

VALUE CREATION AND INNOVATION

V I W N
A G D E R

Regional Plan for Innovation and Sustainable Value Creation in Agder
2015–2030



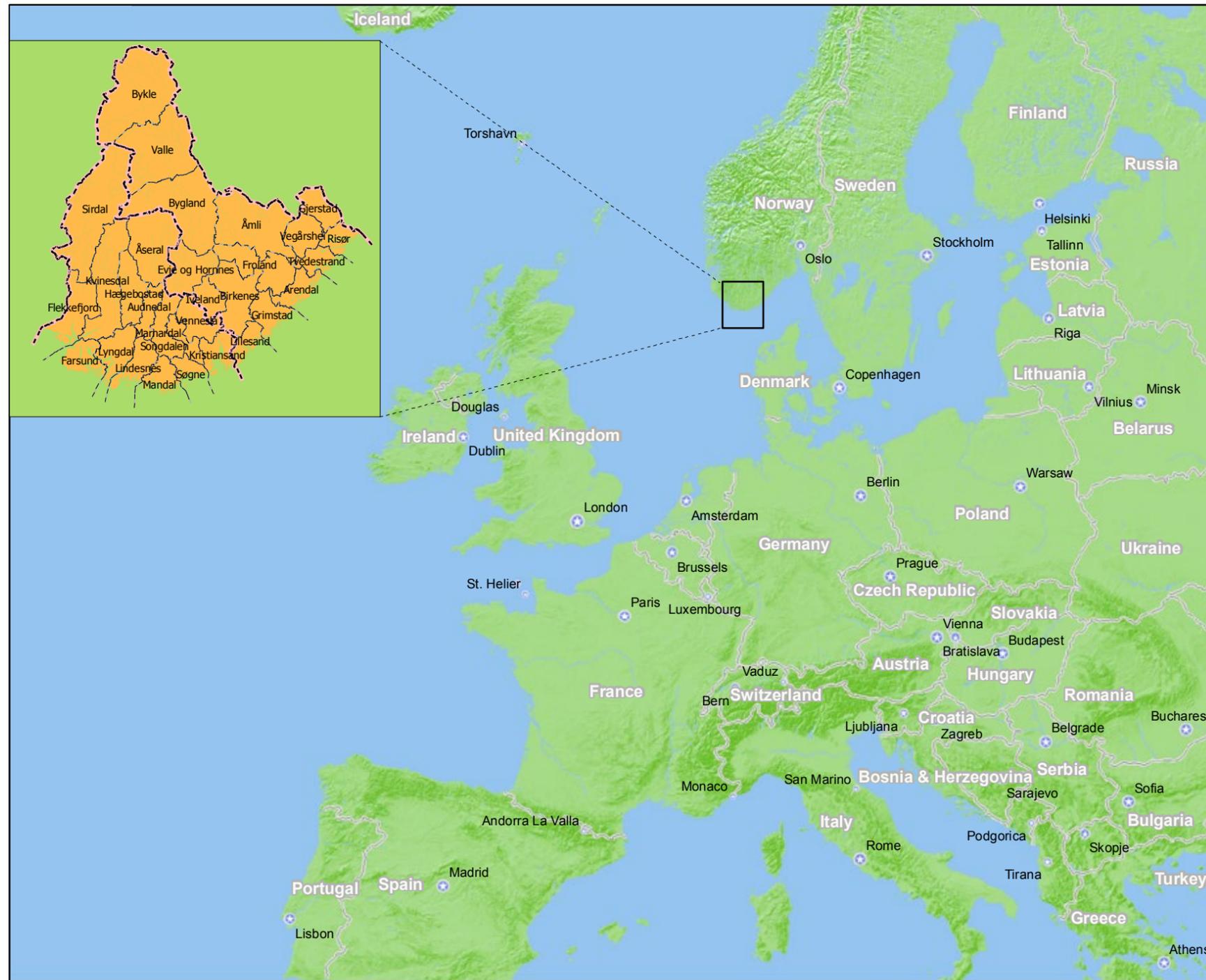
AUST-AGDER
COUNTY COUNCIL



Vest-Agder
county council



REGIONAL DEVELOPMENT PLAN AGDER 2020



ABOUT AGDER

Agder is the southernmost region in Norway and consists of two counties and 30 municipalities. The counties, Vest-Agder and Aust-Agder, have a combined area of 16 500 km², and a population of almost 300 000 inhabitants with backgrounds from 140 countries. The two largest cities in the region are the county capitals Kristiansand and Arendal with 88 000 and 44 000 inhabitants, respectively. The majority of the region's population and businesses are concentrated along the coastline.

Agder is the leading region in Norway on entrepreneurship and export from processed goods. The industry in Agder is to a high degree based on energy intensive raw materials processing (e.g. aluminium, nickel, and silicium). The region is also host to world leading producers of off-shore equipment (drilling and mooring), and has also strong maritime industry clusters. There is furthermore a strong potential for the production and distribution of clean energy from the region in to Europe, as Agder is one of Norway's biggest producers of hydroelectric power.

Kristiansand's Airport Kjevik connects the region to Europe, whilst Port of Kristiansand is one of Norway's largest ferry boat and container hubs. Last but not least, Agder has one of Norway's newest universities with 11 000 students, attracting and more students from abroad each year.

VINN Agder 2015-2030 was adopted by Aust-Agder and Vest-Agder County Councils on 16 June 2015



Published in June 2016. Printing house: Kai Hansen Trykkeri AS. Graphic oversight: Aptum Kommunikasjon AS. All illustrations copyrighted

CONTENT

Map	2
About Agder	3
Agder 2030	5
Background	7
Vision and main objective	8
Definitions and point of departure	9
Challenges and opportunities	10
Entrepreneurship, industrial development, and innovation	11
Research, development and innovation	13
Visitation	16
Agriculture and marine industries	19
Innovation in the public sector	22
Follow-up of the plan	25
Appendix: References	26



AGDER 2030

In 2030, a unique cluster cooperation has yielded good results. Wise thoughts and ideas are combined through creative, digital networks across disciplines and national borders. New business ideas have contributed to many new growth enterprises throughout Agder.

