

**Skisser med relevans innenfor  
Samfunnsvitenskap**

**Tabell:** Oversikt over skisser med relevans for området **Samfunnsvitenskap**

Prosjekt-nummer	Prosjekttittel	Søkerinstitusjon(er)	Prosjekt- leder	Estimert søkt beløp fra NFR
316241	Historical Registers	NR (NA, NL, FHI, SSB, UiT, The Norwegian Historical Data Centre (NHDC), UiB)	Lars Holden	30 000 000
316406	Coordinated Online Panels for Research on Democracy and Governance in Norway	UiB (UiO, UiA, NTNU, Institutt for samfunnsforskning, NORCE, NSD, ideas2evidence)	Anne Lise Fimreite	75 000 000
316416	fourMs Lab Upgrade	UiO	Alexander Refsum Jensenius	4 998 930
316421	Peace Science Infrastructure	PRIO (UiO, Uppsala University, Stockholm International Peace Research Institute)	Scott Gates	45 569 000
316446	Context-Sensitive Data for Open Research	UiO (NSD, UNINETT Sigma2, USIT/UiO, Uit, UB, OsloMET)	Kirsti Klette	23 473 200
316451	The USN I-Merse Extended Reality Laboratory	USN	Rigmor C. Baraas	56 250 000
316496	Research and clinical infrastructure at Oslo SPeLL (Oslo SpesialPedagogikk- og LæringsLab)	UiO (UiB, NMBU, UiO, Sunnaas, Statped, OUS)	Vasiliki Diamanti	4 139 000
316548	Norwegian e-infrastructure for research on LAM collections	NB (Arkiverket, UiO biblioteket, UiB biblioteket)	Jon Arild Olsen	102 500 000
316557	NTS Infrastructure	TØI (The Public Roads Administration (NPRA))	Trine Dale	9 000 000
316565	Infrastructure for mobility and logistics research	TØI	Marianne Stølan Rostoft	50 000 000
316591	eInfrastructure for digital, user centric and sustainable digital transformation in urban smart cities	IFE (UiO, Østfold University College, Østfoldforskning, OsloMet, Smart Innovation Norway, NILU, Halden kommune, Logiq, ITS Norway, Halden næringsutvikling)	Petter Kvalvik	200 000 000
316606	Norwegian Travel Industry Monitor: Digital lab for big data analysis of economic development of businesses and destinations	USN (Telemark Research Institute, Norwegian Tourism Partners)	Kåre Sandvik	30 000 000

**Prosjektnummer:** 316241

**Tittel:** Historical Registers

**Søkerinstitusjon (partnere):** NR (NA, NL, FHI, SSB, UiT, The Norwegian Historical Data Centre (NHDC), UiB)

**Prosjektleder:** Lars Holden

**Kort sammendrag:**

The project will build an infrastructure for historical registers, Histreg. The major component is the Norwegian Historical Population Register (HBR) with the objective to identify and link all persons living in Norway after 1801 across censuses, church books, emigrant lists and vital statistics up to and including the Central Population Register starting in 1964. Histreg will also include two additional components: 1) a full national register of properties and residences 2) a number of thematic historical registers (e.g. health, education, income). All these registers will be fully linkable between the registers and to modern register data. The HBR component has been funded in part by the Infrastructure program in the period 2014-2019 (denoted phase one) and is on the Norwegian Roadmap for Research Infrastructure. The systems and technical solutions for building HBR efficiently are now largely in place, but still far too rudimentary for most research purposes. In the proposed project we will be complete HBR by exploiting the investments made in phase one.

Histreg will be used in a large number of research projects in areas such as history, demography, economics, sociology, medicine, psychology and genetics by all the large universities, a large number of other universities, university colleges, research institutes and university hospitals.

