



UiO  **Centre for Technology, Innovation and Culture**
University of Oslo

ANNUAL REPORT 2018



TIK Centre for Technology – annual report 2018

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Letter from the Director

The TIK Centre for Technology, Innovation and Culture will have its 20th anniversary celebration in 2019. Waiting for the centre's jubilee, the year 2018 has been a time for planning the forthcoming event, and thereby reflecting upon our centre's mission, achievements and challenges ahead. 2018, though, has also been a highly productive and successful year for TIK. The centre has throughout the year continued its phase of remarkable positive development.

On the research side, the most significant achievement was the funding of a new Research Council's centre called INTRANSIT: "Centre for the study of innovation policy for industrial transformation, sustainability and digitalization". The new centre is funded by the FORINNPOL-program of the Research Council, and it aims "to develop new theoretical and empirical knowledge on the role of industries and industrial change in sustainability transitions", as well as "policy relevant knowledge and to collaborate with users and stakeholders interested in industrial transformation and sustainability transitions in Norway and abroad". The new centre will receive funding for a 8-year period (like the OSIRIS centre on the impacts of research that was established at TIK a couple of years earlier).

The new INTRANSIT centre adds to an already large pool of recently funded projects. These substantially increase the Centre's external funding, thus financing several new senior and junior researchers that were recruited during the year. Some of the newly hired colleagues are young researchers such as postdoc and PhD students. TIK's Doctoral program track is on a positive path. The number of PhD students enrolled at TIK during the year is at its peak (34 candidates), and the level of annual activities (PhD defences, seminars and courses) has been high throughout the year.

TIK's Master level education has also a high level of activities and several positive developments. The Centre's Master programs have in the last few years experienced a steady growth in the number of applicants they attract (480 total applicants in the last recruitment round), as well as an increase in the quality of these. TIK has repeatedly expressed interest to enrol a greater number of Master-level applicants, and improve the pedagogical offer we provide them with (e.g. creating new courses). The Centre has also expressed its interest to develop a new interdisciplinary Bachelor program, which would represent a natural extension and important complement of our Master-level education.

As often discussed with our staff, Board and the Faculty leadership, a major structural challenge for the Centre relates to the limited available capacity and human resources at the senior researcher level. A crucial challenge ahead for TIK is therefore to develop a strategy for a long-term consolidation and capacity expansion for this group of scientific staff. To achieve this long-term goal, external funding acquisition alone is not sufficient. This will have to be complemented by an expansion and further development of the Centre's educational activities.



Fulvio Castellacci, Director

TIK – Facts and figures

The TIK Centre at the University of Oslo was established by the senate (now the University Board) as an independent unit organised under the Faculty of Social Sciences in 1999. This unit was a merge of the former Centre for Technology and Human Values (TMV), the interdisciplinary “European master program in Society, Science and Technology” (ESST) and the *Prosjektforum* (project forum, which is no longer a part of the Centre).

The TIK Centre carries out high quality research, education and research communication in the cross-disciplinary fields of innovation and science and technology studies.

Overview of TIK:

Scientific publications per year (2008-2018)	26
Master programmes	2
Courses (Masters and Ph. D. courses)	12
PhD-students (per 31.12.2018)	34
Scientific man years (2018 - numbers from DBH, including Centre Director)	36,70
Administrative man years (2018 - numbers from DBH)	4,55
Total number of man years (2018 - numbers from DBH)	41,25
Budget (2019)	44,5 Million NOK
Percent of the budget that is financed by external grants (2019)	72 %
Research projects with external financing (2018)	18

Staff – new faces at TIK

Fulvio Castellacci started his second assignment as TIKs Director in 2018. He also accepted a permanent position as Associate Professor at TIK, a position he will start in at the end of his current leadership role.

Jan Fagerberg retired from his position as professor in innovation studies from August 2018. A special seminar and book-launch was held in his honour on September 20th.

Gry Cecilie Høiland joined TIK as an externally funded researcher for two years from September 2018.

TIK welcomed five new PhD candidates in 2018; all employed at TIK: Alina Kontareva, Silje Morsman, Sissel S. Aasheim, Tercio Pinho Filho og Eili Skrivervik. In addition a number of external PhD-candidates were accepted for the PhD-programme. The complete list of candidates in the programme is listed under “PhD – Doctoral degree” below.

TIK also welcomed the following new postdocs: Maria Tsouri, Silje Maria Tellmann and Trust Saidi.

