Nemko Digital Webinar Report - ISO 42001 AI Certification Transcript

[Speaker 2]

Hello everybody, good afternoon to our live webinar on ISO certification 42001. It's here today together me and Nandan to help you through this important topic and share you the best practice that we have in helping organizations to prepare and be certified for this very important ISO standard. My name is Bas Overtom, I'm the Global Business Development Director of Nemco Digital and I will be hosting this session with you today together with Nandan who will introduce himself shortly.

So maybe to talk a bit about Nemco and Nandan you can start to share the presentation. Nemco Digital has been a part of Nemco Group and we have been set up about a year ago to help also on the AI Trust. So Nemco has been doing digital, Nemco has been doing product certification for the last 90 years and we already started working on cyber security for about a decade ago and now since about two years we're also helping our clients to make AI trustworthy in their products and services.

If you go to the next slide you will see some of the key value drivers that we have understood from our clients when it comes to AI Trust. So of course it's about upcoming regulations but it's even more important to think about the reputation that you have as a leading company to bring AI trusted to the market. Sometimes you are in sensitive industries and there can be also incident and harm that can have huge cost so that is also one of the key value drivers.

Then there's often stakeholders that can be either the people that are acquiring your services or it can be the consumers that you have if you're a B2C company that have also concerns or demands when it comes to the effective and responsible use of AI. But most importantly we see also that AI is a competitive advantage if you are doing it in a wide way and I think that Dan can speak about it. Companies that are ISO certified or ISO 42,000 ready are just much quicker and much more efficient to bring AI to the market.

That's also where we want to help you with to make that competitive advantage to lead in your market with AI. As Nemco we have many services. I think the key important to mention is that we're helping companies that have AI embedded in their products.

We do that with compliance services and we have a globally recognized AI trust market that is used around the world to show companies and show consumers also that you are meeting the highest requirements in your products and services and then we're helping companies around the organization to become more effective in their maturity and their use of AI with an important maturity model that we're using but also very importantly getting clients ready for ISO 42,000 than one what we'll speak about with Nandan.

We have a large group in the audience so we're very happy with that and before I give the word for Nandan to introduce himself I wanted to do this short poll and understand where you are and I think this will also be something that when Nandan will speak about when he's introducing so just look at there and the key question is where are you when it comes to ISO 42,000 than one? Are you just exploring? Are you already preparing for it?

Are you already progressing? Are you actually already ready but not certified or already got the certifications there? So please fill in the quiz and then I think Nandan, you can do your introduction and then when we got some of these answers we can shortly bring them up further in the conversation.

[Speaker 1]

Thank you very much for the honor and privilege to talk to this wonderful audience. My name is Nandan Savnath. I have got various qualifications.

I'm a Chartered Accountant. I'm a CISA, CFE, Certified Fraud Examiner, Certified Ethical Hacker. I have been in consulting for the past over three decades, three and a half decades in cyber security, in information security, business continuity and over the last few years in artificial intelligence and the ISO standard since the draft standard came in.

I have led the training programs. I have implemented it for very very large mega organizations and medium scale organizations and it's wonderful to be associated with this wonderful team to take this forward in a very focused manner so that we can take it forward. Time is less so this I think should be enough to put the credibility on the table that I can speak from experience.

I have implemented this for various various clients, large to large mid-size. So what we are going to talk today is about it. I'm going to talk about seven things today.

Base of AI, growth engines, some aspect of AI ML, why is responsible AI the concept that's coming up, how is it evolving, so what can we expect over the next 10 to 18 months, overview of the standard, implementation steps and then I will hand it over back to Bas who's an expert in and will take us through on the offerings that we have and any questions that you would have to ask us. So jumping, why is it that AI is picking up? When I was writing software in the mid 80s and the late 80s, people said my job will go away because of AI.

It did not happen there but it's happening today. What is the difference between the mid 80s and the early 2025s? What is that difference and why is it that it's picking up now and where will it go and what is the reason that it will go in that direction?

So let's look at some data points. One is huge advancement in computing capacity, reduction in the cost of computing, the amount of data which is available for us to train the AI is huge and available. To train the people there is an inexpensive curricula which is available, algorithms are made available, enabled practical applications of AI, there's a pull and there's a push, both for AI is available, standards are being made available, frameworks are available and there's

business need which is pulling it, there is capability which is pushing it and it's finding a wonderful mixture to make this happen. The investments, if we look at it, this is the push dimension, if we look at it from 2019 into generative AI, it is moving up exponentially. By the time we end 2025, I'm certain this aspect will go multifold.

