



# ANNUAL REPORT 2020

## Objective

The Nederlandse Commissie voor Stralingsdosimetrie (NCS, Netherlands Commission on Radiation Dosimetry) was established on the 3<sup>rd</sup> of September 1982 with the main objective of promoting the appropriate use of radiation dosimetry, both for radiation research and for practical applications. The NCS is chaired by a board of scientists, installed in consultation with the supporting societies:

- Nederlandse Vereniging voor Radiotherapie en Oncologie (Dutch Society for Radiotherapy and Oncology);
- Nederlandse Vereniging voor Nucleaire Geneeskunde (Dutch Society of Nuclear Medicine);
- Nederlandse Vereniging voor Klinische Fysica (Society for Medical Physics of the Netherlands);
- Nederlandse Vereniging voor Radiobiologie (Netherlands Radiobiological Society);
- Nederlandse Vereniging voor Stralingshygiëne (Netherlands Society for Radiological Protection);
- Nederlandse Vereniging voor Medische Beeldvorming en Radiotherapie (Dutch Society for Medical Imaging and Radiotherapy);
- Nederlandse Vereniging van Klinisch Fysisch Medewerkers (Dutch Society for Medical Physics Engineers);
- Nederlandse Vereniging voor Radiologie (Radiological Society of the Netherlands)
- Belgische Vereniging voor Ziekenhuisfysici/Société Belge des Physiciens des Hôpitaux (Belgian Hospital Physicists Association);

expanded with a representative from the National Metrology Institute VSL.

To achieve its aims, the NCS carries out the following tasks: participation in dosimetry standardisation, promotion of mutual comparisons of dosimetry, drafting of dosimetry protocols and the collection and evaluation of physical data related to dosimetry. Furthermore, the commission shall establish or maintain links with national and international organisations concerned with ionising radiation and promulgate information on new developments in the field of radiation dosimetry.

Website: <https://www.radiationdosimetry.org>



## **Board**

On December 31, 2020, the members of the board of the NCS were:

Dr. J.B. van de Kamer	chairman	(NVRO)
T.W.M. Grimbergen	vice chairman	(NVS)
Dr. J.A. de Pooter	secretary	(VSL)
Dr. A. Rijnders		(SBPH/BVZF)
J.M.J. Hermans	treasurer	(NVKFM)
Dr. J. R. de Jong		(NVNG)
N. de Graaf		(NVvR)
Dr. F. Dekkers		(NVRB)
Dr. Ir. F.W. Wittkämper		(NVKF)
M.K. Zeeman/E van de Zande		(NVMBR)

The board of the NCS met three times in 2020 on 23 January, 19 May and 23 September. The main subjects raised at the board meetings were:

- Monitoring the progress of activities by the subcommittees and the platform;
- Initiate the publication of NCS-reports;
- Development of new activities;

In 2020 no NCS reports have been published. One new subcommittee has been installed:

- Subcommittee on Quality control and dosimetry for MRI-guided-radiotherapy.

Based on the work of the former subcommittee Radiation Protection and Dosimetry of the Eye Lens, a presentation at the EURADOS winter school was given and an article in the NVMBR magazine was published

- R.P. Kollaard, M.P. Brinkman, M.C.M. Lagerweij, Verlaging van de dosislimiet voor de ooglenzen: wat betekent dit voor de werkvloer?, NVMBR Magazine Maart 2020, jaargang 3, nummer 1.
- R.P. Kollaard, How to establish an adequate system for eye lens dose monitoring: a proposal for typical workplaces, EURADOS Winterschool Florence, January 2020.



## Subcommittees

### 1. *Subcommittee on Code of Practice and recommendations for Total Body Irradiation and Total Skin Irradiation*

The goals of this NCS subcommittee is to investigate the status of treatment protocols and quality control for total body and total skin irradiation in the Netherlands and Belgium. Most centres use AAPM reports 17 and 23 as a starting point but deviate from this after a few decades. Recent technological evolution allows new treatment and treatment planning techniques, creating a need for a guidance report for individual centres in order to compare their current way of practice to the state-of-the-art practice.

The workgroup had one physical meeting during this year and six virtual meetings. During those meetings we were able to finalize the report (second quarter of the year) and this report was submitted to the reviewers. Their remarks enabled the finalization of the report in the last months of the year and final publication is expected in February when the NCS members have evaluated the submitted report.