In TIK’s administration we had a high turnover during the year. Lene Angelskår substituted Stine Bruland as research adviser during Bruland’s parental leave. During the same period Sibel Thorsen and Mina Aasterud substituted Angelskår as student adviser. Mina Aasterud also substituted Jørgen Bollingsmo for some months during the fall semester. Hege Rudi Standal joined the administration in December for a temporary assignment preparing for TIK’s 20th anniversary in 2019.

Research

Research at the TIK Centre is organised in two research groups: the Science, Technology and Culture research group and the Innovation Studies research group.

TIK's researchers in the Science, Technology and Culture research group are mainly situated within the multidisciplinary field of Science & Technology Studies (STS) and focuses on the ways in which science and technology are shaped, become institutionalized and become involved in politics. Science and technology are viewed as cultural and material practices that can be fruitfully studied from both historical and contemporary perspectives.

The innovation group focuses on understanding the complex and dynamic relationships between the technological, economic and social factors that contribute to innovation in various firms, sectors, regions and countries. The point of departure for this work is that technological change and learning are important driving forces for societal change.

Both groups are active in international networks and initiatives, including the Peder Saether Centre in Berkeley, EU-SPRI and Nordic STS.

In addition to the two groups, climate and the energy transition is a cross-cutting theme at TIK, encompassing researchers from both groups.

Several researchers at TIK have applied for funding from a magnitude of programs and funding agencies, and predominantly the Research Council of Norway. TIK's role is either as project coordinator or as partner in projects hosted by other institutions. Following national and university strategic decisions, TIK has also applied and participated in EU-funded research through the Horizon 2020 Research Program. In 2018, TIK was involved in three projects funded by the EU.

Two new projects were added to the list of TIK projects in 2018. GlobOil, a project funded by the RCN and led by Helge Ryggvik. BioRoBoost a project funded by H2020 and led at TIK by Ana Delgado.

In addition, RCN granted support for one project and one 8-year centre starting in 2019. PATHWAYS is a project funded by the ENERGIX programme and led by Allan Dahl Andersen. INTRANSIT is an 8-year centre funded by FORINNPOL (RCN) and led by Taran Mari Thune. In addition, TIK is continuing its cooperation with Telenor through the project "Measurement and Management of Innovation".

Research projects at TIK in 2018

PROJECT	PROJECT LEADER	STARTING DATE	FUNDING
ReDig - Responsibility as an Integral Component of Digital Research Practices in Bio- and Nanotechnology	Ana Delgado Aleman	01-mai-2017	RCN – BIOTEK2021
ReNewGrowth – Conditions for growth in renewable energy industries	Jens Hanson	01-aug-2017	RCN - ENERGIX
InfraData - Infrastructuring Internet of Things for public governance	Susanne Bauer	01-apr-2017	RCN - IKTPLUSS via UIO IFI
ResPublica - Responsibility, practices and the public goods across Digital Life	Ana Delgado Aleman	01-okt-2017	RCN – BIOTEK2021 via NTNU
Greenfleet – Greening the Fleet – Sustainability Transitions in the Maritime Shipping Sector	Jens Hanson	01-mar-2017	RCN – ENERGIX via SINTEF
SuSolTech - Research Centre for Sustainable Solar Cell Technology	Olav Wicken	01-jun-2017	RCN – FME via Institutt for Energiteknikk/ UiO:Energi
OSIRIS	Magnus Gulbrandsen	01-mai-2016	RCN - FORINNPOL
TEMPEST	Fulvio Castellacci	01-des-2016	RCN - via TØI
HappyICT - Responsible Innovation and Happiness: A New Approach to the Effects of ICTs	Fulvio Castellacci	01-des-2015	RCN - SAMANSVAR
Measurement and Management of Innovation (Telenor)	Fulvio Castellacci	01-nov-2018	Telenor
ERC StG Little Tools Enacting the Good Economy: Biocapitalization and the little tools of valuation	Kristin Asdal	01-aug-2015	EU Horizon 2020 - European Research Council Starting Grant
InGrid - Integration of Power Transmission Grids - Prospects and Challenges at National and European Levels in advancing the energy transition	Allan Dahl Andersen	01-aug-2015	RCN - ENERGIX
SusValueWaste - Sustainable path creation for innovative value chains for organic waste products	Fulvio Castellacci	01-jun-2015	RCN - BIONÆR - via NIFU

I3U Investigating the Impact of the Innovation Union	Fulvio Castellacci	01-feb-2015	EU Horizon 2020 - via Uni. Maastricht
SIVAC - Supplier Industry and Value Creation	Taran Thune	01-sep-2014	RCN - PETROSAM 2
CenSES - Centre for Sustainable Energy Studies	Olav Wicken	01-feb-2012	RCN - FME - via NTNU
GlobOil	Helge Ryggvik	01-jun-2018	RCN - PETROMAKS2
BioRoBoost			EU H2020

In addition, in 2018 TIK had three PhD candidates through the RCN OFFPHD programme, and two NÆRINGSPhD.