So huge amounts of investments in terms of the capability of AI, if we take this as human capability, in terms of handwriting recognition, in 98 we were almost nothing, in 2005 we were not really in a big place, today we have come up to a level. Speech recognition, today we can have a chatbot which understands language and it can communicate with us, it can also translate, today we have phones which can do a live translation of the call, image recognition, reading comprehension, language understanding, including if one looks at it in terms of predictive reasoning. All of these capabilities, the growth of this is helping AI.

Also, when we look at it from the push perspective, this is purely about granted patent, so if we look at it, this also will help us to position ourselves into which field are we should we focus ourselves in. In fact, when this came up, I thought banking will lead the way and if we look at the data, we find that it is the healthcare industry which is pushing it and personal devices and computing which is pushing it. In terms of incidents, and this is a very important part, reported incidents about AI, they are also growing.

As AI is growing, the incidents are also growing. If we are in the business of providing, developing or hosting AI, any one of those services, our name should not be in this bracket and this is where NIMCO comes in to work with people, work with those organizations to help them ensure that their organization does not come here. How do we put those guardrails, controls, systems in place?

So, incidents are growing, we don't want our name to be there. If we look at the confusion in the market and look at what are people thinking, what are their view in the next 10-15 years, and this is, it'll help, this is, there'll be harm and this is, well, I really don't know, I don't have an opinion. Across age groups, across gender, across monetary ability that they have, it is a confused next view.

This is where the idea is when the compliances come in, when the governance come in, when people like us, people who are attending NIMCO, we will be able to shape and we would be able to say mostly by the time we go five years from now, we really hope that it should be that say, if you have certain systems in place, it will mostly help the human race. That's the whole idea of us getting together. Many statistics, I'm not really going to touch upon every part of it.

Market size expected to reach over one and a half trillion. The United States, which is the largest economy in terms of GDP, it is expected that you'll have this kind of an increase, which is coming up. There is a huge amount of misinformation, which is coming up.

What about adoption? Now, if you look at the earlier aspect of, let's say, radio, then we came to television, then we came to the internet. How long does it take for the technology to hit the first

million users?

ChatGPT, we had first 1 million users in the first five days. That's how ready the market is. That's how thirsty the market is.

That's how valuable these services are. In another five years or four and a half years, 10% of the automotive industry will have self-driving cars. That's a very big number.

I expect that once that safety aspect and robustness comes in, it will just zoom up. Today, we are seeing parts of AI into cars, may not be full driving. I've seen many cars, which you just press a button, it'll park itself.

You do certain things, safety features come out. In cars, we have a lot of AI, which is getting embedded, if not fully self-driving. Businesses, and this would be an interest to all the business associates of ours who are here, 64% of the businesses expect that the AI will help to increase their productivity, maybe in terms of cost, maybe in terms of quality, maybe in terms of reducing defects, maybe in terms of saving time, maybe in ensuring that their people are focused on better productivity.

Every element is something where AI will help. These are the statistics which come up. It is said that about 50% are already using voice search.

36% is expected to be the growth rate. When you talk to people, and the link is given here from where this has been picked up, they did a huge survey, and these are the results of that. India is the country with currently the highest AI adoption rate at 59%.

Huge amounts, UAE is 58%. Bas, I think you were just there in UAE just a week back, I think you can say that this number is old. And right now it is completely different.

[Speaker 2]

We cannot have time to go into it. But there is definitely going very, very hard. Also, especially the government push to make this happen is inspiring.

Absolutely.

[Speaker 1]

So if one looks at it, all of these data are coming in workforce, power, everything. If we come to AI and ML, we talk about supervised learning, here is where human beings teach the machine on how things are going to be. Unsupervised is we give huge data, the machine does what is called as clustering.

For people who are technical, they would know it does clustering and works on it. Semi-supervised machine learning, which is a hybrid of these two. Bas, I'm seeing some things in the chat, I'm not able to see it right now, I would urge you to see and if there's something for me,

let me know.

All of these will become part of the reinforced learning, transfer learning. Very critical part is the training data and the test data, the validation and the test data, and then finally models which keep learning and growing. So these are areas of ML which are going to be very large for us to focus on.

