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ITHACA CASE STUDY NO.5: STATE OF BADEN-WÜRTTEMBERG



Baden-Württemberg

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Baden-Württemberg presenters
ITHACA region visiting delegations

1. INTRODUCTION

1.1. Background to the Case Study

Hosted by Ministry of Social Affairs Baden-Württemberg (and supported by a team of Eberhard Karls University of Tübingen), the State of Baden-Württemberg was the setting for the fifth *Exchange of Experience and Peer Evaluation (EEPE)* event. It took place on 2nd to 4th of July 2018 in the cities of Stuttgart (capital city of the State of Baden-Württemberg) and Tübingen. Baden-Württemberg's EEPE comprised a series of talks, demonstrations and site visits to key initiatives designed to inform the visiting delegation of experts¹ about how Baden-Württemberg and its eco-system is working to accelerate the scaling up of smart health and care solutions for active and healthy living whilst achieving the triple win of economic growth, more sustainable health and care systems and improved well-being for its citizens. It concluded with an interactive and structured peer evaluation session.

Like other ITHACA EEPEs before, Baden-Württemberg's one was also structured around three pillars that are the hallmark of the ITHACA project. These were the state's:

- strategic and policy framework;
- eco-system for scaling up smart health and care solutions;
- experience across the innovation cycle (invention, co-creation, market testing, validation and scaling up).

1.2 Methodology

This case study is informed by and derives from:

- documentation provided by Baden-Württemberg's stakeholders before and during the EEPE event – including strategy documents, evaluation reports and promotional materials;
- the information and evidence presented and demonstrated during the event – including PowerPoint presentations;

¹ 32 delegates from other European regions attended Baden-Württemberg's EEPE. They were from 8 ITHACA regions: Liverpool City Region (UK), Zealand (Denmark), Nouvelle Aquitaine (France), Noord Brabant (Netherlands), Friuli Venezia Giulia (Italy), Slovenia, Basque Country (Spain) and Malopolska Region (Poland). In addition to that two delegates joined from Lombardia (Italy) and Catalonia (Spain) on behalf of the transregional European Network "4 Motors for Europe".

- peer evaluation feedback from visiting delegates presented during the EEPE's concluding peer evaluation session on July 4th and in follow-up, written reports.

In preparation of the EEPE Baden-Württemberg's stakeholders were briefed during two regional Stakeholder meetings to provide information that would help the visiting delegates to understand the state's policy, activity and infrastructure and make informed assessments of their strengths and weaknesses. Equally, the visiting delegates were briefed about the peer evaluation process (see section 5.1). This enabled them to act as an 'evaluation and feedback team' and to provide structured feedback to the hosts about what they saw and learnt. In this context, visiting ITHACA delegates brought their own knowledge and experience and, with the benefit of a fresh eye, they provided Baden-Württemberg's stakeholders with an expert critique and recommendations about the region's approach. It provided a forum to engage in a mutual discussion about visiting delegate perceptions and flagged up implications for policy and practice going forward. The verbal and written insights of visiting delegates emerged through the peer evaluation process and have influenced and added considerable value to the content of this case study.

1.3 Structure of this Case Study

The rest of this report sets out the approach adopted in Baden-Württemberg in scaling up smart solutions for health, care and well-being along with highlighting the expert feedback from the ITHACA delegation. Section 2 outlines the strategies and policies in Baden-Württemberg that shape and drive the smart health agenda. Section 3 highlights Baden-Württemberg's ecosystem. Section 4 focuses on the innovation cycle and the range of initiatives and innovations in B.-W. that stakeholders presented at the EEPE event. Section 5 flags up key assessments from the visiting delegates that were fed back during and after the EEPE event, discusses the key findings that have resonance and presents the case study's recommendations.

