TABLE RONDE CONCLUSIVE / CONCLUDING ROUND TABLE

Président / President : André-Claude LACOSTE – ASN France
Rémi GUILLET – CCAP France, Sophie MOURLON – ASN France, Ken BROCKMAN – IAEA,
R. William BORCHARDT – NRC USA, Philippe JAMET – IRSN France

Dominique ARNAUD - Ce premier symposium arrive à son terme et Monsieur André-Claude Lacoste, directeur général de la sûreté nucléaire et de la radioprotection, va maintenant présider une table ronde conclusive.

André-Claude LACOSTE - Thank you and it is a pleasure for me to chair the final session of this symposium. I will invite the participants of the panel to join me here. First we have Rémi Guillet, Chairman of Commission Centrale des Appareils à Pression. Philippe Jamet, Deputy Director General of IRSN, William Borchardt, from the US NRC. We have Ken Brockman, Director of the Nuclear Safety Department of the IAEA, and Sophie Mourlon. I think that the best way to proceed now would be to ask each one of the participants to make a short statement on what he or she keeps in mind at the end of the symposium.

Philippe JAMET - When thinking about ageing in relation to safety, one word strikes me a lot, ageing is just reality as opposed to a model. I want to relate what I have heard from Sophie Mourlon. Actually, one thing that struck me for a couple of years, and still strikes me, is that we have a lot of difficulty in predicting how and where we will get ageing in power plants. It is very difficult for various reasons, which we have already explained, to anticipate the ageing and the degradation we get in power plants. Therefore, I think that when we are doing research in material science, we should never forget that most of the degradations we have seen up to now were not predicted by research and development. I am not saying that research and development is not useful, and I see two reasons for research and development being useful. First, because we are not able to predict exactly where we will get degradations, I think it is very important that we have very efficient observation and inspection techniques. For me, it is definitely one area where there should be a lot of effort so that we have very efficient methods, and methods that are able to detect what we are not expecting. I think that is one big problem with safety, detect what we are not expecting or what we are not able to predict.

Second, once a degradation has been identified, it is usually very important to have data to predict how fast it will grow, what could be the maximum extension of this degradation, because it is the basis for determining what kind of strategy will be implemented to repair the components or replace them, or whatever. These are my two main messages. For research and development it is very important to have investments in terms of research and development in inspection techniques and then, once a degradation mechanism is identified, we must be able to predict how fast and how far it will go so that we have a sound basis for the strategy that has to be put in place at that time.

R William BORCHARDT - I would first like to thank the organisers of this symposium because I think they did a very good job of putting together a good programme and brought together a number of highly-skilled and enthusiastic participants. So I congratulate each of you for your participation. I leave this conference very optimistic because I think that this symposium showed that universally there is a high level of interest and complete agreement regarding the importance of ageing issues in nuclear power plants. It is a job that we will never complete, however. The review of ageing management is part of our daily responsibilities to operate plants safety. And although the plant designs are robust, this ageing management programme, such as ISI, help reduce the frequency of transience in the plants and therefore, directly helps to improve the safety that these plants are operated by. Ageing management should not be viewed as a standalone and an isolated programme, but rather be part of the broader operational experience programme and the responsibility of everyone that has anything to do with nuclear power plant operations. All of the plant operators and the regulators and the vendors, each, I think, have a responsibility to review the latest information and take it on board. It is

this kind of symposium that brought out many of those ideas.

Rémi GUILLET - Je voudrais évoquer une inquiétude, deux mises en garde et deux ouvertures. L'inquiétude est que derrière un aspect, une préoccupation économique légitime, nous avons entendu à plusieurs reprises le souci de rentabilité et nous pouvons craindre que cela ne perturbe le souci qui nous anime en matière de sûreté par rapport au vieillissement.

La première mise en garde concerne un certain nombre de paramètres qui vont être indispensables en vue d'une évaluation des phénomènes de vieillissement constatés. Nous avons des organisations qui changent, des entreprises publiques sont coupées en deux ou trois morceaux, des entreprises privées qui changent deux ou trois fois et qui sont revendues à plusieurs reprises. La documentation, les plans, les calculs seront-ils disponibles ? La disparition de compétences, nous avons parlé des hommes et de tous ceux qui ont contribué en calcul, en fabrication, en contrôle : ils ont accumulé un certain nombre de données dont nous aurons besoin. Également l'observation quant à la disparition de l'outil de production industriel tel qu'il était lors de sa fabrication.