#### Members:

Geert Pittomviels (UZ Gent, Gent, chairman)  
Wim Jansen (Radiotherapiegroep, Arnhem, secretary)  
Laurien Daniels (AUMC, Amsterdam)  
Damien Dumont (Cliniques Universitaire Saint Luc, Brussel)  
Phil Koken (AUMC, Amsterdam)  
Lars Murrer (Maastrro, Maastricht)  
Peter Van der Hulst (UMCG, Groningen)  
Ruud Van Leeuwen (Radboud UMC, Nijmegen)  
Jeroen Van de Kamer (NKI-AvL, Amsterdam, representative of the NCS Board)

### 2. *Subcommittee on Dosimetry for Scanned Pencil Beam Proton Therapy*

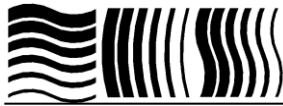
*No report available.*

### 3. *Subcommittee on Quality Assurance of Treatment Planning Systems*

Treatment planning has considerably evolved over the last decades. We see, for example, a growing use of automated tools to generate treatment plans and adaptive planning strategies. On the other hand, ancient techniques such as virtual simulation and the use of wedges have become obsolete. This leads to new questions regarding the quality assurance and commissioning of treatment planning systems.

In 2020 the subcommittee has met 8 times, of which 7 times in online meetings. All subgroups finished the initial writing of the chapters. In online meetings, the group discussed the content of all chapters, after which the subgroups improved the chapters with the feedback. We discussed the improved chapters and performed an initial editorial step. The aim is to let the editing team finish in the first half of 2021 and to present the preliminary report to other stakeholders for feedback.

Two members decided to leave the subcommittee, Wilko Verbakel, being already a participant in the background, replaced one of them. As the content of the report is set, the committee started to raise awareness for the report and to present at meetings in 2021.



Members of the subcommittee are:

Rik Westendorp (Radiotherapiegroep, Deventer, chairman)  
Danny Schuring (Catharina Ziekenhuis, Eindhoven, secretary)  
Erik van der Bijl (NKI-AVL, Amsterdam)  
Younes Jourani (Jules Bordet, Brussel)  
Antoine Delor (UC-Louvain, Brussel)  
Roel Kierkels (Radiotherapiegroep, Deventer)  
Chin Loon Ong (Haga Ziekenhuis, Den Haag)  
Wilko Verbakel (AUMC/AMC, Amsterdam)  
Tara van de Water (RIF, Leeuwarden)  
Wouter Crijns (UZ, Leuven)  
Joan Penninkhof (Erasmus MC, Rotterdam)  
Gijsbert Bol (UMCU, Utrecht)  
Jeroen van de Kamer (NKI-AVL, Amsterdam, representative from the NCS board)

#### 4. Subcommittee on MRI QA for radiotherapy

Magnetic Resonance Imaging (MRI) is increasingly used in the process of radiation therapy (RT). A concern of integrating MRI into RT-planning is the spatial accuracy of these images, as they are affected by magnetic field inhomogeneities, magnetic susceptibility artefacts, chemical shifts and non-linearities in the gradient fields. Since these effects are system and patient dependent, dedicated procedures for quality assurance (QA) and quality control (QC) of MRI for RT are mandatory. The subcommittee has been established in 2017. The goal of this subcommittee is to develop a code of practice for MRI QA/QC which is dedicated to RT purposes.

In 2020, the subcommittee had five online meetings. A draft of the code of practice has been formulated and there has been progress in writing of the chapters. The members of the subcommittee have performed the proposed set of RT-specific QA on the equipment of their institute and discussed their findings.

Marloes Frantzen-Steneker has postponed participation in the subcommittee, and Arjan Verduijn has left the subcommittee. Mariëlle Philippens has joined the subcommittee. No dissemination has taken place yet.

Members of the subcommittee are:

Zdenko van Kesteren (AUMC/AMC, Amsterdam, chairman)  
Ellen Brunenberg (Radboud UMC, Nijmegen)  
Joost Kuijjer (VUmc, Amsterdam)  
Steven Petit (Erasmus MC, Rotterdam)  
Mariska de Smet (BVI, Tilburg)  
Rob Tijssen (Catharina Ziekenhuis, Eindhoven)  
Mariëlle Philippens (UMCU, Utrecht)  
Pieternel van der Tol (Radboud UMC, Nijmegen)  
Jeroen van der Kamer (NKI-AVL, Amsterdam, representative of the NCS board)

#### 5. Subcommittee on Code of Practice and Recommendations for Stereotactic Body Radiotherapy

The purpose of the committee is to provide the basic requirements and guidelines for providing safe and high-quality SBRT treatments according to state-of-the-art international standards. The aim is to make a practical report that can readily be used with clear requirements and recommendations.



