Bas Overtoom: Hello!

Bas Overtoom: Welcome everybody to this webinar.

Bas Overtoom: We are all waiting for a few more people to join. We just got started, so we give it around 2Â min.

Bas Overtoom: and then we will get going.

Bas Overtoom: Think we will wait for one more minute, and then we will get going so you can make yourself and a cup of coffee.

Bas Overtoom: Quick toilet break. And I will start in about 1Â min.

Bas Overtoom: Okay, I see that we are yeah.

Bas Overtoom: getting a lot of people in the in the in the webinar. Thank you all, and none done. Maybe you can

Bas Overtoom: open the slides and we can get going.

Bas Overtoom: and we look forward to bring you to this great topic of Iso 42,001, and provide you with the relevant content. My name is Baz overthome.

Bas Overtoom: I'm a Global Business Development Director

Bas Overtoom: of Namco, Digital and keen to today. Be here together with my colleague Nandan, to walk you through what the Iso certification iso, 42,000 can mean for your organization to improve

Bas Overtoom: the use and the development of of AI. This is the agenda for for today, and we'll just walk you through.

Bas Overtoom: I will do a small short introduction, and then

Bas Overtoom: I will leave it over for Nandan to give you the the content and the information, and he will do also a self introduction in a little bit, and then in the end we will have 5 to 10Â min also for for questions.

Bas Overtoom: So before we dive into the content, a short introduction about Nemco digital, because some of you

Bas Overtoom: might not be, know us. Be here for the 1st time. We are a new entity in the Nemco group.

Bas Overtoom: Nemco is an important global player in the tech industry, with a strong focus on

Bas Overtoom: product compliance for electronica products, mainly working for many of the largest clients around the world. And for that we've been helping them to bring their products to market. And all the certification, quality regulations and quality checks that are needed for those products. We take care for them. We provide physical trust to physical products.

Bas Overtoom: Now, products and services are becoming more and more digitalized. And for that, in about a year ago we developed a new brand name code digital that is providing the digital trust AI cyber data for our clients, and also many new clients. Now for that also iso certification, 42,001 is very important. So that's why I want to provide you the knowledge. And and in initial insights on that.

Bas Overtoom: So why do we see that it's there's so much interest also in the part of AI governance,

compliance, and quality management. Of course, one of the aspects is the the key interest to be compliant with upcoming regulations. If you want to bring your product services all around the world, or you want to use AI internally organizations, you want to be compliant.

Bas Overtoom: But that's not the only thing that is coming out of the conversations we are having with our clients. Other key drivers are also the reputation that you have as a leading global company to want to build and to work according to the best standards.

Bas Overtoom: Of course, if something goes wrong, it is not only maybe fines, but it can also be enormous cost, with incidents and harm that might be inflicted. But that's also a key driver, and you see also that often it is demanded by stakeholders in your ecosystem that can be the clients. But it can be also.

Bas Overtoom: for example, other partners that you're working with in an ecosystem, cool.

Bas Overtoom: and last, but not least, we truly believe that it is also a strong competitive advantage, because the value that Iso 42,001 brings is not only

Bas Overtoom: to be compliant and to manage quality well, but it also helps you to build an AI development and deployment engine factory to be, let's say, the fastest moving company around to start to leverage AI in the services and products that you offer.

Bas Overtoom: So these are some of the key drivers that come up

Bas Overtoom: when we are talking to our clients. And I think there's also some things that Nandan will will focus on

Bas Overtoom: in his presentations, giving you many examples of what he sees.

Bas Overtoom: So that was my introduction. I really look forward to the session, and then I give the word to to you to to introduce yourself and then get going with the with the further webinar.

Nandan Savnal: Boss. Thank you very much, and let's jump in straight away a little bit about me.

Nandan Savnal: My name is Gurudandan Savanal. All my friends and colleagues call me Nandan, so please feel free to call me Nandan. I started writing software when I was about 17 years old, and being in the tech field. Since then I'm a charter accountant.

Nandan Savnal: I am a certified information security auditor certified forensic expert Cdpsc on privacy, coso internal control certified risk. Professional ceh, various other certifications with me

Nandan Savnal: on the Iso, 42,001 on the Artificial Intelligence. When I started writing software way back in 85. We were listening and hearing the words of that artificial intelligence will take away the job of all software programmers

Nandan Savnal: where it didn't happen for a very, very long time. Today we see the mushrooming of that, and it's beginning. The umbrella curve of AI has only just begin.

Nandan Savnal: I also sit on various Iso Committees where the standards are written.

Nandan Savnal: I also chair the National Committee on Risk Management and the Risk Maturity framework. I also sit on the Style

Nandan Savnal: Advisory board for Iso. So that's a little bit about me. In terms of Iso 42,001. Since the standard came in 2023 December I have implemented that for over half a dozen large organizations. Very large Mega organizations

Nandan Savnal: 3 of them are already 2 of them are certified. One of them will get certified within a week. Others are in the pipeline of getting certified. I've done over 20 full fledged implementation workshops and guided many organizations to implement it

Nandan Savnal: based on all of that. And with the Nimco digital, I'll call that as nd the knowledge base of nd

Nandan Savnal: of what we have learned from our clients over the last many years. We bring this

Nandan Savnal: our session with you, and let's jump in straight away. Like I said, we have been listening about AI for a very long time. Why is it that in 2024, 25, it is picking up, and it's picking up? And I said, the umbrella curve has only begun. So let's look at some of it. I think one is huge advancements in computing capacity. We have seen huge computing capacity which is coming up.