Research, development and innovation activity has increased significantly, and Agder has made targeted efforts to develop and implement research-based innovation both in the public and private sectors. A unique cooperation between the public and private sectors in Agder has developed service delivery systems, and has made Agder's public sector Norway's most efficient service provider. In 2030, employee-driven innovation is no longer a new concept, but a natural part of all innovation processes.

A new green cluster has emerged in the region. Agder has established itself as an important global region in data storage, thanks to access to huge amounts of renewable energy, extensive fibre optic communication links with the European continent, proximity to the European mainland, a cool climate, and good access to land. The green transition has been established through new processes and products.

Knowledge-based industry in Agder is still world leading in technology and environment. Increased investments in renewable forest resources have increased employment in rural areas.

In 2030, Agder has acquired a national position in the development and commercialisation of new technologies adapted to the renewable energy market. Competent workers flock to the region, and the region's overall level of knowledge exceeds the national average.

Agder's green lungs, archipelago and experience-based travel and tourism have made the region a popular destination for visitors from all over the world. A focus on local food and produce has put Agder on the world's culinary map.

New forms of cooperation between education and business have resulted in flexible education systems. The term 'drop-out' has been replaced by drop-in for lifelong learning.

In 2030, Agder has gained a reputation for being innovative, inclusive and diverse. 'Look to Agder' is a well-known term in the Nordic countries.



BACKGROUND

VINN stands for Value creation and Innovation.

The Regional Plan for Innovation and Sustainable Value Creation in Agder 2015–2030 (VINN Agder) is Agder's value creation strategy. It is based on interaction and cooperation between business, labour, research and development (R&D) institutions, and the public sector.

The plan aims to increase competitiveness and sustainable value creation throughout Agder. Facilitating increased cooperation and competence-sharing is a means of bringing innovation in both public and private sectors.

VINN Agder emphasises industrial development in particular and societal development in general. The plan stipulates overriding objectives for industrial development and value creation in Agder, and will serve as a guideline for the prioritisation of regional development instruments. VINN Agder will help our region stand out more clearly and assume a national position in areas where we do have an advantage.

VINN Agders's target group consists of actors working on innovation, value creation, societal and industrial development in Agder. This comprises the public sector, the business sector, the R&D sector, and the voluntary sector.

VINN Agder is a follow-up of the **Regional Development Plan Agder 2020**. The process leading up to the plan is based on the Planning and Building Act, to ensure

participation, inclusion and ownership. Many people have been involved through participation in the start-up conference, five thematic working groups, input groups, project groups, steering committees and reference groups, and in the public consultation process.

The plan will form the basis for the activities of regional bodies, and for municipal and state planning and activities in the region (cf. Section 8-2 of the Planning and Building Act). The follow-up of VINN Agder will be coordinated through annual programmes of action.

The joint travel and tourism strategies for the counties of Aust-Agder and Vest-Agder and the R&D strategy for Agder have been revised as part of the drafting of VINN Agder. The most important elements from the revision processes have been incorporated in VINN Agder.

VINN Agder has a long-term perspective (2015–2030), and covers five topics:

- Entrepreneurship, industrial development, and innovation
- Research and development
- The visitor industry
- Agriculture and marine industries
- Innovation in the public sector

Education and competence are key factors in Agder's future development, and are therefore recurring themes in VINN Agder.



VISION AND MAIN OBJECTIVE

VISION

VINN Agder's vision is 'Creative energy', which is identical with the vision of the Regional Development Plan Agder 2020. This is because the Regional Development Plan has an overall role as the governing plan for all focus areas in the region, and because same vision strengthens recognisability.

MAIN OBJECTIVE

VINN Agder takes the main goal of the Regional Development Plan Agder 2020 as its basis: To develop a strong and unified region which is attractive for living, working and visiting.

Two sub-objectives have been stipulated for VINN Agder in order to meet this main goal:

- VINN Agder contributes to increased sustainable value creation by strengthening innovation and knowledge in both private and public sectors.
- Agder becomes a 'winning region' – a region with higher employment growth than the rest of Norway, and with focus on new potentials for sustainable value creation.

The most important measures to achieve this are increased cooperation and competence-sharing.

Photo: © Jan Aaboe, Aust-Agder County Council



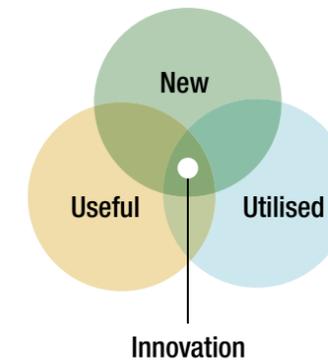
DEFINITIONS AND POINT OF DEPARTURE

VINN Agder applies the following definitions:

Innovation: An innovation is "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations." (Quote from OECD's Oslo Manual). Or, put more simply: To start using new, useful methods and solutions.

Sustainability: Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (from the Brundtland report, 1987). Although this plan mainly focuses on value creation, the understanding of the sustainability concept is not limited to economic sustainability. All three sustainability elements (economic, environmental and social sustainability) were incorporated in the work on the plan (e.g. corporate social responsibility).

Value creation: VINN Agder assumes that "Value creation is triggered when the value of what we produce (goods and services) exceeds the value of the resources spent" (Norwegian Official Report on energy – value creation, supply safety and environment, 2012).



