just a few months ago now, the FSA decided to bring in its various innovation activities under one division, so pulled together its innovate services, I think that sandbox and direct support with its regtech and advanced analytics department and its chief data, its central data services department into a new innovation division which I now have the pleasure and the delight of leading.

Jo Ann : [04:41](#) So we're going to talk more about that in just a moment. It's really exciting. Francesca, tell us about you.

Francesca: [04:49](#) So my background is actually in social policy. So when I first started my career, I spent a lot of time working, researching the kind of needs around financial services, access to basic services, quite vulnerable groups. So I spent time in domestic violence, refugees, prisons understanding kind of needs of various kinds of more excluded groups around what they're kind of access issues and needs were. And that sort of increasingly led me down the path of working in financial, in and around financial services and brought me to the regulator about nine years ago when I was working in its consumer function. So really thinking about kind of financial education, financial capability sort of inclusion issues. And sort of over my kind of career in the regulator, I've explored sort of different avenues, but I suppose one of the central themes that has been, that's driven that is about actually I'm trying to understand what is at the heart of problems, what research, what data, what intelligence can tell us to build a picture of what are people's experiences of using, accessing and using financial services and how does that map, can that manifest in harm?

Francesca: [06:07](#) And increasingly as I kind of did different roles and got different perspectives on that issue. One of the things that I kept on coming back to was really wanting to be able to have an integrated understanding of all the different sources of information and intelligence we had to kind of bring that rounded picture. And a few years ago I kind of got wind of what Nick was starting to do around regtech and advanced analytics function. I was really interested in excited about kind of what was the, what was being potentially created there. So I very honestly approached him and said, I would love the opportunity to work to sort of bring that to fruition.

Francesca: [06:47](#) So a couple of years ago I worked with him to set up the department. And that was a phenomenally exciting time and actually one of the kind of highlights of my career today was around creating, building on what have been done in on the regtech side and the regtech space and sort of really thinking about what we could do on the advanced analytics data science side to bring together a sort of an integrative team to sort of think about how we could apply some of that insight to ourselves as a regulator. So I am very excited and delighted to now be heading up that function and really starting to think about how we evolve and develop further the huge capability and experience we built on the regtech side of the house and how we continue to kind of extract the value and show the impact of some of our developing data science capability.

Jo Ann : [07:38](#) What a fantastic background for regtech. I think it's often not intuitive to people who care about financial inclusion to think about how essential it is that we get the regulatory part right. And including modernizing it and bringing the technology into the regulatory process [inaudible 00:07:57] themselves. If we don't do that, we'll never reach our goals in financial inclusion or anything else in today's conventional environment. So that is really exciting. So our listeners have heard me say this a million times, but I'll say it again. The FSA is the leading organization in the world on regulatory innovation. We won't recap it all here, but you really have been visionary and bold and created models that people all over the world are following and the decision this year or last year to elevate your work into this division level unit and expand the resources in it, I believe is also unique in the world. And I'm sure it will be looked at closely and I'm related to by others.

Jo Ann : [08:48](#) So I'd love for you to, just to talk about, describe the vision for the divisions [inaudible 00:08:56], the structure, the resources

that you're putting into it, the goal. Just share that with everyone.

Nick: [09:05](#) Sure. Yeah, of course. Yeah, I think you're right. I think it's probably is unique in terms of its scale and its ambition across international regulators. I guess part of it comes from the fact that you call out that we have been one of the leaders in this space for some time. We don't want to rest on our laurels, frankly. There's still a lot more that we are hungry to go after and a lot more impact that we would like to achieve and a lot more positive outcomes that we'd like to see in the markets. So part of it, frankly, is building organically from where we were already. So looking at the services, our innovation services that were effective and have been successful and looking about how do we bring those together in a more seamless manner so that the external market has an easier understanding of how to interface with us, how to engage with us around different forms of innovation support and just trying to remove a little bit of the friction and the complexity for the external market because we were, we did have departments in multiple different divisions.

Nick: [10:09](#) I think secondly, there is a real understanding appetite, enthusiasm and indeed need frankly for us to take a lot of the learnings that we've been happy to receive in the FinTech and RegTech space and apply them to ourselves. So to really turn the lens I'll turn the mirror on ourselves and say, well, "How should we operate as a digitally enabled, data enabled organization and how? How do we start to transform ourselves towards a modern operating model, a heavier user of advanced technologies and advanced techniques? And how do we kind of keep pace with, understand and engage with the external market whilst also leveraging some of these capabilities ourselves?" So there's a desire, very strong desire from the top of this organization to begin that transformation and that modernization.

