

**ESTRO**

*Radiation Oncology.*  
**Optimal Health**  
Together. **FOR ALL,**

- ESTRO VISION 2030 -



# *Radiation Oncology.* Optimal Health Together. **FOR ALL,**

- ESTRO VISION 2030 -

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Radiation oncology has seen considerable change since ESTRO adopted its previous vision statement, less than 10 years ago. The Society has now formulated a new vision for 2030, which remains dedicated to its mission, whilst adapting to evolving contexts and the transforming landscape. Aligning with the new vision, ESTRO has developed strategic priorities for the coming years. This document, written on behalf of the Board and its leadership, describes ESTRO's strategic focus on translating science and evidence into practice, supporting professional development in the discipline, further strengthening the Society and on embracing an active policy-role.

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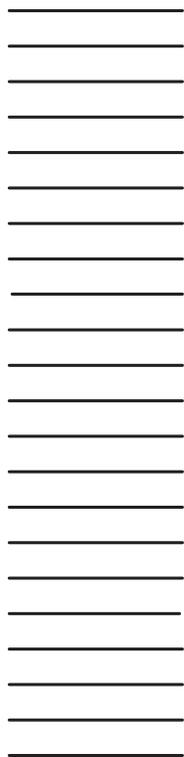
ESTRO

Radiation oncology

Vision

Strategy

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In 2012, for the first time of its history, the European Society for Radiotherapy and Oncology (ESTRO) adopted a vision statement for 2020 [1] and a subsequent strategic vision, with the intention to emphasise the activities of the Society in developing and promoting the role of radiation oncology in multidisciplinary cancer care:

*Every cancer patient in Europe will have access to state of the art radiation therapy, as part of a multidisciplinary approach where treatment is individualised for the specific patient’s cancer, taking account of the patient’s personal circumstances.*

At that time, after three decades of existence, ESTRO recognised how radiation oncology had become an independent discipline, the Society a strong interdisciplinary platform at European level, and radiation therapy a highly optimised cancer treatment undergoing continuous improvement and innovation.

However, continued technological, technical and therapeutic innovation does not only bring opportunities for more optimal and personalised patient outcomes, it also comes with challenges around its scientific appraisal, dissemination, education and implementation [2]. It is not until outcomes, achievable with a new treatment strategy, translate into benefits for individual patients on a daily basis, that innovations realise their true impact [3]. The challenge of implementing high-quality and evidence-based radiation therapy becomes even bigger in the context of everexpanding needs. It is estimated that by 2025 the number of patients diagnosed with cancer in Europe annually will reach over 4.5 million [4], around 50% of whom will need treatment

that includes radiation therapy [5,6]. This translates into a sixteen percent increase in radiotherapy needs, whereas to date in Europe less than three out of four cancer patients with an evidence-based indication for radiation therapy actually do receive it, with significant disparities amongst European countries [5,7].

Such models are built on our current knowledge of demographics, clinical evidence and patterns of care, but the future is difficult to predict. Radiotherapy practice is certain to change over the next decades due to wider adoption of hypofractionated and accelerated treatment schedules, clinical introduction of more advanced radiation technologies, closer integration with imaging and the increasing capabilities of automation. These all provide opportunities to incorporate morphological and functional adaptation into routine treatment. In parallel, better insight into genetics, big data analysis and the validation of predictive markers may alter the patient population that we serve [8-15]. Obviously, radiation oncology cannot be seen in isolation. Scientific progress is occurring in all oncologic disciplines, potentially resulting in competing loco-regional treatment strategies gaining broader acceptance, or, conversely, in new combinations with systemic agents enhancing the role of radiation therapy [16-19].

Finally, we should not ignore the organisational and socioeconomic context of multidisciplinary oncology, even of healthcare as a whole. Challenges of access and implementation apply to other oncological interventions as well as to radiation therapy [20,21], triggering responses from the respective oncology domains and Societies. Resulting changes in the scientific and professional oncology

landscape, in the oncology arena and in the broader healthcare context may all impact our discipline and call for action.

Since 2012, aligning with this challenging internal and external environment and considering the increasing needs for radiation therapy, ESTRO has taken several important strategic decisions. These targeted scientific, educational and policy needs and responded to arising opportunities, within the framework of the current vision statement. With 2020 approaching, the Board and leadership of ESTRO decided to update ESTRO's vision statement to better reflect the actual role of the Society in facing the challenges ahead, and, more broadly, to address the need for increasing awareness about the importance of radiation oncology in multidisciplinary cancer care. With this in mind, and leveraging on the experiences and evolutions in recent years, a methodology was defined to develop an updated strategic vision for ESTRO.

## Methods

A structured approach in three phases was adopted to redefine the strategic vision of the Society in terms of strategic focus areas and a new vision statement for 2030 [22–24]. A strategy panel of 28 Society members was constituted for this purpose, including radiation oncologists, medical physicists, RTTs (radiation therapists), radio-biologists and patient representatives, with ongoing leadership mandates in ESTRO (see acknowledgements).

The *first phase* addressed a list of strategic questions, by applying a modified Delphi consensus method in two rounds,

delivered via an on-line survey. The first round allowed prioritisation amongst 170 topics, initially selected by a core panel (the acting president, the chief executive officer, and the managing directors of education and science, and of policy and partnerships), to generate a reduced list of 115 topics. The second Delphi round allowed participants to retain 60 topics considered of highest importance.

As the next step, the core panel consolidated the selected topics in four areas of strategic focus: from research to practice; strengthening the profession; strengthening the Society and strengthening partnerships.

The *second phase* consisted in a strategy retreat, taking place in Mechelen, Belgium on 16–18 February, 2018. The retreat was attended by the ESTRO members representing the strategy panel.

The first part of the retreat was devoted to the vision statement. Adopting a traditional Delphi method in three rounds, the participants were divided into four groups, each debating and proposing a vision statement for the Society. After a first vote, two statements were selected. The panel was then divided into two groups, debating and elaborating on the statements previously selected. After a final discussion and vote, the ESTRO vision statement for 2030 was selected by the strategy panel.

The participants of the retreat then debated the 60 prioritized topics in four focus groups, corresponding to the four strategic focus areas. The discussions were facilitated by the presidents and the treasurer of the Society and were recorded for further analysis.