2. STRATEGIC AND POLICY CONTEXT

2.1 Overview

According to various studies and benchmarks by the European Union, Baden-Württemberg is one of the most innovative regions in the World. As the birthplace of the automobile, around one quarter of industrial revenue is generated today in Baden-Württemberg by the automotive engineering industry and its large supplier network, closely followed by mechanical and plant engineering (around 20 per cent) and the metal and electrical industry (each 7 per cent).



The chemical, pharmaceutical and optical industries also play a key role. Nowhere else – relative to the population count – are more patents registered than in Baden-Württemberg. Furthermore, the State is also home to many leading universities (Heidelberg, Tübingen, Freiburg, Karlsruhe, Stuttgart, Konstanz, Ulm) and research institutions, including the Institutes of the Max-Planck Society, the German Cancer Research Centre in Heidelberg, the German Aerospace Centre, the Centre for Solar Energy and Hydrogen Research Baden-Württemberg and the Institutes of the Fraunhofer Society.

Facts and Figures about the State of Baden-Württemberg:

Area:	35.751 km ²
Total population:	11 Million (2.15 Million: 65 years and over)
Capital:	Stuttgart
Density of population:	304 per km ²
GDP:	476.760 Million Euro
GDP per capita:	42.623 Euro
R&D expenditure/GDP:	5,1%
Unemployment rate:	3,1%

Baden-Württemberg is also a leading player regarding the digital health care and innovation field in Germany. It is a 1 star European Reference Site within the European Innovation Partnership for Active and Healthy Ageing (EIP AHA). For several years it has been the only German member in the Coral (Community of Regions for Assisted Living) network (a strategically prominent network of 38 European regions) and is also one of the few German members (together with the Region of Cologne/Bonn and the State of Saxony) of the Reference Site Collaborative Network. It has established collaborative links with numerous European regions. Importantly, health and innovation is a key pillar of the newly established digitalisation strategy “digital@bw”.

2.2 Baden-Württemberg’s Health and Care System

Life Expectancy:	83,9 women / 79,4 men
Total costs of health and care system in Ba-Wü:	44.138,1 Million Euro (9,7% of B-W’s GDP) Statutory health insurance covers 22 Billion € (~44% by AOK)
Expenditures per capita:	~ 4.000 Euro
Number of employees in Ba-Wü’s Health/Care-System:	731.700
Number of employees in Ba-Wü’s Health/Care-System + Med-Tech & Pharma:	791.500 (in 2016) – 12,9% of total employment in Ba-Wü

The health and care system of Baden-Württemberg is embedded in a nationwide model of the Federal Republic of Germany, which is based upon an insurance scheme consisting of health insurance coverage and long term care insurance. Fundamental for the German insurance scheme is a legal obligation to choose out of the several existing private or statutory sickness and long term care insurances. This implies that none of the German citizens can be uncovered permanently.

The insurance scheme is financed by fees of the respective members of the insurance and state subsidies. In case of the statutory sickness insurances, there is a legal frame for the amount of money that members have to spend in order to be insured. This amount is based upon a certain percentage, which acts in accordance to the respective social and professional circumstances. In this respect there is a general differentiation between statutory and voluntary/private insured members. High-income people can opt out for private coverage.

Total health expenditure in Germany was 356,5 Mrd. Euro in 2016 (11,3% of GDP), of which 3/4 is publicly financed, mainly by statutory health insurances (58,1% of total expenditures). Sickness funds are financed by compulsory contributions levied as a percentage of gross wages up to a ceiling. Coverage is universal for all legal residents. All employed citizens (and other groups such as pensioners) earning less than EUR 59,400 per year as of 2018 are mandatorily covered by SHI, and their nonearning dependents are covered free of charge. Individuals whose gross wages exceed the threshold and the previously SHI-insured self-employed can remain in the publicly financed scheme on a voluntary basis (as 75% do) or purchase substitutive PHI, which also covers civil servants. About 86 percent of the population receive their primary coverage through SHI and 11 percent through substitutive PHI. Military members, police, and other public-sector employees are covered under special programs. Visitors are not covered through German SHI. Refugees and undocumented immigrants are covered by social security in case of acute illness and pain, as well as pregnancy and childbirth.