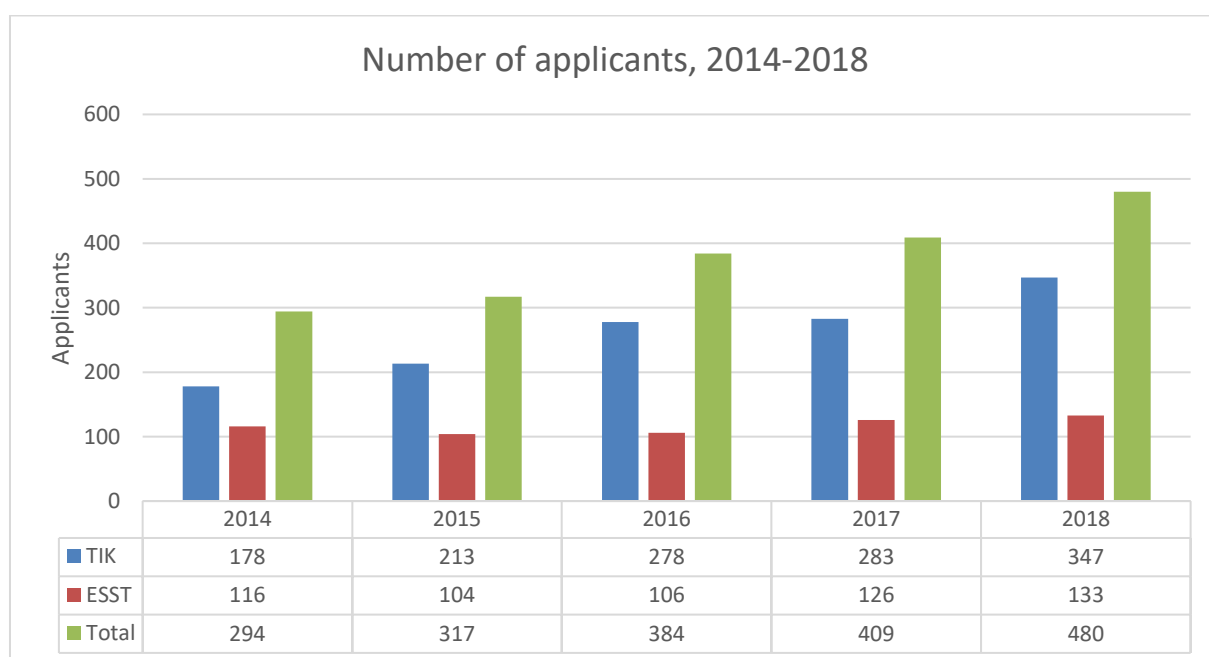
Education

Master programmes

TIK offers two programmes at the master level:

- TIK - Technology, Innovation and Knowledge (2 years)
- ESST - Society, Science and Technology in Europe (1,5 years)

30 master students are admitted every year, 20 to the TIK and 10 to the ESST-program. Both programs have experienced a steady rise in applicants during the last five years.



High quality of applicants

Students can apply to a maximum of three UiO programmes any given year, and they must make a priority list. In 2015, around 100 of the applicants had TIK/ESST as their number one priority. In 2017 this number had increased to 141, and in 2018, the TIK and ESST masters had 171 first priority applicants. The number for the TIK programme is particularly good, with more than 5 first priority applicants for each available place.

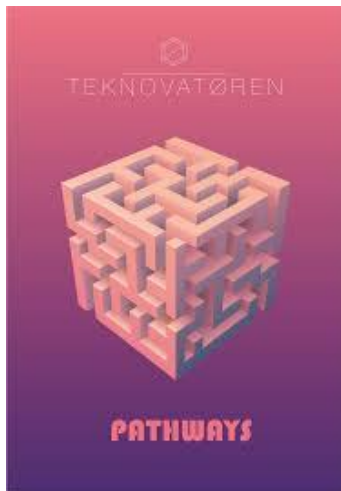
The grade point average (GPA) of applicants has gradually risen since 2013, and in 2018, the applicants needed a GPA of no less than B in order to be admitted.

Both of these developments are positive and expected to increase the quality of students that will enrol in TIK's Master programmes in the coming years.

Student satisfaction

Studiebarometeret.no is a web portal made by NOKUT, which measures students' satisfaction with their study programme.