VINN Agder's knowledge basis consists of several reports on Agder's challenges and opportunities as regards industrial structure, value creation and innovation capacity, living conditions, education, and equality. Some of the most important documents for the work on the plan include:

1. Entrepreneurship and the Innovation System of the Agder Region, Norway (OECD 2009)
2. Utfordringer og muligheter på Agder – innspill til diskusjon om regional utvikling og regional planstrategi ("Challenges and Opportunities in Agder – Input to the Discussion about Regional Development and Regional Planning Strategy") (Agder Research 2012)
3. Krise, omstilling og vekst – en regionalanalyse av Sørlandet ("Crisis, Restructuring and Growth – a Regional Analysis of Southern Norway") (Agder Research 2013)
4. Sørlandet i verden – verden på Sørlandet ("Southern Norway in the World – the World in Southern Norway") (Sørlandsutvalget 2013)
5. Innovasjon – organisasjon, region, politikk ("Innovation – Organisation, Region, Politics") (eds. B. Abelsen, A. Isaksen, S.-E. Jakobsen 2013)

The list of references in the appendix lists further reports that have been taken into account in the work.

CHALLENGES AND OPPORTUNITIES

Agder competes with other regions – domestic and abroad – on utilising many of the same opportunities for growth and development. Agder must win the competition for tomorrow's labour, so that competence remains, moves to, or returns to the region.

Agder's challenges include:

- Relatively low R&D intensity, and little research-based innovation.
- Industry structure too dependent on a few strong industries.
- The divided economy: recent years' growth in enterprises related to the oil and gas sector, major challenges (e.g. decline in employment) in other export-oriented industries.
- Strong industry, but insufficient knowledge-intensive business services.
- In most industries productivity (gross product) is lower than the national average.
- Untapped value creation potential due to challenges relating to living conditions and equality.
- The population's education level is below the national average.
- Infrastructure challenges.
- Special challenges in rural parts of Agder.
- High drop-out rate in primary and upper secondary school.
- Room for improvement in relation to cooperation and clarification of roles between various agencies in the public support system.

In addition to its challenges, the region also has a great deal of opportunities and development potential:

- A competitive and export-oriented industry: several enterprises are world leaders in their markets.
- Strong business clusters.
- Strong growth in the supplier industry for oil and gas.
- Strong position in energy-efficient industrial production.
- Good cooperation between the public and private sectors and academia.
- Employee-driven innovation.
- Great potential for new energy production from renewable energy sources and energy exchange.
- Great potential for growth in the culture and experience industry.
- Great potential for 'green value creation' (e.g. green data centres / the 'green battery' initiative, and the processing industry's work on sustainable products and processes).
- The region's natural resources such as soil, forest, rivers, lakes and coastline.
- A strong focus on natural sciences that has yielded results.
- Geographical proximity to the European mainland.
- Innovation in cooperation with demanding customers

ENTREPRENEURSHIP, INDUSTRIAL DEVELOPMENT, AND INNOVATION: «CULTIVATE A CULTURE OF ENTREPRENEURSHIP»

OBJECTIVE 1: MORE NEW ENTERPRISES WITH CAPACITY FOR GROWTH

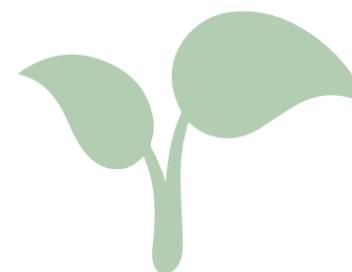
We need new measures and activities in order to mobilise entrepreneurship, so that more new enterprises with capacity for growth can be established. Market orientation, internationalisation, and value configuration¹ must be incorporated in business models in order to succeed.

The region's proximity to the European mainland, a secure power supply, and good access to renewable energy resources can facilitate the necessary restructuring and be a source of more sustainable new enterprises in existing and new industries. If new fibre optic communication links with Europe are established in connection with the laying of new power cables, the region will become a very attractive venue for the establishment of green data centres.

New industries can also emerge from established enterprises, for example by linking the expertise from different industries. Enterprises established on the basis of existing ones or teaching and research communities, are particularly valuable in renewing a region's business sector.

MÅL 2: OBJECTIVE 2: INCREASED SUSTAINABLE VALUE CREATION IN EXISTING BUSINESSES

Agder is an export-oriented industrial region. Equipment suppliers to the oil industry are responsible for two thirds of the region's total turnover. These enterprises are organised in Global Centre of Expertise (GCE) NODE. Their most important export commodity is services based on high technology expertise.



¹ Value configuration describes how the enterprise works to create value for its customers. The most well-known value configuration is a value chain (Michael Porter).

Sustainable value creation

Knowledge about entrepreneurship

Entrepreneurship in education

Several innovative industries are organised as strong clusters and networks in Agder. The processing industry, connected through the Eyde cluster, services amongst others the renewable energy industry, the space industry, and the health sector. The experience industry is an important growth industry in the region, and the Usus cluster unites travel and tourism enterprises and cultural enterprises in a joint network. There are strong IT communities in the region, connected through Digin.

Cluster and network cooperation is an important means of increasing the enterprises' innovation capability. More investment is needed in the development of further interdisciplinary networks and clusters in the Agder region. Connecting different types of knowledge and expertise will contribute to increasing the region's innovation and growth capacity.