In 2020 the committee has organized 6 meetings, 5 of which were via videoconference. In general, it was well received to work with videoconference. The main chapters were in a final draft at the end of 2020. The first concept of the report will be completed early 2021.

Members of the subcommittee are:

- Johan Cuijpers (AUMC/VUmc, Amsterdam, chairman)
- Anke van Mourik (NKI-AvL, Amsterdam)
- Marloes Steneker (NK-AvL, Amsterdam)
- Anna Pethoukova (HMC, Den Haag)
- Richard Canters (MAASTRO, Maastricht)
- Marcus Wendling (Radboud UMC, Nijmegen)
- Siete Koch (MST, Enschede)
- Rens Vingerhoets (NWZ, Alkmaar)
- Chrysi Papalazarou (Erasmus MC, Rotterdam)
- Petra Kroon (UMCU, Utrecht)
- Jeroen van de Kamer (NKI-AvL, representative of the NCS board)

#### 6. Subcommittee on Quality control for linear accelerators

The goal of the subcommittee is to produce a report to supersede the NCS reports 8 and 9 on linac QA. Rather than simply providing an updated list of tolerances and tests the subcommittee aims to produce a report in which,

- tests and tolerances are put in the context of operation of the entire linac;
- a transition from uniform tolerances to a system of Statistical Process Control is promoted;
- a new framework of beam parameters is provided that is equally applicable to both flattened and non-flattened beams;

In July, the subcommittee has released a pre-publication of the chapter on beam parameters in order to facilitate implementation in commercial and 'in-house developed' analysis software. In November, this chapter has been presented in an oral presentation by subcommittee member Thijs Perik at the annual meeting of the Dutch Association of Medical Physics Engineers.

Due to the Covid-19 crisis there have been no live plenary meetings of the subcommittee in 2020. However, there have been quite a number of smaller, online meetings. The focus of these meetings has been to implement improvements of the chapter on beam parameters and provide stronger corroboration of choices made, thereby responding to feedback on the pre-publication from the field. In 2020 the subcommittee was reinforced with Jeroen van de Kamer.

Members of the subcommittee are:

- Bas Gobets (LUMC/RdG, Leiden/Delft, chairman)
- Thijs Perik (NKI-AVL, Amsterdam, secretary)
- Hendrik Piersma (MST, Enschede, secretary)
- Daan Hoffmans (AUMC, Amsterdam)
- Erik Roijen (MAASTRO, Maastricht)
- Jan van Santvoort (HMC, the Hague)
- Theo van Soest (UMCU, Utrecht)
- Richard Tiggelaar (AUMC, Amsterdam)
- Jochem Wolthaus (UMCU, Utrecht)
- Jeroen van de Kamer (NKI-AVL, Amsterdam)
- Frits Wittkämper (NKI-AVL, Amsterdam, representative NCS board)



## 7. Subcommittee on Intra operative radiotherapy

IORT refers to the delivery of a high dose at the time of surgery to a specific target while healthy structures are displaced or shielded. This treatment technique involves a multidisciplinary approach and a close interaction between surgery and radiotherapy. In clinical practice different dedicated devices are used: mobile electron linear accelerators, a low-energy X-ray machines and brachytherapy. This leads to a diverse combination of equipment with specific dosimetric characteristics, quality assurance protocols, sterilization procedures, dose calculation, safety and risk assessment, specific care paths and a special work environment. Therefore, the NCS initiated a subcommittee that focuses on the current practice on IORT.

In this report the current procedures in use are discussed, and suggestions and guidelines will be proposed with the aim to standardize the clinical implementation across the different techniques and centres.

Five meetings of the committee have been held in 2020; the first one face-to-face in Antwerp and 4 subsequent remotely because of covid restrictions of course. The first TLD audit for reference beams was discussed as well as the plan to organize a second round TLD audit for clinical beams (with much smaller diameters).

Some question lists have been answered by all participants, these lists are the basis of our chapters that we are processing to write. The subcommittee performed a second TLD audit on all IORT treatment devices.