Nandan Savnal: The Gpu's are coming up and the cloud computing is coming up.

Nandan Savnal: Cost of computation has come down drastically.

Nandan Savnal: Huge amounts of data is available on every sphere that we want to do. The global coming together has worked that out.

Nandan Savnal: A lot of online curricula has come up algorithms which have been written they have been capable of at many levels. As we go around we'll see that they're exceeding human level of performance and many practical elements. So there is a push and a pull from both both sides, and that is taking AI in a very, very big way. We have come to a point

Nandan Savnal: where, almost in every area of our life, whether it's personal or official or in workplace. We are seeing AI. We got Meta on our Whatsapp today, and we can ask it anything.

Nandan Savnal: So.

Nandan Savnal: and for people who have ms. 3, 65, pay a small amount. Co-pilot is there to work with you

Nandan Savnal: on at the organization level. Almost every company is using AI in some way or the other.

Nandan Savnal: Like, I said, if you look at the growth of AI. It has gone up

Nandan Savnal: absolutely, exponentially, just a moment, quite exponentially. And once we get the data for 24 in a short while, we'll see that jump being far more

Nandan Savnal: if you look at how the AI areas are going from handwriting, recognition which has zoomed up speech, recognition which has gone up image recognition, reading, comprehension, which, almost till 4 or 5 years back, was not part of anything. Nlp. Came up, and that came up language, understanding, and predictive reasoning. These 3,

Nandan Savnal: with Ml. Have just zoomed up, and this is the baseline of human understanding, and almost everything is either very close to it, or is going ahead of it. So if you look at just pardon my throat

Nandan Savnal: AI capabilities in many places is increasing dramatically

Nandan Savnal: the growth of AI. Initially. When AI came up I had a feeling, and these are the insights that we are getting in. We thought it will predominantly be with the bank banking and the financial services. But if you see the major spend and the major traction is where we are getting it from the embedded areas we are getting it from. Also the health areas. And yes, Bfsi is coming up. They are

just started spending that amount of money. So you'll see that in this data

Nandan Savnal: here, you look at

Nandan Savnal: the number of incidents which are there, the controversies which are coming up, the incidents where AI has gone wrong, that also from this part, again, is zooming up, and that is causing concerns to regulators, to users, to responsible organizations. And that's where the need

Nandan Savnal: of a framework for organizations to look at ethical and responsible ways of implementing AI so that they cannot be misused. We have heard about deepfakes. We have heard about many areas where AI can be used in a negative way

Nandan Savnal: when people were asked about AI, if you look at this very interesting statistics, this is the age group. This is rich or poor. This is male or female.

Nandan Savnal: and you can see the confusion galore. They really are on all kinds of spectrums, and there's no clear view which is coming up, and that's that's where nd Nimco digital will come in and lead. Lead the way.

Nandan Savnal: let's look at certain statistics market size, which is expected to be a huge amount, 1.4 trillion. It is estimated that by that period the American Gdp will have a 21% increase because of AI,

Nandan Savnal: we are, we are expecting. I mean, the Forbes advisor is expecting 75% are concerned about misinformation. Chat Gpt, if you look at any technology.

Nandan Savnal: and one of the ways to look at is, how long did it take for it to go to 1 million in the olden days? How long did it take for a radio to go to 1 million, then the TV to go to 1 million, the Internet to go to 1 million and let's look at Chat gpt it just in 1st 5 days it was 1 million.

Nandan Savnal: 2030, 10 cars will be self-driving.

Nandan Savnal: 64% of businesses expect that AI will increase productivity. If we are in the AI field on either side of the business users of AI or providers of AI.

Nandan Savnal: This one statistic itself

Nandan Savnal: will be exciting for us. Because if we are going to look at the entire market space of 64% of businesses are going to look at productivity by AI. And if we are in business, we feel that we are going to use AI, then what are the controls that we need to put in place, and how are we going to look at it? So if you were to ask me, this is one data point that would excite me a lot to jump in and look at it. So these are some of the AI statistics.

Nandan Savnal: 72% are already doing something. So if you're there, something about AI is already sitting into your work. Maybe it sits on top of Nlp. A chatbot has been put in or maybe an email solution is there

Nandan Savnal: workforce impact. People are getting worried about it. And that is a word which is used is displacement.

Nandan Savnal: Healthcare and automotive are expected to see the most impact. Like I said, you know, healthcare is where we see a huge amount of the A jump in

Nandan Savnal: AI, let's come to what is AI Ml, we hear these things together, artificial intelligence and machine learning.

Nandan Savnal: And if you look at this, there are words which is supervised. Machine learning that means a human is teaching a machine on how to learn. There are various examples which I can give

you is, how do you get a machine to learn? This is a cat is by labeling and teaching it over a period unsupervised. Learning is where you give it tons of data.

Nandan Savnal: It will collate it. It will vector the database, it will put it, it will categorize it and learn from it.

Nandan Savnal: In many places we will see that

Nandan Savnal: semi-supervised is coming in reinforced learning.

Nandan Savnal: One other thing which is coming up is, hey? I built something from there. How do I get? I like what it has done. Some of these learnings I want to take to some other AI that is, transfer learning, that is, training, data, training models, retraining continuous training, etc. All of these are Ml. Concepts

Nandan Savnal: that are used when developing AI model.

Nandan Savnal: One of the things friends, that is, people when they talk about that they are getting worried

Nandan Savnal: is, let's look at this very simple part. And then we can map where we are in the AI journey. In the AI technology man was doing everything.