Nick: [11:09](#) I think the other thing is frankly we are, we find ourselves in that classic period, a lot of small businesses go through, which is ... We were a sort of a fast moving cardiacal I guess fairly aggressive start up for a period of times and by far innovate teams and our RegTech teams were able to operate like that. But the, I guess the rules of the game and the risks of the game have increased such that we're now in that rather trickiest scale up phase. And there needs to be a kind of central coordination, a central order that's brought to that. And by putting everything in a single division, that makes that easier to achieve, but it also then starts to give a scale to go after some really big and challenging goals.

Nick: [11:56](#) So it does give us the limit to really start to contemplate what are we going to do about the financial crime issue in the markets, how do we take some of the digital reporting work that we've been doing from sort of pilot into more meaningful scale testing and development? What are the next big ticket items that we want to go after? So it starts to give us some real scale to go after those things. To give you a sense when we initially identify back in 2015, you had about two people working on it. Across our different innovation services now. So that does include the various things under renovate under RegTech work. But our external facing innovation services is, it's about 40 people now. And about another 50 across our internal data and data analytics activities.

Nick: [12:53](#) But that is an area we are a fairly rapidly looking to develop further and invest more in. So by the end of the year that will be a decent chunk, bigger actually. So we're operating at a pretty decent scale now. Many regulators look at us with a degree of envy at the size and scale of our operations, but we also have an incredibly sizable financial market that we are interfacing with. So I think our scale reflects the market that we operate in as well.

Francesca: [13:26](#) And if I can just add, I mean one of the things, two things that I think I find really interesting about kind of what the innovation together division brings is that ... And Nick mentioned our central data services team. For me kind of in the advanced analytics data science space, why working alongside them is really exciting is that you start to really line up that sort of data life cycle so we can really start making some really good decisions about the quality of the data we ingest, how we use it, how we work with it and how that then gets kind of managed and worked on by the computer scientists that sit within my area. So that alignment, which is very practical and obvious thing to do is really important in helping us to really leverage that kind of data capability across the organization.

Francesca: [14:18](#) I mean, I'd also say from kind of in that sort of evolving and maturing state, the sort of data science capabilities team is doing some really interesting proof of concept work over the last year. They've kind of been taking several of those into production. So we're at that space now we're thinking about what are the real key capabilities that we want to absolutely have landed and develop further. And so as I kind of add a real point of a cusp of transformation, if you like, in terms of we've shown the work through some proof of concepts. The organization is really on board with that and excited by it. We're

moving things into production and what are the things we want to go after next given the kind of, as Nick said, the huge waterfront that we cover and the vast range of issues that are kind of bubbling away.

Nick:

[15:03](#)

Sorry, I just had one more thing as well actually. What I wouldn't like to be understood was that the innovation focus of the organization just persist in one division though. So we're in an interesting state where we've brought some of our innovation activities under a single division for the first time, but it's also a time when we're starting to create data science units, some sort of innovation activities across a much more broader base of our divisions and across a wider part of the organization. So as an innovation director, I can look with some glee at the fact that there are entrepreneurs popping up all over this organization at this point in time. And so part of our responsibility as a sanctuary innovation division is to create safe spaces for their experimentation, to help identify those ideas and those new innovations that require some support and some further investment and to help build the case for that to take place. And to try and coordinate a broader innovation transformation of this organization, not just within a single division. So it's a really, really exciting time for us and a very busy period ahead.

Francesca:

[16:16](#)

Yeah.

Jo Ann :

[16:18](#)

That's a such a great point. I think other regulators look at what you're doing and are trying to figure out and maybe you have some advice, how do you take an innovation division and give it a lot of significant resources and an impact. How do you develop the interface between that and the other units when we know that there's going to be a lot of overlap? You're going to need to be working with supervision and regulation and it's worst than Intel and ... Are there secrets to how to define those boundary lines?

Nick:

[16:59](#)

So I guess the two questions you asked about how do you build the case for the resourcing? I think you and I have spoken about it. There's a few times in the margin, the first event, a combination of excitement and fear, I think is probably the strategy. So you show some early possibilities and some early wins and some early successes and you try and build some appetite through demonstrating practically what this could mean by applying these new techniques, these new approaches. So you give something to inspire people and then you remind them of the risks of standing still. And I unfortunately get quite on this a lot, but my general philosophy of standing still is

moving backwards very fast in this world, is something that I think how senior executives have understood very clearly actually, they recognize there is a need to progress and move forward and to do that you need to invest.