The question that comes to us and there are many doomsday seers and perhaps with the right reason is what would happen if AI takes over completely? So this is a place where it is man doing or human doing all the work and here is where AI doing all the work. Everything AI.

This is a transition which goes up. So if we look at this part is where we go from zero, that is no automation, to six, where it says that the goal itself, the objective itself can be done by AI. We are not here at the moment.

We are not here at the moment. AI can't decide its own goal, it cannot change its own goal without human intervention. So we are somewhere in this going about here and struggling in that, or I won't use the word struggling, doing research in that area, growing in that area and trying to go to the next level.

Use cases, healthcare, we have associated with some organization which is using this in diagnostic imaging with supervised learning and then loads of unsupervised learning taking it to the next level. Banking areas are looking in that fraud detection, anti-money laundering. So in various areas, retail, if you are in Amazon or you're using Kindle, huge amounts of data being used and personalized recommendation.

We are seeing organizations looking with cars. Tesla is the big name which is doing heartbreaking work and then there are various other organizations doing it. NLP, natural language processing is something which is, as it is growing, helping us to use the ML, used in cybersecurity, also in precision farming and crop monitoring.

Why is responsible AI coming up in a big way? Let's look at this in a moment. There was this case study of an airline where a chatbot was there, very, very powerful.

It did its job well till it came up with an event which it was not trained on. There was this gentleman who came up, asked a question saying that I want two tickets, a normal inquiry, chatbot knows how to do it. The second part came up that saying that, hey, I want that one for me, so give me a seat.

And the second, I do not wish a seat. What I wish is, it is my mother and she is deceased. She has died and I'm carrying her human remains.

The chatbot had not encountered that. The database on which it was trained did not have any way of helping it from the previous experiences. So it hallucinated, it went into its own, it went into perhaps into the training data and came back and showed something which was empathy.

And it says, oh, I am so sorry. And it did something which it was not authorized to do. It said, come back and I will give you a rebate.

The gentleman goes back for a rebate. He does not get it. It goes into the court and the court then says, well, I don't care whether it was chatbot's mistake or not.

Chatbot is your agent and you are bound by it. So here, when we look at it, how do you train? How do you look at it?

And when it does not behave the way you wanted it to behave, what happens? That is in the service sector, in the IT, OT sector, in the manufacturing sector, there was AI and human working together in one of the factories where one of the robotic arms was supposed to cut metal piece, metal areas, and it was using that arm to cut. It was trained to recognize humans, but was it made robust enough?

Being robust is one of the elements of responsible AI. It did not recognize the human because it partially saw him, the hand moved and had a grievous injury to the human. So these, and there are many, many more case studies, real life case studies, which teach us that we need to build in robustness and various objectives, which ensures that we have what is called as responsible AI.

And that is the focus of what we are talking about. How does one build responsible AI? And we do not have these case studies coming up.

One of the ways to look at it is the standard, which is coming up. Of course, you don't need to implement the whole standard. You don't need to get certified, but this is a very, very beautiful standard, which has taken many good things from across the world and brought it together.

Today, we also have the EU AI Act, which is there, which we need to look at in case you're operating in that region and implement that. So where the automatic decision making happens, that means it is no longer human coded, but it is working up and it is going ahead of it. How do we do that?

How do we explain every action which is taken? Example, it is giving a loan. Then how do you tell what value of loan which is to be given?

How do you explain that? Each one of them is important. Data analysis, and which is moving away from human coded logic in a continuously learning and it changes their behavior.

How do you ensure that you are in control of the changing behavior? So here, we look at it from the perspective of the leadership, right up to ensuring compliance, ensuring that it is built in a systematic way across the life cycle. So very, very important that it is done through across the AI system life cycle where we are building the AI.

So the rationale is very simple. There are accidents which can happen. There are problems

which can happen.

There are issues which can happen. How do you show the external world when we are selling or when we are asking our users to use? How are we ensuring rational or responsible AI?

So the standards, ISO standard, it is accepted by almost all the countries. It is accepted by stakeholders. It has best practices.

It's an auditable standard. Certifications can be issued, which can be demonstrated to the third party saying, hey, we are following good practices. The key elements of responsible AI, we have put in 16 elements right from the leadership, which is the executive leadership to governance, the policy, objectives, risk assessment, and system impact assessment, which are critical to any AI system.

