## **SESSION II SUMMARY**

LET ME FIRST OF ALL THANK YOU ALL FOR THE OPPORTUNITY WE HAD THIS AFTERNOON TO HAVE A BROAD DISCUSSION ON HOW TO ENSURE THE INFRASTRUCTURE FOR THE SAFE USE OF RADIATION IN MEDICINE. THROUGH THE PRESENTATIONS AND THE DISCUSSION WE HAVE, I THINK, MANAGED TO DRAW AN OVERALL PICTURE OF THE CHALLENGES WE ARE FACING AND DISCUSS HOW WE CAN ADDRESS THESE CHALLENGES IN THE FUTURE.

IN SETTING THE SCENE FOR THE SESSION, IT IS IMPORTANT TO NOTE THAT WE ARE FACING A PROBLEM WITH SEVERAL DIMENSIONS:

- 1) THERE IS A SIGNIFICANT INCREASE OF THE USE OF RADIATION IN MEDICINE WORLDWIDE AND AT THE SAME TIME A RAPID DEVELOPMENT OF SOPHISTICATED TECHNIQUES. THIS LEADS TO THE FACT THAT THE USE OF RADIATION IN MEDICINE IS NOW THE MAIN CAUSE OF EXPOSURE OF THE GLOBAL POPULATION FROM MAN-MADE SOURCES;
- 2) THERE ARE CLEARLY ISSUES RELATED TO THE LACK OF SUFFICIENT JUSTIFICATION AND OPTIMIZATION OF THE PROCEDURES;
- 3) A HIGH NUMBER OF PATIENTS HAVE BEEN AFFECTED BY ACCIDENT OR INCIDENTS INVOLVING OVEREXPOSURES AND ALSO SOMETIME UNNECESSARY AND UNINTENDED EXPOSURES. THEY SHOUD BETTER BE PREVENTED IN THE FUTURE;
- 4) THERE ARE ALSO ISSUES ON THE OCCUPATIONAL EXPOSURES OF WORKERS IN THE MEDICAL AREA;

5) LEGACY SOURCES FROM MEDICAL APPLICATIONS ALSO IS A CHALLENGE. THESE ISSUES CAN BE CONTROLLED WITH A STRONG REGULATORY AUTHORITY.

THE SAFETY PRINCIPLES AND REQUIREMENTS DO EXIST. THUS WHY DO WE STILL HAVE SUCH IMPORTANT PROBLEMS TO DEAL WITH? WE IDENTIFIED SOME ROOT CAUSES OF THE SITUATION, FOR EXAMPLE THE DIFFICULTIES FOR THE REGULATORY BODIES TO CONTROL THE LARGE NUMBER OF FACILITIES INVOLVED AND THE LIMIT, INCLUDING LIMIT OF KNOWLEDGE FOR THE REGULATORY BODY TO INTERVENE IN DISCUSSING THE JUSTIFICATION AND OPTIMIZATION OF THE PROCEDURES.

IT IS VITAL TO HAVE AN OPEN DIALOGUE BETWEEN REGULATORY BODIES AND THE MEDICAL COMMUNITY. ALL ACTORS, MANUFACTURERS, PROFESSIONAL ORGANIZATIONS, HEALTH AUTHORITIES REGULATORY BODIES, ... SHOULD BE INVOLVED AND BETTER COOPERATE FOR ADDRESSING THE CHALLENGES.

CLEARLY MORE TRAINING IS NECESSARY FOR ALL INVOLVED PARTIES, INCLUDING FOR REGULATORS. ON-LINE TRAINING IS ALREADY AVAILABLE ON THE IAEA WEB SITE. REGIONAL TRAINING COURSES ARE ALSO ORGANIZED BY TECHNICAL SUPPORT ORGANIZATIONS. THESE CAPACITIES SHOULD BE FURTHER DEVELOPED. ALL ACTORS SHOULD COOPERATE TO ENSURE THAT ADEQUATE TRAINING INFRASTRUCTURE IS IN PLACE AND THAT THE PRACTITIONERS DO RECEIVE THE NECESSARY EDUCATION AND TRAINING. A PRECONDITION IS TO RAISE AWARENESS ON THE NEED FOR SUCCESSFUL AND EFFECTIVE TRAINING. THE PROFESSIONAL ORGANIZATIONS SHOULD ALSO PLAY AN ACTIVE ROLE AND FURTHER PROMOTE SAFETY CULTURE.

THERE IS ALSO A NEED TO DEVELOP GUIDANCE/REFERENCE LEVELS FOR INDIVIDUAL TECHNIQUES TO IMPROVE THEIR OPTIMIZATION AND TO ENSURE THAT A CLEAR PROCESS IS IN PLACE TO REDUCE NON JUSTIFIED EXAMINATIONS. SOFTWARE VALIDATION WAS ALSO MENTIONNED AS A FURTHER NEED.

EXCHANGE OF EXPERIENCE AMONG ALL ACTORS SHOULD ALSO BE PROMOTED AS WELL AS THE ESTABLISHMENT OF AN EFFECTIVE INCIDENT REPORTING MECHANISM. FOR THIS, THE DEVELOPMENT OF A CULTURE OF REPORTING INCIDENTS IS CRUCIAL.

BUT AT THE END, DEVELOPMENT OF A STRONG SAFETY CULTURE, OF AN APPROPRIATE LEADERSHIP, OF A MANAGEMENT PROCESS THAT CONSIDERS APPROPRIATELY THE SAFETY PRINCIPLES, AND OF TRAINING AWARENESS, ARE THE CENTRAL KEY ISSUES IN THE MEDICAL AREA.