Stephane Simon (Bordet, Brussel) took over the Chair in February 2020. Marleen Piessens (OLV ziekenhuis Aalst) decided to quit the subcommittee because her IORT clinical activity is negligible now and is based on low energy X-rays, whereas the main subjects of discussions were IOERT. Verdi Van Reusen (Iridium kankernetwerk, Antwerpen) asked to join and is now actively working for the subcommittee.

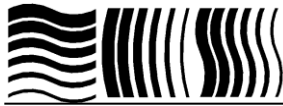
One abstract has been finalized and will be submitted to the next ISIORT meeting that hopefully will happen this year (last year ISIORT meeting was cancelled). A second abstract, based on the second TLD audit is presently in draft mode (some results are still expected).

### Members of the subcommittee

Anna Petoukhova (Medisch Centrum Haaglanden, Den Haag)  
Inger-Karine Kolkman-Deurloo (Erasmus MC, Rotterdam)  
Nicolas Hertsens (AZ Groeninge, Kortrijk)  
Stephane Simon (Bordet, Brussel), Chair  
Verdi Van Reusen (Iridium kankernetwerk, Antwerpen)  
Dianne Weug (Catharina ziekenhuis, Eindhoven), advisor  
Jeltsje Cnossen (Catharina ziekenhuis, Eindhoven), advisor  
Jeroen van de Kamer (NKI-AvL, Amsterdam), representative of the NCS board  
Wim Dries (Catharina ziekenhuis, Eindhoven), Secretary  
Piet Stevens (Iridium kankernetwerk, Antwerpen)

## 8. Subcommittee on Clinical application of deformable image registration and auto-segmentation in radiotherapy

Sophisticated auto-segmentation and deformable image registration (DIR) toolboxes have become commercially available for clinical use in radiation oncology. A variety of clinical applications make use of both techniques. Still, their validity is not guaranteed in all circumstances and therefore one needs to be cautious when applying them in clinical use. These



applications include auto-segmentation, contour propagation, re-irradiation and dose accumulation; also, DIR typically plays a role in off-line and on-line plan adaptation.

This NCS subcommittee aims to give an overview of literature, possibilities and pitfalls of different techniques and provide guidance to commissioning and acceptance for various clinical applications.

The subcommittee officially started in May 2019 and is meeting both at regular intervals on a physical basis and holds telephone conferences to monitor progress. At the onset of 2020, the committee work continued until the COVID pandemic started when it was put on hold. The work was restarted at the end of 2020 with the formation of small working groups handling the various chapters of the report. The relevant literature has been identified and the outline of the report is approaching its final structure. For 2021, the various chapters will be finished in draft in the first half of 2021 with the aim to deliver a final draft at the end of 2021.

Members of the subcommittee are:

- Wouter van Elmpt (MAASTRO, Maastricht, chairman)
- Erik van Dieren (MST, Enschede, secretary)
- Sasha Ivashchenko (LUMC, Leiden)
- Alexis Kotte (UMCU, Utrecht)
- Charlotte Brouwer (UMCG, Groningen)
- Andras Zolnay (Erasmus MC, Rotterdam)
- Peter Remeijer (NKI-AVL, Amsterdam)
- Miguel Palacios (AUMC/VUMC, Amsterdam)
- Jeroen van de Kamer (NKI-AVL, Amsterdam, representative from the NCS board)

#### *9. Subcommittee on Radiation Protection and Dosimetry of the Extremities*

The skin and in particular the extremities may be exposed to significant amounts of radiation, especially in workplaces where open radioactive sources are being produced or applied and in interventional radiology applications. Although several international recommendations have covered this topic (such as the ORAMED study, ISO 15382 and Annex E of ICRP-106), up to now there is little harmonization in the dosimetry and protection of the extremities in practice.

The aim of this NCS subcommittee is to develop guidelines with respect to the dosimetry and protection of the extremities, with special attention to applications of open radioactive sources and exposures in interventional radiology. The guidelines will be based on current literature as well as the experience of the participating members of this subcommittee.

There were 4 meetings in 2020. Next to drafting the first texts, during these meetings the following items were discussed:

- Detailing scope (subjects as contamination, sealed sources) and structure of report
- Discussion on most adequate dose conversion coefficients
- Collecting of calculational tools
- Discussion on interpretation of legal requirements
- Discussion on use of a flowchart as a function of calculated extremity dose

The following changes took place in the composition of the subcommittee. Frank de Lange (medical physicist Radboud UMC, Nijmegen) was replaced by Pieter van der Tol (medical physicist Radboud UMC, Nijmegen). Alexander Maass (cardiologist UMCG, Groningen) and Nanko de Graaf (radiologist Erasmus MC, Rotterdam) joined the committee.