Then looking at the entire life cycle management, incident management, and we say people, process, technology. So the processes come here, the people expertise, the technical expertise come here, reviews, audits, reviews, testings, continual improvement, and continuous auditing to ensure that we are on the right track. Some of the objectives which are there is accountability.

And all these 11 plus four, three objectives, which is 14 objectives help us to do responsible AI. Some of the controls which are there, there are 38 controls. Essentially to look at controls mean anything that when you implement, it goes towards ensuring that we are doing responsible AI.

So there are 38 very specific controls for AI, which have been illustrated in the standard. So as we see here, there are some of them which are put in here. It is an evolving landscape.

We are seeing AI in everything, every newspaper, every day, we see AI progressing in some way or the other. And most organizations are now going adopting it. There's a need for AI, which is increasing.

Climate change is becoming a big issue. The more that you use it, the more processing happens. The negatives need to be managed.

What does 42001 have in that we want to use it? Now, this is very, very interesting. It uses a very simple framework called the PDCA framework, which is nothing.

If we look at it, I'll just go ahead just to share with you what is the PDCA framework. It is plan, do, check, and act. That means whatever we want to do, we go in for the planning phase.

We plan all of that in detail. These are given in clauses 4, 5, 6, and 7. Clauses 1, 2, 3 are non-implementable clauses in the standard.

There are totally 10 clauses. I will show them to you. Clause 8 is about how do we implement these.

9 is about monitoring, checking, auditing, reviewing. 10 is acting on the results of the check and improving our management system. This is what we call as the iterative PDCA model.

All our trainings, all our implementations, our certifications, maturity model, in one way or the other will be aligned to this framework where we take what is the required aspect, including the legal and regulatory, and then implement them within this framework. This is an accepted framework across the world in all the ISO management systems. These are the 10 clauses.

4, 5, 6, 7 come in the plan phase. Operation is the do phase. This is the performance evaluation is the check phase, and improvement in the act phase.

I will just take you through very quickly the details of them. In this time, we cannot go through all the clauses, but I will very quickly take you through them. This is the clause 4, where we talk about various elements, right from context to role, the parties, the stakeholders, to scoping.

Then this is the role. Who are we? What do we do?

Am I a provider? The rules for provider, who are we? The producer, the customer, the partner, who are we?

Then for each one of these elements, how do we ensure that we are doing the right thing for responsible AI? Then is the leadership, the governance. How is my governance aspect in the organization?

The risk and opportunities. This is extremely important. This is critical.

The risk part of it and the system impact assessment. We have very detailed system structures around this to ensure and help organizations to manage their risks. Each one very, very detailed.

8 is about implementing. 9 is monitoring, internal audit, and management review. Each one very specific, looking at what do we monitor, what do we audit, how do we review, and how do we give the inputs to the management and demonstrate that the leadership, the governance team are in control.

Then based on the data that we get, how do we correct it? How do we move forward? How do we improve our management system?

All of this going in the PDCA manner, in a very, very beautifully dovetailed manner. How do we implement it for our clients? What do we do?

What are our steps? What can we look at? First is we start with the steering committee, the implementation committee, the org structure.

Then we need people to ensure that there is a capacity building. Who are the people who are going to implement it? Policy formation, deciding on objectives.

What are our objectives? What do we seek to achieve? What do we ensure?

We don't have it. The risks that we don't want. Project selections, risk and system impact, again, very critical.

Controls, the 38 controls. Then auditing, improvement, management review, and if you want it, certification, or you could come to us for trust marks. This is the steps that we can look at in implementation.

Depending on the size, it varies in terms of time and effort. And Bas, you are the expert for the next part, which is the NEMCO offering.

[Speaker 2]

So thanks, Nandan. I think it was very fast, of course, to have so much information for you all about the ISO, but within this short webinar, the key objective is to give you a first understanding what's in there. And we'd love to talk more in more detail with you around that.

Basically, on the poll we had earlier in the thing, I just got the results here. I cannot share it directly on the screen, but we did a quick analysis. And I think 80% of you in this audience today is looking at just exploring when it comes to ISO 42001.

While 20%, they are either started the implementation or a bit further in the actual implementation. We have a bit time for Q&A, but let's just write your questions down and I will pick them too with Nandan up. And in the meantime, I will give you a very short continuation of where it's going.