Nick: [17:56](#) And so that means some resources come with that recognition. I think in terms of defining boundary lines, I mean, I think the simple tips and hints are just try and find the win-win opportunities. Try and find the thorny problems that people are experiencing in their day to day jobs and try and help them solve it. Don't try and sell them a technology, sell them an idea or a solution to a problem. Be generous with sharing recognition and praise where a team effort has led to the successful outcome. Try and identify those individuals that perhaps are not fully enabled or empowered in their area and see what you can do to provide them some safe space. And just understand that people are on a change journey. Not everyone will embrace the new opportunities, the new innovations on day one. And frankly, we don't need everyone to, we don't have enough resources for everyone to come on board the ship at the same time.

Nick: [18:55](#) So work with some of the early adopters, worked with some of the more enthusiastic colleagues and then over time build a case to work with some of the others, but be empathetic and be understanding of why people may have a nervousness or resistance or an apparent resistance to change and try and find ways through that.

Francesca: [19:16](#) I think, what makes us spoken to very much is actually about behaviors and culture. And kind of, and obviously as leaders [inaudible 00:19:25] on us to model and think very carefully about what we want to see. But I think it comes down to curiosity, generosity. One wanting to share what you know, not necessarily having, not wanting to have a it's being made here mentality. As we talked about earlier, we might be an innovation division but that does not preclude and has never precluded lots of interesting things spinning up in other areas. And I think it's about seeing whether there are opportunities to kind of build on each other's expertise. We have colleagues across the organization who have phenomenal kind of domain knowledge of course, whether it's an enforcement, whether it's in supervision and it's how we can augment that with [inaudible 00:20:10] potentially data science capability and knowledge.

Francesca: [20:12](#) And so I think it's that kind of generosity of spirit and knowledge, that curiosity and that sort of sense of the common purpose of, we just want to try to make, do things better and

more effectively, what are the tools and behaviors we can use to harness that?

- Nick: [20:29](#) Sorry. I just think Francesca talks on the really important point as well about, it's very important for us as leaders of this division to not try and replicate every domain expertise that exists elsewhere in your organization, but to hold ourselves in a state of [inaudible 00:20:45] where we have known knowledge gaps, known subject matter expertise that we lack because it then drives us towards a much more partnership based collaborative model of solving problems in this organization. If I started to try and recruit mortgage specialists and wholesale banking specialists and market specialists. Firstly, we'd end up with an absolutely huge division, but it would change the culture materially, it would stop us being so prone to collaborating and it would present more of a threat and more of an aggressive position to the wider organization and that would not work.
- Francesca: [21:21](#) I think it also tamper our curiosity. We would stop asking questions about, oh, why does that work in that way? It would kind of tamper and maybe stifle the kind of conversations where we want to find out what people's problems are and even the challenges they face. So I think that's a very, very important and well-made point.
- Jo Ann : [21:42](#) That is fantastic. A place that I'd like to highlight is the fact that you have put all of this under one roof. Something we see other regulators sometimes is they're creating a FinTech innovation groups that may or may not be a sandbox but at least is looking at what's happening in the external marketplace. And then they have a separate group that is looking at their own technology, but some people call it SupTech or Supervisory Tech. And really the technologies are the same. The drivers of change are the same. And I think by integrating it as you're doing and infusing it with data science on every side of it, that's how you I think you can really get the accelerated inside of [inaudible 00:22:34] and progress. It's incredibly exciting. Is there anything you want to add on that? Asked a few questions but ...
- Nick: [22:45](#) No. I think- It's a fair point. I think, I'd say your views are, I think a deep understanding of the underlying technologies and the big data analytics methodologies gleaned through things like how FinTech and RegTech engagement and activities. Let's be honest, it was through engagement with those parts of the ecosystem that we started to conceive of certain solutions to longstanding regulatory challenges that we faced. We are borrowing ideas, intellectual property and otherwise from that

ecosystem and trying to apply it here. And I think there's a risk that if you do it in too many siloed operations, none of them have sufficient economies of scale to make a profound impact on the organization. And I guess that to some extent that comes down to what level of pace do you want to run at. And I think we have quite a sense here that we would like to move at a pretty quick pace. And one way which in you achieve pace is to have a decent economy of scale somewhere. And so that's really what we've sought to do with the division.

