

Background

To protect the population from the health effects of ionizing radiation, we must manage and control exposure.

This is necessary to:

- Prevent injury to several types of normal cells/tissues and
- Reduce the risks of cancer and heritable effects

There has been a debate about the adequacy of the current classification of health effects. For example, for protection purposes, it may be helpful to distinguish between:

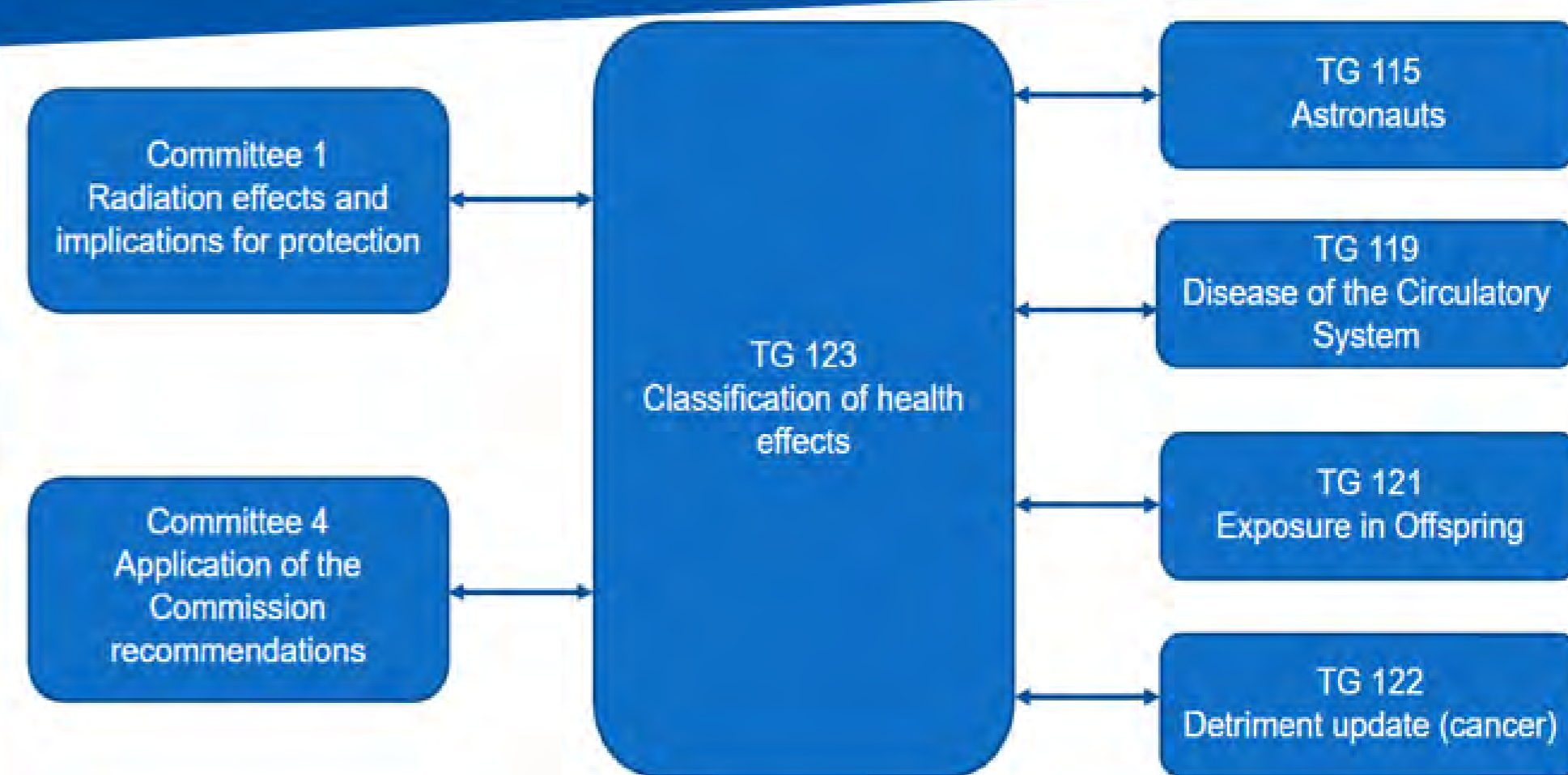
- Severe and other injuries to several healthy cells/ tissues or
- Short-term and long-term health effects.

A third category of health effects might also be needed. This is because some health effects may not fit the above two categories. For example, health effects such as cataracts or diseases of the circulatory system.

The classification of harmful radiation-induced health effects for protection purposes, which underpins the current System of Radiation Protection, should thus be revisited to ensure that it remains fit for its purpose. For this reason, a review of the scheme for health effects classification is required.

Finally, the protection objectives will be discussed based on specific exposure situations. For example, for medical uses of radiation, when considering a patient's exposure, tissue reaction may not be prevented because exposure is justified as doing more good than harm.

