

The Breathing Control for Radiation Therapy Consortium (BRIC): Origin, Progress, and Path Forward

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Short history of BRIC (1)

- Started as small informal online Teams meeting
~2022/2023
 - No BRIC in mind at all...!



- Initiated by TaiChung Lam (Royal Preston Hospital)
 - Share ideas regarding non-invasive mechanical ventilation.



Short history of BRIC (2)

- After symposium Amsterdam 2024:
 - need to stay in touch.



- Topics *with management of patient breathing e.g.*
 - CPAP
 - Breath hold
 - Supplemental oxygen
 - Non-invasive mechanical

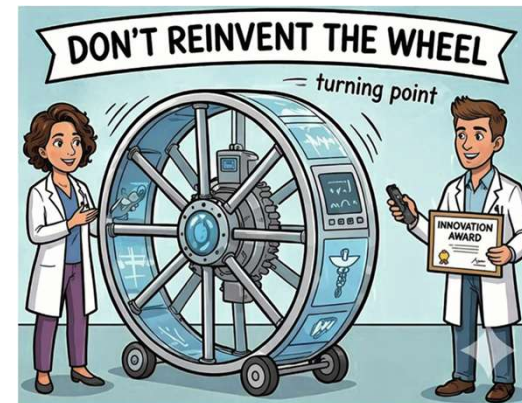


- Meetings ‘formalized’ with agenda, growing audience, internet-list for registering participants.



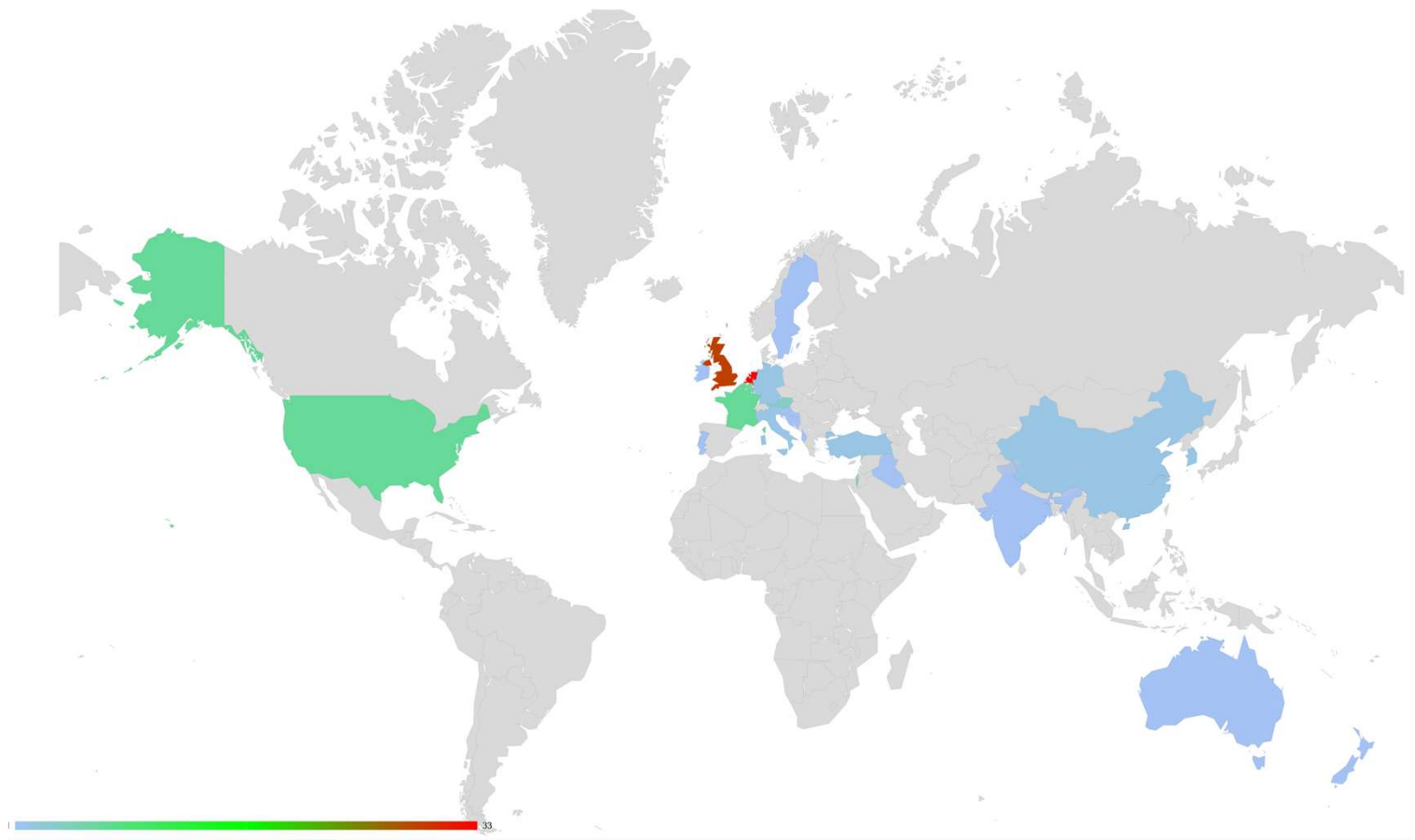
What is BRIC doing?