- Jo Ann : [23:52](#) That's fantastic. How many times have I said that fantastic so far? Quite a few.
- Nick: [23:58](#) You are going to need some new adjectives [inaudible 00:24:00]
- Jo Ann : [24:01](#) Yes, I think I do. I'll work on that. So Francesca, you mentioned that you've had some proof of concept projects going and some of them are graduating into launch. Can you give us some highlights of that? What are some of the kinds of initiatives that have come out of this learning laboratory and are now going to be taken forward?
- Francesca: [24:25](#) So, I mean, one of the things that we were very kind of mindful of when we were sort of developing this capability was doing proof of concepts, doing sort of small scale testing, but with a view to seeing how applicable it could be across the wider organization. And one of those capabilities was around web scraping, sorry, was around web scraping. And for us that's incredibly important and the ability to start to interrogate and see in the first instance and then interrogate the range of information around products, who selling them, how they're being promoted across the internet. And that, because that touches across a variety of areas for us, it touches our unauthorized business division departments, it crosses our supervisory departments. So this was a capability we started developing at a small scale two years ago now actually.
- Francesca: [25:30](#) And that's been very well received across the organization. It's had quite considerable impact. And we are now in the process in the next few months of kind of delivering that out of production and into kind of, into the front line across the organization. And as I said, it was really speaking to what are the kind of multiple use cases that we think we can test this against. And that was clearly an area which we kind of initiative, where we initially started working with some partners to scope out that capability. And as we have taken it out of proof of concept, we have taken that capability in house and built that for ourselves. And I think that was quite important. In terms of a

sort of a principle that we follow from the start, which was, we needed to kind of test one of the things that without immediately going to sort of big scale production test out actually the efficacy and applicability of some of these techniques before we moved to the position of building them kind of at scale ourselves.

- Francesca: [26:37](#) We've also been doing some natural language processing. And we're sort of developing a tool around that. Again, that has been in proof of concept for the last sort of 18 months. And we are bringing that to production in the next couple of months as well. So there's a couple of examples of cases where we think they have quite widespread applicability across the organization. And the interested in engagement across the organization has been really quite profound. There's quite a lot of excitement and interest in a more what we're doing. And it's really important to say as well, which I haven't mentioned so far. We have absolutely done that very deliberately in partnership with parts of the organization. Because as we've touched on before, it's not just about the domain expertise of parts the organization have, but actually it's about if we are taking these into production, we want the organization to use them. It's not something that we just want to develop and then own as a team, it's really important that these are then owned by the parts of the business that has the need for them.
- Francesca: [27:39](#) So we have really very much taken a very deliberate mentality of working with subject matter experts, whether that's in supervision, whether that's an enforcement to really build out these tools so that when we are, when we kind of launched them, they have a natural home and natural users across the organization. So they have a sustainable life cycle to them.
- Nick: [27:58](#) I can add a couple more as well if you'd like to hear anymore or we can move on.
- Jo Ann : [28:03](#) Yeah. No go ahead.
- Nick: [28:03](#) So a couple more that spring to my mind. We are looking at how we apply graph in network analytics to a variety of use cases. One that we spoken a little bit about publicly has been the challenge of a Phoenix thing, which I think might be referred to as cockroach in the US.
- Jo Ann : [28:23](#) Really?
- Nick: [28:24](#) But for those that are unfamiliar with it, it's basically the issue where we take action against a business for misconduct. And we

shut the business down and perhaps take some action against the senior leaders of that business. Various individuals from that business rise up from the ashes, set up a new company and do the same thing all over again, exposing consumers and markets to harm. And it can be quite hard to track people as they move around, change some of their identification information and reapply for entry into the financial market. So we've been looking at how are we applying network analytics to a range of open and commercial data sources to better identify relationships and linkages between people including those relationships that might not be obvious so that we're better able to spot things like fronting and this Phoenixing problem.

Nick: [29:26](#)

So that's another one that we developed in POC and they're looking to put into production in the next few weeks. Another one ... There's a lot for [inaudible 00:29:36] other regulators that are around building new predictive models of harm. So applying some relatively basic, if I'm on a supervised machine learning algorithms to a range of data sets to try and build a, as I say, better predictive models that help us prioritize supervisory effort. So we, I mean, we supervise and regulate the best part of 60,000 densities and being able to know which of those to prioritize for direct supervisory interventions, oversight and monitoring is a proverbial challenge for us. And so predictive model is based on machine learning will play a big part in that going forward. And then the final one I was going to make [inaudible 00:30:18], it's probably an [inaudible 00:30:19] and I really in [inaudible 00:30:20] at the moment. It tends to be experimentation with chatbots. [crosstalk 00:30:26]. So there is a couple of use cases. Sorry.

Jo Ann : [30:32](#)

I said I didn't know that. I am aware of the chatbot project from RQI but go ahead.