La seconde mise en garde serait liée au fait qu'il n'y a pas que la pression. Il faudra être homogène et veiller à ce que la sûreté et la prise en compte du vieillissement prennent en compte également de façon homogène tous les autres paramètres, tous les autres secteurs touchants à la sécurité.

Enfin, les deux ouvertures. J'en vois d'abord une au niveau des appareils à pression et je pense qu'il y a un enrichissement tout à fait possible dans les appareils que nous appelons en France « à pression classiques », ceux qui sont hors nucléaire, notamment ceux de la chimie et du pétrole, mais pourquoi pas dans le cadre d'appareils de grandes séries pour lesquelles là encore nous frôlons ou dépassons les quarante ans. La deuxième ouverture est la multidisciplinarité qui a été évoquée à plusieurs reprises. Dans le secteur du nucléaire, entre les diverses disciplines, mais également hors nucléaire dans le secteur aéronautique, le secteur médical, le génie civil avec la dernière table ronde sur les ponts. Je pense qu'il y a une grande richesse à ce que cette ouverture se fasse pour partager les préoccupations et décider de risques que nous ne connaissons pas encore.

Sophie MOURLON - I think that many interesting things have been said about what came out of this symposium. As a pilot of the organising committee, I think I will comment on the organisation of the symposium itself. First, I must say that I am very glad to see that about 120 people from a great number of countries have gathered in Dijon for this symposium. As William Borchardt said, skilled and enthusiastic people came and gave talks and shared views and I think that is really interesting. In my opening address I said that half of the objective of the symposium had already been achieved with everybody here and I can now say that the objective of the symposium are 100% met because of all of the debates that we had.

For next time, I remember one point from this experience : we should devote even more time than we did this time for debates and especially in workshops. I am saying “for next time” because, as we saw this afternoon, during the restitution of the workshops, many issues have been just tackled and need further discussion and further sharing. I hope that we will have other opportunities to meet again, here or elsewhere. Although I am sure you enjoyed Burgundy, especially last night, but I am sure there are other parts of the world that are very good for this kind of symposium.

André-Claude LACOSTE - I would underline what Rémi was saying, ageing is very unpredictable. We have known a lot of surprises, detecting things which had not been adequate. For me, an important issue was stress corrosion cracking on reactor pressure vessel heads. And I think there are two ways this has been surprising, one is just discovering a new technical phenomenon and our way to build a path is to discover something which has happened in other countries can happen in your country. That raises the question of good management of operating experience feedback. In each country there is always a tendency to consider that the good experience feedback is national, and to give more importance to it than to feedback experience coming from other countries. I think we lean too much towards this tendency and I do not know exactly how to struggle against it. I think the answer is not to make huge databases because the issue is not

to establish these databases, but rather how to use them in a clever way. Up to now, this is just a question, I do not have the answer.

Ken BROCKMAN - The conference, first of all, was extremely interesting and I would agree that it has been very well presented in providing an opportunity for people from many countries to come together and discuss this issue. I think a key thing that we have learned is that ageing management is not long-term operation, it is not plant life extension. Ageing management starts at day one, day one of the design, and continues through the operation and we saw that coming in there. The lessons you learn from a good ageing management programme can be applied toward long-term operations and they can be applied toward life extension of a facility, but they are not the same. You have to have an effective ageing management programme to operate your facility from day one. You have to be thinking about it when the engineer puts the first pencil to paper.

We talked during this time about operation, regulations, design organisations, they all come together. We talked on technical issues, we talked on personnel issues, we talked on personal issues and how they all come together. I think one of the key things that we have learned is that like operations which have recurring events, it was noted that there are continual surprises. The worst thing that a manager can have is a surprise, but I think a part of what is going to be there, the issue is to manage these surprises, to minimise their impacts, to have an ageing management programme that, when you have a surprise, is controllable. And I think those are some of the things that we have been talking about during this time.

The IAEA is working on aspects with respect to plant lifecycle management in this area. The IAEA is working on this very extensively, between plant life management and long-term operations programmes. Our roles are to make sure that we can provide international guidance in that area. Conferences like this are essential to developing that. We provide that guidance through safety standards that we promulgate, of which Monsieur Lacoste is the Chair right now of our Commission on the safety standards. We need the member states' commitment to bringing their experience together so that we can all learn from each other. There is no reason to be surprised if someone else has already learned the lesson. And conferences like this are essential to that sharing and then it is up to us, whom you have charged, to be able to bring these together in a proper format to make sure they get out for everyone to be able to gain from them. So that is what I am caring about in this conference.