TIK students are generally happy with their programme. Students' reviews are most favourable on the indexes for inspiration and expectations. These indexes deal with how interesting and engaging the programme is, as well as how much effort is expected from the students themselves. The ESST programme received similar reviews, but slightly less favourable.



Student magazine: Teknovatøren

Teknovatøren is the TIK and ESST students' semi-scientific student magazine. It is partly financed by the TIK Centre. Teknovatøren celebrated its 10th issue in 2016.

Editions in 2018:

- #15: Pathways
- #16: Digital Citizen

New in 2018

- Oral examinations were introduced as part of the final evaluation of the master's theses in TIK4090 and TIK4093
- Written examination guidelines were introduced as a requirement on all courses
- Guidelines for and structure of the TIK4040 seminar groups were tightened and improved
- Degrees completed: 20 TIK, 10 ESST.
- In 2018 additional supervision groups for the students were introduced in the 3rd and 4th semester, in an attempt to improve students' completion rates.
- A new student exchange program was established between TIK and Tomsk State University in Russia. It will begin in 2019, and will be funded by DIKU.

PhD – doctoral degree

TIK's doctoral track is one of the seven tracks of the doctoral programme that is offered by the Faculty of Social Sciences at UiO. TIK's track aims to provide both research training and a broad base of advanced knowledge in theoretical and methodological approaches within science, technology and innovation studies.

Professor Susanne Bauer has been coordinator of TIK's PhD programme track during 2018.

Disputations

Four candidates successfully defended their thesis for the degree of PhD in 2018:

Candidate	Date	Thesis title	Supervisors	Committee
Christine Mee Lie	26.04.2018	<i>Pursuing green growth and innovation: The role of policy. Empirical evidence from South Korea.</i>	Prof. Jan Fagerberg (TIK), Prof. Suh Joonghae, Korea Development Institute (KDI)	Dr. Tilman Altenburg, Deutsche Institut Für Entwicklungspolitik, Prof. Reinhilde Veugelers, Faculty of Economics and Business, KU Leuven, Belgia, Prof. Olav Wicken (TIK).
Hilde Nykamp	29.05.2018	<i>Green innovation in the Norwegian construction sector: policies, projects and industrial dynamics.</i>	Prof. Magnus Gulbrandsen (TIK), Prof. Jonas Söderlund (BI)	Prof. Tim Brady, CENTRIM, Brighton University, Prof. Anna Bergek (Chalmers), Erling Holden (Høgskolen på Vestlandet/TIK)
Jacoba Sraml Gonzalez	16.10. 2018	<i>Innovation in situations of crisis: oil and gas suppliers as innovators during the 2014–2017 industry downturn</i>	Prof. Magnus Gulbrandsen (TIK)	Prof. Mary Tripas, Carroll School of Management, Boston College, Prof. Thomas Hoholm (BI), Birthe Soppe (IFI, UiO)
Hanne Kristine Hallingby	09.11.2018	Understanding Platform Emergence and Openness in the Mobile Telecommunications Industry Using Platform Ecosystem and Technological Innovation Systems Perspectives	Prof. Magnus Gulbrandsen (TIK), Patrick Waldemar, Telenor Research	Prof. Robin Mansell (London School of Economics and Political Science), Prof. Björn Sandén, Chalmers, Prof. Olav Wicken (TIK)

Candidates

TIK welcomed 9 new candidates during 2018, and had the following candidates enlisted in the program as of December 31st 2018.

In total TIK had 34 candidates enrolled in the TIK PhD program:

Candidate	PhD project	Supervisor(s)	Funding
Bianca Cavicchi	Governance of bioenergy innovation systems in the rural areas of Emilia Romagna and Oppland-Hedmark.	Olav Wicken, John Bryden	NILF
Simen Gangnæs Enger	Factors affecting organizations' ability to participate and achieve EU-funding: Evidence from the Norwegian R&D sector.	Fulvio Castellacci, Magnus Gulbrandsen, and mentor Geir Arnulf	NFR/KD – <i>offentlig PhD</i> .
Morten Fosaas	Innovation Systems and Innovation Policy: Perspectives and Challenges	Jan Fagerberg og Anna Bergek	TIK - basis
Sveinung Grimsby	How does the Norwegian food industry act during innovation processes? A study on new product failure rate and systematic differences between successful and unsuccessful innovation projects in the food industry.	Magnus Gulbrandsen and Cathrine Finne Kure	Nofima AS
Bård Hobæk	Salmon Sustainabilities	Kristin Asdal	TIK – strategic
Ásdis Jónsdóttir	Climate change, ecology and knowledge in Iceland: An anthropological study.	Tian Sørhaug and Gisli Pálsson	TIK - basis
Bård Lappegård Lahn	Climate governance between global knowledge and national politics.	Kristin Asdal	Cicero
Marie Byskov Lindberg	The politics of power transmission	Allan Dah Andersen	TIK – project: InGrid
Sylvia Lysgård	Hva dreier det seg om? Næringsliv, politikk og praksiser i to norske (miljø)saker.	Göran Sundqvist og Kristin Asdal	TIK - basis
Turid Markussen	Antropologi i nord	John Law	Centre for Gender Research
Tuukka Mäkitie	Function-interactions in innovation processes: the technological innovation system of petroleum industry	Taran Thune	TIK - basis
Tommas Måløy	Valuation in genomic databases: a case study on the Aqua Genome Project	Kristin Asdal	TIK - basis