Nick: [30:37](#)

Well, we originally were looking at it to apply to our contact center, which gets a lot of traffic from both consumers and firms. And some of those, some of that cool traffic is asking very basic questions that are taking up our time and frankly taking up the [inaudible 00:30:53] time. So we're looking if and how we might be able to automate, initiate text based chatbot to handle some of those basic queries. We'll then explore the extent to which we can put a voice to face over the top of it. But as a very sort of alpha version at the moment, we have our annual data week kicking off in about 10 days time where we have a series of internal events to inspire and educate and develop skills and interest across the organization. And so we've built a basic chatbot to handle queries and suggest courses and help people

book on to the training materials and the options that are available.

- Nick: [31:36](#) So we'll see how that goes. And if nothing else, it will help us explain to people the parallels and challenges of building an actual language chatbot because I suspect we'll get some funny answers coming out of that tool.
- Francesca: [31:46](#) Yeah. Hence why I was laughing.
- Jo Ann : [31:50](#) That's fantastic. Oh, I said it again. Okay. So I would love to keep on this line of discussion, but I do want to turn us to the tech sprint. So I hope that our listeners will also listen to an episode that I recorded I think might've been three or [inaudible 00:32:12] several episodes back, which was our hundredth show on [inaudible 00:32:15] Innovation. And it's kind of both told the story of how RegTech has been evolving over recent years, but also highlighted the fact that in July we at the Atlanta Innovative Regulation collaborated with [inaudible 00:32:32] to put on a tech sprint in London as the mothership and in Washington as the additional site. So I talked in the other show quite a bit about the Washington one, but I would love to hear from you, the tech sprint, recap for us what tech sprints are and how they fit into your strategy. And then I hope you'll tell us what you learned from one in July, which was on anti money laundering and private privacy enhancing technologies.
- Francesca: [33:06](#) Yeah. So tech sprint actually it was my, it was the first tech sprint I had actually been involved in. So for me it was really exciting to see a live one in action. I'd heard about them obviously. And here was one kind of info flow. So tech sprint, essentially what they do is they bring together, we bring together multidisciplinary groups of people. So whether it's people in professional services, technologists, lawyers, regulators, different people with different backgrounds to essentially crack a problem. And we give them a say in this instance a group of use cases at which to kind of really think about and sort of apply their skills and their different perspectives to come up with across, in this instance, it was a week, five days with a solution.
- Francesca: [33:59](#) And the teams presented to a panel of judges at the end in front of an audience, really mixed, quite large audience of about 200 people, regulators, industry experts, VCs, really broad range of people. I think we also had about 800 people live streaming in as well, which was excellent. And really exciting. And as I said this tech sprint spanned a week and clearly it was on AML and financial crime. More specifically around sort of privacy

enhancing technologies and how they can be the sort of, the nascent technology there and how it can be deployed against kind of the problem around data sharing and data privacy. And this really came about from a tech sprint we had had the year before around MLM financial crime, which was much broader in scope. Conversations that were coming out there was that if we really want to get to the heart of base, we really need to start tracking the problem around data sharing. If we really want to make any kind of headway around sort of the challenges on financial crime in AML.

Jo Ann : [35:04](#) Let me just interject that I was there for the one last year and we did an episode with Nick and with Chris Willard at the end of it and we will link to that in the show notes that people can find it. Because that was really one of my favorite conversations we've ever had.

Nick: [35:22](#) Nick, go ahead. They can listen to how tired Chris and I [crosstalk 00:35:28] at the end of the last one. [crosstalk 00:35:31]

Jo Ann : [35:34](#) Tired to any later think.

Nick: [35:37](#) But I think as Francesca said, it really built off of last year's one where, what tends to do with tech sprints, you start with a very open expansive statement of the problem. And so last year the problems they meant really was there was too much undetected financial crime, how do you use new technologies to solve for this? And we had a great mix of teams working last year and delighted to have you present for that comment as well. But really the teams got to a pretty fundamental position which was there are some things that can be done within a single institution through the use of big data analytics and greater application of natural language processing and greater consumption of open and commercial data sources to inform, know your customer checking, customer onboarding, sanction screening, transaction monitoring. So there are things that can be done through the application of these new technologies, but they may be incremental improvements and perhaps the problem requires an exponential improvement.

Nick: [36:41](#) The position that a couple of the teams started to look at last year was, well, what if we weren't constrained only by the data that we can see within our own institution? What if we could legally exploit and benefit from the value of other market participants data in a way that was legally acceptable and preserved privacy? What then could we do? And it was merely the kernel of an idea at the last tech sprint. It was the kind of tip

of an iceberg where there was this promise of something bigger and bolder, but we've never quite got there yet last year. So the reg tech team has spent the intervening period just starting to get under the hood of what is this thing called, what are these things called privacy enhancing technologies and what and what opportunities might they actually offer? And we were seeing a set of nascent technologies that even a year or two ago where so computationally expensive, they would never have been applicable in this kind of scenario.