OBJECTIVE 3: INCREASED KNOWLEDGE ABOUT ENTREPRENEURSHIP

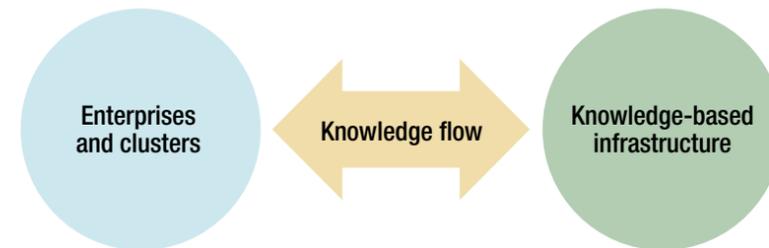
In order to increase creativity and knowledge about entrepreneurship, the teaching of this subject must be strengthened at all levels of education. The organisation Ungt entreprenørskap (Young Entrepreneurship) is an important partner in the schools. The University of Agder plays an important role in promoting entrepreneurship among students and academic staff in all fields. Motivation to boost entrepreneurship at the university should be increased, and students should be encouraged to consider entrepreneurship as a career option.

OBJECTIVE 4: INCREASED R&D² THROUGH A COORDINATED, OPEN AND EFFICIENT INNOVATION SYSTEM

The Agder business sector has a relatively low research and development (R&D) activity, compared with the national average. Investments in VRI Agder³ have contributed to closer cooperation between educational institutions, industry, and the public support system. Knowledge and experience from this work should be followed up and linked to international R&D communities.

Targeted work is required to strengthen the ties between R&D institutions, public organisations and the business sector in order to promote innovative business communities. Research-based knowledge should to a greater extent be incorporated in the development of the business sector.

Agder has an extensive support system for entrepreneurship and innovation, involving many actors. The support system should be coordinated and adapted to the needs of the various target groups. More knowledge is also needed about the opportunities the instruments represent.



² R&D&I: Research and development and innovation

³ VRI is the Norwegian Research Council's programme for Regional R&D and Innovation.

RESEARCH, DEVELOPMENT AND INNOVATION: «A BROAD BASE AND A FOCUSED TOP LEVEL»

CHALLENGES AND POINT OF DEPARTURE

The two Agder counties account for only 2.4 % of Norway's overall R&D activities. Almost three-quarters of Norway's R&D expenditure are spent in four of Norway's 19 counties: Oslo, Sør-Trøndelag, Akershus and Hordaland. Total R&D activities in the Agder business sector are far below expectations given the region's industry structure.

In the period 2001–2012, R&D activities in Agder were reduced by about 9 % overall. The decrease is largely due to a considerable reduction in R&D activities in the business sector. On the other hand, there has been a very strong growth in activities in the university and university college sector, with more than a doubling in real terms, and growth in the institute sector has been almost fourfold.

Agder has generally received a low proportion of allocations from the Research Council of Norway, but there has been a positive development in recent years. The Agder counties score highest of all when it comes to grants awarded under the most innovation-targeted instruments of Innovation Norway. Most active in research collaborations are the new universities (Stavanger, Nordland and Agder) and specialised and state university colleges outside the biggest towns and cities.



MAIN R&D OBJECTIVES TO BE ACHIEVED BY 2030

Agder is at the forefront when it comes to developing and implementing research-based innovation in the public and private sectors with a view to achieving economic, environmental and social sustainability.

OBJECTIVE 1: AGDER HAS ASSUMED PRESTIGIOUS NATIONAL AND INTERNATIONAL POSITIONS IN SEVERAL AREAS

Sub-Objectives:

- By 2017, a Norwegian Centre of Excellence (SFF) is established in Agder.
- A regional centre of expertise for public sector innovation is established in the region.
- The region has raised its profile through participation in several projects under Horizon 2020.⁴

⁴ Horizon 2020 is the EU's comprehensive new framework programme for research and innovation. The programme is to award EUR 70 billion over seven years from 2014

OBJECTIVE 2: THE R&D COMMUNITIES IN AGDER COOPERATE WELL AND ARE ATTRACTIVE AS PARTNERS IN PRESTIGIOUS NATIONAL AND INTERNATIONAL PROGRAMMES, PROJECTS AND PILOTS

Sub-Objectives:

- Key actors such as politicians and senior managers are familiar with the region's R&D strategy, and contribute to disseminating regional success stories in relevant forums.
- A plan is established for communicating the region's R&D strategy.
 - Ongoing R&D work is highlighted in and outside the region through dissemination in relevant arenas and platforms, nationally and internationally.
- Digital solutions are established for information, exchange of experience, and mutual learning across the R&D communities.
- An increasing number of national and international project applications are granted.
 - Research forum Agder (RFF Agder) has helped initiate several extensive research applications.

OBJECTIVE 3: THE R&D COMMUNITIES QUALIFY FOR LEADING PRESTIGIOUS NATIONAL AND INTERNATIONAL PROGRAMMES, PROJECTS AND PILOTS

Sub-Objectives:

- The region's capacity for leading prestigious national and international programmes, projects and pilots is mapped.
- By 2016, steps have been taken to enable personnel

from the R&D communities in Agder to participate in targeted project management programmes to strengthen the region's capacity for leading prestigious national and international programmes/projects/pilots.

- By 2017, the Mechatronic Innovation Lab (MIL) is established at the University of Agder (UiA).

OBJECTIVE 4: THE R&D COMMUNITIES IN AGDER EMPHASISE GOOD GENDER BALANCE

SUB-OBJECTIVES:

Sub-Objectives:

- The R&D support system emphasise gender balance in the overall assessment of applications.
- The individual research institutions will be responsible for implementing measures to achieve a higher degree of gender balance and equality.

OBJECTIVE 5: R&D&I ACTIVITIES IN THE PRIVATE AND PUBLIC SECTORS ARE ABOVE THE NATIONAL AVERAGE

Sub-Objectives:

- The private and public sectors in Agder have a good overview of and familiarity with local, regional and international sources of funding.
 - Procedures and systems are put in place for an efficient flow of available information about calls for applications for regional, national and international research funds.
 - Steps have been taken to facilitate regional meeting places/workshops/project seminars with a view to sharing and disseminating experience of work on project applications.