At the end of the meeting, the strategy

panel deliberated on the discussions and prioritized the strategic topics within each focus area, for the purpose of reporting and developing future strategic plans.

In the *third phase*, the ESTRO 2030 vision statement was finalised and confirmed. In addition, the recordings of the focus group discussions were coded and the qualitative data sets resulting from coding were analysed using the NVivo tool (QSR International). The results of the analysis informed the design on the ESTRO strategic vision and outlook, as described further in the relevant sections.

Fig. 1 illustrates the activities undertaken in the definition of the new ESTRO vision statement and the strategic focus areas.

## The new vision statement

**Radiation Oncology.**  
**Optimal Health**  
**Together. FOR ALL,**

This new vision statement is built around four concepts of core importance to ESTRO. Fig. 2 illustrates the four strategic focus areas of ESTRO's vision 2030. The overlaps between the areas highlight how they relate to the new vision statement.

*Radiation Oncology* puts the focus on the discipline and the profession, not solely on the treatment *per se* or on ESTRO as a Society, in line with ESTRO's mission to foster radiation therapy in the broadest sense [25]. Whilst it is recognised that non-oncology indications for radiation

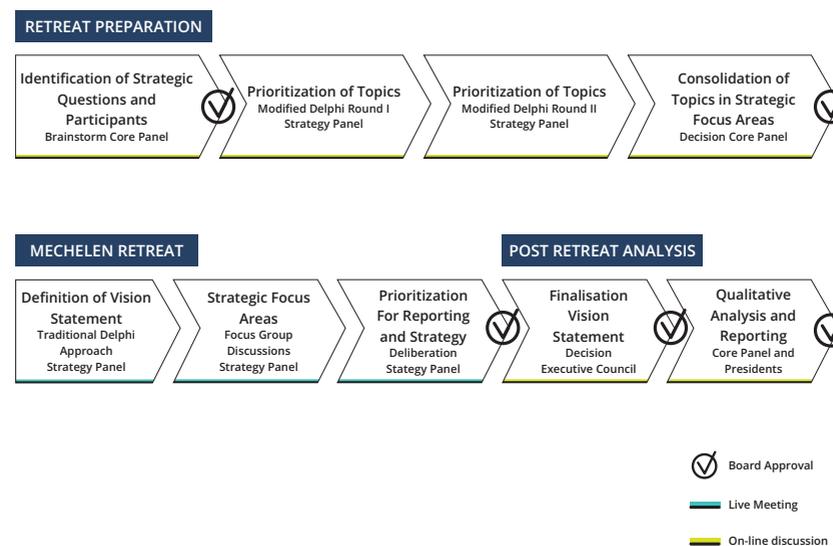
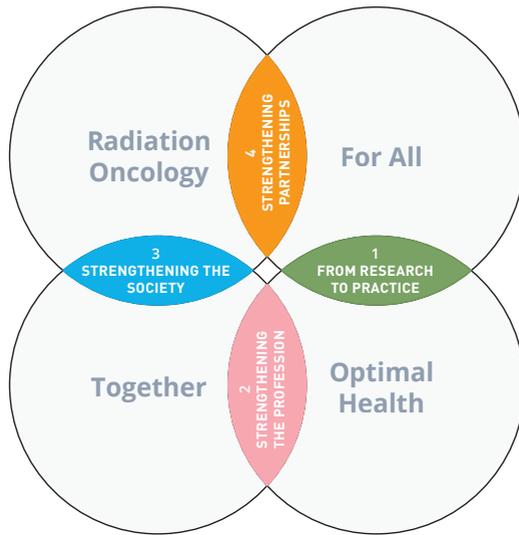


Fig. 1. Steps performed for the strategy exercise of Mechelen, 2018.



therapy may expand with time, the formal inclusion of “oncology” in the vision statement highlights that the core indications for radiation therapy, hence the focus of our discipline, remain in oncology.

*Optimal health* is composed of two important parts. Health encompasses more than only cure, but refers to all outcomes that matter to patients, be they outcomes related to the cancer and its treatment or non-cancer related outcomes. This patient-centric approach is fundamental in the definition of Value-Based Health Care [26]. Our ultimate aim remains to provide the best radiation therapy to every cancer patient who needs it, based on the currently available evidence for each specific indication. Yet, we also acknowledge that the actual treatment delivered will have to consider, amongst other factors, the patients’ wishes, his or her personal environment, the technological capabilities within the country and the acceptability and affordability for the society as a whole. Hence, the term “*optimal*” tries to reconcile the best treatment we aim for with what is possible in a given circumstance; and introduces the concept of what is valuable, based on a balance between outcomes at one side, and resources and money invested, at the other [26].

The term “*for all*” reinforces our ambition to be inclusive. We aim for the best outcome for all patients, within oncology but also for non-cancer patients with an indication for radiation therapy. We want to care for patients during the entire course of their disease, whilst undergoing treatment and beyond, in both curative and palliative settings, including aspects of prevention and survivorship. In other words, we want to take up our role in the total cycle of care [26]. We further

also aim to optimise the treatments we deliver in support of all caregivers, and to endorse solutions that are cost-effective and sustainable for the society, in view of obtaining the highest health gain for all citizens. Lastly, we do not want to restrict our activities to Europe, but also to foster radiation oncology on a global level, whether the Society’s involvement is driven by specific geographical needs or by requests.

This brings us to the last core term in the vision statement, “together”, which focuses on ESTRO’s motivation to build partnerships, within and outside Europe. ESTRO has developed a solid base for interdisciplinary collaboration amongst radiation oncology professionals, individuals as well as their National Societies (NS). Furthermore it recognises the need to forge strong partnerships with other oncology societies, in order to be recognised as a core player in multidisciplinary oncology. ESTRO is also open to partnerships with non-oncology groups and organisations, if such a collaboration serves to optimise the health of patients treated with radiation therapy. Finally, in addition to partnerships with healthcare providers and their societies, broader collaboration with all relevant stakeholders, including patients, the industry, research organisations and policy-makers, ranks highly on ESTRO’s agenda.

Thus it becomes clear that the ESTRO 2030 vision statement builds further on the aims defined in the 2020 vision statement [1] and in that sense is not disruptive. It is, however, more far-reaching, ambitious and open to the future than the previous vision. A representation of the transition between the 2020 and 2030 vision statements can be found in Table 1.