Nandan Savnal: and this was where man, woman, human was doing everything, or let me use the word human human was doing everything.

Nandan Savnal: Then we started collaborating the phase that we are in today, and we are doing it jointly. So we are doing this a lot of work jointly.

Nandan Savnal: and here is where you can outsource it, and this becomes completely autonomous. That means they can do it themselves. We are not yet fully here.

Nandan Savnal: We are somewhere here, and this journey has begun. The complete autonomous has not yet come into force. So if you look at what is that journey? 0 is no automation. One is assistance. We were there in the past partial automation, conditional automation.

Nandan Savnal: Where we have high automation is where the system performs part of the mission without external intervention. That means some part. They can do it themselves, like an Rpa or some other areas, maybe a fraud detection. If you're in the Bfsi segment, or if you're in the medical area where it will learn and give you some diagnosis.

Nandan Savnal: This journey is where we are going in at this point of time.

Nandan Savnal: and this is what people are worried about is, let's look at this. What? When people say AI is dangerous, it's not where we are today.

Nandan Savnal: If you read this, the system is capable of modifying its intended domain

Nandan Savnal: of use or its goals without external intervention, control or oversight. That means AI can modify where it is, what it is supposed to do, change it by itself. And this is where people are getting worried is when we reach there, or if we reach there, what could be the results? So we are far away from it, at least at this point of time. Today, as we as we are talking about it, let's see what controls and what guardrails.

Nandan Savnal: Now, because AI is going into every area. One thing that I would like to talk about is

Nandan Savnal: how AI is different from all other areas. So if you are a corporate. And if you're leading

a organization or part of an organization, one thing is, if you look at quality management system, if you look at information, security, cyber security, very important.

Nandan Savnal: They are very much like pillars.

Nandan Savnal: They affect their own domain, they affect their domain, and they affect their domain completely. But let's take AI. What does AI do

Nandan Savnal: if we use AI, and when we use AI across the organization, it will affect quality of our product and service. It will affect the customer service experience of our customers. It will affect privacy. It is taking the Pii data. It is working on that. So privacy gets affected safety. If you're using in it ot it is using in IoT in manufacturing areas, then safety gets affected

Nandan Savnal: use of AI in cyber security, then cybersec gets affected. So if you look at AI, it's not only just that, it's also a pillar, but it also cuts across all the pillars that we are built in.

Nandan Savnal: And so the worry that comes in, or the concern that comes in for the governance team

Nandan Savnal: is, if AI were to malfunction, will it affect the other pillars where AI is embedded inside of it. Example, if AI is working on Pii data, will there be a breach of privacy where maybe a Gdpr. Or some local law of that jurisdiction. If that gets affected, what will be the consequences to my customers, to my stakeholders and to us

Nandan Savnal: in a regulated environment, and that concern

Nandan Savnal: is one of the concern. Second is mal use or misuse of AI. The words used here, if you look at it, is intended use.

Nandan Savnal: If AI for the intended use can go elsewhere, what does it mean?

Nandan Savnal: So we'll come there. AI use cases. We know that it is used in diagnostics and in diagnostics. It is done. You train it. You take the

Nandan Savnal: millions of record thousands of records of maybe a MRI scan. You table it, you link it. And you say, Hey, this is a fibroid. This is cancer. This is an ulcer with millions of data points. Supervised learning. Give it to that

Nandan Savnal: over a period. Let it go. Learn also, in an unsupervised way, by categorizing it and feeding it a lot of data. And then.

Nandan Savnal: once you put it alive. The use cases that we are seeing today in the diagnostic industry is, hey? You know what they are able to tell us

Nandan Savnal: much in advance about what can happen today. We are reading reports that breast cancer can be diagnosed or can be predicted 9 years before the

Nandan Savnal: existing methodologies can diagnose it also in terms of what I come from India, and there one of the use cases for healthcare is.

Nandan Savnal: can we identify preterm birth births happening before the full term, and we have been able to isolate 3 viruses, viruses, bacteria, and saying that these, if they are there, they can

Nandan Savnal: harm it and the preterm births, and will we be able to bring the preterm births down? Hopefully? We should be able to do that. So in healthcare it is used. If you are in the banking or the finance industry. It is used for anti-money, laundering fraud, detection in algorithmic trading. It's always been there. AI coming in is making it faster. So almost on every area. Self-driving cars are

already there.

Nandan Savnal: In Covid. We saw this zoom up in a very big way. All the schools everyone was using it. We are seeing

Nandan Savnal: Chatbots almost on every website.

Nandan Savnal: Natural language processing at the core is being used to develop AI's. I can give you many use cases in agriculture and cyber security. So these are some use cases that I have come across in my experience

Nandan Savnal: with various organizations and over period. If anyone is more interested, I can sit with you separately over a separate chat, and we can discuss these in detail.

Nandan Savnal: like I said.

Nandan Savnal: the rationale for what is being called now as responsible. AI. Now this is something which is now coming up.

Nandan Savnal: Can AI be used for, thinks that it is not intended to be used.

Nandan Savnal: We are all we have all heard about something called as a deep fake.

Nandan Savnal: Deep fake is nothing. But if you take a video of me. Take a photograph of me and you create a video of me and show as if it is me who is talking about it. We have seen that of some Presidents. We have seen Donald, President Donald Trump's images going all over. We have seen of our Indian Prime Minister, Honorable Modi. His deepfakes have come out. Deepfakes of many leaders have come out, deep fakes of social public figures have come out.