The register is owned and administrated by the National Archives of Norway (NA). The register will have five platforms for dissemination: Statistics Norway (SN), NA, National Institute of Public Health (NIPH), UiT/NHDC and the online histreg.no. Other national register data will be linked to HBR. The project apply for funding to build the register and to develop new software systems where the main goal is to give a diverse user group improved access to the register. NA, SN, NIPH and UiT/NHDC are responsible for the maintenance and dissemination of the register as part of their public funding and responsibility. Norsk Regnesentral (NR) coordinates the building of the register and The National Library (NL) is important for dissemination and to reach minorities.

**Prosjektnummer:** 316406

**Tittel:** Coordinated Online Panels for Research on Democracy and Governance in Norway

**Søkerinstitusjon/partnere:** UiB (UiO, UiA, NTNU, Institutt for samfunnsforskning, NORCE, NSD, ideas2evidence)

**Prosjektleder:** Anne Lise Fimreite

**Kort sammendrag:**

High quality scientific data is a core feature of existing research on the democratic governance structure in Norway. Our survey and registry data are among the best in the world. However, digitalization now challenges us to imagine and build new infrastructures equipped to meet the demands for high-quality scientific data in our digital age. Unique opportunities exist in Norway due to its high internet coverage. By establishing the proposed new national infrastructure KODEM - Coordinated Online Panels for social science and multidisciplinary research on Democracy and Governance - we take full advantage of these unique opportunities. For the first time KODEM will coordinate data-collection in panels that cover the entire core of democratic governance-citizens, elected representatives, public administrators, judges, and journalists. KODEM will generate scientific discoveries, more collaboration across institutions and disciplines, high quality international

cooperation, more policy-relevant research, higher research pace, larger research scale, and better resource efficiency. In the fall of 2020, a pilot - KODEM\_DEMO - will be fielded as a trial. Organizationally, KODEM will make use of a time-sharing model successfully piloted at the Digital Social Science Core Facility (DIGSSCORE) at the University of Bergen. This time-sharing model will serve the needs of the broad-based national consortium containing participants from the large research universities in Norway, from important research institutes and from data archives and data collectors. KODEM will enable scientific advances across a wide range of scientific fields including Political Science, Public Administration, Media and Communication Studies, Legal Studies, Economics, Psychology, Sociology, and Public Health.

**Prosjektnummer:** 316416

**Tittel:** fourMs Lab Upgrade

**Søkerinstitusjon (partnere):** UiO

**Prosjektleder:** Alexander Refsum Jensenius

**Kort sammendrag:**

The fourMs lab (Music, Mind, Motion, Machines) is a world-class infrastructure for studies of human movement and physiology in an immersive multimedia environment. It is primarily used for studies of music-related body movement, music performance, and music psychology. In recent years it has also increasingly been used for linguistics, dance, sports, and well-being. The lab is central to the activities of RITMO Centre for Interdisciplinary Studies in Rhythm, Time and Motion, which has been a Norwegian Centre of Excellence since 2017.

Funding is sought for upgrading the main motion capture system of the lab. The original motion capture system from Qualisys was funded through the Research Council's infrastructure program in 2008 and installed in 2009. The more than 10-year old equipment is in dire need of replacement. Newer motion capture systems have much better spatial and temporal resolution than the current setup, and therefore allow for recording with higher accuracy and precision. We have recently also experienced a number of failures and errors related to the age of the electronics in the old system. This has caused down-time in the lab, when different parts of the system have had to be sent for repair. Clearly there is a need to do a major upgrade of the main hardware.

Over the years we have seen a growing interest in combining motion capture with other types of measurements, including physiological sensing and eye tracking. We therefore also apply for expanding some of the add-on systems in the lab and prepare for better synchronization solutions with such systems. All in all, these upgrades and new investments are necessary for the fourMs Lab to continue to be a state-of-the-art research facility for the years to come. If funded, it will further strengthen University of Oslo as a world-leading institution for empirical music research, and open for even more interdisciplinary and international collaboration.