Nick: [37:44](#) But we were seeing that falling really, really rapidly at the same time that the world economic forum and the United Nations and the world society here in the UK and various other kind of learned and respected research groups were starting to say that there's something in this.

Jo Ann : [37:58](#) Yeah.

Nick: [37:59](#) So yeah, this one was very, very much more focused saying, we want to look at this data sharing challenge, we want to learn about these privacy enhancing technologies and learn as a collective, not just us as a regulator, but bringing a broad group together to start learning about the opportunities. And we want to continue what we started at the previous one, which was the international collaboration aspect. Recognizing that as we've said many times, it will take a network to defeat an organized criminal network and that network would involve participants in single jurisdictions perhaps working together, but it will absolutely need to involve international efforts and collaboration. So the tech sprint was really a chance to kind of supercharge those two things.

Jo Ann : [38:42](#) Yeah.

Nick: [38:43](#) Learning about proofing health and technology and further deepen and encourage the international collaboration. And so we were delighted that there was a site in Washington to really maximize that potential impact.

Jo Ann : [38:58](#) That's fantastic. And the experience of everyone involved like great. In Washington by the way, our teams are going to be presenting to fin cen and also to the financial regulatory agencies on how they did this work and what they learned on, we're hoping as they're saying to jumpstart a lot of creatives thinking on this side of the ocean. So tell us what you learned from it.

- Francesca: [39:31](#) That his stuff is still really quite complex and actually what was really interesting, so that's very, very blunt. But what was really interesting was we had organizations like the information commissioner's office there and I think that was actually really powerful because what it enabled the teams to start doing. So midway through the week we had a bit of a challenge session. And the teams were able to kind of present their developing thinking to a group of people from industry, from the information commissioner to start to kind of get an early sort of stare on how that proposition was developing. And actually a lot of the feedback that I got and a lot of my observations was actually having that rounded group of people that provide that midway challenge, really spoke to kind of a broader learning, which was on this particular issue because of the challenges with the data, because of the nascency of a technology, albeit that is obviously considered when we moved on in the last year.
- Francesca: [40:34](#) You really need to have those different perspectives in the room to talk to the legal implications, to talk to the data privacy implications, to talk to the kinds of practical implications for industry to think about, well, actually does this enable me to start even sharing information within my group, let alone within an institution, but across the group and then across jurisdictions. So kind of a key learning for me was actually about yes, the sort of most multidisciplinary nature of the teams, but actually the wider effort, the wider multidisciplinary effort around that to really challenge and sense check and kind of tease out how that thinking was developing in real time against some of the kind of legal and policy and data privacy challenges.
- Nick: [41:27](#) A couple of other things. And not so much about the technology, but I guess what we learned was that the model for tech sprints does scale institutionally and you can have a multisite endeavor and I think there's some real benefits from doing that. You really do get at sort of scale impact on people's perceptions and understanding and an opportunity for far more people to connect in with the innovation event. Obviously live streaming it for the first time help to grow that even further. So the model does scale pretty well actually. And this is our seventh tech sprint. And we will continue to do them. Absolutely. I think the other thing I learned, there was notably more interest and appetite for international progress in this space. If I think back to last year when we done it, it was quite hard to get a number of regulators in the room and if they were in the room, they were very much in sort of passive observing status and that was fine. I don't label that as a criticism, but that's an observation.