Statutory insured members pay a general or a reduced percentage in relation to their income liable for insurance contributions, including a contribution ceiling for high incomes. The general contribution of 14.6 % of the income in case of health insurance counts for people with earned incomes, national old-age and other pensions (e.g. company pensions). Members without the claim on sickness benefit pay the reduced contribution of 14 %. In case of long term care insurance, compulsory insured members without children pay 2.6 % and with children 2.35 %. Employers and employees share the contributions, so

that both pay half of the total amount of money. The same percentages count for voluntary insured members (e.g. freelancer or founder of a new business), merely the assessment base of the incomes is different. There are additional rules for family members, students, unemployed people and pensioners.

Structure and operating principle of the German health and care system:

While both, the contribution rate and a certain fundamental frame of services are prescribed by law, the health and long term care insurances can differ in the entire spectre of services they offer. Complementary medicine, supererogation in case of medical treatment and patient care or special services in case of pregnancy are some examples for additional services of the insurances that can determine the decision for a membership. Some of those services are financed by supplementary contributions. In respect to the long term care insurance, care-dependant people are classified in different care levels that determine the extent of services and the amount of private co-payments, care-dependant people or their relatives have to take. In this respect, family based care plays an important role in the German nursing care system.

Individuals have free choice among General practitioners (GP), specialists, and, if referred to inpatient care, hospitals. Registration with a family physician is not required, and GPs have no formal gatekeeping function. However, sickness funds are required to offer their members the option to enroll in a “family physician care model,” which has been shown to provide better services and also often provides incentives for complying with gatekeeping rules.

General practitioners and specialists in ambulatory care who get reimbursed by SHI are by law mandatory members of regional associations that negotiate contracts with sickness funds. Regional associations of SHI-accredited physicians are responsible for coordinating care requirements within their region and act as financial intermediaries between the sickness funds and the physicians in ambulatory care. However, ambulatory physicians typically work in their own private practices—around 60 percent in solo practice and 25 percent in dual practices. Most physicians employ doctors’ assistants, while other non-physicians (e.g., physiotherapists) have their own premises.

Outpatient care in Germany is conducted predominantly by GPs. Medical practitioners as part of the Association of Statutory Health Insurance Physicians (association/chamber) have even a monopoly for outpatient care. Hospital doctors are only allowed to provide outpatient care if they are

explicitly authorised by the Association of Statutory Health Insurance Physicians.

Inpatient care, however, is usually provided by hospital doctors, what illustrates the distinction and demarcated remits of GPs and hospital doctors. Inpatient care is subdivided into hospital care and inpatient medical rehabilitation. Usually, patients need a referral from an established doctor to attend a hospital, unless it is a case of emergency. In general, people have the free choice of general practitioners and hospitals.

SHI-accredited physicians in ambulatory care (GPs and specialists) are generally reimbursed on a fee-for-service (FFS) basis according to a uniform fee schedule negotiated between sickness funds and physicians. Payments are limited to covering a predefined maximum number of patients per practice and reimbursement points per patient, setting thresholds on the number of patients and of treatments per patient for which a physician can be reimbursed. For the treatment of private patients, GPs and specialists also get an FFS, but the private tariffs are usually higher than the tariffs in the SHI uniform fee schedule. Pay-for-performance has not been established yet. The average reimbursement of a family physician is above EUR 200,000 per year, covering costs for personnel, etc., but excluding income from private patients, which varies substantially.

Financial incentives for care coordination can be part of integrated care contracts, but are not routinely implemented. The only regular financial incentive that GPs receive is a fixed annual bonus (EUR 120 in 2016) for patients enrolled in a Disease Management Program (DMP), in which physicians provide patient training and document patient data. Bundled payments are not common in primary care, but a regional initiative, “Healthy Kinzigtal” (Kinzigtal is a valley in Baden-Württemberg), provides an example of a shared savings model offering primary care doctors and other providers financial incentives for integrating care across providers and services, which is unique in Germany.