André-Claude LACOSTE - Thank you. May I just add something, the fact that I am Chairman of CSS, does not ensure any kind of quality of the standards. I am just chairing a body with quite a number of participants and I count on their competence and their performance.

Ann MacLACHLAN - Mr Lacoste, you mentioned the idea of databases. And in fact, if I recall correctly, on the first day I think it was Mr Maeda from Japan who proposed the creation of an international database on ageing management. I did not hear anybody else really pick up that idea, or maybe I was not paying attention. But I was going to ask you what people think about this and then you kind of anticipated the answer in saying that it does not do any good, if I understood correctly. It would not be worth it. So that is the question, what about an international database? Is it a good idea or not such a good idea?

André-Claude LACOSTE - As usual, you are asking a provocative question. What I will say is : the issue is not only to constitute a database, the question is how will we use it. Only after constituting an international database, I will say we should use it. With priority given to national experienced feedback about ageing, there will be no added value. I think the first question is : are we really to share international experience, to consider that what happens abroad has the same importance as what happens inside our country? Otherwise, we could have just a kind

of ineffectual satisfaction, we have a database, we use it internationally, there will be no added value.

Ken BROCKMAN - I would like to go to a presentation that was made by my staff member. There is a database out there at the moment, it is in early stages. It is the safety knowledge database on ageing and long-term operations, it is known as SKALTO. We always have to create a name for everything. It is available through the IAEA's website right now. But I cannot reiterate enough the point that Monsieur Lacoste has just brought up, all the knowledge and data in a database in the world is worthless if it is not used, applied and well-shared. This database is in its early stages but its success will only be in how it is applied. And if it is applied well, there will be a call for it to grow and become bigger and applied more and more.

Philippe JAMET - I can even go one step further : my feeling is that there are databases and there is also analysis of incidents that have given very clear conclusions and that have defined what should be done and what has to be done to avoid repeating incidents. And still you see repeating incidents. This is a very serious problem from the IRSN point of view. Unfortunately, I agree with Mr Lacoste when he said that there are no obvious solutions to this very simple problem.

Claude FAIDY - We have to be careful, there is some existing data that is never used. It is part of my job to collect information from other users. And we do different works in different organisations, mainly IAEA and also OECD. The problem relates to your latter remarks : "how you use it?". But for the moment it is not used at all. Yesterday, many people mentioned OPDE : that is a very interesting challenge to collect all the information on piping systems, it is a worldwide databank that is continuously well updated, but the problem is how we use it. It is a real problem, it is not so easy to use it.
I would also remark to Philippe Jamet : beware of simple ideas such as "if you do not know, you have to inspect". Because if you remember the discussion from the ISI people, they are efficient only if they know what they are looking for. I think a better example for me is VC SUMMER. If you look at VC SUMMER, they make inspections regularly and they missed a whole crack in the primary system. We also have to be careful not to push only one simple idea for ageing management. I think it is a combination of many ideas.

R William BORCHARDT - This is part of the larger operating experience programme. I would also like to raise the question regarding databases, as to who is the responsible party for this. I think this is one example where it is not the regulator. In the United States, I know there is a programme called Apex, and Mr Sullivan can amplify if he would like to.It is a database of equipment performance but it is run by the operators and, I think, appropriately so. We get involved through review of our operating experience that reaches a certain safety significance, but there are many equipment failures that happen that are more directed towards the business end of the operation for which the safety regulator does not really have a significant role. I think it is of benefit to the industry to set up this kind of programme.

My other point is that the problems about having databases but not using them, brings me back to what I said a couple of days ago, which was one of the key lessons learned from the Davis-Besse experience. That is that we had a lot of operating experience, but we did not have a good integrated process to bring it in, assess it and then distribute it to the right people. And NRC has made a significant adjustment to that programme, and created a group that we call the Clearing House, that takes in every single operating event, does an assessment, and then determines who needs to see it and makes sure that it gets to the right people in the right communities. And I think the same kind of philosophy is easily adapted to ageing management or to equipment performance, which is broader than just ageing management.

Eric MATHET - I would like to continue on this database issue. You know that OECD is running the OPD database, which is the OECD piping failure database. It has been said that the use of the database is essential and I

totally agree with that. In that sense, the OPD database has been used several times in the US to support risk-inform or in-service inspection applications. It has also been used in Germany for analysis trends and root causes in events. It has been used in Sweden to support inspection practices. So this database is very useful, it has 5,000 events so far so it is not everything but it is pretty good. It goes back to the 1970s and I think it is a very useful product in that list. The participating countries who are joining this effort are very satisfied with it. I just wanted to make this correction on the use of the databases. I agree, it depends on what you do with the database, but this is up to the user to define what they want to use on the database. You need to set up a good database first, and then you use it.