**Prosjektnummer:** 316421

**Tittel:** Peace Science Infrastructure

**Søkerinstitusjon/partnere:** PRIO (UiO, Uppsala University, Stockholm International Peace Research Institute)

**Prosjektleder:** Scott Gates

**Kort sammendrag:**

Peace Science Infrastructure (PSI) will develop automated tools for data collection from news and social media sources regarding the escalatory dynamics of war and other forms of armed conflict such as terrorism. PSI will also develop common standards for coding subnational data, develop machine-coding and machine-learning tools, and develop web-based tools to facilitate access to the codes, routines, and data. The general framework of event and relation detection are crucial tools for understanding many aspects of the world, including armed conflicts, terrorism, financial markets, disease mapping, and much more.

PSI will establish a consistent industry standard infrastructure for collection and management of conflict relevant event data -- through work on three scientific goals: common standards for sub-national data; machinecoding tools; and web platform for open dissemination. The result will be radically increased accuracy, speed, and cost-saving in data coding and analysis, enabling more nuanced and politically relevant knowledge production. We guarantee the PSI infrastructure to be open, transparent, and free.

PSI will establish and consolidate a lasting and fruitful relationship between leading social science research environments in Norway at UiO and PRIO, on the one hand, and the Department of Informatics and the Department of Mathematics on the other. To this end, the proposed Peace Science Infrastructure (PSI) project brings together specialists in peace science, informatics and natural language processing, and machine learning.

This collaboration ensures that the infrastructure developed is useful for applied research in the social sciences and that the tools developed are based on cutting edge research from computer science, machine learning, and data science (which will benefit the natural sciences). Political scientists, especially peace scientists, will benefit tremendously.

PSI will involve 20 senior researchers (part-time), post-docs (2), doctoral candidates (3), research assistants (8). There will be no equipment budget.

**Prosjektnummer:** 316446

**Tittel:** Context-Sensitive Data for Open Research

**Søkerinstitusjon (partnere):** UiO (NSD, UNINETT Sigma2, USIT/UiO, Uit, UB, OsloMET)

**Prosjektleder:** Kirsti Klette

**Kort sammendrag:**

In order to benefit from the rapid growth of video, multi-media and online data ("context-sensitive data" as a collective term) in the social sciences, the humanities and health research, a concerted effort is needed for the development of a flexible research infrastructure for advanced analysis – supporting data storage, sharing, reanalysis and synthesizing research in line with the FAIR-principles. The main objective for CoSedOr (Context-Sensitive data for Open research) is to establish a secure and flexible system for sharing contextsensitive data that meet these requirements and national /

international privacy standards. The infrastructure will enable research collaboration between projects, countries and time spans, as well support security and quality in the delivery of research-based resources for teaching and professional training in several disciplines and occupational areas. Furthermore, the infrastructure will be a "testbed" for new solutions related to secure storage and metadata systems across various research fields, both in Norway and across the Nordic countries. CoSedOr is an upgraded and expanded development of eVIR (eInfrastructure for Video Research, 2017-2020/22). The project is organized thematically in four work packages: Wp1. Ethics, confidentiality, privacy protection and intellectual property rights. New regulations / variation across countries of informed consent and privacy schemes will be integrated in CoSedOR and tested in a multidisciplinary, national and international (Nordic) context. Wp2. Metadata solutions for sharing data. A key idea for CoSedOr is to develop a multi-unit system that enables capturing relevant metadata to facilitate long term FAIR reuse of the data described above. Wp3. Interoperability and integration of data sources. The main objective for this WP will be to facilitate the interoperability of selected support tools and systems. Wp4. Implementation and provision of services for a specter of user environments. This WP will identify the needs of the expected user environments for CoSedOr, i.e. students / candidates at MA and PhD level and researchers in educational science (teaching and learning), social science and health (psychotherapy), humanities (musicology and linguistics), health and law. CoSedOr is a distributed construction that engages the above-mentioned disciplines in the development and testing of the research infrastructure. It will draw on the expertise of key institutional actors in fields related to this eInfrastructure: (1) At four universities, (2) National archive functions, (3) National and international standards for data management and indexing of data, (4) National standards for ethics and privacy, (5) technical solutions, (6) key administrative professional stakeholders, and (7) international partners.