After-hours care is organized by the regional associations of SHI-accredited physicians to ensure access to ambulatory care around the clock. Physicians are obliged to provide after-hours care in their practices, with differing regional regulations. In some areas, after-hours care has been delegated to hospitals. There is also a tight network of emergency care providers (the responsibility of the municipalities). After-hours care assistance is also available via a nationwide telephone hotline (Ärztlicher Bereitschaftsdienst).

As a pioneer in Germany, Baden-Württemberg started successfully a Tele-Health/Care-Service called docdirekt (TeleClinic) in 2018.

Institutions and Responsibilities:

The parliament of the Federal Republic of Germany (Bundestag) is responsible for the legislation. In this respect, the Ministry of Health has the executive competence and plays a decisive role in elaborating legislative proposals as well as administrative and general regulations. Bills and amendments are firstly discussed in the plenum of the parliament and subsequently transmitted to the relevant Bundestag committee. In respect of the health and nursing care system, the committee of the Ministry of Health is in charge of preparing a recommended resolution that forms the basis of the decision in the plenum. Furthermore, the German parliament rules fundamental issues of the statutory health insurance and the other relevant insurances and provides the frame for hospital financing and supply, pharmaceutical supply as well as supply of medical and blood products.

At the regional level, the representation of the federal states of Germany (Bundesrat) is involved in the legislation process. After a final decision about the resolution in the German parliament was made, the federal state of Baden-Württemberg has different options and competence to deal with the bill, depending on whether it is an objection or approval law. Moreover, the respective state ministries of the federal states (i.e. Baden-Württemberg Ministry of Social Affairs and Integration) play an important role in providing an efficient and needs-based inpatient care and public health service as well as offering preventive measures for maintaining and supporting the people's health.

Main actors in the health and care system are the self-governing associations and corporations of the statutory health insurances. They are responsible of the organisation and administration of the health and care system, they provide the different services and they are basic contact of each issue according to medical and health care topics. The insurances can be distinguished in six different kinds, which originally varied in terms of their target group, based upon profession or habitation. Those kinds are: Allgemeine Ortskrankenkassen (AOK: 25.144.795 members), Betriebskrankenkassen (BKK: 11.806.503) and Ersatzkrankenkassen (26.757.317), Innungskrankenkasse (IKK: 5.349.811), Knappschaften (1.680.028) and Landwirtschaftliche Krankenkassen. Initially, people were automatically assigned to one of those kinds, until in 1996 the free choice of insurances was anchored in law. The range of institutions meanwhile encompasses still 113 different insurances in

total. In addition, 8,8 Million people in Germany are members of a private health insurance.

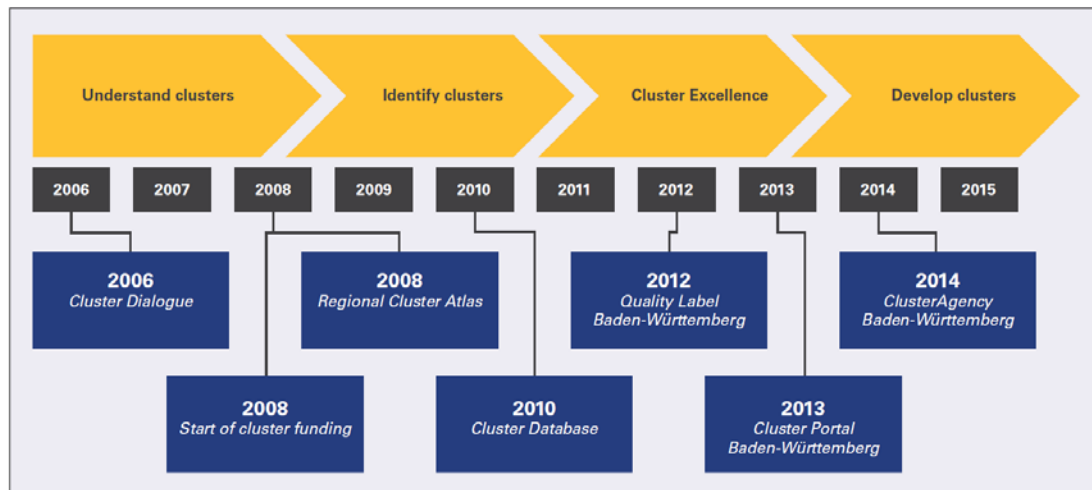
2.3 Baden-Württemberg's main Policy Strategies in the area of (digital) Health and Care