Yves MEYZAUD - Je voudrais reparler de la R&D. Je pense qu'il y a là deux aspects parce que vous n'avez finalement mentionné que les échecs de la R&D. Je pense que nous ne connaissons pas les succès puisque ce sont tous des dommages que nous avons évités sur les tranches en service d'une part. D'autre part, il me semble que le rôle essentiel de la R&D est d'apporter la connaissance, les compétences qui vont permettre de gérer au mieux l'entreprise le jour où nous aurons des surprises. Il me semble que dans ce symposium beaucoup de personnes insistaient sur le fait que nous étions dans une période un peu charnière avec des dilutions de compétences, des pertes de compétences, peut-être également une nécessité de relancer l'intérêt des étudiants pour le domaine du nucléaire. Je pense qu'aujourd'hui la R&D est à promouvoir pour toutes ces raisons, même si l'on est sûr qu'elle ne réussira pas à nous protéger de tous les dommages qui risquent de se produire plus tard.

André-Claude LACOSTE - You are the first one to state that it is a very sad job to be a regulator because you always have to underline what does not go well. You underline any kind of mistake, any kind of error and so on. So it is a sad job, you can rely on me to say so.

Second, I will quote a meeting which was organised last week in Germany. It was a meeting of INRA, International Nuclear Regulators Association, which brings together the head of Nuclear Safety Authorities, from Japan, US, Canada, Germany, France, Sweden, UK and Spain. And our main topic was how to maintain knowledge in the industry. Of course, this is quite a difficult issue. This is not a difficult issue when things go smoothly, but it is quite a difficult issue when, in some countries, almost one generation of people is lacking. And when one generation is beginning to retire, there is no intermediate generation to take over, maybe they lack or need new people. This is obviously quite a difficult issue. In some countries, I would say that this is probably the main safety issue.

Philippe JAMET - Since I was pessimistic on research myself, my point was not to say that we need less research or I do not like research or it is not useful to do research. My point was more "what are your objectives in performing research?" I understand very well that once the mechanism is known, and for example, you build a new reactor and you need a little more research to be sure that you will not get this mechanism in your future reactor, I understand research is needed. Once you have identified a mechanism in an existing reactor, and you need some connected data, then you need research, and I understand this very well. I also understand that you perform research to get better inspection techniques. Where I would be a little more cautious is where you perform research to identify mechanisms in advance and reduce control.

R William BORCHARDT - Regarding the research, I would just like to make the point that given the budget constraints that we are all under, that it has never been more important that the operational side of the house – which I consider myself on the operational side as a regulator within the NRC – coordinates very closely with the research side so that there is an operational use for the results of the research which is being done. We no longer have the luxury within the NRC to do exploratory research which is just out of academic interest. There needs to be a strong operational link and I think we have a stronger linkage today than we have ever had before and it is proving to be very useful.

Regarding the knowledge management issue, I would like to come to the defence of the young people of the world. I have had the opportunity

to hire about 50 recent college graduates over the last several years. I do not think I personally would have been qualified to be hired by myself when I came out of college. They are incredibly bright, ambitious and ready to take over. And in some respects, they just need us to get out of the way. I am much less pessimistic. I believe that there is a challenge to be able to provide them with the historical basis for why things are the way they are today. But they are ready, they are eager to learn and so therefore, I am very optimistic about the future staffing. I can only speak of the United States in that aspect though.

André-Claude LACOSTE - But one of the concerns is that the designers of sub-insulation are just retiring. Will there be enough time to give the explanation for the original design to the newcomers?

R William BORCHARDT - Many organisations are developing processes by which retiring individuals can leave a legacy behind them. We have even started a programme where we do on-camera interviews with people before they retire to ask them : 'Why did you make this decision 20 years ago? How did that happen?' Then college graduate can look at the tape, or the DVD now, 10 years from now and understand the basis for those decisions.

Ken BROCKMAN - Let me play on Bill's comments, with one thing: old designers never retire; they just become consultants. So it is a key point.

André-Claude LACOSTE - And then they become 'experienced consultants'.