- Nick: [42:29](#) This time we had 35 international peers coming into London for our event. You had a fantastic audience and set of panelists and presenters at your event. There was genuine senior level engagement across the regulatory environment. And there is a real passion and desire to do something to move this forward. I think the other thing I learned was when you're dealing with a nascent cutting edge technology as we were this time, it's a bit harder to encourage open collaboration. The tech sprints have always been incredibly sort of what's the right word, democratic open events. What we had this time was a rather more competitive group. But that was good. That drives them all forward towards more ambitious outcomes.
- Jo Ann : [43:17](#) And did you say part of that was because we then went to, we had a first and second and third prize this year as well. Do you think that drove it as well?
- Nick: [43:24](#) I think that was, I think also it's just yet ever, to be honest, a lot of the privacy enhancing technology companies said that this event was the biggest kind of opportunity to raise profile for these technologies that there has been. So we had in the room, regulators, law enforcement agencies, government bodies, senior individuals from regulated institutions, venture capitalists, other forms of investment incubators, accelerators, the, a lot of the [inaudible 00:43:52] enhance technology that have only just come out of research facilities and have not been given that sort of moment in the sun. And this, for many of them was exactly that moment. And so they were really keen to seize that opportunity. And I think the other thing I've learned was that when we try and host one of these ourselves, I should expect my teams to have a whole lot less sleep than when we get someone else to host it for us.
- Nick: [44:14](#) And the other thing we've learned is don't do something like this if you're not then prepared to commit to maintain and contributing post event. So don't set the head's running, don't fire the starting gun if you're not then prepared to plug in and continue the dialogue and continue working with these groups. So the level of I think appetite from the participants for us to be involved with them and working further, working to develop their prototypes [inaudible 00:44:44] is very, very, very high. And we'll put a bit of strain on us frankly resource wise, but is absolutely the right thing for us to do to move these out of ideas and prototypes into working pilots and hopefully further still.

Francesca: [44:56](#) Yeah. And I think something that sort of really struck me from kind of the commentary coming through at the start of the event was around actually kind of the human cost of what's what, still the human costs of products require [inaudible 00:45:12] over the last year. And actually for us, we can clearly convene and bring people together and start to kind of try to crunch through these really naughty problems. But at the heart of it is if we don't continue to kind of put our money where our mouth is and continue that conversation and continue to step in and continue the kind of work off the back of this tech sprints, that human cost will continue and it is profound and sizeable. So I think for me that was something that actually was very, very kind of profound that was coming through across the week with those sort of messages around, there is not a choice about doing nothing here.

Nick: [45:52](#) This matters.

Francesca: [45:52](#) Yeah.

Jo Ann : [45:54](#) I agree with you. I think that was one of the most effective things. And we will link in the show notes to whatever videos you have made public that helped to galvanize that motivation by reminding us that this is not victimless crime. This is terrible, terrible crime and it's a terrible toll on people. I know we only have a few minutes left. Just tell me quickly what those followups are. What's going to happen now with your winning groups and the initiatives that you've, that you began to see?

Nick: [46:30](#) So there isn't a simple answer to be honest. So we've engaged with all of the teams that were involved in the London sprint and building a picture of what was their appetite to take this further and what kind of support will they need. And for some they may need regulatory guidance or advice which may be something we're able to provide through our innovation, direct support services. Others will look for further testing of the prototypes and we'll look at if and how to facilitate that through things like our sandbox. Some frankly will require investment and that's very, it's impossible for us to do that. But what we can do is try and connect the prototype teams. We've sorted them investment that we're aware of and just make the need for investment known.

Nick: [47:23](#) I really hope we'll get to a point where for every one of the teams were able to publish a bit of a wishlist of the kind of support they need, commercial, legal, financial or otherwise, and for the bits that it's appropriate and that we're able to help

with, we'll do our bits, but we'll also try and marshal a bit of an international effort from other regulators, regulated firms and other interested parties to try and address those other support requirements. At the same time, I think we're, one of the things that's really coming through quite loudly in the UK market at the moment that we're going to have to [inaudible 00:47:57] get some proper thought for is what is the test environment for new technologies that can really in the rec tech space? So we have a regulatory sandbox that supports broadly FinTech propositions and testing of new business models. But there isn't an easy place to go to at the moment where you can test the technology with a reliable and valuable syntactic data asset and where firms who might be potential buyers of that solution can do simple AB testing of their own solutions against that new proposition.

Nick: [48:32](#) So there is a need for us as an organization to think through who and how do we facilitate more accurate technology testing in the UK market and globally indeed. And that's a difficult one for us to solve because there are certain things that we can and ought to do and there's certain things that we'll need the market to do, but we would definitely take that very seriously off this event because the teams we worked with were very, very keen to basically continue to have access to the kind of environments, the kinds of data that we provided for those five days. And under our current model, we can't give that to them. And that's a shame. I think we need to do something to try and address that.

Francesca: [49:12](#) But I mean I think given where we started this conversation in terms of at what do we want to do as an innovation division, we know we've got, we have got now maybe five years of experience of kind of building support offerings and thinking about what that looks like. And I think that speaks to kind of be advantage of bringing us all together now, which is what have we learned from our experience in the FinTech space that we can start to think about what that means form observing proof of concepts, supporting proof of concepts, that kind of thing. So I think that also speaks to a wider conversation about kind of how we continue to evolve and kind of reflect on what we do across innovation.