Although Baden-Württemberg's Health and Care System is fragmented and direct policy interventions are therefore rather difficult, the state has been developing a range of policy activities in order to foster digitalisation in the area of health and care:

- **Cluster strategy Baden-Württemberg (2006 until today)**

The state government of Baden-Wuerttemberg systematically supports the (further) development of clusters, cluster initiative and the federal state's networks of regional, national and international visibility. Numerous cluster initiatives have already been awarded for winning national and regional competitions. Over the past years, a rich and well-balanced cluster landscape has developed in Baden-Württemberg (more than 120 regional cluster initiatives according to the Cluster database Baden-Württemberg: www.clusterportal-bw.de/clusterdatenbank), also in the area of health (also with a strong focus on Medtech, Pharmaceuticals and Biotechnology). A large number of companies, research institutes and universities are integrated in regional cluster-initiatives and networks at federal state level. The players of these cluster initiatives and networks are characterized by an intense and effective interaction. The cluster participants are promoted by a variety of measures and activities (i.e. by the ClusterAgency Baden-Württemberg. To support and assist cluster initiatives in their development, the ClusterAgency Baden-Württemberg was founded using funds from the European Regional Development Fund (ERDF) and the state of Baden-Württemberg).

Fig. 1: Instruments of cluster policy in Baden-Württemberg in the context of changing requirements



- **Future Plan Health / Health-Strategy Baden-Württemberg 2012**

Baden-Württemberg's Ministry of Labour and Social Affairs; Focus on dialog, participation and empowerment; establishment of a platform „Landesgesundheitskonferenz“ on the state-level as well as on the county and municipality level („Gesundheitskonferenzen“) in order to strengthen the local eco-systems.

- **Innovation strategy 2013**

Baden-Württemberg Ministry of Finance and Economic Affairs together with Ministry of Science, Research and Culture, Ministry of Rural Areas and Consumer Protection and Ministry of Environment, Climate and Energy. More systemic approach on innovation, also aiming at cross-over developments.

- **Digitalization strategy 2017 (digital@bw)**

Baden-Württemberg's Ministry of Interior, Digitalization and Migration together with all other ministries; establishment of a Cabinet Committee for Digitalization; additional budget of 100 Million Euros just for digitalization projects.

- **Forum Gesundheitsstandort Baden-Württemberg (2018-2022)**

Newly established governance body consisting of various experts and stakeholders (Quadruple Helix) from Baden-Württemberg's Health- and Care-

System orchestrated by the support of four ministries and chaired by the Premier (Ministerpräsident) W. Kretschmann.

- **Demography Concepts (2018)**

The State appointed a „Unabhängiger Demografiebeauftragter“ Thaddäus Kunzmann MdL to work on a demography strategy and to implement demography concepts on the county/district level.

- **Neighbourhood Concepts: “Quartier 2020 – Gemeinsam. Gestalten.” (2018)**

Ministry of Social Affairs and Integration support programme for municipalities.