Helena Nynäs	Valuation of major waterfalls in modern Norway	Sissel Myklebust and Mari Hvattum	NVE
Artur Santoalha	Smart Specialization: Where do European regions stand?	Fulvio Castellacci	TIK - strategic
Henrik Schwabe	ICTs and Subjective Well-Being: Perceived fairness, social mobility and capabilities	Fulvio Castellacci	TIK – project: Happy ICT
Erlend Osland Simensen	Mapping the supplier industry	Taran Thune	TIK – project: SIVAC
Guro Ådnegard Skarstad	New Fish in a New Environment: Challenges to a Comprehensive Management of Fish, Environments and Human Beings.	Kristin Asdal	NILF
Kari-Elisabeth Vambeseth Skogen	The impact of research on policy: an empirical study of the use of scientific knowledge in policymaking in Norway	Taran Thune, Magnus Gulbrandsen, and mentor Geir Arnulf	NFR/KD - <i>offentlig PhD</i>
Hege Rudi Standal	Universities as Strategic Actors- University management and the new era of Governance.	Magnus Gulbrandsen og Merle Jacob	TIK - basis
Elisabeth M C Svennevik	Changes towards sustainable mobility: Experiences from car sharing in urban areas.	Olav Wicken, Tom Erik Julsrud (TØI)	TIK – project: TEMPEST (TØI)
Nhat Strøm-Andersen	Towards a sustainable bioeconomy: The role of dynamic interplay between technology, industry and policy - a study of organic waste streams from the Norwegian food industry	Fulvio Castellacci	TIK – project: SusValueWaste
Kasper Rogde Søyland	An Innovative Century? The origins for advanced aluminium prefabrication	Olav Wicken og Finn Ørstavik	HBV
Tina Naomi Talleraas	Unlocking the Black Box of Nuclear Disarmament: A case study of the Norwegian initiative to re-politicize the bomb	Göran Sundqvist	TIK - basis
Irene Øvstebø Tvedten	Science and Corporate Policy —DNV GL as an enabler for a sustainable future"	Kristin Asdal /Susanne Bauer	TIK - basis
Lars Wenaas	Open Access: En endring av forskningspubliseringen med begrenset rekkevidde?	Magnus Gulbrandsen	CERES/NDR - Offentlig PhD

Cyriac George	Transition pathways in context: a socio- technical analysis of hydrogen fuel in the Norwegian transportation sector.	Olav Wicken	TØI, via Næringsph.d.-programmet
Gard Neverlien	Public Procurement and Innovation in Helthcare: An analysis of pharmaceutical procurement in Norway, reviewing current rules, regulations and practices, and developing principles and methodology for next generation frameworks.	Fulvio Castellacci/ to biveiledere NOFAS	Nofas AS, via Næringsph.d.-programmet
Kjersti Aalbu	Aligning shipping with the Paris Agreement: Expert knowledge, the IMO, and a decarbonised shipping industry in the making	Susanne Bauer/ to biveildere DNV-GL	DNV GL AS/NFR
Sissel Småland	The infrastructure of responsibility	Ana Delgado	ResPublica
Silje Morsman	Responsible Research and Innovation (RRI) perspectives in the COMPARE project	Kristin Asdal	COMPARE-project
Tércio Pinho Filho	Actors recomposition in the O&G industry: a case study for adaptation and innovation from subsea suppliers	Helge Ryggvik	GlobOil- Project
Eili Skrivervik	Innovation and technology transfer in field-development projects on Norway, Brazil and U.S. GoM	Taran Thune	GlobOil- Project
Alina Kontareva	Salvaging and Rebuilding in the Wreckage: Building an Innovatiove Ecosystem in Post-Soviet Countries		
Jørgen Aarhaug	How can digitalisation and transport innovations contribute to more efficient and sustainable passerger transport in urban agglomerations?	Olav Wicken og Ove Langeland	TØI/NFR

PhD courses and seminars

TIK9101 Obligatory PhD seminars:

Spring: 24-25.5.2018 at Tøyen Hovedgård

Autumn: 28.11. 2018 at Tøyen Hovedgård

TIK 9022- Economics of Innovation, 16-20 April 2018.