- |   |   |   |  |
|---|---|---|--|
| <p><b>1.1 Defining ESTRO’s role in Research</b></p> <ul style="list-style-type: none"> <li>• Facilitating research</li> <li>• Collaborating with research organisations</li> <li>• Gathering evidence to foster radiation oncology in the broad sense</li> <li>• Creating a holistic repository for radiation oncology data</li> <li>• Covering the entire research portfolio</li> </ul> <p><b>1.2 Disseminating Research</b></p> <ul style="list-style-type: none"> <li>• Publishing Journals</li> <li>• Running Workshops</li> <li>• Interdisciplinary action strengthening its meeting portfolio</li> <li>• Participating to multidisciplinary site-specific meetings</li> </ul> <p><b>1.3 Driving the generation of Guidelines</b></p> <ul style="list-style-type: none"> <li>• Adopt a site-specific approach from research through guidelines</li> <li>• Establishing a comprehensive guidelines portfolio</li> <li>• Collaborating with other societies to generate and disseminate guidelines</li> <li>• Ascertaining immediate and broad access to guidelines</li> </ul> | <p><b>2.1 Driving Education</b></p> <ul style="list-style-type: none"> <li>• Continuous development of school &amp; courses</li> <li>• Providing a blended and continuous learning strategy</li> <li>• Further developing and promoting its online learning framework</li> <li>• Collaborating with other educational groups to increase offerings</li> <li>• Strengthening the ESTRO FACULTY</li> </ul> <p><b>2.2 Leading the international recognition of RT</b></p> <ul style="list-style-type: none"> <li>• Defining and promoting its Core Curricula</li> <li>• Defining and advocating for all radiation oncology professionals</li> <li>• Promoting international exchanges and mobility</li> <li>• Further developing its Advocacy efforts at EU level</li> </ul> | <p><b>3.1 Strengthening the outreach to RO professionals</b></p> <ul style="list-style-type: none"> <li>• Developing all membership categories</li> <li>• Continuously reassessing its members needs</li> <li>• Actively promoting its benefits and services</li> <li>• Setting up a comprehensive communication strategy</li> <li>• Systematically assessing the impact of its activities</li> </ul> <p><b>3.2 Building a time-proof organisational structure</b></p> <ul style="list-style-type: none"> <li>• Professionalising further its governance &amp; structure</li> <li>• Active head hunting to secure future leadership</li> <li>• Setting-up a leadership mentoring program</li> </ul> | <p><b>4.1 Growing its international presence &amp; building up exchanges</b></p> <ul style="list-style-type: none"> <li>• Collaborating with RO related National societies</li> <li>• Strengthening worldwide collaborations with other Radiation and Oncology societies</li> <li>• Further enhancing collaboration with patients and their advocates</li> <li>• Creating partnerships with international agencies, organisations and associations</li> <li>• Creating partnerships and new collaborative approaches with corporate members</li> <li>• Providing advice to the European bodies on RO policy</li> </ul> |
|---|---|---|--|

Fig. 2. ESTRO strategic vision.

Vision statement 2020	Vision statement 2030	Evolution between vision statements
Every cancer patient	For all	beyond patients, also caregivers and society
In Europe	For all together	beyond Europe
Access	For all	implies optimal access
State-of-the-art	Optimal	based on the actual evidence and on specific possibilities and context
Radiation therapy	Radiation oncology	beyond radiation treatment
Multidisciplinary approach	Radiation oncology together	within and beyond oncology, integrated patient-centric approach
Individualised for the patients' cancer	Optimal	the best that can be achieved for a specific patient, accounting for caregivers and society
Personal circumstances	Optimal	personal, caregivers and societal context considered

Table 1. Transition from 2020 to 2030 vision statements.

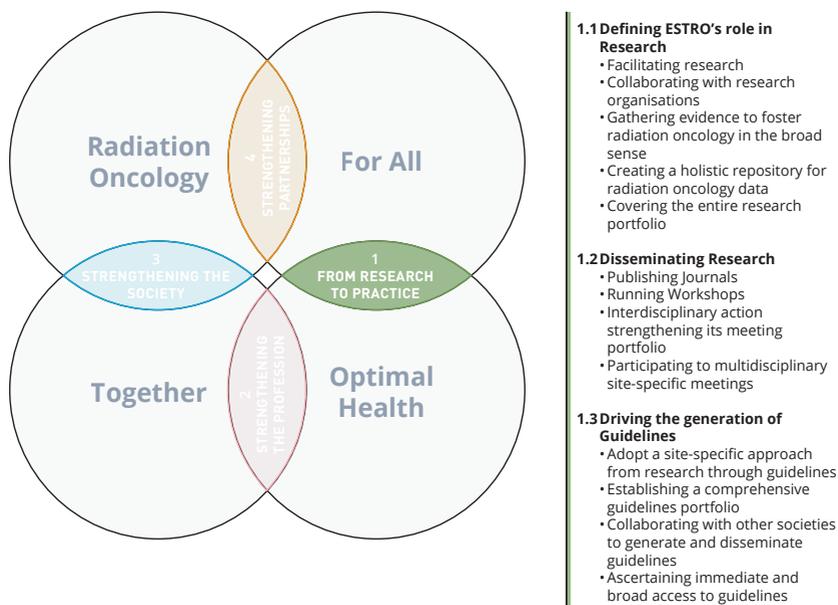


Fig. 3. ESTRO strategic vision, from research to practice.

## From research to practice (Fig. 3)

### Optimal Health – for All

Radiation therapy, a core cancer treatment modality, is indicated in about half of all cancer patients [5,6] and is undergoing a rapid and continuous evolution with respect to available technologies, treatment techniques and therapeutic approaches. Aiming for optimal and individualised cancer care in such a quickly evolving landscape calls for a well-structured and systematic transition from pre-clinical and clinical evidence generation, over scientific dissemination and the development of guidelines into education and clinical implementation in a safety-aware environment [1,2].

Several challenges have been observed regarding evidence generation in radiation oncology. On the one hand, the often-incremental nature of technology evolution in radiation therapy can make it hard to obtain timely, prospective and randomised comparative effectiveness data, typically required by policymakers before financing new healthcare interventions [3,27]. On the other, the broad scope and varying levels of radiotherapy innovations may call for a framework with various levels of supporting evidence [28,29]. Although radiation oncology experiences more financial barriers for research than other oncologic disciplines [30,31], a large amount of scientific output is being generated by the radiation oncology community [32,33].