**Prosjektnummer:** 316451

**Tittel:** The USN I-Merse Extended Reality Laboratory

**Søkerinstitusjon (partnere):** USN

**Prosjektleder:** Rigmor C. Baraas

**Kort sammendrag:**

The I-MERSE Extended Reality (XR) Lab aims to be a leading national and international research infrastructure providing virtual reality, mixed reality, and augmented reality platform for research and innovation. It will be an enabling technology lab, in line with visions stated in the Long-term Plan for Research and Higher Education of technologies that may be applied broadly across various sectors and industries, which in the process address major societal challenges and strengthen Norwegian industries. Currently, Norway has limited capacity for XR as an enabling technology. Existing labs are limited to virtual reality capabilities with some mixed reality equipment. The most common equipment are headgears with limited or no simulators and other XR facilities and environments. This is a crucial weakness since, according to the Norwegian Roadmap for Research Infrastructure, Norway is in an "international technology race" and that this race cannot be won without a robust national infrastructure to support the necessary enabling technology, which, in this case, is XR technology.

The I-MERSE XR Lab intends to be this national infrastructure by being the first high-capacity XR Lab in Norway that can address a wide range of complex XR applications, allowing it to be a test bed for external academic and industry partners in private and public sectors. The lab will contain what

existing labs lack, i.e., high capacity facilities for XR simulation and environments. With versatility of facilities, the I-MERSE XR Lab is able to support research, development and innovation addressing physical, physiological, psychological and sociological health-related challenges, transforming learning experience as well as learning outcomes in training and re-training of professionals, advancing the development of human-centred design solutions in business, government, education and society at large.

The interdisciplinary research centre, USN I-Merse, will be the core team responsible for the I-MERSE XR Lab, with expertise in XR research to develop a scientific community of outstanding quality within the fields of vision science, maritime safety and operations, pedagogy and education, marketing and ethics.

**Prosjektnummer:** 316496

**Tittel:** Research and clinical infrastructure at Oslo SPeLL (Oslo SpesialPedagogikk- og LæringsLab)

**Søkerinstitusjon (partnere):** UiO (UiB, NMBU, UiO, Sunnaas, Statped, OUS)

**Prosjektleder:** Vasiliki Diamanti

**Kort sammendrag:**

OSLO SPeLL was established at the Faculty of Educational Sciences, UiO, with the aim of providing support for research, education and clinical activities. This application is about the procurement and development of infrastructure to support these activities. We have 3 focus areas that need support: (a) Creation of digital tests for assessment. It is of great importance that researchers across disciplines gain access to standardized, validated, normed, and user-friendly digital tests through a national platform. Target groups include researchers and practitioners in educational science, psychology, health and medicine. (b) Creation of a searchable word database for clinical and research use. This is crucial in research related to language, including language development, developmental linguistic disorders, language difficulties in the context of pervasive developmental delays, specific learning difficulties in reading and/or writing. It will also be an important tool for the development of digital tests (a) in relation to languages. (c) Procurement of eye tracking equipment for basic research in social, educational and medical sciences and alternative communication methods. Eye tracking can also be used to examine cognitive processes, or medical and health conditions. The procurement of a new eye tracker will increase OSLO SPeLL's capacity to serve researchers whose work aims at gaining a deeper understanding of, among other things, reading and writing skills, language skills, mathematical skills, communication difficulties, and developmental difficulties. Many of our national partners do not have access to expensive and advanced eye tracking equipment and they lack the requisite expertise. Through OSLO SPeLL they will be able to use such methods in their own research.

**Prosjektnummer:** 316548

**Tittel:** Norwegian e-infrastructure for research on LAM collections

**Søkerinstitusjon (partnere):** Nasjonalbiblioteket (Arkivverket, UiO biblioteket, UiB biblioteket)

**Prosjektleder:** Jon Arild Olsen

**Kort sammendrag:**

As research becomes increasingly data-driven, the humanities and social sciences need powerful digital infrastructures in order to remain relevant and help tackle the social challenges of today. Norway has long been at the international forefront of digitizing its documentary heritage. This includes text, film, photo, and audio from collections in libraries, archives, and museums (LAM).