Ken BROCKMAN - A consultant is defined as anyone who is more than 25 kilometres from his house. A key thing to realise is that we must establish the processes and the recognition for this to happen. There was an OECD NEA last week, I believe, 40th birthday celebration, if I can use that term. One of the sessions they had was about the young people in the nuclear industry (some of us said "we are all young people but some are more young than others"). The young people in the industry were sharing where their thoughts were. And it plays very much on Bill's comments. They are anxious; they are talented; they are out there to do that. Some of the systems we have in place may not support that transfer of knowledge. If we look at our organisational structures and we see that the only way to succeed and grow within an organisation is to become a manager, how do you encourage young people to want to stay interested in research? And we may need to look at some of our systems that we have in support of that. The people out there are good and we need to find ways to ensure that more of those good people are drawn in.

Philippe JAMET - We thought along similar lines in IRSN because we also felt that if we want to keep good young people in research and safety evaluation, we needed to recognise that type of career. What we have done is that we have built titles that are equivalent to management titles and have equal salaries and so on. But the message is : "you are not the boss of 20 people, but you are as valuable to the company as if you were".

Rémi GUILLET - À propos de recherche & développement, je voulais quitter le volet humain pour revenir sur une phrase qui a été utilisée tout à l'heure par Sophie Mourlon et qui était très bonne. Nous avons parlé de bases de données pour ce qui était des retours d'expérience, nous avons utilisé la formule qu'il faut partager les résultats de ce qui est essayé et trouvé, donc ce qui est des bons résultats, mais il faut également penser à partager ce qui n'a pas été trouvé et ce qui a échoué. Je pense que c'est une formule qui mériterait d'être rappelée.

Sophie MOURLON - Ce que j'ai voulu dire en effet, c'est que nous partageons les résultats de recherche et c'est une évidence pour tout le monde mais que l'objet de ce symposium était également que les autorités de sûreté et les appuis techniques partagent les pratiques réglementaires et d'organisation des contrôles et en particulier que nous partagions ce qui n'a pas marché, parce que cela fait gagner du temps à tout le monde.

Rémi GUILLET - Si je peux ajouter un point à propos des bases de données, il faut malgré tout veiller à un risque qui est que le partage doit se faire en toute connaissance, que ce soit le retour sur les incidents ou que ce soit celui sur les résultats de recherche. Il faut bien

prendre en compte tous les paramètres qui ont encadré le fonctionnement de l'installation avant tel incident ou tel vieillissement ou tel résultat de recherche. Nous n'avons pas le droit de faire un patchwork en prenant des résultats dans un pays, des données dans un autre pays. Il faut vraiment ne pas sortir du contexte de fonctionnement et d'une étude particulière sous peine de risquer de faire de graves erreurs.

André-Claude LACOSTE - I think that the consequence of what you are saying is that we, the safety authorities, should exchange people between our technical decisions. It is quite difficult to understand exactly what has happened in another country if you are not able to ask the proper questions, if you do not understand the complexity of it, if you are not able to go and visit the place where it happened. So I feel that the exchange of personnel is an obvious way forward. Once more, just looking at a database, it will never be the solution to any kind of problem.

Katsuji MAEDA - Mr Borchardt said that ageing management should not be separated from routine management for it is a very operating part of activity. It is very good, I understand. I think fundamental measures against ageing management are to implement effective routine basic maintenance, a current maintenance management programme.

It is very important to learn and show the current base or database maintenance management programme for every country. Because ageing management is not special, it should be added on a daily basis maintenance management programme. So the next time, I would like to show or discuss or exchange information on database programme for long-term operation.

Sophie MOURLON - We talked about research and about the fact that, as Bill Borchardt said, funds and time are limited so when we set up research programmes, we have to make choices on what is more relevant. Who makes the decision? Should the operator, within its responsibility to operate the plant safely, decide what research is to be performed, and finance it. Or do regulators have a role to play in that?

R William BORCHARDT - In the United States, the research programmes are completely separate, the NRC has its own research budget and then the industry has one of its own. Those decisions are made largely independent of each other, although there is good communication between the two programmes. But on a higher level, I would say that in everything we do, we need to go back to the first principle, and that is the safety of the currently operating fleet of reactors. Therefore, once you agree on that point, it is easy for the research part of NRC and the operational part of NRC to agree to a relative priority of different projects. I believe the same type of approach is being used in the industry.