Nandan Savnal: That is one area. Other is, can you use it for

Nandan Savnal: maybe money laundering, maybe attack cyber security issues. So in each of those areas AI can be misused.

Nandan Savnal: Second is, what if it starts misbehaving going away from intended use starts hallucinating. Then how do we take care of it? So when we look at that.

Nandan Savnal: things come into a little bit of an issue. I would like to discuss 2 case studies with you

Nandan Savnal: and that will put things in place. So one is the airline Chatbot. This is from the North Americas. In Canada there was this airline in Canada which,

Nandan Savnal: had a Chatbot on its website.

Nandan Savnal: doing a great job for a very, very long period of time a customer walks in after it's been in production.

Nandan Savnal: he is buying a ticket he puts in his requirement, and when that is put in.

Nandan Savnal: something very different happens because this is a unique requirement.

Nandan Savnal: He asked for 2 tickets, which is not very unique. People do that, and he says the second is for the remains of my mother. My mother's remains. Human remains. She passed away, and it is meant for her remains, so I don't want to see it for her. It will go into cargo

Nandan Savnal: at this point.

Nandan Savnal: the Chatbot, because, if so, for people who know AI, it goes to the Repository, looks at the Faqs, looks at what it is, being trained on what we call it grounding. There was no grounding of this use, case of human remains being carried. So what does the Chatbot do now?

Nandan Savnal: The Chatbot

Nandan Savnal: shows something that it has not been trained in the current environment, but perhaps where it was created, and it mimics and gives empathy.

Nandan Savnal: And it says, Hey, I am so sorry that this happened, and they get into this dialogue of empathy.

Nandan Savnal: and when that dialogue of empathy comes in

Nandan Savnal: at 1 point the Chatbot does something which it was not meant to do.

Nandan Savnal: The Chatbot tells the customer, you know what, after the journey is over, come over

Nandan Savnal: and ask for a rebate, and we'll give it to you.

Nandan Savnal: and lo! Behold, the journey is done. The customer walks in and asks for a rebate.

Nandan Savnal: The airline refuses it.

Nandan Savnal: and says, No, this is not what we meant. The Chatbot has gone out of its realm.

Nandan Savnal: This case goes into the court.

Nandan Savnal: and in the court, of course it is decided that this is a chat. Bot. You are responsible. It behaved in a particular way, the customer based on the promise of your

Nandan Savnal: agent. Maybe a mechanical agent, maybe an AI agent, responded in a particular way, and the contract was in place. And so the quote

Nandan Savnal: order them to pay a penalty and a reimbursement, and that aspect was disposed of. So can

Nandan Savnal: AI go into areas where, especially where

Nandan Savnal: something unique comes up. Can it behave, or will it behave

Nandan Savnal: in a way that we don't know? And can it create surprises, some positive, some negatives

Nandan Savnal: responsible. AI. We want to avoid both of these surprises, and perhaps at these points the AI may know and get in what we call as

Nandan Savnal: human oversight and give it to a human human in the loop is the word that we use and get a human in. So how do we train that those are elements that we call as

Nandan Savnal: responsible AI in another part in Japan it was a manufacturing location.

Nandan Savnal: The EI.

Nandan Savnal: Robot, had a knife which was supposed to cut

Nandan Savnal: heavy metals and heavy objects. It was doing that it was trained in a particular way

that it understands. Now one of the objectives

Nandan Savnal: is when we look at this one of the objectives for this is safety safety of humans.

Nandan Savnal: And that's what we mean as responsible AI as the

Nandan Savnal: machine as the robot was working on it, it was trained on how a human being looks at

Nandan Savnal: how a human being looks, and it was trained in that manner

Nandan Savnal: a human came in in the periphery.

Nandan Savnal: The robot

Nandan Savnal: could not recognize the human move its arm and cut the human in a not a very good way

Nandan Savnal: that created a situation for the health and safety of the person.

Nandan Savnal: Here we talk about a concept which is in responsible. AI is safety, human safety.

Nandan Savnal: One element to bring that up when we do consulting, and when we do trainings in our programs, we tell them that if you want to build this, how do you train the AI is we call it robustness, so I'll just take a moment to explain that, and then we'll move forward. So it puts in place of how we do our offerings, how we build it up, how we build responsible. AI. It'll give you a peek into our world.

Nandan Savnal: So what we do here is when we are building this. For the objective of this robot.

Nandan Savnal: we say, Hey, safety is extremely important. Human safety is key. No harm can happen to a human.

Nandan Savnal: And to do that the robot must be able to recognize all humans in any form. So a lot of training goes in in what we call building robustness. Robustness means a human coming in any way, any form from anywhere. It is trained to recognize it, including, let's say, it is a car.

Nandan Savnal: We are having autonomous cars. Autonomous cars are trained to understand humans, to understand traffic lights.

Nandan Savnal: to understand the the cars in front of it.

Nandan Savnal: We train it with robustness, and it means that in weather conditions, where it is raining, where there is snowfall, where it is smoky, can you still recognize the human. Can you still recognize the car? Can you still recognize the traffic signals? That is how robustness is built in into the AI models? So when we look at

Nandan Savnal: the AI that is built in each AI, depending on the intended purpose, we build in its requirement objectives.

Nandan Savnal: It's appropriate objectives for each objective. We look at the risk assessment, we look at those risks and say, How do we build and ensure that those risks are reduced to a level that they will cause

Nandan Savnal: acceptable level issues and will not cause harm. So these are 2 real life cases that I want to touch. We have many, many more than this, and we can certainly look at that.