3. ECO-SYSTEM

3.1 Baden-Württemberg’s Eco-System Context

One of ITHACA’s central tenets is to build on good practices in constructing and strengthening the innovation eco-system – that can serve as a foundation for smart specialisation strategies and drive the scaling up of smart solutions for active and healthy living and ageing. Equally, there is a growing body of evidence that regional approaches to innovation for health, care and well-being have been most successful when they have brought together key stakeholders - including Government Bodies, Health and Care providers, industry, academia and civil society – into a coherent partnership or ecosystem. This “Quadruple Helix” arrangement can enable all stakeholders to be more aware of health and care priorities, challenges, needs and economic opportunities, and so enable researchers and industry to focus on more rapidly developing solutions to be tested, to scale up the deployment of innovative solutions and to demonstrate evidence of impact.

In Baden-Württemberg on the level of the state, the eco-systems that reflect this quadruple helix approach include for example:

- Landesgesundheitskonferenz
- Cluster Dialogue
- Smart Health & Living Baden-Württemberg
- Forum Gesundheitsstandort Baden-Württemberg

3.2 Landesgesundheitskonferenz

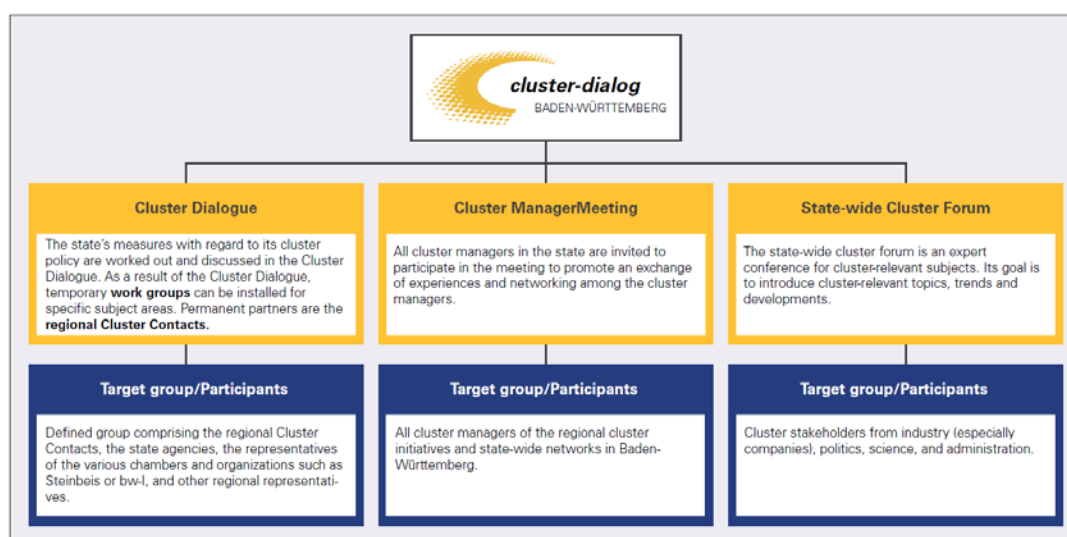
Coordinated by the Ministry of Social Affairs and Integration Baden-Württemberg on the level of the state an overarching platform (Landesgesundheitskonferenz) has been installed to bring together all relevant stakeholders (Quadruple Helix) of Baden-Württemberg's health system in a regular and formalised way (according to Baden-Württemberg's health law the group has to meet at least once a year). Formal members of the Landesgesundheitskonferenz (by law, § 4 Abs. 2 LGG): Ärzteverband öffentlicher Gesundheitsdienst Baden-Württemberg e.V., Baden-Württembergische Krankenhausgesellschaft, Bundesverband Pharmazeutischer Industrie e.V., Deutscher Berufsverband für Pflegeberufe DBfK Südwest e.V., Fachverband Deutscher Heilpraktiker, Landesverband Baden-Württemberg e.V., Hebammenverband Baden-Württemberg, Kassenärztliche Vereinigung Baden-Württemberg, Kassenzahnärztliche Vereinigung Baden-Württemberg, LAG Geriatrie, Landesapothekerkammer Baden-Württemberg, Landesärztekammer Baden-Württemberg, Landesgesundheitsamt Baden-Württemberg im Regierungspräsidium Stuttgart, Landespsychotherapeutenkammer Baden-Württemberg, Landes Zahnärztekammer Baden-Württemberg, Liga der freien Wohlfahrtspflege, Mannheimer Institut für Public Health, Medizinischer Dienst der Krankenversicherung Baden-Württemberg, Robert Bosch Stiftung GmbH, Universitätsklinikum Heidelberg, Universitätsklinikum Tübingen, Verband medizinischer Fachberufe e.V. Landesverband Süd, Verband Physikalische Therapie (VPT) e.V., Landesgruppe Baden-Württemberg; Kostenträger AOK Baden-Württemberg, BKK Landesverband Süd, Deutsche Rentenversicherung Baden-Württemberg, IKK classic, Knappschaft Regionaldirektion München, Leiter der Landesvertretung Verband der Ersatzkassen, Sozialversicherung für Landwirtschaft, Forsten und Gartenbau, Unfallkasse Baden-Württemberg, Hauptsitz Stuttgart, Verband der Privaten Krankenversicherung Landesausschuss Baden-Württemberg; Beauftragte der Landesregierung für die Belange von Menschen mit Behinderung, Der Paritätische LV Baden-Württemberg, Deutscher Gewerkschaftsbund Bezirk Baden-Württemberg, Kommunalverband für Jugend und Soziales, LAG der Kontakt- und Informationsstellen für Selbsthilfegruppen (LAG KISS), LAG Selbsthilfe,