This brings forward the challenge to select, synthesise and share the new evidence supporting practice changes most valuable to the patients [29,33]. A high number of publications is indeed not a sufficient condition to close the gap in high-quality radiotherapy utilisation.

Providing the optimal radiation therapy to each individual cancer patient will involve a structured approach to translate research into practice through dissemination, guidelines and ultimately education, and requires collaboration of researchers and professionals with various stakeholders and policy-makers, to create the basis for a broad clinical uptake of evidence-based radiotherapy [2].

### Actions since Estoril 2012

As a scientific Society, ESTRO has the mission to facilitate research and development in radiation therapy and to stimulate scientific exchange in the field of radiation oncology and related disciplines. It also has the role to develop and promote standards of education and of practice [25]. In order to align research-related requests from various oncology professionals to the Societies' means, a "Policy for Scientific Engagement" was adopted in 2015 [34]. It defines ESTRO's scope of engagement under four categories: research supported by ESTRO, research facilitated by ESTRO, research to which ESTRO contributes or participates and research initiated and driven by ESTRO.

Over the years, ESTRO focused predominantly on the former two aspects, amongst others by means of science dissemination through its journals and congresses. In 2016, ensuing the changing landscape of oncology conferences, the annual meeting became a fact. More recently, a wider global perspective has been adopted with the "ESTRO meets Asia" meeting. In order to provide the different professionals within ESTRO with dedicated scientific dissemination channels besides Radiotherapy and Oncology, ESTRO broadened its journal portfolio with three new journals [35–37].

In addition, the Society stimulates more informal scientific interaction amongst its members. Interactive workshops, dedicated to specific topics, have the aim to provide an incubation ground and a touchstone for early research projects. By facilitating scientific exchange amongst radiation oncology professionals in Europe, international research projects, e.g. those supported by European research grants, can be prompted [38–42]. In some instances, initiatives starting under ESTRO facilitation may result in new task forces embedded in the ESTRO governance structure, as was the case for the European Particle Therapy Network [43]. There are also notable examples of research initiated and driven by ESTRO's committees and task forces, such as the work carried out by the GEC-ESTRO brachytherapy committee or the ESTRO-HERO (Health Economics in Radiation Oncology) project that was initiated on demand of the ESTRO board in 2010 [5,7,9,44–50]. Lately, the ambition of radiation oncology professionals to more actively contribute to the radiation oncology research agenda under the ESTRO umbrella, has resulted in a collaborative effort of ESTRO and the European Society for Research and Treatment of Cancer (EORTC) to set-up a common research infrastructure. This E2-RADlatE platform (EORTC-ESTRO RADiotherapy InfrAstruc- Ture for Europe) will be devoted to radiation therapy-specific research questions and builds on the existing expertise of the EORTC as a research organisation and the interest of the broader radiation oncology community to prove the value of new radiotherapy technologies and indications [51].

Guidelines form the indispensable bridge to translate research output into continuing professional education and daily practice,

both to the benefit of the patients. ACROP, the Advisory Committee for Radiation Oncology Practice was initiated in 2013 and is since then responsible for the coordination of the development of radiotherapy guidelines within ESTRO.

### Strategic outlook

ESTRO will continue to create opportunities for inter- and multidisciplinary scientific exchange and dissemination, by further supporting the annual meetings and participating to multidisciplinary site-specific meetings. Research workshops focusing on ongoing research and early scientific collaboration will be endorsed and stimulated, as it is expected that the research outcomes they generate will in term translate into scientific and practice harmonisation projects. The journals will be further supported, if needed taking dedicated action to foster the growth of the three new open-access journals. In addition, ESTRO will reinforce its mission by creating platforms for formal and consistent data-sharing for researchers in radiation oncology, and for systematic gathering of scientific evidence.

The objective of ESTRO is to continue stimulating research on basic, translational and clinical progress, but also to inspire for more pragmatic, applied and health services research, as it has been shown that these aspects are underrepresented in current radiation oncology publications [32,52]. Recognising that the Society's role is not to act as a clinical research organisation, yet acknowledging that it has a wealth of scientific competency amongst its members, ESTRO is decided to further enhance collaboration with dedicated research organisations, with the goal to commonly create a holistic database and infrastructure for radiation oncology research, including dosimetric,

imaging and genetic data, clinical outcome parameters relevant to radiation therapy, quality-of-life and patient-reported outcomes as well as health economic data.

In view of facilitating the transition from the scientific evidence generated into daily practice, the aim is to broaden ESTRO's actual guidelines portfolio, predominantly focusing on target volume delineation, to include more site-specific and disease-oriented guidelines, with the ultimate aim of a comprehensive portfolio of guidelines for all tumour sites. This should further be endorsed by ESTRO taking up an active role in the development of multidisciplinary practice guidelines, in close interaction with other oncology and site-specific experts and societies. To further enhance the role of guidelines in supporting optimal and qualitative utilisation of radiation therapy, a flexible communication and dissemination strategy is indispensable, including a more prominent representation in the live meetings and in the ESTRO live courses and exploration of the opportunities of interactive IT-applications.

### From research to practice: strategic focus areas of ESTRO's vision for 2030

#### 1.1. Defining ESTRO's role in research

- I. Facilitating research
- II. Collaborating with research organisations
- III. Gathering evidence to foster Radiation Oncology in the broad sense
- IV. Creating a holistic repository for Radiation Oncology data
- V. Covering the entire research portfolio

#### 1.2. Disseminating research

- I. Publishing journals
- II. Running workshops
- III. Interdisciplinary action strengthening its meeting portfolio

- IV. Participating to multidisciplinary site-specific meetings

#### 1.3. Driving the generation of guidelines

- I. Adopting a site-specific approach from research through guidelines
- II. Establishing a comprehensive guidelines portfolio
- III. Collaborating with other societies to generate and disseminate guidelines
- IV. Ascertaining immediate and broad access to guidelines

## Strengthening the profession [Fig. 4]

### Optimal Health – Together

To guarantee that all cancer patients get access to the optimal radiation therapy they need, quantitatively as well as qualitatively, a large body of educated radiation oncology professionals are required. The HERO project demonstrated that important variation exists in Europe, not only in absolute numbers, but also regarding the relative availability of various types of professionals, in part due to the different roles and responsibilities defined for each of these across Europe [48]. Whereas some European countries are clearly facing underprovision of dedicated and well-trained radiation oncology personnel, the situation is even more critical worldwide [6,53]. Considering the predicted increase in demand of radiotherapy services in Europe in the next decade [7] and the consistently increasing needs at global level, in line with the escalating cancer incidence ensuing from the demographic transition, the radiation oncology community is facing an enormous challenge to educate the required professionals now, and for the next decades [6,54,55].