However, as recently pointed out in many research policy documents (e.g. *Humaniora i Norge*, *Oppfølging av evaluering av humanistisk forskning i Norge*, and *Norsk veikart for forskningsinfrastruktur*), a common infrastructure for searching, accessing, and analysing Norwegian LAM collections is sorely lacking. The aim of the present proposition is to create a national distributed e-infrastructure – eLAM – that can realize the research potentialities created by the collective digitization efforts of the LAM sector. By offering coordinated access to digital collections as well as relevant tools and services for data extraction, processing, analysis, and management, the infrastructure will open up Norwegian LAM collections and allow researchers to detect and explore information and patterns that have previously remained hidden in isolated datasets. The infrastructure will be developed by some of the main actors in the Norwegian LAM sector. Together, the collections of the National Library and the National Archives constitute the major part of Norwegian documentary heritage. The University of Bergen Library hosts important special collections and has taken steps towards a national coordination in this field. The National Archives hosts a national publication platform for archival institutions and museums. The participation of the University of Oslo Library and the University of Bergen Library ensures that the infrastructure is developed in close cooperation with and according to the needs of the academic community. eLAM will also be instrumental in developing natural language processing and artificial intelligence solutions in Norway. By adapting parts of the infrastructure to the public, eLAM will help spread knowledge and inspire public debate.

**Prosjektnummer:** 316557

**Tittel:** NTS Infrastructure

**Søkerinstitusjon (partnere):** TØI (The Public Roads Administration (NPRA))

**Prosjektleder:** Trine Dale

**Kort sammendrag:**

In the proposed project, we will develop an online database for storing, managing, computing, analysing, and sharing travel behaviour data from Norway. This includes both previous and future surveys. The Norwegian National travel survey (NTS) is a central data source in both planning and research purposes in the transport sector. Since 1985, the survey has been carried out regularly, and the data are used by a wide variety of users. There are however, several issues with the current solution for gaining access to the NTS data. Firstly, the process can be tedious. Secondly, it is not straight forward how users should weight and filter the data in order to secure representativeness and validity.

We propose a database for storing and accessing the NTS data. Both previous and future surveys will be included in the infrastructure. This database will have several advantages compared to the current solution. The data will include the weights and secondary data needed to get meaningful results. At the same time, the available data will be sufficiently anonymized. We will also build in statistical filters, that prohibit the extraction of small sub samples with low representativeness. The infrastructure will be developed and maintained by the Institute of Transport Economics (TOI), in cooperation with The Norwegian Public Roads Administration (NPRA) and other partners and subcontractors.



**Prosjektnummer:** 316565

**Tittel:** Infrastructure for mobility and logistics research

**Søkerinstitusjon (partnere):** TØI

**Prosjektleder:** Marianne Stølan Rostoft

**Kort sammendrag:**

Together with Mobility Lab, TØI will establish a single-sited test arena for new mobility and logistics solutions. This proposal is related to the need to fund the research infrastructure within the test arena and in line with national and EU policies within development of connected, cooperative and automated mobility (CCAM). The arena will contribute to the development of comprehensive transport solutions in order to help solve societal needs and challenges related to climate, the environment, road safety and business development. The logistics sector in particular is characterized by many small companies and low operating profits, and unfortunately the number of proper evaluations and analyses of the impact of new solutions are few. TØI will develop the research infrastructure to allow for better and more data-based evaluations in the future, enabling systematic assessment of the impact of new solutions.

The arena will be a living lab, where new transport solutions are tested and evaluated in an urban, real life environment. At the test arena, applied research into the effects and consequences of the new solutions will be conducted. Research will be user-centred by focusing on how road users perceive and use the solutions, how road users interact (safety), the flexibility, as well as the efficiency of the solutions. In addition, research will focus on the impact of the new solutions on greenhouse gas and local emissions, and the local environment (noise etc.).

In order to conduct this research, new research infrastructure is needed. The infrastructure will consist of equipment and facilities for collecting, handling, analyzing and storing relevant data, as well as making this data available for other users. Relevant data will be collected from vehicles and their interaction with the surroundings, other road users and the environment.