Members of the subcommittee are:

- Robert Kollaard (NRG, Arnhem, chairman)
- Ischa de Waard (RIVM, Bilthoven, secretary)
- Theo Adriaensen (Amphia Hospital, Breda)
- Tom Grimbergen (Mirion Dosimetry Services, Arnhem, representative from the NCS board)
- Alexander Maass (UMCG, Groningen)
- Nanko de Graaf (radiologist Erasmus MC, Rotterdam)
- Pieter van der Tol (Radboud UMC, Nijmegen)
- Emmie Meijne (UMCG, Groningen)
- Mark van Mierlo (GE Healthcare, Eindhoven)
- Filip Vanhavere (SCK.CEN, Mol, Belgium)
- Alie Vegter (Treant Hospital, Stadskanaal)
- Bart Vermolen (Gelderse Vallei Hospital, Ede)
- Robert Westland (AUMC, Amsterdam)

#### *10. Subcommittee on Implementation of paediatric diagnostic reference levels in the Netherlands*

Diagnostic reference levels (DRLs) have been recommended by the International Commission on Radiological Protection (ICRP) as an advisory measure to improve optimization of patient protection, by identifying high patient dose levels which might not be justified on the basis of image quality requirements. The implementation of DRLs in the Netherlands has been performed in a three-phase project carried out from 2006 - 2012. In the 2012 guidelines DRLs have been defined for only 4 paediatric examinations (PiDRLs), x-thorax, x-pelvis, CT-head and micturating cystourethrogram.

Given the current lack of PiDRLs in the Netherlands, the NCS and NVKF strongly recommended to start a project to establish national DRLs for paediatric examinations. In the current project Dutch hospitals will be asked to upload their dose information on paediatric diagnostic and interventional procedures to a central database. Radiography, fluoroscopy and Computed Tomography procedures will be included. Not only dedicated hospitals for paediatric medical care will be involved, but also more general academic and peripheral hospitals will be involved. The aim is to use the data from at least 8 hospitals with a total database of >1000 examinations on children. In addition, a proposal will be made for hospitals how to use the established national PiDRLs, even in cases where small numbers of children are being examined.

In 2020 there were several meetings of the committee with focus on defining the approach of data acquisition and choice of the protocols to be covered. For CT and bucky data sets were received that can be used for the establishment of PiDRLs.

Topics to be covered:

- Definition of categories of patients (age, length, weight)
- Setup and filling of a project database for dose data
- Analysis of the project database and comparison to the European PiDRL
- Establishing national PiDRLs
- Development of methods how to use the established national PiDRLs
- Presentation of the report and communication to health care professionals





Members of the subcommittee are:

Lida Dam - Vervloet (Isala, Zwolle, Chair)  
Geert Streekstra (AUMC/AMC, Amsterdam, Secretary)  
Martijn Boomsma (Isala, Zwolle)  
Marcel Greuter (UMCG, Groningen)  
Laurine Keulemans (VWS, Den Haag)  
Bart Mangnus (AUMC/AMC, Amsterdam)  
Carola van Pul (Maxima Medical Center, Eindhoven)  
Jenny Schaar (UMCG, Groningen)  
Alie Vegter (Treant Hospital, Stadskanaal)  
Nanko de Graaf (Erasmus MC, Rotterdam, representative NCS board)

#### *11. Subcommittee on Quality control and dosimetry for MRI-guided-radiotherapy*

The aim of this NCS subcommittee is to create a practical guideline for MRI-guided-radiotherapy (MRgRT) for efficient and effective quality control and dosimetry that is in line with the existing guidelines and protocols. The report will focus on the linear accelerator part of the MRgRT system and will describe the required adaptations from conventional RT. Special attention will be given to the magnetic field effects on measurement equipment, QA tests and dosimetry as well as MRI safety.

The workgroup has had three meetings this year. In these meetings we defined the scope and general content of the report. Unfortunately, progression stagnated during the COVID-19 crisis, but we hope to increase the frequency of our meetings next year.