- Everything related to **managing breathing (*in the patient*) to improve radiotherapy and/or imaging:**
 - Exchange ideas, share **information**
 - Several **sub-commissions/spin-off** initiatives
 - Enhance **visibility and application** of this subspeciality
 - Stimulate (joint) **fund raising**
- Provide platform for knowledge exchange
- **Online meetings ~ 4x a year**



BRIC: from all over the world

April 2026, N=113



Time zones: record meetings



All professions are represented

Profession (N=113, status April 6, 2026)

Anesthetist

1.8%

RTT

17.9%

Industry

2.7%

Physiologist

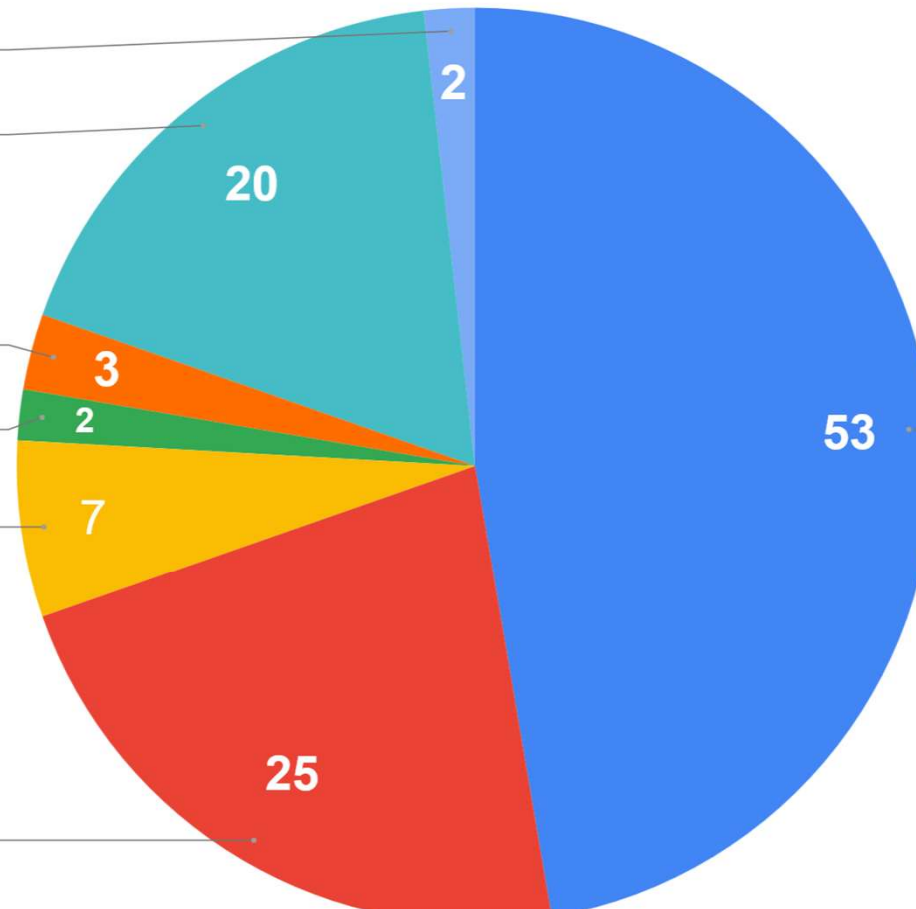
1.8%

Researcher

6.3%

RO

22.3%



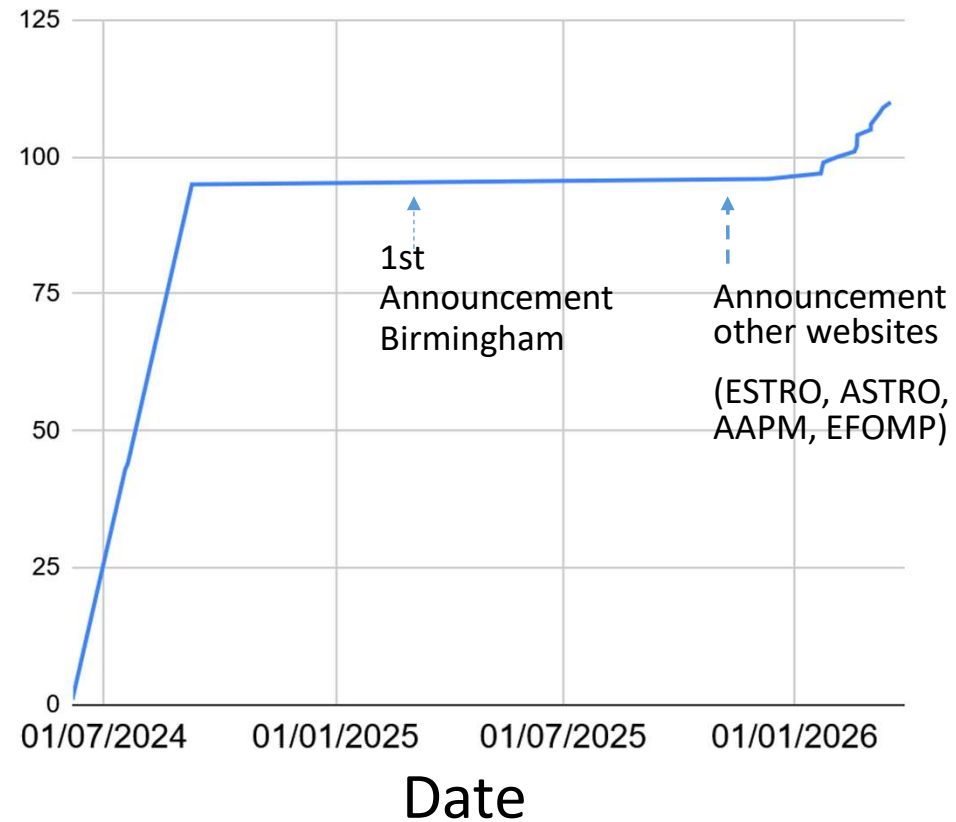
Physicist

47.3%

Growth of BRIC

Growth related to symposiums and publicity

Number BRIC members



BRIC initiatives

- Informal meetings
- Get exposure and recognition, e.g. ESTRO



ESTRO 2025, Vienna

- Working groups:
 - **Terminology** – Genevieve van Ooteghem
 - **Risks** of supplemental O₂ – Michael Parkes/Thom Clutton-Brock/Sofia Parveen
 - **Clinical implementation** issues – Sofia Parveen
 - **To do:** *create workgroup “Synergy Breathing management with tracking/gating and other motion management techniques”*



BRIC spin-off project:

“NextBreathRT: next generation breathing management during radiotherapy, using non-invasive mechanical ventilation”

EU COST-action; submitted October 21, 2025

Expected result: May 21, 2026



NextBreathRT: overall aim

Improve **clinical application of non-invasive mechanical ventilators in radiotherapy** to make it a standard of care.