- Agder is a national and international 'shop window' for the testing of new products and solutions for the private and public sectors ('living lab')⁵.
- Research-based innovations are attractive to investors and capital owners.

OBJECTIVE 6: THE PROPORTION OF PRIVATE AND PUBLIC SECTOR EMPLOYEES WITH A DOCTORATE (PhD) IS ABOVE THE NATIONAL AVERAGE

Sub-Objectives:

- Employers facilitate to increase formal academic competence among employees.
- New higher-skilled jobs in the state sector have been established in the region to increase the share of employees with higher education.

OBJECTIVE 7: CHILDREN AND YOUNG PEOPLE FROM AGDER HAVE AN INCREASED UNDERSTANDING OF, AND EXPERIENCES RELATING TO, R&D&I

Sub-Objectives:

- Agder schools at all levels focus on linking play, learning, research and innovation.

The objectives require a considerable strengthening of the R&D&I capacity in the years ahead. The R&D strategy leads to a broad base and a focused top level. The latter implies identifying regional high-level initiatives that must be given priority.

Responsibility for strengthening research and development in Agder does not rest with one actor alone, nor with actors whose primary task is to engage in R&D. Both the private and public sectors must assume responsibility.

Photo: © Iris Engen Skadal, University of Agder



⁵ Wikipedia: A living lab is a research concept. A living lab is a user-centred, open-innovation ecosystem, often operating in a territorial context (e.g. city, agglomeration, region), integrating concurrent research and innovation processes within a public-private-people partnership.

VISITATION: «A COMPETITIVE AND SUSTAINABLE VISITOR INDUSTRY»

CHALLENGES AND POINT OF DEPARTURE

Agder enjoys a national reputation as a good region to visit, with good climate and strong brands such as Kristiansand Zoo and Amusement Park, and the Captain Sabertooth franchise. Setesdal has an international reputation based on its culture and scenery, and as a main route towards important destinations. The region also offers attractive and accessible nature, particularly in the archipelago. Despite all this, Agder is perceived as unclear and lacking a unified vision for overall development of the visitor industry. Furthermore, the visitor industry is characterised by inadequate economic sustainability. The experiences on offer outside the summer season are seen as unsatisfactory and of a variable quality. Agder is also experiencing increased competition, both from Norwegian and international destinations.

VISION TOWARDS 2030: FAMILIES FIRST. IN 2030, AGDER IS THE MOST ATTRACTIVE NORDIC REGION TO VISIT FOR FAMILIES WITH CHILDREN

It is important to Agder's future attractiveness as a destination that the region manages to stand out, to tell and build the same story and brand.

In light of existing competitive advantages, an obvious approach would be to win attention as the most attractive Nordic region to visit for families. If Agder is perceived by

the market as best for children, it will have a positive impact on the whole visitor industry.

MAIN GOAL: AGDER HAS A SUSTAINABLE VISITOR INDUSTRY

- Economic sustainability: The visitor industry in Agder is profitable and competitive.
- Environmental sustainability: The visitor industry has a particular focus on preserving culture and nature, reducing local pollution, resource efficiency, and low greenhouse gas emissions (the green transition).
- Social sustainability: The visitor industry strengthens social values by focusing on employees' job quality and invests in hospitality, safety and the quality of experiences.

Whatever the purpose a visit to the region serves (holiday and leisure, work-related stay, or the event market) is of secondary importance, as long as it contributes to a more sustainable industry.



AGDER REACHES THE GOAL BY INVESTING SYSTEMATICALLY IN FIVE SELECTED STRATEGIES:

Families first, Repeat visitation, Knowledge, Innovation, and Infrastructure

FAMILIES FIRST: The visitor industry achieves the goal of economic, social and environmental sustainability through dedicated and long-term efforts to develop and adapt popular products, services and experiences in a family perspective. Agder puts 'families first'. Agder is perceived as an attractive region to visit for families with children, both from Norway and abroad.

- Agder develops activities and experiences that are popular with families with children, with particular focus on developing existing common goods that increase the region's attractiveness as a destination.
- Agder develops new markets based on existing services and experiences.
- Agder develops new seasons and extend existing seasons: 'Agder in a year-round perspective'.

REPEAT VISITATION: The industry achieves the goal of economic, social and environmental sustainability through dedicated and long-term efforts on repeat visitation. The strategy contributes to more satisfied guests in Agder, and recognises the guest as the region's most important source of marketing: Existing guests are the industry's most important resource, from a profitability perspective. The strategy has both a national and international ambition.

- The industry has systematic communication with the guests throughout the visit cycle: before the trip, during the stay, and after the visit.
- The industry raises its awareness of what triggers repeat visitation by customers.
- The industry meets the customers in the right digital (and analogue) platforms and is present in the right channels.

KNOWLEDGE: The visitor industry achieves the goal of economic, social and environmental sustainability through actors making dedicated and long-term commitments to competence and competence development.

- Actors help to improve relevant competence, both at upper secondary level, vocational technical colleges, and university college/university level.
- Actors contribute to developing relevant knowledge about and competence in the industry, including the development of good parameters for measuring the degree of success.
- The strategy facilitates the further development of cooperation between the business sector, cultural institutions, academia and public agencies.

INNOVATION: The visitor industry achieves the goal of economic, social and environmental sustainability through actors making dedicated and long-term commitments to innovation. The strategy contributes to the creation of competitive services and experiences by facilitating innovation, and by connecting human resources and the business sector with relevant development environments. Agder will:

- Further develop existing networks and alliances and be open to developing new ones.
- Actively contribute to closer connections between the business sector, cultural institutions, innovation environment, and university and research communities.
- The strategy encourages the actors to prioritise user-driven research and experience-based

innovation.