Members:

Jochem Wolthaus (UMCU, Utrecht, chairman)  
Guy Warmerdam (Radboud UMC, Nijmegen, secretary)  
Bram van Asselen (UMCU Utrecht)  
Daan Hoffmans (AUMC, Amsterdam)  
Tomas Janssen (NKI-AvL, Amsterdam)  
Jochem Kaas (RadboudUMC, Nijmegen)  
Jeroen van de Kamer (NKI-AvL, Amsterdam)  
Martijn Kusters (Radboud UMC, Nijmegen)  
Miguel Palacios (AUMC, Amsterdam)  
Jacco de Pooter (VSL, Delft, representative NCS board)  
Leon de Prez (VSL, Delft)  
Kathrin Surmann (Radiotherapiegroep, Deventer)  
Rob Tijssen (Catharina ziekenhuis, Eindhoven)



## Advisory platform

The Netherlands Commission on Radiation Dosimetry covers a wide range of expertise through the participating scientific societies. In 1999 NCS platforms were established. Currently only the advisory platform on Radiation Protection in Hospitals is active. The task of the platform is to give advice on specific research projects initiated by the Government. In case of future needs the NCS can be approached for consultation through its secretary under the condition of modest coverage of NCS experts in terms of attendance fee and travel costs for meetings

### 1. *Advisory platform on Radiation Protection in Hospitals*

In 2010 the NCS platforms was reinitiated with the aim to provide practical advice regarding legal aspects concerning the use of radiation in the clinical environment. For this, the platform is represented by the participating societies, expanded with the Dutch Society on Pharmacy in Hospitals. To achieve this goal, the platform has frequent contact with the Dutch Government.

The Platform advises on radiation safety laws and regulations. It establishes practical guidelines for existing and new laws and regulations. The Platform maintains close contacts with the Dutch ministries of VWS (Ministry of Health, Welfare and Sport) and SZW (Ministry of Social Affairs and Employment) and the ANVS (Authority for Nuclear Safety and Radiation Protection). The Platform plays a key role in effective and efficient implementation of European directives into national law.

The Platform had three online meetings in 2020 and several consultations by mail. Activities in 2020 include:

- Effects of COVID-19 on radiation protection and nuclear energy law licences in Dutch hospitals;
- Nuclear waste;
- Clearance level for artificial isotopes;
- Cremation after <sup>125</sup>I therapy;
- Guideline for organizing radiation protection in hospitals (committee of VWS and ANVS);

Neanke Bouwman left the Platform. The position of the NVZA representative is vacant.

Members of the NCS platform are:

Peter Brands (NVKF, chair)  
Kitty Hoornstra (NVS, secretary)  
Herman Pieterman (NVvR)  
Niels Veltman (NVNG)  
Alie Vegter (NVMBR)  
Jan Habraken (NVNG)  
Bradley Pieters (NVRO)  
Marja Harbers (NVKFM)  
<vacant> (NVZA)  
Jeroen van de Kamer (NVRO, representative from the NCS board)



**NCS FINANCIAL OVERVIEW 2020**

	<b>Income (€)</b>	<b>Costs (€)</b>
Savings-account on January 1, 2020	38158.33	
Current-account on January 1, 2020	33942.59	
Contribution Netherlands Society for Radiology (NVvR)	600.00	
Contribution Netherlands Society for Medical Physics (NVKF)	400.00	
Contribution Netherlands Society for Radiotherapy and Oncology (NVRO)	800.00	
Contribution Netherlands Society for Nuclear Medicine (NVNG)	200.00	
Contribution Netherlands Society for Radiological Protection (NVS)	400.00	
Contribution Netherlands Radiobiological Society (NVRB)	100.00	
Contribution Dutch society of Medical Physics Engineers (NVKFM)	100.00	
Contribution Netherlands Society for Medical Imaging (NVMBR)	300.00	
Contribution Belgian Hospital Physicists Association (BHPA)	200.00	
Interest savings-account	2.26	
Banking costs current account		150.74
Costs web site		544.50
Costs meetings NCS board		1340.73
Costs NCS subcommittees		5861.73
Savings-account on December 31, 2020		38160.59
Current-account on December 31, 2020		29144.89
Total	75203.18	75203.18



**NCS BUDGET 2021**

	<b><i>Income (€)</i></b>	<b><i>Costs (€)</i></b>
Contributions scientific societies	3100.00	
Interest savings-account	0.00	
Banking costs		200.00
Costs of board and subcommittees meetings		2500.00
Website maintenance etc		600.00
<b>Total</b>	<b>3100.00</b>	<b>3300.00</b>