Interactions with ICRP Committees and TGs



Deliverables

The Task Group will:

1. Develop a report addressing the rationale behind the current classification of health effects;
2. Provide a review of scientific evidence which questions this classification;
3. Discuss the need for an evolution of the classification;
4. If required, an updated classification scheme will be proposed

Schedule

- 2024 Q3:** In-person Task Group meeting
- 2025 Q1:** Draft report to CI, C4 and MC reviewers
- 2025 Q2:** Open workshop with organizations in formal relations with ICRP
- 2025 Q4:** Draft report for MC approval for public consultation
- 2026 Q1:** In-person Task Group meeting + open webinar
- 2026 Q2:** Public consultation
- 2026 Q4:** Draft report to CI, C4 and MC reviewers
- 2027 Q2:** Draft report for MC approval for publication
- 2027 Q2:** Publication + open webinar

Task Group Members

- CHAIR:** Ludovic Vaillant
- CO-CHAIR:** Liz Ainsbury
- CO-CHAIR:** Friedo Zolzer
- TECHNICAL SECRETARY:** Constantinos Zervides
- MEMBERS:** Omid Azimzadeh, David Campbell Brown, Agnès François, Nobuyuki Hamada, Sophie Jacob, Chunsheng Li, Michiya Sasaki

The need for mentees will be reviewed as the work of the Task Group develops.

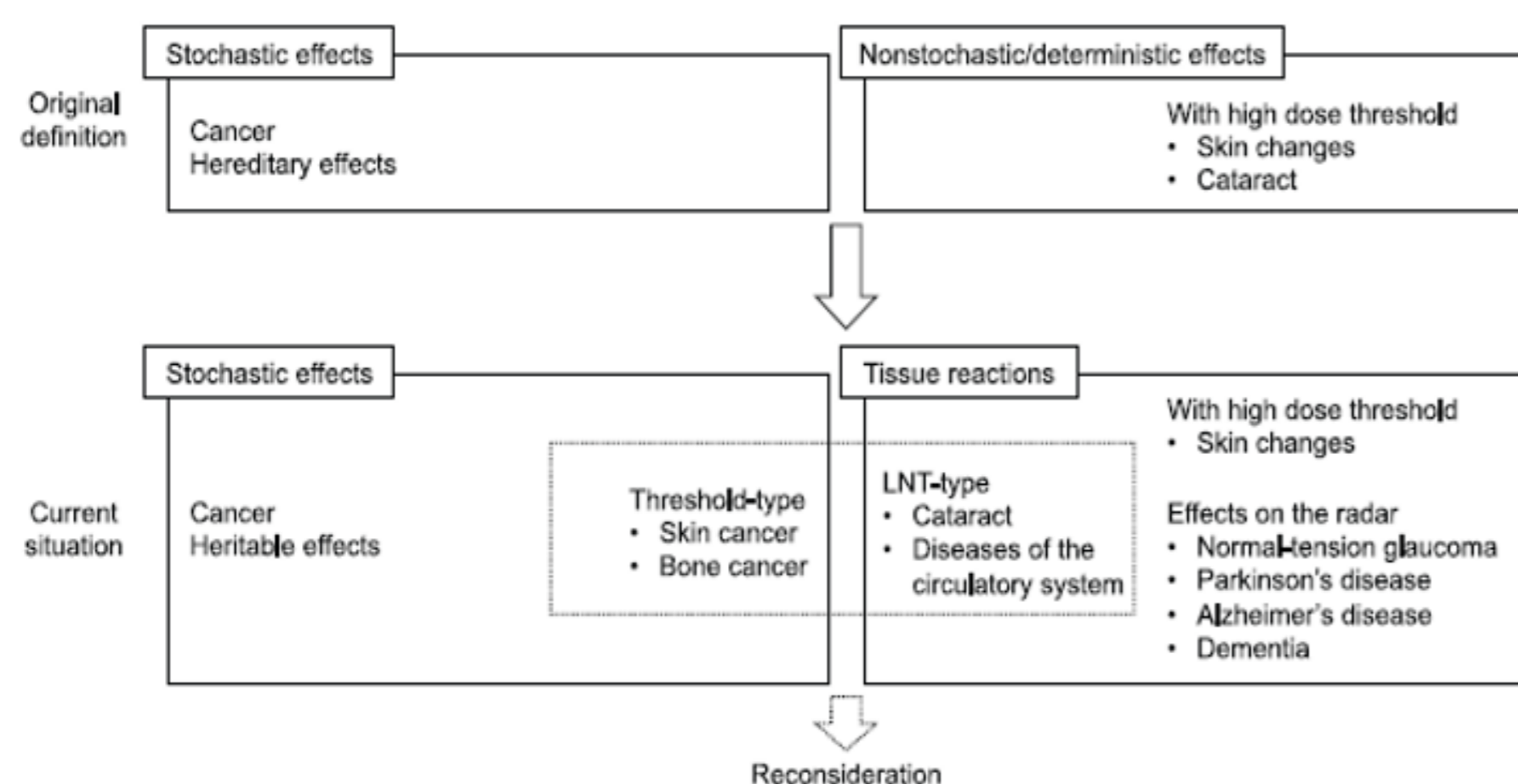


Fig 1. Hamada N. Radiat Res 200(2):188-216, 2023, DOI: 10.1667/RADE-23-00030.1

Mandate

The Task Group will:

1. Clarify the rationale behind:

- The current classification
- The primary objectives of the ICRP system of radiological protection

2. Assess the reasons for the system's improvement based on:

- Scientific literature review
- Relevance to the radiological protection objectives

3. If any changes to the system are seen as necessary, the Task Group will assess the impact on practical management of radiological risk regarding the radiological protection system objective to:

- Prevent injury to several types of normal cells / tissues
- Reduce risks for cancer and heritable effects

While carrying out the above, attention will be paid to managing the various sources of uncertainties, such as:

- Incomplete understanding of the underlying mechanisms
- The existence/non-existence of the threshold dose
- Individual differences in radiation responses
- Other potential developments to the system currently being considered by other Task Groups