Philippe JAMET - To summarise the situation in France, I would say that the utility has its own programme and decides what they want to do and then, on the other hand, IRSN, which is a technical support of the safety authority and which has independent financing, also decide what they want to do. They talk together and if there are common actions that both feel would be useful, then they have a common programme with common financing. I do not know what the figure is now, but a fairly important proportion of the ageing management research and development actions are co-financed. Two things would seem very important to me: the utility must perform enough research so that they can really take the responsibility for the ageing management of their plant, that is the first thing. If there is some doubt within the safety authority or technical support, there should be enough money to enable us to check one point that we feel very specifically potentially dangerous.
Another case where there should be some money outside of the utility channel is when there is a good idea outside the utility on one possible solution. For example, promising inspection technique. I think it is very useful that another company, other than the utility, has some money to show that a specific idea is a good one and can lead to interesting developments. That is the situation in France.

Claude FAIDY - We have different steps in the process. When we start a design, it is not a problem to share R&D action with the safety authority, technical support, vendors and utilities. Now we are in another phase and we are discussing operation. And operation, degradation, I think it is another challenge with the economical aspect. The economical aspect generates a lot of very difficult situations. I think it is interesting for us to compare the French situation you describe, with the US situation, with these two parts of NRC, plus the national laboratories that are supporting them and it is interesting to look at advantages and disadvantages of these two situations. The other aspect that is more difficult is to exchange : having technical exchange on operation between utilities is a dream. The only

volunteers are here, the others are not necessarily volunteers. It is very difficult to exchange, deeply, experience on components that break, that crack, that have elephant skin. It is very, very hard. Maybe it is even the same for safety authorities.

Philippe JAMET - At least I can give you some examples where information was there – we are going back to the previous subject – but there are practical examples where the information was there and it was not properly used. I am not sure for example, after the Mihama steam generator ruptured, a lot of things were learned from this accident. I am not sure that all over the world, all the consequences were really taken into account. My feeling is that it was not a lack of information, it was more a defect in the process of using the information and transferring it to other plants.

Ken BROCKMAN - Two points I would like to make with that, as a regulator and as a utility. Sharing information openly makes sense : there is nothing more expensive than an unplanned shutdown. It is an immediate priority to invest money in sharing information, it is without a doubt, an economic positive for a utility. Without a doubt it is a regulatory positive for a federal regulator authority. But it requires a vision that is longer than the next two years. There is one of the challenges we are dealing with.

The second point I would like to address relates to the funding for research. I think we want to make sure that we do not confuse a national regulatory authority with being the government, the member state. There is always a Ministry of Energy, an Atomic Energy Commission or something that is responsible for the development of the energy policy within that individual member state. And there is certainly a will, within that aspect, for funding for research in that regard, in support of the utilities. Whereas the safety research, the uniquely safety research that regulatory authorities identify as being appropriate and necessary for them to carry out their responsibilities. So there is a third member here that I do not think we really put on the table when we were having our initial discussions.

CLOTURE / CLOSURE

André-Claude LACOSTE, Directeur général de la sûreté nucléaire et de la radioprotection

André-Claude LACOSTE - I think we are coming to the end of this final panel. I will not try to make any kind of global conclusion. I would just like to say three things.

The first thing I would like to do is reiterate the initial aims of the symposium : it was to bring together the people in charge of pressurised vessels, and people in charge of pressurised vessel issues, within the nuclear safety authorities, within their technical support operations and within some utilities. We also wanted the participation of the IAEA and the NEA. The major issue concerning the pressurised equipment was ageing management. I think we did it, that is the first achievement.

Second, I think there were quite good discussions. Obviously, uniformity is not a possible aim. I would go as far as to say uniformity is a silly aim or a meaningless aim. The only aim we can try to reach is understanding what we are doing. The aim is not for us to do the same thing, the aim is for us to know, if we do not do the same thing, why it is so. I think this is typically the result of the discussion with other safety authorities. And of course, we will keep our national specificity. In France, periodic safety assessment, in the US, licence renewal. We will keep this at least for the next decades. But is it better to compare what we are really doing.

My third conclusion will be to say that it will be up to each one of us to decide the way forward. Did we find that this symposium was useful enough to think of another meeting, another symposium, within the next two or three years. If we decide to do so, when and where? What kind of operating experience feedback from this first meeting will you take in order to organise another one? I think it will be up to each one of us to do it.

This will be my final word, so I want to thank all the members of the final panel, all the participants, all the speakers, all the people who organised the meeting, the symposium. I think it was a very good idea to choose Dijon. But of course, it will be up to you to draw the final conclusions. I want to thank you once more. Thank you very much.