So Nandan, if you go to the next slide, these are basically just the services that we have described earlier that we can help with. So that's ISO 42001 and the implementation, and also the readiness for the implementation is not just a certificate. That is the last step that you do, but getting ready to be certified.

That is basically where the challenge lies. And that's basically also where our expertise is, and especially Nandan's expertise has come in to get you ready to do that. We have the trust maturity model.

I introduced that already further. So basically, if you go to the next slide, you will see also basically there will be a lot of webinars on these other services. You can also join these webinars to get a bit of an introduction on what we are talking about here.

And if you go to the next slide, you will see a lot of ways to follow and I do advise you to follow us on LinkedIn specifically, because there we are promoting all these webinars and also the content that's coming up. And the last slide, the next one is also if you want to talk to Nandan or myself more about Azure certification specifically use this QR code to set a 15 minute one on one to talk about it in more detail, we're happy to do so. I see some questions coming in.

So maybe Nandan, the first question that was asked to us is about getting ready. So most of the people are exploring here, what do you need to do to get ready? What is basically the approach to get ready and what will be in, let's say, the no regret first or first and second step?

[Speaker 1]

You're on mute. The first thing always is to ensure that the leadership is engaged in the journey. So it's important that the leadership is engaged in the journey, the governance team is engaged in the journey.

So the leadership framework, the governance framework is in place. Second is a clarity on what do we want to achieve? What is the end game?

Why are we wanting AI? Is it going to be for a few projects or is it going to be for the whole organization? Deciding the role, who are we?

Are we the producer? Are we a platform provider or are we just users? The distinction, the deciding of that role.

And then we can begin the journey to do. So if you ask me what is the most critical first steps, leadership, governance, definition of the role, who do we want to be and the objectives and what do I want to achieve at the end of it, the clarity of that, then the things will fall out of their bus. Then, of course, the steps are given here in terms of how do we go about.

So the steps you can look at it from here after this is the implementation steps and you can look at that and in case you want, somebody wants it, we can sit with them and then take them through the detailed steps after that.

[Speaker 2]

But the first steps are these. Thank you very much. And some people are also asking if it's possible to get the presentations.

The answer is yes, you will get a link after the webinar where you can see the webinar again and also download the deck. Some other questions are also around where is the responsibility for me as a company to obtain this ISO certification? When should I do it?

And how should I communicate about it if I have it to other users of my product? What are your insights in that?

[Speaker 1]

That's a very, very interesting question. Because getting certified is a methodology of a decision of the organization to say that I want to build in good practices in the organization. So the first is to prepare the organization for those good practices, embedding them in the organization, ensuring that they have been sustained for a period, then going in for certification with a

certification body like Nemco.

And once that is done, then preparing that certification, your back to your customers, sending them to the stakeholders, and then saying, hey, we are ready. And then that's a declaration to the world that we are ready. We are a company which is following responsible AI practices.

So that can be the journey is working that out in the organization.

[Speaker 2]

Maybe I see the time is almost ready. I pick up one last question for now. And the other people will get back to you via email.

The last question I thought was also quite interesting is, yeah, we just had, let's say the seven buckets and the 10 buckets, but the seven are irrelevant, especially for this one, which one is actually the most challenging to get right is the question. Okay.

[Speaker 1]

There are two things which I would like to cover the challenging part. One is the leadership is getting that good structure in place. And the second is this risk assessment and the impact assessment, getting that right, ensuring that we are in place, putting those controls in place, and then monitoring them.

All are important. I'm not saying that one is more important than the other. I'm just saying that in the initial part, setting up the leadership and the governance team, then looking at the risk assessment, the treatment and doing the impact assessment.

These for the first time would be the something which we have not done earlier in our regular way. And that's the reason this may be a little more important than the others. Others, we know how to do it in our course of business.

[Speaker 2]

Thank you very much. And I think that's also a beautiful way to close off. And we've offered, of course, the continuation to have a call directly.

But I think in the last point, it is also good to point out that leadership, the leadership commitment is so important. And then I think often we also do leadership awareness sessions on this. So if you feel that that would be a good first step, maybe that is a good first step to take.

We're happy to think along and make this work. And I want to thank you specifically, Nandan, for this great input and expertise. And I would like to thank the audience for their engagements and questions and will facilitate you with more content via the digital channels that you'll be emailed about.

Thank you all and a good weekend.