EU-SPRI Summer School in Oslo: The Science System in the 21st Century, 17-21 Sep. 2018

TIKs candidates continue to benefit from TIK being involved in national and international research networks like EU-SPRI, EASST – European Association for the Study of Science and Technology, and the Norwegian Research School on Innovation (NORSI), giving access to a large number of research courses and relevant conferences.

Research communication

Web

During 2018, the following research-based news articles were written for TIK's web page.

- «Bruk an internett kan øke livskvaliteten din»
Written in connection to Fulvio Castellaccis research on ICT and happiness, the article was also published at Forskning.no (At TIK-web, 649 visits, 745 page views. The article is still being read with 44 visits the last 60 days).
- «Teknologiutvikling i oljesektoren-Hvordan beholde Norges posisjon fremover?»
Written in connection to Helge Ryggviks project GLOBOIL. (At TIK-web, 292 visits, 365 page views. The article is still being read with 3 visits the last 60 days).
- “Det grønne skiftet krever at politikserne tar grep”
Written in connection to Christine Mee Lie dissertation. (At TIK-web, 338 visits, 388 page views. The article is still being read with 5 visits the last 60 days).
- “Grønnere byggenæring skyldes ikke ny teknologi”
Written in connection to Hilde Nykamp dissertation. At TIK-web, 185 visits, 217 page views. The article is still being read with 5 visits the last 60 days).
- “Forsterket innovasjonsarbeidet i Telenor”
Written in connection to TIKs cooperation with Telenor and OSIRIS. (At TIK-web, 649 visits, 745 page views. The article is still being read with 44 visits the last 60 days).
- “Studenter ved TIK har startet bedrift ved siden av studiene”
Written in connection to the establishment of Insj UiO (At TIK-web, 436 visits, 464 page views. The article is still being read with 27 visits the last 60 days)¹.

In addition to “Research News”, TIK webpages have three headlines that report on TIK researcher's communication activity; “News”, “Publications”, and “TIK i media” (only in Norwegian).

34 shorter news articles/notices were posted online, 13 publications were announced and 8 TIK in media was reported in 2018. The list does not cover all activity at TIK, and different research groups/projects/people seem to favour different types, or “lines” of communication and dissemination. This means that the numbers reflect a bias towards some researchers that get more publicity reported on the web page than others. There is no reason to believe that the visibility on the web page reflect degree of involvement in communication and dissemination.

Our web pages in English are viewed 63 830 and our web pages in Norwegian are viewed 46 131. This means that TIK produce content on the web that is read in both languages. Our employee's profile pages rank 2nd (in Norwegian), and our section on “Forskning” (in Norwegian) 3rd in terms of most page views.

¹ Date of report 15.05.2019

Blogs

TIK have two Blogs tied to different research projects that post with different frequency, and with different reach. This form of dissemination is becoming more popular and TIK are aware the need to develop a communication plan for new initiatives.

Social media

TIK has been on Twitter since 2012 and on Facebook since 2015, where we have published news, events, publications, available positions, TIK Talks, student information etc.

Our Facebook page mainly targeted potential applicants for the master and PhD programs, and alumni. In 2018 the page increased its number of followers; from 442 at the start of the year up to around 512 by the end of it.

Internal seminars and workshops at TIK in 2018

Date	Speaker	Title
6.12.2018	Bianca Cavicchi	Final seminar: Bioenergy Governance and Sustainability: a System Thinking Approach
3.12.2018	Erlend Osland Simensen	Final seminar: Innovation and networks in resource- based sectors: How sectors differ in organisation of innovation, with evidence from the Norwegian upstream petroleum sector.
29.11.2018	Osiris-team	Seminar om FOU-nettverk og effekter
27.11.2018	Lea Fuenfschilling	Transformative Innovation Policy: Transformation towards a bio-based economy and the development of smart cities
26.11.2018	Elisabeth M. C. Svennevik	Midway seminar: Changes towards a sustainable mobility: Experiences from car sharing in urban areas
9.11.2018	Hanne Kristine Hallingby	Disputas: Understanding Platform Emergence and Openness in the Mobile Telecommunications Industry Using Platform Ecosystem and Technological Innovation Systems Perspectives
7.11.2018	Tuukka Mäkitie	Final seminar: Resource redeployment from established industries to cleantech industries: the case of oil and gas industry and offshore wind in Norway
30.10.2018	Hannah Landecker	The Food of our Food: Medicated Feed and the Industrialization of Metabolism