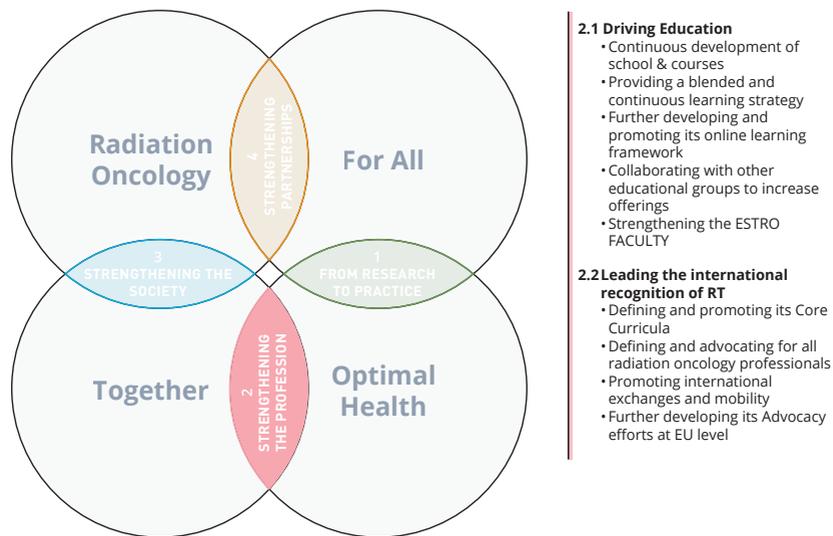


Fig. 4. ESTRO strategic vision, strengthening the profession.

- 2.1 Driving Education**
- Continuous development of school & courses
  - Providing a blended and continuous learning strategy
  - Further developing and promoting its online learning framework
  - Collaborating with other educational groups to increase offerings
  - Strengthening the ESTRO FACULTY
- 2.2 Leading the international recognition of RT**
- Defining and promoting its Core Curricula
  - Defining and advocating for all radiation oncology professionals
  - Promoting international exchanges and mobility
  - Further developing its Advocacy efforts at EU level

This is not a merely quantitative challenge. Seeing the rapid evolution of radiotherapy treatments, techniques and technologies and the constantly evolving indications in a multidisciplinary context, continuing medical education (CME) and postgraduate training, incorporating new evidence from research into practice, is critical to empower radiation oncology professionals in their strive to provide optimal care [1]. ESTRO has always been at the forefront of education in radiotherapy and oncology in the broad sense, in Europe and beyond. A large and growing portfolio of courses, delivered live as well as using online and blended learning methods, is available for the radiation oncology community. As a backbone, strong emphasis is put on harmonising the skills and competencies

of radiation oncologists, medical physicists and RTTs through the definition of core curricula, supporting continuing professional and personal development (CPPD) [1,56–58].

#### Actions since Estoril 2012

Over 45 course topics on multimodal cancer treatment, radiotherapy treatment planning and delivery, biology, imaging, research and best practices are currently covered by the ESTRO School. As of 2013, about 20% of the life courses has been consistently organised outside Europe, with a predominance in the Asia Pacific region. Furthermore, in order to respond to the increasing requests of non-European countries and regions to

provide training for their large number of radiation oncology professionals, the opportunities of online education and blended workshops – such as the FALCON (Fellowship in Anatomic delineation and CONtouring) contouring workshops –, have been expanded and support the continuous knowledge education and skills’ training for professionals around the globe [59]. In these endeavours, collaboration with other organisations, such as the IAEA (the International Atomic Energy Agency), has been shown extremely fruitful [60]. In order to assist the online educational activities, a dedicated online environment was created. In 2013, DOVE (Dynamic Oncology Virtual ESTRO) was launched on the ESTRO website to support CPD, whereas more recently in 2018, a VLE (Virtual Learning Environment) platform was installed, Moodle [61].

Educating a large group of professionals also puts pressure on sustaining the quality of the education delivered *per se*. In 2014, an audit of the ESTRO School, following the World Federation of Medical Education (WFME) standards, was performed [62]. It showed that the planning, organisation and structure of the ESTRO School met the standards but improvement was needed regarding faculty training and assessment of the educational programmes. In 2016, the ESTRO pedagogical programme was launched to support the School faculties in their educational activities and in the development of new approaches to teaching and learning methods, assessment techniques and educational management.

In 2015, further steps were taken to strengthen the international cooperation in radiation oncology education, giving rise to the Global Radiation Oncology Collaboration in Education (GRaCE).

GRaCE agreed upon a common strategy, and defined common goals and potential collaborative projects in view of further international standardisation in radiation oncology education [63].

Moreover, next to providing knowledge and skills on radiotherapy and oncology-related topics, ESTRO has broadened its portfolio to include the teaching of competencies in oncology, reflecting the seven competencies described in the CanMEDS framework [58,64]. As such, education on quality, on communication and more recently on leadership has been added to the educational offer [65].

#### Strategic outlook

ESTRO is committed to continue addressing the educational needs of the radiation oncology community, as defined in the ESTRO core curricula and beyond, according to the needs of the professional community. The actual clinical and medical physics curricula will shortly be updated, whilst collaboration with the European Skills/Competences, qualifications and Occupations (ESCO) will be expanded to commonly agree upon the qualifications, skills and competences of the RTTs. Of interest, recognising the central and quickly evolving role of the RTTs in the correct application and delivery of radiation therapy, benchmarks for an advanced educational programme for RTTs have recently been defined [66,67]. Once endorsed within the professional and scientific organisations, steps will be made to promote these curricula outside the community at European level, thus advocating for a strong and equitable educational background for all radiation oncology professionals. This will also enhance the opportunities for international mobility and educational exchanges.