**Prosjektnummer:** 316591

**Tittel:** eInfrastructure for digital, user centric and sustainable digital transformation in urban smart cities

**Søkerinstitusjon (partnere):** IFE (UiO, Østfold University College, Østfoldforskning, OsloMet, Smart Innovation Norway, NILU, Halden kommune, Logiq, ITS Norway, Halden næringsutvikling)

**Prosjektleder:** Petter Kvalvik

**Kort sammendrag:**

Our future cities need not only to be smart but also sustainable. Infrastructure that allows to collect data, share, store and analyse data is fundamental to achieve a smart and sustainable city. For this to work, initiatives needs to be citizen centric and ensure trust as well as handling privacy, reliability, equity and security. At the same time, it should be smart in utilise big data to drive toward UN sustainability goals. Currently, we are far from this, much applied research and research-based innovation is needed. Here, we need to go through a digital transformation to understand how to use digital technology to do more with less effort and get it done quicker, safer, and cheaper. This requires setting up city laboratories that involves all stakeholders: the public sector, academe, businesses and the research institutes. Infrastructure is fundamental to allow for applied research

and research-based innovation on large scale architectures and ecosystems that holds extraordinarily amounts of diverse data. This path is well aligned with the Norway's digitalisation strategy for the public sector<sup>1</sup> as well as EU's Digital Single Market strategy<sup>2</sup> and Research and innovation for the European Green Deal<sup>3</sup>. Halden Living Lab (HLL) is our joint large effort to a sustainable smart city. Living Labs are defined as usercentred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings. HLL will connect with other national and European Living Labs e.g. European Network of Living Labs (ENoLL)<sup>4</sup>. HLL target the following characteristics and factors of a smart city: (1) people, (2) environment (3) economy, (4) mobility, (5) governance and (6) standard of living. Founding members are Institute for Energy Technology, Halden kommune, Østfold University College, Smart Innovation Norway, Østfoldforskning, eSmart systems, Halden næringsutvikling and Logiq. First new members that joined for this application are UiO, OsloMet, NILU, ITS Norway. More invitations are lined up before the full application is submitted. The national eInfrastructure shall support multiple living labs, but will be shaped in the context of HLL, to acquire the necessary knowledge required to extend and integrate with other infrastructures and for managing the infrastructure and the data located in heterogeneous sources across the smart city.

**Prosjektnummer:** 316606

**Tittel:** Norwegian Travel Industry Monitor: Digital lab for big data analysis of economic development of businesses and destinations

**Søkerinstitusjon (partnere):** USN (Telemark Research Institute Norwegian Tourism Partners )

**Prosjektleder:** Kåre Sandvik

**Kort sammendrag:**

The four-year project initiative aims to develop a big data platform that can integrate relevant travel industry data to accomplish the untapped potential for frontier research of factors that affect sustainable growth and profitability of businesses and destinations in the travel industry. A robust data platform will provide vastly improved "evidence-based" decision support to industry managers and policymakers.

Travel industry data are fragmented and located at public institutions (e.g., SSB, Avinor, UNWTO), commercial actors (e.g., Google, Telenor), and the travel industry businesses themselves (e.g., hotel chains, resorts, airlines, ferry companies, etc.). Sharing data is vital to get a fuller picture of the industry's dynamics and economic ecosystem, and deals with challenges of a technical platform and implementing contracts with data providers that manage risk and mutual benefits. There are several initiatives in other countries that integrate available travel industry-related data for advanced research and better decision making. To stay globally competitive, Norway needs to invest in a new and future-oriented data infrastructure for travel research.

The project consists of the development of a data model framework and roadmap for acquiring and integrating prioritized travel industry data from multiple sources. Accordingly, an agile technology platform will be designed and implemented to store, integrate, and access data for advanced research. The use of data for research will be in place in year 1. Testing functionality and security will be done while incrementally adding more data sources, analytics functionality, and user-friendly access.