- Collaborate: define standards and include industry.
- Budget:
 - *Only* (and only) for network building
 - Training, meetings, exchange/travel, dissemination ...
- Spin-off projects are encouraged



After start of NextBreathRT

May 21

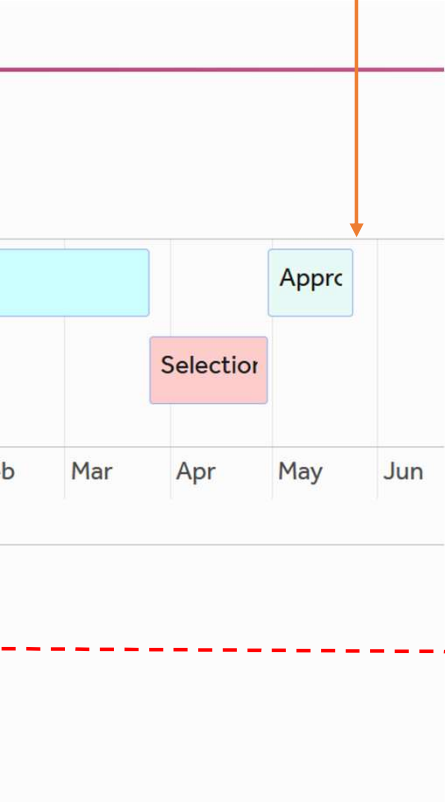
End
2030

More participants invited

Growth > 200 participants

Max. ~ € 600k (declaration)

Other/spin-off projects



64 proposers: 23 institutions + 6 industrial partners

Albania

University of Medicine Tirana
University Hospital Center Mother Teresa

Austria

Carl Reiner GmbH

Karl Landsteiner University/MedAustron GmbH

Belgium

UC Louvain, Brussels
Ghent University Hospital

Cyprus

Linac-pet Scan Opco Limited

Czech Republic

Fakultni Nemocnice Ostrava

France

Centre Léon Bérard

Italy

Azienda Ospedaliera Universitaria Integrata Verona

Netherlands

Amsterdam UMC
Maastricht Radiation Oncology Maastricht Clinic
Löwenstein Medical Netherlands

Poland

Narodowy Instytut Onkologii Gliwicach
Gdanski Uniwersytet Medyczny
Maria Skłodowska-Curie Warsaw

Portugal

Champalimaud Foundation

Romania

TopMed Medical Centre

Slovenia

Onkoloski Institut Ljubljana

Switzerland

Varian Medical Systems Imaging Laboratory GmbH

Türkiye

Acibadem Mehmet Ali Aydınlar University
Clinical Hospital, Acibadem Atasehir Hospital
Istanbul Oncology Hospital

United Kingdom

University Hospital Birmingham
The Newcastle Upon Tyne Hospitals
Leo Cancer Care
Elekta Ltd.
Vision RT

South Korea

Yonsei University



★ Industry

Decision: May 21, 2026, 13:00



Positive

Negative

- Start NextBreathRT
- **Grow NextBreathRT via BRIC**
- Additional project opportunities & funding

- Consider resubmission
- Improve network via BRIC
- Consider other project opportunities & funding

BRIC: stay up-to-date

- **Central website:** www.breathmotioninrt.com
- Contains links to:
 - BRIC membership
 - LinkedIn: www.linkedin.com/groups/13116868
 - 200+ members
 - Anything interesting to tell? Post it!
- BRIC is growing - impact is further increasing.