INFRASTRUCTURE: The visitor industry achieves the goal of economic, social and environmental sustainability by being aware of infrastructure's importance and role in Agder's future attractiveness as a destination. The following focus areas have been chosen:

- Adapt and further develop public transport to make it more attractive to visitors.
- Adapt and further develop bicycle paths to make them more attractive to visitors.
- Ensure good general signposting to and between attractive destinations and services.
- Increase focus on the opportunities that international flights and ferry services to Agder represent in order to attract more foreign visitors.

Photo: © Johan Wildhagen, Innovation Norge



AGRICULTURE AND MARINE INDUSTRIES: «SUSTAINABLE USE OF AGDER'S NATURAL RESOURCES»

CHALLENGES AND POINT OF DEPARTURE

The world is facing the green transition: a shift in value creation from being based on fossils to renewables. The bio-economy is seen as the economy of the future, with enormous possibilities for investors. Agriculture and the marine industries are important for settlement, value creation, employment and environment in Agder. The region has huge forest resources, a viable and sound sawmill and timber industry, and a considerable potential for both increased felling and investments in the industry.

We also have a resourceful sea, with extensive prawn fishing and major opportunities for further development, among other things. Agriculture in our region is varied. Like the land itself, it is very outspread, with strong and innovative environments in some areas of production. Targeted investments in research and competence-raising, cooperation, recruitment and sustainable management will contribute to increasing value creation in the industries in our region.

The different topics relating to the primary industries have their own objectives and specific strategies for how business development and value creation can be realised.

CROSS-SECTORAL OBJECTIVES FOR ALL PRIMARY INDUSTRIES

- Develop robust and sustainable industries that are equipped for climatic and demographic changes, and that are adapted to societal demands.
- Secure the region's resource basis for future generations.
- Secure recruitment to the industries and strengthen efforts for technology and knowledge development, research and competence-building.
- Increased sustainable use of Agder's natural resources.
- Create more synergies between the industries.
- Ensure that the infrastructure and framework conditions are meeting the industries' needs.
- Take advantage of new and existing opportunities in the market.

OBJECTIVES FOR AGRICULTURE: INCREASE COMPETITIVENESS AND VALUE CREATION THROUGHOUT THE VALUE CHAIN, AND DELIVER MORE, SAFER AND HEALTHIER FOOD TO AN EXPANDING MARKET, WHILE PHASING OUT FOSSIL INPUT FACTORS

Sub-Objectives:

- Increase the current production level by making better use of knowledge, climatic conditions and available resources.

- Increase production and the range of local food and drink specialities.
- Increase the proportion of food processed locally and contribute to further development of the food industry in Agder.
- Develop profitable farm-related travel and tourism products.
- Increase value creation in farming by supplying services to the local community.
- Minimise the loss of land resources.
- Stimulate the development and use of renewable and other production factors in order to establish a fossil-free and profitable agricultural industry.
- Competence-building throughout the value chain to optimise the utilisation of agricultural resources, both natural and other.
- Develop networks and facilitate the development of professional clusters.
- Stimulate the development of systems whereby waste products from food and agricultural production are used as resources for new products.

OBJECTIVES FOR FORESTRY: INCREASE VALUE CREATION THROUGHOUT THE VALUE CHAIN AND STRENGTHEN COMMITMENT TO FOREST AND FORESTRY PRODUCTS IN A CLIMATE CONTEXT

Sub-Objectives:

- Increase harvesting and make better use of the production basis.
- Increase local processing by facilitating the establishment of industrial enterprises in all parts of the value chain for timber and wood products.

- Be proactive and take part in the value creation triggered by new wood products.
- Establish industrial production of biocarbon in Agder that can deliver 'green' carbon products to the region's processing industry.
- Stimulate and facilitate the growth of regional wood clusters and timber industry communities.
- Stimulate the production of biofuel as a means of reducing the use of fossil energy.

OBJECTIVES FOR THE MARINE INDUSTRIES: INCREASE VALUE CREATION IN AGDER THROUGH EFFORTS TO ACHIEVE SUSTAINABLE BUSINESS AND INDUSTRY, KNOWLEDGE DEVELOPMENT, AND RESEARCH AND INNOVATION, AND TO STIMULATE INCREASED CONSUMPTION OF LOCAL FRESH FISH AND SEAFOOD

Sub-Objectives:

- Secure the use of coastal marine areas for professional fishing in order to preserve a living coast and sustainable production basis for the marine industries.
- Facilitate value creation and coastal culture dissemination by preserving and developing the environment surrounding the fish landing facilities in Agder.
- Stimulate innovation and knowledge development through research and competence-sharing.
- Increase the proportion of food that is processed locally and contribute to the further development of the food industry in Agder.
- Maintain and develop sustainable coastal ecosystems as a basis for value creation in the marine industries.

Photo: © Jan Aaboe, Aust-Agder County Council



INNOVATION IN THE PUBLIC SECTOR: «REMOVE THE BARRIERS»

OBJECTIVE FOR INNOVATION IN THE PUBLIC SECTOR: DEVELOP MORE EFFICIENT HIGH-QUALITY PUBLIC SERVICES WITH LIMITED RESOURCES

CHALLENGES AND POINT OF DEPARTURE

Increased standard of living and welfare in Norway has led to more opportunities and higher expectations and demands among the population as regards both the quality and scope of public services. It is not sufficient that the public sector continues to do 'more of the same' to meet current and future challenges. Increased innovation provides opportunities and solutions by utilizing new, useful methods and solutions.

The need for innovation in the public sector can be summarised as follows:

- Strong economic growth creates expectations of large public investments in infrastructure, buildings, energy systems, culture etc. Large public investments create a strong need and great potential for innovative behaviour and solutions.
- Increased demand in the health/care/welfare sector, the labour market and education requires more and better knowledge, and a need to anchor the produced knowledge among the professions tasked with solving challenges. In turn, this requires better cooperation

between research and the practitioners. Innovative public solutions must be a part of the answer to Agder's living condition challenges. This means that all population groups have access to services of equal quality, and that the services are adapted to the needs of the individual.