Nandan Savnal: So that is about AI responsible. AI is, help them to look at it.

Nandan Savnal: The specific considerations which are raised when we are looking at it is the wording which is called automated decision making.

Nandan Savnal: Non-transparent and non explainable example is, when I go to a bank.

Nandan Savnal: I'm chatting with A AI robot and the AI robot there.

Nandan Savnal: If I'm applying for a loan, then

Nandan Savnal: will it give the same treatment to me as to any other persons without what we call as bias.

Nandan Savnal: Can you do it without a bias? So one is for the loans. How about for a job? One of the case studies for a large organization. They had a

Nandan Savnal: they used it for recruitment because they were doing a lot of recruitment.

Nandan Savnal: AI was doing automated decision making. And because the data on which it was grounded in had more males of a particular age group. What it did

Nandan Savnal: was from the applicants. It said, Hey, I am trained. This is my background. This is my grounded data. I will take this data, and perhaps the organization wants me to hire more from this, so that the people who come in come exactly like my data, which is sitting in at this point of time. So it behaved in a particular way, and it

Nandan Savnal: actually recruited more males of a particular age group than the other groups. So that also is one element that comes in

Nandan Savnal: the other thing that worked work. And this is because it is going away from human coded logic.

Nandan Savnal: continuous learning that changes their behavior as AI learns from the data and changes its behavior that creates its own risks as we go on.

Nandan Savnal: So when we look at leadership role, responsible? AI, how do we build that in we have to do is start from the top. And of course it is. This is not a complete list. This starts from here, and that's how we also build our consulting. We have to look at the culture we have to have the awareness and compliance.

Nandan Savnal: The that's where the standard comes in. Iso standard has been written in a way that we are able to demonstrate the responsible AI built up from scratch upwards right from inception to deployment. So we have various stages which I'll cover very shortly. So it is a standardized concept which have come in helps all the stakeholders.

Nandan Savnal: This is acceptable by acceptable by almost all the countries, good practices, implementation, methodology. The good thing about the standard is it's an auditable standard, which means it is not only

Nandan Savnal: the organization which is saying that I have responsible. AI. But you can go to a reputed name. You can come to Nemco. We can look at your processes. We can look at your AI and say, Hey! As an independent body, accredited body or a responsible body. We are saying that you have

Nandan Savnal: implemented systems in place for responsible AI, and you'll be able to evidence it to your stakeholders.

Nandan Savnal: So what are the key elements of building a responsible AI. We have put in 16

elements here. Of course, this presentation will be available to you. So I'm not going to read every element here. We are going to build that in when we, of course, in the training programs and consulting, we go, or each line in detail of how do we

Nandan Savnal: build each one? So each one is built in these are the responsible elements. These are the key elements for responsible AI starting with leadership, commitment, governance, methodology.

Nandan Savnal: AI policy, AI objectives. I spoke about this like robustness, accountability, explainability, etcetera.

Nandan Savnal: We use these risk approach, and the system approach. These are part of the Iso standard.

Nandan Savnal: AI system, lifecycle, etcetera.

Nandan Savnal: What are the objectives that we start with. This is the starting line. Of course you can take more, but the standard Iso 42,001

Nandan Savnal: in that annex have given us

Nandan Savnal: certain starting point for objectives accountability. The organization having AI expertise very important element that your quality of training and test data must be there.

Nandan Savnal: Yeah, I

Nandan Savnal: can a use huge amounts of computational power. So the kind of AI that you do is it creating environmental impact, climate change.

Nandan Savnal: fairness, maintainability, privacy. I spoke about robustness when it came to the robot and the vehicle. Safety.

Nandan Savnal: They can go hand in hand. Security, transparency, explainability. I told you when about the recruitment, and the bank loans.

Nandan Savnal: Some of the controls are, how do we do it? Post

Nandan Savnal: the risk assessment. There are 38 controls which have been given to us.

Nandan Savnal: and out of that we can use those controls to reduce the risk. So the standard by itself has been written quite well, I should say. So. You got risk assessment. You got system impact assessment. And for the risks that we see in the AI, we can put in controls, pick it up from the annexture, A of the standard itself. So this is given in the standard itself.

Nandan Savnal: the annexure a of the standard itself, and some controls which I put in here. There are 38 controls I have just put in, I think, 7 of them here.

Nandan Savnal: each one helping us to build the responsible AI system. So they are here, starting with the objectives that we work on the processes for responsible AI right down to ensuring that my supply chain is good, and what should the customers look at it? Who is responsible for it? What are the objectives, and what are my verification and validation, testing each one of these element can help us to

Nandan Savnal: build the responsible AI, and jointly.

Nandan Savnal: when we implement them judiciously, they go towards building the AI model in a very, very powerful manner.

Nandan Savnal: So let's look at the evolving landscape, and how AI Ms, which is called as AI management system, or artificial intelligence management system fit in. It's a management system.

Nandan Savnal: And let's look at how that fits in into the evolving landscape.

Nandan Savnal: AI is permeating into every area of our life.

Nandan Savnal: Personal life, professional life. I saw Meta coming out with Ray-ban and coming out with the spectacles. Amazing amazing product! Can you imagine a blind man, a blind person wearing it

Nandan Savnal: can know when to cross the road, because it is getting augmented reality. It is speaking to it and says, don't cross now. The vehicles there, watching something, can pick up a item from the shelf of a grocery store. It will tell all the details, the contents, the price, whether it's appropriate to him or her, and then buy or not. Buy. So

Nandan Savnal: it'll it's permeating in every area of our life

Nandan Savnal: we are going towards becoming autonomous. That means AI is going there.