Considering the rapid evolution in the field of radiation oncology and related topics, ESTRO aims to provide a broad and evolving courses' portfolio, timely incorporating newly available evidence, thus addressing the immediate and future needs of continuous professional development of the radiation oncology community. In addition, the recently initiated leadership programme will be further expanded and an alumni network will be created to strengthen the ESTRO Society with scientific and advocacy leaders.

The ESTRO Faculty will be further reinforced by its annual educational retreats and through output from the pedagogical group, which will help diversifying the educational methods and optimising training assessments. In addition, in order to be able to respond to the educational needs of increasingly large numbers of professionals, in Europe and beyond, even more emphasis will be put on blended and distance learning to complement the live educational offer. To further upscale its educational impact, ESTRO will also work towards more train-the-trainer initiatives, which have already been proven very successful in specific countries and for the training of RTTs. Furthermore, the ESTRO online library for lifelong education will be further improved, expanded and promoted.

It is well recognised that the magnitude of the training demands in the radiation oncology community cannot be addressed by just one Society, but requires further extension of the collaboration amongst various educational groups and organisations, striving for an optimal blend between those with a radiotherapy-specific focus and those who provide oncology education from a multidisciplinary perspective, often

focused on specific cancer sites. CPD should be fostered locally, amongst countries and worldwide. Creating a better understanding of the already available educational offers, provided by various organisations and societies, including their specific goals and outreach, is needed if one aims for the most efficient deployment of actual and future educational initiatives. ESTRO will further support activities that have already been initiated to that end.

### **Strengthening the profession: strategic focus areas of ESTRO's vision for 2030**

#### 2.1. Driving education

- I. Continuous development of school and courses
- II. Providing a blended and continuous learning strategy
- III. Further developing and promoting its online learning framework
- IV. Collaborating with other educational groups to increase offering
- V. Strengthening the ESTRO faculty

#### 2.2. Leading the international recognition of radiation oncology

- I. Defining and promoting its Core Curricula
- II. Defining and advocating for all Radiation Oncology professionals
- III. Working with European and international accreditation and standardisation bodies
- IV. Promoting international exchanges and mobility
- V. Further developing its advocacy efforts at EU level

## **Strengthening the Society (Fig. 5)**

### **Radiation Oncology – Together**

ESTRO represents and serves the different professional groups contributing to the delivery of radiotherapy services. The Society is therefore organised to represent, through its membership, the interests of the radiation oncologists, medical physics, RTT and radiobiology communities. The focus, during the first 30 years of existence of ESTRO was primarily oriented to creating a platform for those communities, making radiation oncology an interdisciplinary domain, based on the principle that the competencies of all these groups are necessary to provide optimal treatments. ESTRO also provides a platform for the communities representing specific modalities of delivery of radiation therapy, consolidated such as brachytherapy, or ascending, such as particle therapy. Whilst the focus of the Society remains mainly European, during the recent years ESTRO has observed an increasing global demand for its activities and services. The Society has therefore become a platform for international interaction and collaboration.

Whilst each professional community has its own specific developmental needs, the value of collaboration between these groups has been promoted by ESTRO since its constitution, defining radiation oncology as an interdisciplinary practice [57]. The challenge is therefore to understand the current and future needs of the professional groups, differentiating the offer to best meet the diversity of requirements of each professional community, in the diversity of the geographical and economical scenarios in which radiotherapy services are provided.

The modalities for collaboration, as well as the skills and competencies of

each professional community need standardization through the definition and maintenance of core curricula, endorsed by national and regional societies, to increase consistency and efficacy of radiotherapy services at European and global level [63]. In addition, with the identification of skills, comes the need for formalised global training and the need for an increasing recognition of professional careers in radiation oncology, as well as the definition of the leadership skills to drive the discipline in the future [68].

### **Actions taken since Estoril 2012**

The primary group of ESTRO beneficiaries are its members, who engage with the Society to obtain professional benefits and services, and to support it in its efforts to remain the primary resource for scientific content, dissemination, publishing and education in radiation oncology in Europe. ESTRO has progressively adapted its membership structure, introducing a new membership model in 2013, that welcomes both individual (full and joint) and collective affiliations (institutional membership, RTT alliance). The Society has consequently multiplied its offering of activities and services. As a result, ESTRO has observed a constant growth in its membership and in the retention of its members.

ESTRO has also continuously assessed its governance model, building on an organisational audit conducted in 2010, with the intent to allow all members wishing to do so, to be involved in the management of the Society, through its committees, councils and the board.

Over the last years, substantial focus was also put on the financial sustainability of the Society. With constantly increasing challenges for the Society and for the

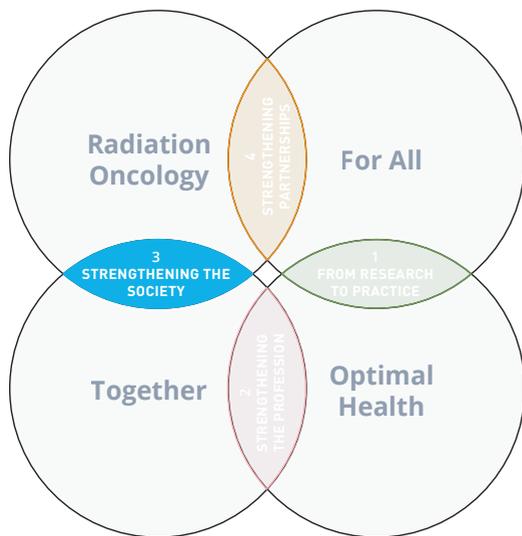


Fig. 5. ESTRO strategic vision, strengthening the Society.

### 3.1 Strengthening the outreach to RO professionals

- Developing all membership categories
- Continuously reassessing its members needs
- Actively promoting its benefits and services
- Setting up a comprehensive communication strategy
- Systematically assessing the impact of its activities

### 3.2 Building a time-proof organisational structure

- Professionalising further its governance & structure
- Active head hunting to secure future leadership
- Setting-up a leadership mentoring program

As in the previous years, ESTRO will continue taking all reasonable measures to further develop as the pre-eminent educational and scientific society in radiotherapy and oncology. Its current and future leadership will take the responsibility for the further development of the clinical discipline of radiation and clinical oncology and will be qualified and competent for the task [1]. The Society will therefore proactively identify, mentor and empower the radiation oncology professionals, who will drive and lead the Society in its future.