25.10.2018	Bård Hobæk	Midway seminar: "Fish feed and efficient food"
16.10.2018	Jakoba Sraml Gonzalez	Disputation: Innovation in situations of crisis: oil and gas suppliers as innovators during the 2014-2017 industry downturn
2.10.2018	Benjamin Sovacool	Ordering Theories: Typologies and Conceptual Frameworks for Socio- Technical Change and Energy Transitions
27.9.2018	Allan Dahl Andersen	Trial lecture: Research and innovation policy: Describe your research interests in relation these themes, and new projects that you would like to develop in this area in the future
14.9.2018	Siw Anita Fosstenløkken	Trial lecture: Research and innovation policy: Describe your research interests in relation these themes, and new projects that you would like to develop in this area in the future
13.9.2018	Fulvio Castellacci	Trial lecture: Research and innovation policy: Describe your research interests in relation these themes, and new projects that you would like to develop in this area in the future
13.9.2018	Marcus Bugge	Trial lecture: Research and innovation policy: Describe your research interests in relation these themes, and new projects that you would like to develop in this area in the future
7.9.2018	Nhat Strøm- Andersen	Midway seminar: Exploring the sustainability transition towards the bioeconomy: Empirical studies from the Norwegian food industry
4.6.2018	Jochen Markard	The next decade of transition studies- Emerging themes around energy
31.5.2018	Henrik Scwabe	Midway seminar: Individual well-being and technology use
29.5.2018	Hilde Nykamp	Disputation: Green innovation in the Norwegian construction sector: policies, projects and industrial dynamics
15.5.2018	Marie Byskov Lindberg	Midway seminar: Actors, policies and coalitions in the European energy transition
26.4.2018	Christine Mee Lie	Disputation: Prusution green growth and innovation: The role of policy. Empirical evidence from South Korea

13.4.2018	Staffan Laestadius	Is green growth possible? Om the coming transformation to a post- fossil society
10.4.2018	Tom Erik Julsrud	Digitalisering og mulighetene for omstilling til bærekraftig mobilitet i storbyregioner
19.3.2018	Yan Zhang	Energy Informatics and the evolving energy sector
20.2.2018	David Cameron	Digitalization in the oil and gas industry
1.2.2018	Trine Syvertsen	Media Resistance: Protest, Dislike, Abstention

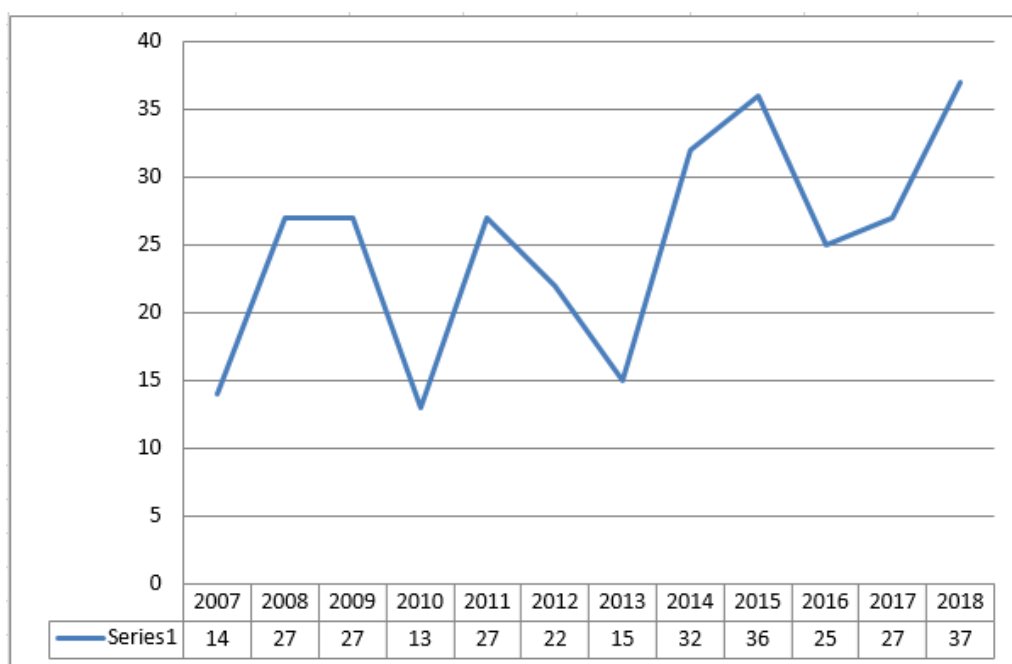
TIK researchers are also active in external seminars as key speakers, part of panel discussions and other the list above does not reflect this.