Nandan Savnal: Many organizations adopting AI

Nandan Savnal: and all that causing the need for responsible AI coming up. Regulations are coming up. AI. Accidents are happening, incidents are happening.

Nandan Savnal: Our buyers, our stakeholders, want responsible AI partners. So if you are using AI wonderful, how do you convince us that the AI that you are developing, designing and deployment for me is responsible.

Nandan Savnal: So all of these areas will come in. Climate change is becoming a very, very relevant issue. Society need not only my customers, but one of my stakeholder is society. Are you doing something that will affect me or the society in a in a particular manner.

Nandan Savnal: Let's jump in and let's look at the 42,001 standard itself. Let's jump in into the standard we've spoken. Why, 42,001 is important. We've spoken. AI need for 42,001 need for an auditable standard. What does the standard

Nandan Savnal: require? And what what does the standard have?

Nandan Savnal: So it is a plan. Do check, act framework. So for people who are aware of it, it still carries that part.

Nandan Savnal: If you didn't have the opportunity. It is very simple. It is very. It is what we call the Demming cycle.

Nandan Savnal: Edward Deming did that many years back, and we take that into our iso, and we call it the plan. Do check, act very simply. What it means is you take your objectives. What you want to achieve

Nandan Savnal: plan, make a detailed plan to achieve it

Nandan Savnal: rigorously, implement it, or do the items that you have said in the plan.

Nandan Savnal: check or verify that you are on the right track at the right speed.

Nandan Savnal: and based on the results that you get from the check phase, you act on it and ensure that you got a responsible AI methodology in in place. So, and it's an iterative loop. The output of act

will go into a modified plan, and so on very, very beautiful system, and all the management systems are grounded on the Pdca framework.

Nandan Savnal: So its scope is for all kinds of organization. Whether you're a user. You're a designer. You're a tester, including regulators. You can use it. It is compatible with all other management standards. So in case you're using any other management system standard. It is compatible to it.

Nandan Savnal: It is generic in nature, which means that, hey? In case

Nandan Savnal: whatever industry we are in small medium large, it will still be applicable. So this is a good part. Everyone in this

Nandan Savnal: group

Nandan Savnal: you can use Iso 42,001. Is it applicable to me that you can say yes, it's applicable to us.

Nandan Savnal: These are the clauses, 10 clauses, and this is an extra A

Nandan Savnal: where we said it has 9 domains, 10 controls and 38 sorry, 10 control objectives, and 38 controls of some of the guidances are, give all the guidances are given here. Certain objectives are put in here, these as 10 clauses, one. The forward to introduction. This is most administrative part of it.

Nandan Savnal: How is the Pdca worked on? This is the plan phase clauses 4 to 7.

Nandan Savnal: This is the do phase. This is the check phase.

Nandan Savnal: and this is the act phase.

Nandan Savnal: So this is how the standard is structured. The 10 clauses are structured in the plan. Do check act space. So clauses 4, 5, 6, 7 are here. 8 is here, 9 is here and 10 is here.

Nandan Savnal: and the idea is that we put in the requirements of our stakeholders, including the legal obligations into the plan, have a plan to implement it.

Nandan Savnal: check it, that we are achieving it

Nandan Savnal: and work this way. So idea is that we meet all of these requirements through our methodology.

Nandan Savnal: I'm just putting it in this format. So this is the plan phase.

Nandan Savnal: this is the do. This is the check.

Nandan Savnal: and this is the act face. This is how it is structured.

Nandan Savnal: I'm not going into too much of details. Clause by clause. I will just go in a

Nandan Savnal: particular manner. Clause 4 is understanding the organization. Who are we? Because, Bfsi is different from a healthcare industry?

Nandan Savnal: Your life cycle could be different here we try to understand.

Nandan Savnal: what are we? Who are we? And how does it affect us? So? This is very, very important clause in understanding the context

Nandan Savnal: role. Determination is, who are we? Are we a provider producer, customer. This becomes critical when it comes into a certificate.

Nandan Savnal: These are all the roles possible for the AI provider, so all of us will form into one or various

Nandan Savnal: parts of it. You could have multiple roles, and they will come up.

Nandan Savnal: We will guide you. If you come to us, we will guide you step by step, which role is applicable to you are your provider, producer, customer, partner.

Nandan Savnal: subject. This is for the regulators.

Nandan Savnal: Interested parties are stakeholders. What do they want from us? How do we, and ensure that they get the responsible AI that they seek from us? We can assure them

Nandan Savnal: whether it is your customer, your regulator. What kind of assurances can we build in our system so? And they can come and audit us and still check us and find that they are looking for

Nandan Savnal: in

Nandan Savnal: any management system or any organization. It starts from the top. So it starts from the top here as well.

Nandan Savnal: And this is the top management aspect, where we start with the policy broad objectives, and then drill it down. What are the resources required? There are 8 steps which come in here, friends, and once you implement these 8 steps at the leadership level. So if the leader says, What is my role? This is the slide saying that, hey, this is your role.

Nandan Savnal: Do this, we will help you. We'll guide you, and this is our approach with the leadership. So some of you may say, Hey, we are not at the stage for complete implementation. Can you help talk to a leadership team? So we have got a detailed

Nandan Savnal: workbook on working with the leadership which comes from

Nandan Savnal: these areas which are given here.