With the growth of the Society finally also comes the need for increased leadership competencies, organisational efficiency and highly qualified management. With the intent to align the structure of the Society to its current and future challenges, ESTRO will further optimise its governance and business models, to achieve enhanced clarity in the decision making roles and in the delivery of the priorities set by the strategic vision.

### Strengthening the Society: strategic focus areas of ESTRO's vision for 2030

#### 3.1. Strengthening its outreach to radiation oncology professionals

- I. Developing all membership categories
- II. Continuously reassessing its members' needs
- III. Actively promoting its benefits and services
- IV. Setting up a comprehensive communication strategy
- V. Systematically assessing the impact of its activities

#### 3.2. Building a time-proof organisational structure

- I. Professionalising further its governance and structure

- II. Active headhunting to secure future leadership
- III. Setting up a leadership mentoring programme

### Strengthening partnerships (Fig. 6)

#### Radiation Oncology – for All

Radiation therapy is a fundamental component of high-quality cancer care, with extensive evidence that about half of all cancer patients, wherever they live, should benefit from radiation therapy at least once during the course of their disease [5,6].

To achieve this strategic objective, ESTRO has the role to promote radiation oncology in the frame of multidisciplinary cancer care, as a fundamental condition for achieving optimal patient's outcome. In its former vision statement, ESTRO expressed the ambition that national and international policy-makers, healthcare management, industrial and corporate partners, and other professional oncology societies will recognise radiation oncology as a major contributor to cancer cure; and ESTRO as a strategic driving force in the multidisciplinary fight against cancer [1]. As a result, ESTRO has progressively evolved from a Society with predominant focus on scientific and educational goals, towards a Society that embraces the need to interact more directly at a professional level and forge partnerships with a broad range of stakeholders, to position radiation oncology appropriately within the multidisciplinary setting and in cancer policies.

#### Actions since Estoril 2012

Since its last vision statement, the Society has increased its focus on

radiation oncology community as a whole, the increase in scope and demand for services and benefits also evolved, requesting for additional resources and means. Since 2012, ESTRO's turnover augmented by more than 150%, sustaining a proportional growth in activities.

Finally, in line with its endeavour of broad collaboration, in recent years the Society also signed over 25 Memoranda of Understanding (MoUs) with societies in Europe and beyond, aiming at defining joint membership schemes besides increasing scientific and educational collaboration, and therefore consolidating the role of ESTRO as a platform for international collaboration.

### Strategic outlook

The Society will continue and further strengthen its efforts to provide the relevant platforms for the professional communities to develop and interact, with the ultimate goal of optimising patients' health. With the intent to continue providing value to its constituency, ESTRO will give a specific focus on assessing the evolution of the demand and the needs of the different communities, looking at constantly innovating and diversifying its offering, in view of meeting the needs following the concept of communities of practice [69]. The Society will also systematically evaluate the impact of its activities, in Europe and beyond, to align its efforts to its vision.

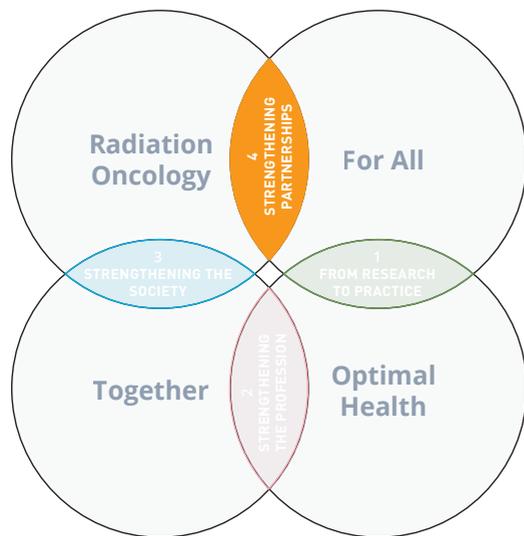


Fig. 6. ESTRO strategic vision, strengthening partnerships.

**4.1 Growing its international presence & building up exchanges**

- Collaborating with RO related National societies
- Strengthening worldwide collaborations with other Radiation and Oncology societies
- Further enhancing collaboration with patients and their advocates
- Creating partnerships with international agencies, organisations and associations
- Creating partnerships and new collaborative approaches with corporate members
- Providing advice to the European bodies on RO policy

advocacy, aiming at higher awareness of stakeholders and decision-makers in cancer care. To do so, ESTRO has gradually explored and expanded the multi-stakeholders' approach. In addition to the members which are the core stakeholders to support and strengthen ESTRO as a Society, attention has been given to collaborate closer with the radiation oncology NS, to approach and inform the decision-makers – at national level via the NS, as well as at European level –, and to interact more closely with the patients, other oncology societies and the industry.

As a direct link between ESTRO, the overarching European radiation oncology

Society, and the various national European governmental bodies, the NS have been at the core of ESTRO's stakeholders engagement. Health being a national issue, the NS are indeed the acting arm at national level for dialoguing with the national decision makers. In order to reinforce and streamline the actions towards and the collaboration with the NS, a dedicated NS committee was established within the ESTRO governance in 2013. Moreover, to provide better insight into the European policy level, the European public affairs (PA) are monitored and communicated in a monthly PA newsletter.

A closer dialogue with patients has been initiated through collaboration with some of the major patients' associations

in Europe: whilst ESTRO has been contributing to events and publications of these associations, some of their members are considering how to best include the input of patients in the ESTRO strategy. Moreover, since 2014, a 'Patient Day' has been organised at the annual meetings, led by the NS and bringing together the local patients' community, carers and radiation oncology professionals. Focused on education and on raising awareness about radiation therapy, these events allow to share information and to discuss patients' concerns, whilst ensuring proximity between the radiation oncology team and the patients.