Nick: [49:49](#) So one of the things we are pondering is whether we run a sort of beta sprint and we're, it's very, very early stages but we know that the market is looking for high quality synthetic data assets to test solutions again. And there isn't a ready availability of those data assets in the market at the moment. We are pondering whether it would be good to get a group together for

a few days to try and build a number of those data assets and then to open source them into the market. Again, that's the sort of thing that will be asked to far more profoundly and effectively if it's an international effort that draws on the intellectual capital and ability of various different groups. So that's another thing we're looking at. We're also supporting various other regulators and law enforcement agencies who are looking at doing something hackathon like or tech sprint like for some of their own use cases.

Nick: [50:40](#) Some of them are and they stay in the financial crime space, others are not. But we're very keen to share our experience and learnings about how you run events like this. We have another great proponent in yourself now to share that learning too. So I hope we thought to scale that more meaningfully as we go forward.

Jo Ann : [51:02](#) This is fantastic. As you know [inaudible 00:51:05] is working with many of the same kinds of questions including how do we create this safe and practical testing environment for reg tech. And again, I know we're out of time. I have one last question, which is can the sprint leave you optimistic that there could be privacy enhancing technologies that can allow the share, the safe sharing of data in ways that are not, that have not been possible in the past. Could you tell whether it's possible?

Francesca: [51:40](#) Yeah, I mean, sorry not what's not particularly helpful on podcast is Nick and I nodding away as you're, as you're talking. But yes. I mean, I think the goal that the range of teams, we saw the number of teams, we saw the kind of diversity actually of their different propositions and what they were thinking about and the way they were bringing them forward really kind of made me quite kind of hopeful and excited to kind of see where they go to next. We weren't seeing them clustering around a particular idea. There was a range of diversity across those use cases. I think for me that was the thing that sort of really sort of ignited that sort of sense of the art of the possible. What's next?

Nick: [52:23](#) I think we always say one of the earlier podcasts, I think it might have been with the chat from outdoor. One of your earlier podcasts you spoke about the trap.

Jo Ann : [52:37](#) Yeah. Carrie Schiffman. [crosstalk 00:52:38]

Nick: [52:39](#) I think you spoke about the travel in algorithm.

Jo Ann : [52:40](#) Yes.

Nick: [52:42](#) With him and actually a couple of the teams were looking at that, that idea as well. So some were focused very much on how to enable data sharing. Others were looking at, well, if you call can't, if you cannot get over the hurdles of data sharing, what value do you get by sharing an algorithm around the group of market participants and tweaking and developing that algorithm across different data sets. So share the algorithm not share the data. And so I think both of those avenues are well worth looking at. And I think we didn't really hear any of the teams say this isn't scalable. It wasn't the kind of, we built it for this tiny use case but we could never apply it across the market [crosstalk 00:53:21] that was really enthusiasm and ambition and a real sense that the thing that's going to make this possible is that they are fundamentally relying on exponential technologies and there was no slowing of the pace of the development of exponential technologies at the moment.

Nick: [53:38](#) So even if these are still a bit computationally expensive that is coming down at such a rate that there is real opportunity to move forward and I think we really valued the input of people like the data protection agencies, information commissioner's office. And then they didn't seem to be any showstoppers from their points of view about these technologies. So I think there was, there was broad enthusiasm, engagement and belief that there is real merit in looking at this and trying to tie some of these ideas forward.

Francesca: [54:11](#) I could talk with you too for the rest of the day. I know we need to go, but that's a great note to end on. The excitement about the possibilities here. Where can people get more information about all this?

Nick: [54:25](#) You go to fsa.org.UK. If you type in FSA Innovate or FSA RegTech and [inaudible 00:54:33] you'll find lots and lots. I'm really pleased actually for this tech sprint, we've been able to publish a lot more of the content. So there are the opening videos that try and humanize the problem and talk about the real disgusting human cost of these crimes. But there's also demo, the demo videos for all of the solutions. And I'm really watching this space because as I say we're very keen to share the needs of the different prototypes and to try and find a willing collective group of participants to help us tie those forward. But if you type in FSA innovate or RegTech into a search engine, you'll find plenty of content.

Jo Ann : [55:12](#) Wonderful. And we will also link to all of it in our show notes@chaskaor.com. Francesca and Nick, I cannot thank you

enough, not only for the podcast, but for the leadership and the vision that you're bringing to all of this. I only say for me, it's the most exciting thing going on in the whole world, and I'm really, really admire what you're doing, so thank you.

Nick: [55:35](#) Thank you very much.

Francesca: [55:35](#) Thank you very much.

Nick: [55:37](#) Thanks for all your help and all your support. It's been great working with you.