Nandan Savnal: Roles and authorities is done. We look at roles, responsibilities, authorities for every area at the top management, the governing body.

Nandan Savnal: Very, very strong planning which comes in. So like, I said, this part is the plan phase your.

Nandan Savnal: we talk about the context in the context, is it throwing out some risks to us? So this 4.1 and 4.2 is where we had earlier started in the context at this area

Nandan Savnal: are there risks that we found out, and we are trying to ensure that those are dealt with. So what are the risks and opportunities at the organization level.

Nandan Savnal: What is the risk assessment that we do? So here we do 2 risk assessments. One is at the organization level, second is at the AI system or the project level. So we work with AI Project team. We work with the corporate team. We look at all the risks that are faced by your teams. We do a structured risk assessment. We look at that, and in the standard. They have given us steps to manage it.

Nandan Savnal: and against the AI objectives. That means we put the objectives. Look at what can affect it. AI objectives like we said, if the robot needs to be working with humans? How do we work on

safety? Anything? Can it go wrong? Does it need to be trained on more robustness? Does it need to be trained in any way. Where does it need human oversight? Where does it need to just stop? All of those would be covered here we analyze the risk, evaluate it and take that forward.

Nandan Savnal: Here we put in the controls from Annexture A,

Nandan Savnal: which we had shown you some time back. There are 38 controls, and we make the risk treatment plan.

Nandan Savnal: One thing I would like to say is, some of you might say, what if I need some more control? Well, certainly it's an evolving world. If you need any organization needs an additional control, you're free to implement those as well.

Nandan Savnal: So this is a system. Impact. Assessment

Nandan Savnal: is, what is the impact that the AI system does to the outside world? Very, very important part. What are the risks to human rights? What are the risks to the private privacy data that we have pii data that we have. What are the risks to the environment security impact.

Nandan Savnal: the financial impact and the business impact. These are some illustrative areas that we are put in here. When we do a real sia, it's a detailed document, a detailed exercise that we undertake for each AI project.

Nandan Savnal: And again, we these are the objectives that I put in against these objectives is what we do. The risk assessment on

Nandan Savnal: on the support part, the last element of the planning. We got resources, competency of people.

Nandan Savnal: All people need to be aware the communication within the organization and with the stakeholders must be appropriate.

Nandan Savnal: Clause 8. Now we transition from the plan phase, we are moving on to the do phase

Nandan Savnal: here. Whatever we have done, the planning here is where we implement. So you would see it's a plan, heavy standard. So we look at all the plan. The idea is, if we plan well, we will have less accidents or less incidents. And we manage the risks appropriately.

Nandan Savnal: So all that we have planned, we implement it in these areas. So we do the risk assessments. We do the risk treatments. We manage the system impacts. All of this is now with the implementation team. So all of this gets implemented with the rigor, and is done

Nandan Savnal: absolutely with the Hawkeye to ensure that things are going on correctly.

Nandan Savnal: coming to the check phase. So this is the P. This is the do. Now we are at. The check phase is, first, st is, every area needs to be monitored, checked, and each monitoring frequency would be different, appropriate what is required.

Nandan Savnal: Internal audits are carried out

Nandan Savnal: here. Nemco can help you. Nd can help you on doing the audits. Train your people on internal audits. Also, if required to do the supplier audits.

Nandan Savnal: then the management, the top leadership will come in for its review.

Nandan Savnal: And finally, once the all the data comes in, we go in for the improvement phase. We have built. All of that. We have done all the planning we have implemented, all of it. We have checked

it. Now the comes the whole phase. About a year from now learnings come in and say, Hey.

Nandan Savnal: where do we take it? Next? One of them could be proactive. Improvement.

Nandan Savnal: Which is this, a proactive improvement? And second is in case incidents happen. We can have a reactive improvement. That means we start with the Nonconformity incident management, and then we take it through this process of root cause, analysis, elimination of the root causes

Nandan Savnal: implement whatever is needed. Review the effectiveness make changes in what needs to be changed. And we take that. Take that forward.

Nandan Savnal: How do we implement 42,000 at a client location.

Nandan Savnal: Well, these are the steps which are there. Starting from the steering committee, the organization structure.

Nandan Savnal: capacity building. We will come in or you can do it yourself, or we can come in and do it for you. You can hire us partially, or you can do it yourself fully, but these are the steps broadly that we have found to be

Nandan Savnal: a good criteria, for success is executive team is both your top management and your governance team.

Nandan Savnal: so you could have several top management and governance teams which are there. Then the implementation team policy formulations. There are many policies which will be there. What are your objectives will help you decide on your objectives out of the 14 or maybe some new.

Nandan Savnal: The documentations we would guide you on that area, the risk assessment and system impact assessment at each stage

Nandan Savnal: control implementations in each, at the Org level organization level and at the project level.

Nandan Savnal: help you in internal audits. Improvement and management reviews right down to certification. You can talk to us for partial part or the complete turnkey part of it, or just come for our training programs and implement it fully yourself.

Nandan Savnal: At this point I think I will stop here. And boss, if there are any questions I would like to take that. And you know, this is the part that I will leave that to you. So if there are any questions I would like to take that at this point of time frames.

Bas Overtoom: Yeah, that is good. We can do some small questions for first, st before I do the the closing remarks.

Bas Overtoom: And in the meantime, maybe what people are typing it up. I can actually start already to mention a little bit some of the the follow up action. So maybe you can go further in the thing, and then we will deal with the questions next slide.