The complexity of oncology care and the need for a multidisciplinary approach calls for a proactive effort of the Society, ensuring that the various stakeholders – policy makers in particular – have the necessary information to understand and appreciate the role of radiation therapy in cancer care [70,71]. To correctly position radiation oncology in the multidisciplinary oncologic landscape has therefore been one of the major objectives of ESTRO in its interaction at European policy level. Using scientific evidence, clinical, but also with regard to the accessibility and economical aspects of radiation oncology as generated in the HERO papers, key advocacy messages have been defined [5–7,47–50], bundled together in an Advocacy Toolkit and presented in a flyer to be used by the radiation oncology community when engaging with external stakeholders at national and European level [72]. By doing so, ESTRO has been progressively building a community of ambassadors and forged strategic partnerships within Europe, whilst in some instances the messages have translated into increased support for radiation oncology at the national level, such as in Spain or Austria. Other significant policy achievements

were the first Policy Forum at the European parliament and the Marie Curie awareness campaign. The Policy Forum – targeting especially decision makers, other oncology societies and NS – highlighted the importance of multidisciplinary care, along with education, cancer planning, the need for investment and partnership with all stakeholders, as well as greater public awareness [73]. Similarly, thanks to the Marie Curie campaign, the advocacy messages of the Society have been disseminated in national media, aiming at informing the public opinion on the benefits of using radiation therapy to cure cancer, and address national concerns regarding the barriers that prevent radiation therapy being used to its optimal level, so more lives could be saved [74].

The Marie Curie campaign has been developed in the frame of the ESTRO Cancer Foundation (ECF), a partnership to promote radiation oncology, whose projects are co-created with the ECF partners. This first formal activity of the ECF is an excellent example of how collaboration between ESTRO and partners from the industry can be leveraged to raise attention to the merits of radiation therapy in the multidisciplinary approach to cancer. Strong collaborations with all stakeholders are indeed necessary to work towards our common goal of optimal cancer care, hence the formalisation of many of these collaborations in MoUs, letters of intent and practical arrangements with other (radiation) oncology societies and various organisations and associations, both in Europe and world-wide.

**Outlook**

ESTRO will continue to engage in partnerships and collaborations with all relevant stakeholders. First of all, it

will further enhance its collaboration with the NS, being the major channel to raise awareness for radiation oncology at national level, e.g. through collaboration in the Marie Curie campaign and further ECF awareness and policy projects, by the ESTRO legacy at events or by collaboration in ESTRO projects such as HERO.

Whilst scientific collaboration is more international by nature, ESTRO is conscious of its primary European focus in advocating for the discipline. It will therefore continue and strengthen its efforts to develop partnerships with key-stakeholders promoting the benefits of radiation oncology to decision-makers at both national and European levels. In addition, ESTRO will continue to develop tools (such as the HERO costing model) to generate evidence relevant at national level and to build capacity to empower the national radiation oncology communities to better position the discipline in multidisciplinary care models. Such empowerment should happen with clear messages and concrete tools, sustaining the awareness movement both at European and at national levels. An example of such endeavour is the launch of the White Paper "Radiotherapy: seizing the opportunity in cancer care" in the frame of the ECF [75]. This paper does not only highlight the role of radiation oncology as a clinical corner stone of optimal cancer care, but also points attention to the need for education and recognition of radiation oncology professionals at EU-level and for more support for research in the field of radiation oncology.

The collaboration within the NS committee also allows ESTRO to reach out to national patient organisations, whilst outreach to international cancer-specific patient groups may be fostered through collaboration with organ-specific societies.

Collaboration with other oncology societies is de facto instrumental, whereas former MoUs have primarily focused on other radiation-specific and general oncology societies, more emphasis will in the future be put on partnerships with organ-specific societies in terms of MoUs on site-specific education, science dissemination and advocacy. With an increasing global perspective to achieving an optimal provision of radiation therapy and ensuring timely access to optimal care, ESTRO will also further foster collaboration with international partner societies and stakeholders beyond Europe, following the increasing demand for its services.

It is ESTRO's ultimate goal to further strengthen its profile as a leading international radiation oncology Society and to foster the role of radiation oncology in multidisciplinary cancer care. As a necessary step towards this end, dialogues with decision-makers and regulators should make them increasingly aware of the value and benefits of radiation therapy, as to guarantee the rightful place of radiation oncology in the national, European and international organisation of cancer care. Continued screening of EU-level policy affairs, international horizon scanning and ESTRO's active collaboration into European policy projects, such as EU joint actions [76] will further support this goal. Last but not least, ESTRO will further join hands with the industry to translate scientific evidence about the merits of radiation therapy – clinically as well as economically – into messages valuable to decision-makers and understandable by the general public.

## Strengthening partnerships: strategic focus areas of ESTRO's vision for 2030

### 4.1. Growing its international presence and building up exchanges

- I. Collaborating with Radiation Oncology related National Societies
- II. Strengthening worldwide collaborations with other Radiation and Oncology Societies
- III. Further enhancing collaboration with patients and their advocates
- IV. Creating partnerships with international agencies, organisations and associations
- V. Creating partnerships and new collaborative approaches with corporate members
- VI. Providing advice to the European bodies on Radiation Oncology policy

## Conclusion

The scientific, technological and socio-economic environment in which radiation oncology is functioning has changed considerably since the definition of ESTRO's vision statement for 2020, adopted not even 10 years ago. Technological innovations and scientific results have translated into increasing opportunities to tailor radiation therapy towards the needs of every individual patient, yet many countries are facing constraints in daily implementation, availability and access. Over the years, the steady expansion of the Society, anchored in the context of a continuously changing multidisciplinary oncology landscape, has asked for the formulation of new objectives, activities and structures for science dissemination, education and policy. With 2020 approaching, the European Society for Radiotherapy and Oncology is therefore urged to reconsider its position in multidisciplinary oncology,

to revise its strategic aims and redefine its vision for the future.

ESTRO's new vision statement for 2030 '*Radiation Oncology. Optimal Health for All, Together.*' emphasises the ambition of the Society to further reinforce radiation oncology as core partner in multidisciplinary cancer care and to guarantee accessible and high-value radiation therapy for all cancer patients who need it. To do so, it will actively focus on translating science and evidence into practice. It will continue to support all radiation oncology professionals in their needs of continuous professional development. The needs of a growing Society in terms of governance and leadership will actively be addressed. The Society will also increasingly embrace its role in policy, through a broadening network of partnerships with all relevant stakeholders.

Without calling for a disruptive change with the past, but conscious of the challenges ahead, the ESTRO vision statement for 2030 is ambitious, expansive, inclusive and open to the future.

*Radiation Oncology.*  
**Optimal Health**  
Together. **FOR ALL,**

## Conflict of interest

The authors declare not to have any conflict of interest related to this paper.

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