- New technological solutions increase the need and potential for innovation and new processes. New solutions and forms of organisation are required, because the public authorities cannot fund all technically feasible solutions.

Various barriers have been identified that prevent, hamper or delay the implementation of projects and measures contributing to innovation in the public sector. These barriers are not only linked to the lack of financial and/or human resources, but can be divided into three main groups. For each of these groups, a few possible focus areas/efforts have been highlighted that can remove or reduce the barriers:

1. EDUCATION AND COMPETENCE

There is a lack of research, development and innovation in the public sector. More research is conducted on than with the public sector, and too little transfer of knowledge takes place between R&D and practitioners level.



Possible focus areas/priorities:

- Municipalities should earmark funds for their own R&D efforts.
- Efforts should target research on needs-driven innovation through making better use of research programmes in which researchers and municipal services jointly apply for research funds.
- E-health: Introduce a secondment scheme for health personnel (programme under the auspices of the Research Council of Norway).
- Strengthen the use of e-learning centres and showrooms.
- Encourage Agder's business sector to invest in welfare technology through strategic use of public procurements.
- Facilitate increased exchange between innovative environments in the business sector and the public sector, especially within and between municipalities (innovation clusters).

2. CHALLENGES RELATED TO MANAGEMENT AND ORGANISATION

There is too little awareness of innovation activities in the public sector, which is especially important for managers and elected representatives. Today, the public sector is too often assessed against economic parameters – quantitative targets (budget/accounts) – and not qualitative targets (long-term benefits) and innovation capacity. Inadequate realisation of benefits means low motivation to innovate. Innovation that leads to rationalisation, budget cuts and removal of tasks and jobs create insecure employees. There is also lack of holistic thinking in relation to innovation

efforts in the municipalities ('silo mentality'). There is no overall strategy and a lack of creativity and structure for digital services, and there is a lack of opportunities for the realisation of benefits in ICT procurements.

Possible focus areas/priorities:

- Establish a team of employees from different sectors that can run innovation processes in their own municipalities.
- Organise meeting places and a conference relating to the exchange of experience – 'best practice'.
- Clarification of how the results will be applied/implemented at the start of a project.
- Establish one or more innovation centres for the municipal sector in Agder.
- Focus on public sector employees' inner motivation as a driving force for innovation - not financial incentives.
- Develop courses about innovation for elected representatives under the auspices of the Norwegian Association of Local and Regional Authorities (KS).
- Implement incentives that provide motivation for innovation.
- Increase predictability and motivation by ensuring that the innovative service retains some of the benefits.
- Increase competence in network management.

3. POLITICS/CULTURE

There is a lacking culture of, or encouragement for, thinking outside the box and daring to take risks to find new innovative solutions. Considerable procurement volumes in the public sector are not used as a strategic instrument

for promoting development, but mainly to secure operations.

The reason for this is that the existing public procurement regulations have contributed to a culture where detailed requirement specifications are set out for the desired products and services to minimise risk, leaving the supplier little room for qualitative development. In other words: Our culture of using procurement as an instrument for innovation and our expertise in this regard is under-developed. The existing support schemes are insufficiently utilised and are perceived as an extra burden on top of running operations, which are given priority.

Possible focus areas/priorities:

- Develop an 'Agder culture' for managers who are willing to take risk, and who motivate and create results through confident employees.
- Devote more time for professional reflection and strategic work to promote innovative solutions.
- 'New municipalities' should focus on the connection between service production and innovation, and thereby the autonomy to solve tasks.
- Increase municipal expertise in procurement: In order to use procurements as an instrument for internal and external innovation, the municipality must be a competent and demanding procurer.
- Implement innovative procurements in municipal procurement strategies to increase the quality of services and cost efficiency for the municipality and to contribute to developing the supplier market and new products and services.
- Use regional, national (KS and the Confederation of

Norwegian Enterprise's (NHO) programme for supplier development) and international support schemes to facilitate the transition from the current to a new procurement regime.

- Integrated approach: Close cooperation between the municipalities' procurement services and business development advisers with large procurement volumes and dedicated responsibility for different societal challenges (health/social challenges, climate/environmental challenges).



FOLLOW-UP OF THE PLAN – REGIONAL COORDINATION, STRENGTHENING, AND SMART SPECIALISATION

The follow-up of VINN Agder will take place in cooperation with the regional partnership. Cornerstones of the work will be the action plans for development of industry and enterprises, adopted through the regional councils' planning processes, and action plans for the public innovation agencies. Specifically, this concerns the strategic industrial and development plans for the Kristiansand, Eastern Agder, Lister, Lindesnes, and Setesdal regions.

The work on VINN Agder not only stipulated objectives and priority areas, but also several proposals for strategic initiatives, focus areas and possible measures for follow-up of the objectives. In addition, further proposals for measures were made during the consultation round. The proposals need further consideration as regards which measures should be prioritised first. This work must be based in the regional partnership.

A research-based 'Smart Specialisation analysis' will be carried out to further operationalise, specify and prioritise the input from the planning and consultation process. The purpose is to analyse the input received in relation to VINN Agder's objectives and to study what will have the most effect as regards the region's innovation and value creation capacity. 'Smart specialisation' is an EU initiative to strengthen the work on economic growth in Europe. Smart specialisation is about further developing a region on the

basis of its unique qualities (the region's comparative advantages) and identifying where new innovations or new industries/sectors can arise. The two Agder counties registered at the S3 platform for Smart Specialisation in December 2014. Implementing a research-based smart specialisation analysis will strengthen the possibility of achieving a targeted innovation policy in Agder.