Bas Overtoom: Yeah. So I just wanted to to inform everybody that

Bas Overtoom: I think thanks, Nandan, also for the introduction on the Iso certification. It's a very, very wide

Bas Overtoom: standard, and you've managed to give a good overview and understanding in a limited amount of time. So you had to rush a bit here and there, but that's to do because of the width of it. But I wanted to point out, especially to everybody that next to, of course, reporting with the azure

certifications, we do a lot of other services that you can also find on our website. And I want to point a few out there. So one is the a management system that we discussed.

Bas Overtoom: It's key to understand, we're not only doing the audit and the checking part where we can help you into this whole journey as starting from awareness workshops with management, doing an assessment for the plan phase and in the end get it. Get it ready for for implementation. Since we are coming from electronica products, we have a lot of content and information on AI embedded in products.

Bas Overtoom: And we also see that there's a lot of interest in in training and awareness programs in general for AI governance. And I want to just point out that we also haven't. Let's say, top notch

Bas Overtoom: AI governance assessment. That, you can do that can be lightweight, and it can be quite detailed, which is, I think, for a lot of the clients. We see at the moment a really great step to get going.

Bas Overtoom: Maybe the last slides that I would just wanted to point out to everybody next slide. Mundan

Bas Overtoom: is as a follow up for this. We like to invite you all to to join if you're interested also an individual call with our I don't think you have the hyperlink. Now it is, but I will get it for you

Bas Overtoom: an individual call with an expert like Nandam

Bas Overtoom: to talk more in detail on your specific questions that you have on Isis 42,000 of any of the other things.

Bas Overtoom: If you're interested in a deep, dry dive governance, implemented training that we are offering in April. You can also use the same link to express your interest, and we will tell you all about it. There's a 4Â h online course.

Bas Overtoom: for which you will also get a certificate where we'll dive deeper into iso certification and the other key standards that are going and will really be a package for you to be, let's say, ready for doing this work on your own organization. And I also want to point out the AI trust Hub. We'll send you the link there, and there, later on, you can find the

Bas Overtoom: presentation and the

Bas Overtoom: How can I say the things, the the slides.

Bas Overtoom: So there's a question here from a good health is a notified body data available showing the number of certification to the standard per country. Maybe none done. You can explain.

Nandan Savnal: The 1st one, you know.

Nandan Savnal: The first, st Mark said funnily. Air. Canada argued something I did not want to take the client name. But yes, what? You're right, Mark. You're absolutely right on the case. Study absolutely correct, then, is, is the standard used by private sector only, or are public sector entities also obtaining certification? Yes, public sector entities. It is a generic standard. Public sector. Entities are also going in for it.

Nandan Savnal: What is the role of 17 0 21 associated with 42,001. And what is the sequence to be assessed as a Cb. Well as a Cb. How it is to be done is a separate question that I think I'll leave it to the certification body to look at it, and Charles will come back to you on helping you on that part on how to look at it, so that we are not going wrong here, because 42,006 is just getting finalized. So that part I'll just hold it for a moment, and maybe we'll come back to you, Charles, on on that part.

Nandan Savnal: boss, then, was your point. And then is a notified body data available showing the number of certifications to this standard per country as of now it has the certification, accreditation. Scheme is yet about to be rolled out, because 42,006 as a standard has not yet been released. But some of the accreditation bodies have allowed their certification bodies to issue accredited certificates.

Nandan Savnal: The others are holding their horses and say, I mean except 2 or 3. All others are holding their horses and saying, Let us wait for this to come up. So at this point of time, in including many of our clients are just waiting, and they've all done the moment, and we expect it very, very shortly. Mr. Paulson, that it will come up, and once it comes up. There will be

Nandan Savnal: a lot of certifications. But is it there available in one place? Unfortunately, no, it's not available in one place about all the certifications

Nandan Savnal: is 42,000, besides 42,001 and 5 are there other relevant standards? But there are many relevant standards. In fact, there is one on 25, 0 59, which is on quality model for AI systems 22, 9, 8, 9. There is a 5, 3, 3, 8 on AI lifecycle processes. There are various standards on AI which are deep dives into each element and go on it. There is one specific standard on risk management itself.

Nandan Savnal: So when we do our consulting, or when we do deep dives, we use those deep dive standards, and they are getting populated, as of now, but many AI standards have been issued.

Nandan Savnal: If you want a bibliography, we can maybe help you with some bibliography that we use quite regularly. Certainly, in case you are interested, do reach out, and I will come to you. A question from Pervais.

Nandan Savnal: Hypervis

Nandan Savnal: is this an extension? No, it is not an extension to 27,001 per ways, and it is a separate certification. It is not like the other standards on privacy, I think, 2717, or something which sits on top of 27,001. It is a separate, independent certification and welcome. Nice to see you.

Nandan Savnal: but that would be very valuable.

Bas Overtoom: I think. Yeah, I think we are running out of the time and thank you for all your questions, and I think some of you might have more detailed questions now for that. We provided the link we'll make the video and the slides available on the hub as shared before. And thank you, Nandan, for sharing this this information and giving us all, and let's say, a great introduction in the white and and the value of azure, 42,000, and some of the other key regulations.

Bas Overtoom: So with that, I would like to close off this meeting and thank all the participants for their their participation and their their interesting questions, and we look forward to help you on this journey.

Bas Overtoom: Thank you.

Nandan Savnal: Thank you. Bye-bye.