Publications

2018 has been a very good year for TIK in regard to scientific publications. A total of 37 scientific publications were published and registered in the Cristin database. These were published by both junior and senior researchers in prestigious journals, such as Research Policy and Science, Technology and Human Values.

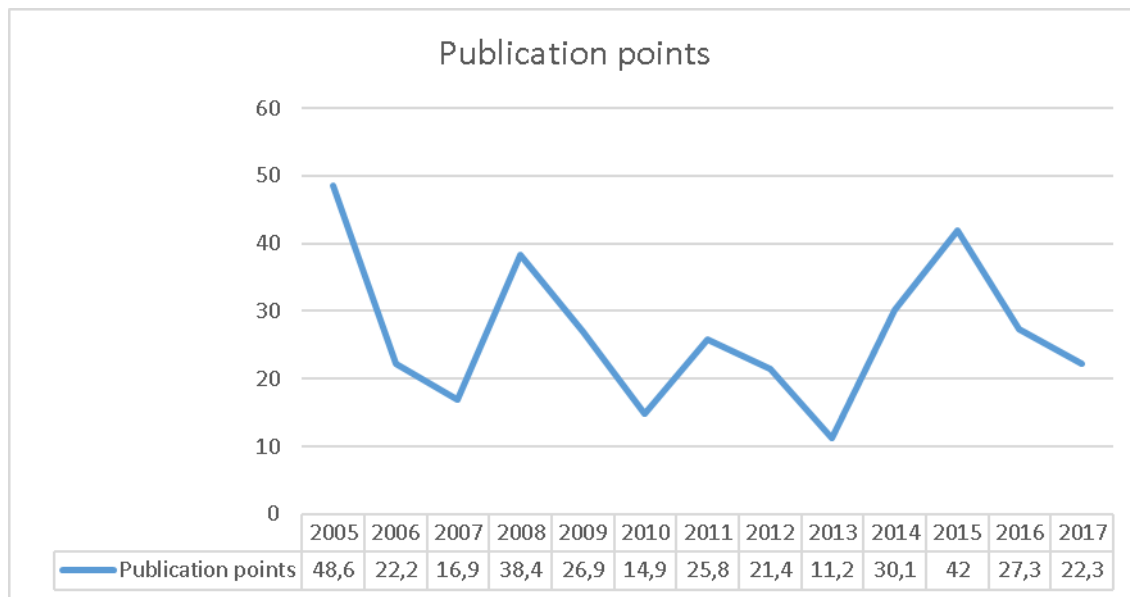
The SIVAC project, which ended in 2018, led to the publishing of the book *Petroleum industry transformations : lessons from Norway and beyond*, on Routledge. The book was edited by Thune, Engen & Wicken.

The graph below shows TIKs number of scientific publications in the period 2005-2018:



The continued high number of publications is partly related to the increase in TIK's staff. TIK is also granting an extra allowance to researchers with a certain level of publications.

Converting the publications to publications points, 2017 gave 22,3 points. The graph below shows TIKs publication points in the period 2005-2016:



In 2015 a new formula for the national publication indicator was introduced in with the aim of closing the gap between the scientific domains. With the old indicator, the Social Sciences and Humanities gained more publication points relative to the Natural Sciences, based in a more traditional publication strategy, where one or just a few authors write monographs. The new indicator is set to even the field, emphasizing, among other things, international cooperation. The lower result in publications points in 2017 from 2016 despite the same number of publications for these two years is due to more co-authored publications in 2017 than in 2016.

Publications reported to the Norwegian Science Index (NVI) in 2018:

Castellacci, Fulvio; Tveito, Vegard.

Internet Use and Well-being: A Survey and a Theoretical Framework. *Research Policy* 2018 ;Volum 47.(1) s.308-325 UiO

Castellacci, Fulvio.

Co-evolutionary growth: A system dynamics model. *Economic Modelling* 2018 ;Volum 70. s.272-287 UiO

Mäkitie, Tuukka; Andersen, Allan Dahl; Hanson, Jens; Normann, Håkon Endresen; Thune, Taran Mari.

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