The Smart specialisation analysis will look at all the input from the thematic working groups and VINN Agder's planning and consultation process, and must be linked to other plans, strategic industrial and development plans from the regional councils, as well as to other regional plans.

An action programme for VINN Agder will be developed on the basis of the recommendations from the Smart Specialisation analysis and will be revised annually.

APPENDIX: REFERENCES

Entrepreneurship and the Innovation System of the Agder Region, Norway (OECD 2009)

ESPON, various statistics

Fiske i Sør – En situasjonsbeskrivelse og forslag til tiltak, report from April 2013 by the working group 'Arbeidsgruppen Fiske i Sør' appointed by the Ministry of Fisheries and Coastal Affairs

Forskning og utvikling i næringslivet, Statistics Norway 2012

Forsknings- og utviklingsstrategi for Agder (Aust-Agder and Vest-Agder county authorities, adopted in 2009)

Fra skau til dør – naturligvis (2009) Agder Tresenter

The County Governors in Agder (2013): 'Oppplæringsvinduet'

Innspill til planstrategiprosessen i Aust- og Vest-Agder fylkeskommuner (University of Agder), report from the RIS Centre of 15 March 2015

Innovasjon – organisasjon, region, politikk (eds. B. Abelsen, A. Isaksen, S.-E. Jakobsen, 2013)

Innovasjon i norsk næringsliv 2010-2012 (Statistics Norway 2015)

Internasjonal strategi for Agder (Aust-Agder and Vest-Agder county authorities, adopted 2012)

Konjunkturbarometer for Sør- og Vestlandet, January 2015; formerly 'Konjunkturbarometer for Agder', various years

Kompetanseutfordringer på Agder (Agder Research report, January 2014)

Krise, omstilling og vekst – en regionalanalyse av Sørlandet (Agder Research 2013)

Landbruksmelding for Aust-Agder, adopted by the County Council on 21 June 2012

Report No 7 to the Storting (2014–2015): Melding til Stortinget. **Langtidsplan for forskning og høyere utdanning 2015–2024**

Report No 9 to the Storting (2011–2012): Melding til Stortinget. **Landbruks- og matpolitikken. Velkommen til bords**

Report No 13 to the Storting (2012–2013) **Ta heile Noreg i bruk. Distrikts- og regionalpolitikken**

Report No 18 to the Storting (2012–2013) **Lange linjer – kunnskap gir muligheter ('Forskningsmeldingen')**

'Miljø- og samfunnsansvar i offentlige anskaffelser', action plan 2007-2010 (the Ministry of the Environment, the Ministry of Government Administration and Reform, the Ministry of Children and Equality)

NHO nærings-NM 2014, and previous years

Norwegian Official Report (NOU) 2011:3 **Kompetansearbeidsplasser – drivkraft for vekst i hele landet**

Norwegian Official Report (NOU) 2011:11 **Innovasjon i omsorg**

Norwegian Official Report (NOU) 2012:9 **Energiutredningen – verdiskaping, forsyningssikkerhet og miljø**

Norwegian Official Report (NOU) 2015:1 **Produktivitet – grunnlag for vekst og velferd** (Productivity commission's first report – preliminary edition)

Nye vegar til framtidens velferd. Regjeringa sin strategi for innovasjon i kommunesektoren (The Ministry of Local Government and Regional Development, 2013)

The Ministry of Trade and Industry (2012): **Regjeringens reiselivsstrategi. Destinasjon Norge. Nasjonal strategi for reiselivsnæringen**

OECD Skills Strategy Action Report Norway 2014

Oslo manual. The measurement of scientific and technological activities. Proposed guidelines for collecting and interpreting technological innovation data (OECD)

Public Procurement as a Policy Instrument to Promote Innovation, ifo Schnelldienst 05/2011

Regionalt bygdeutviklingsprogram Aust-Agder 2013–2020

Regionalt bygdeutviklingsprogram Vest-Agder 2013–2020

Region Development Plan Agder 2020

Regionalt næringsutviklingsprogram Aust-Agder og Vest-Agder 2013-2014 (2013)

Reiselivsstrategi – Felles reiselivsstrategi for Aust- og Vest-Agder fylkeskommune 2006

Report of the World Commission on Environment and Development: Our Common Future ('the Brundtland report', 1987)

Proposition No 7 to the Storting (2008–2009) **Et nyskapende og bærekraftig Norge**

Report No 17 to the Storting (1998–99): **Verdiskaping og miljø – muligheter for skogsektoren** (Skogmeldingen)

Report No 36 to the Storting (2008–2009): **Det gode innkjøp**

Strategi for innovasjonseffekt av offentlige anskaffelser (The Ministries, 2013)

Sørlandet i verden – verden på Sørlandet (Sørlandsutvalget 2013)

Surt liv på det blide Sørland – Helse og levekår i Agderfylkene (Agder Research, 1993)

Telemark Research Institute (2014): **Østre Agder – Samfunnsanalyse.** Telemark Research Institute, memo no 10/2014

Utfordringer og muligheter på Agder – innspill til diskusjon om regional utvikling og regional planstrategi (Agder Research 2012)

Visit Sørlandet - Om verdiskaping og markedsføring. Hele Sørlandet - ett nettverk. Innstilling fra Sørlandsutvalget for reiseliv (2008)

Women in business - Nettverk, vekst, innovasjon, Research report 2011

Økonomiske virkninger av reiseliv for Aust-Agder og Vest-Agder, Institute of Transport Economics, 2005

VALUE CREATION AND INNOVATION



Regional Plan for Innovation and Sustainable Value Creation in Agder 2015–2030



AUST-AGDER
COUNTY COUNCIL



Vest-Agder
county council



REGIONAL DEVELOPMENT PLAN AGDER 2020