

CURRICULUM VITAE

Personal details and date of CV

SURNAME, First Names: TUOMENVIRTA, Heikki Ilmari

Researcher identifier: <https://orcid.org/0009-0001-6349-4605>

Date of CV: 30 December 2023

Degrees

“Environmental Economics to Experts Working in Environmental Research Institutes” organized by University of Helsinki, Department of Economics and Management, 2008-2010 (30 credits)

PhD (meteorology) at the University of Helsinki, Department of Physical Sciences, Division of Atmospheric Sciences, Finland. 19.3.2004. <https://www.helsinki.fi/en>

Licentiate (meteorology) at University of Helsinki, Department of Meteorology in 2000

MSc (meteorology) at University of Helsinki, Department of Meteorology in 1989

Current employment

Head of research group “Applications of Weather and Climate Information”, Finnish Meteorological Institute, Helsinki, Finland, since 2022.

Stage of academic research career: Senior Research Scientist

Previous work experience

- Head of several climate research groups at the Finnish Meteorological Institute, 2008-2019
- Senior Research Scientist, Climate Research, Finnish Meteorological Institute, 2005-2007
- Senior Scientist, Meteorological Research, Finnish Meteorological Institute, 1992-2004
- Junior Professional Officer, World Climate Data and Monitoring Programme, and World Climate Research Programme, WMO, Geneva, Switzerland, 1990-1991
- Research assistant, University of Helsinki, Department of Meteorology, 1986-1989

Research funding and grants

Piloting Innovative Insurance Solutions for Adaptation – PIISA, 2023-2026, Research and Innovation Action (RIA), Horizon Europe (HE): 575 000 € (funding granted to FMI, the whole project 2.9 M€); (role of H. Tuomenvirta) WP3 Leader; Project Coordinator: Prof. Hilppa Gregow, FMI, Finland

Destination Earth Programme Climate Adaptation Digital Twin (Climate DT), 2022-2024, EU Destination Earth: 594 000 € (13.8 M€); researcher, Project coordinator: Dr. Pekka Manninen, CSC, Finland

Maximising the Synergy of European Research Governance and Innovation for Climate Action – MAGICA, 2022-2026, Coordination and Support Action (CSA), HE: 252 500 € (4.8 M€); Principal Investigator of FMI; Project Coordinator: Prof. Giulia Galluccio, CMCC, Italy

Mitigation and adaptation of carbon sequestration by co-creation – HIILIPOLKU, 2022-2024, RIA, Catch the Carbon programme by Ministry of Agriculture and Forestry, Finland: 219 000 € (whole project 0.9 M€); Principal Investigator of FMI; Project Coordinator: Senior Research Scientist Liisa Ukonmaanaho

Open-air laboratories for nature-based solutions to manage environmental risks - OPERANDUM, 2018-2022, RIA, EU H2020: 638 750 € (whole project 12 M€); Principal Investigator of FMI; Project Coordinator: Prof. Silvana di Sabatino, University of Bologna, Italy

Assessment of Weather and Climate Risks - SIETO, 2017-2018, Government's analysis, assessment and research activities, Finland; 100 000 €; Coordinator of SIETO project

Extreme weather impacts on European networks of transport - EWENT, 2009-2012, RIA, EU FP7: 216 000 € (1.9 M€); WP2 Leader; Project Coordinator: Prof. Pekka Leviäkangas, University of Oulu, Finland

Climate change adaptation in Norway, Sweden and Finland – Do research, policy and practise meet?, 2008-2009, Academy of Finland (CIRCLE ERANET): 100 000 € (total budget of project); Coordinator of the project

Adaptation of Finnish agri-food sector to climate Change – ILMASOPU, 2006-2010, RIA, The Finland's Research Programme on Adaptation to Climate Change: 258 000 € (total budget of project); researcher; Project Coordinator: Prof. Pirjo-Peltonen Sainio, Natural Research Institute Finland

In addition, leadership position or researcher position in more than 15 research projects. For example, since 2018 FMI's Principal Investigator in:

- Loss Data Enhancement for DRR & CCA Management (EU DG ECHO)
- Ilmastonmuutos ja Suomen turvallisuus – Climate Change and Finland's Security (Government's Analysis and Research Activities)
- Adaptation of reindeer management to climate change (European Regional Development Fund)
- Tehokkaat ja vaikuttavat luontopohjaiset ratkaisut ilmastonmuutoksen sopeutumisen välineinä – Efficient and Effective Nature-based Solutions for Climate Change Adaptation (Government's Analysis and Research Activities)
- Strengthening International Cooperation on climate change Research - SINCERE (EU H2020)

Research output

Co-development of the Climate Change Community Portal "Ilmasto-opas.fi/Climateguide.fi", a web portal on climate change that was launched in 2011. Portal supports society in general, citizens and decision makers (especially at local level) in mitigating climate change and in adapting to it.

Research supervision (University of Helsinki, Division of Atmospheric Sciences)

Primary supervision of MSc's thesis: Tiina Kilpeläinen 2006, Mikko Laapas 2008, and Ida-Reetta Virranjoki 2016.

Teaching merits

Responsible scientist of FMI's contribution to the project funded by the Finnish National Board of Education on developing science education and learning materials on climate change education in upper secondary education (2012-2013). Leader of the project to develop science education through Responsible Research and Innovation funded by the Ministry of Education and Culture (2014-15).

Awards and honours

State Award for Public Information in 2009 for the book "*Muutamme ilmasto*" by Heikki Nevanlinna (ed.), M Alestalo, R Heino, K Jylhä, V-M Kerminen, T Laurila, A Nordlund, K Ruosteenoja, H Tuomenvirta, A Venäläinen and T Vihma published by Karttakeskus, Porvoo, 237 pp.

Other key academic merits

Pre-examiner of PhD thesis by Jari Holopainen at the University of Helsinki, Department of Geology. Member of Thesis committee of Maija Nikkanen (2019-2023), University of Helsinki, Faculty of Biological and Environmental Sciences

Scientific and societal impact

Secretary for the IPCC Focal Point in Finland and the national IPCC working group nominated by the Ministry of the Environment (2008-2014 and 2015-2023). Tasks include facilitation of the work of group consisting of experts from the Ministries, Universities and Research Institutes, communication with the IPCC Secretariat throughout assessment cycle, organization of reviews and reviewing IPCC report drafts and participation to the IPCC plenaries as delegate of Finland.

Scientific expert member of the steering group of the national climate change adaptation nominated by the Ministry of Agriculture and Forestry (2004-2005, 2013-2014), that has produced policy documents on the national strategy on climate change adaptation. He has several occasions given scientific policy advice related to climate change impacts, risks and adaptation to the Committee on Environment of the Finnish Parliament.

Dr. Tuomenvirta has contributed as an invited expert in development of ministry, regional administration and enterprise climate change strategies and action plans. He has given about hundred presentations as an invited expert on climate change, impacts and adaption to representatives of national and local administration, private companies, NGOs, universities, research institutes, schools, etc. He has frequently appeared in the Finnish media (TV, radio, newspapers) presenting expert views on climate change.

He is a Member of the Geophysical Society of Finland. He has authored or co-authored about 50 articles with a referee practice and about 100 other publications. His Google Scholar statistics are: citations 8604; h-index 45; i10-index 76. He has peer-reviewed articles for several scientific journals, e.g. Journal of Climate, Journal of Geophysical Research, Tellus, International Journal of Climatology, Climate Research, Nature-Based Solutions. He was one of the editors of the Baltex Assessment on Climate Change (BACC) and a member of the steering committee of the BACC II report. Member of the management committee of COST Actions 734 (Impacts of Climate Change and Variability on European Agriculture, 2006-2010) and ESEM0601 (Advances in Homogenisation Methods of Climate Series: An Integrated Approach, 2007-2011).

Other

He was nominated as the Knight of the Order of the Lion of Finland in 2015.