Landesfrauenrat Baden-Württemberg, LandesseNIorenrat Baden-Württemberg, Landesvereinigung Baden-Württembergischer Arbeitgeberverbände e.V., Sozialverband VdK Landesverband Baden-Württemberg, ver.di-Landesbezirksverwaltung, Verbraucherzentrale Baden-Württemberg e.V.; Gemeindetag Baden-Württemberg, Landkreistag Baden-Württemberg, Ministerium für Wissenschaft, Forschung und Kunst Baden-Württemberg, Sprecher Kommunale Gesundheitskonferenzen, Städtetag Baden-Württemberg.

3.3 Cluster Dialogue

Baden-Württemberg’s cluster policy is based on the dialogue with the regional stakeholders as well as the cluster initiatives and state-wide networks. It, therefore, has always had a bottom-up approach, right from the beginning. In the context of cluster promotion, bottom-up means that targets and measures of supporting programmes are not defined by politics or public authorities (top-down) but are defined by the needs and challenges within the regions and the companies there. This principle applies to both the cluster initiatives, which take into consideration the specific environments and local conditions when defining their focus areas, and also to the cluster policy itself.

Accordingly, the instruments of cluster policy are also discussed and developed together with the cluster stakeholders from the different regions. This basic principle is reflected in the label Cluster Dialogue - the motto of the state’s measures of cluster policy. Under the label Cluster Dialogue, the activities of cluster policy are classified in different programmes depending on the respective target groups:



The Cluster Dialogue usually takes place twice a year. At this event, current issues and measures of Baden-Württemberg's cluster policy are discussed and worked out. In addition to the twelve regional cluster contacts, representatives of the state agencies, of the chambers, as well as from other organizations such as the Steinbeis Europa Zentrum and Baden-Württemberg International participate in the Cluster Dialogue. To prepare and structure the Cluster Dialogue, regular working groups have been installed, each with clearly defined tasks in terms of subjects and time limits.

3.3 Smart Home & Living Baden-Württemberg

The association SmartHome & Living developed out of an initiative that originated at the beginning of 2014. Members of the association are cluster-initiatives, innovation networks, technology and competence transfer centers, corporations, research institutes, universities and colleges, economy organizations, social unions and care facilities.



The overall aim is to create a sustainable innovation network, within which relevant stakeholders out of the economy, sciences and politics together are bringing forward the topic of Smart Home & Living in Baden-Württemberg.

The focus is thereby on:

- identification and interconnectedness of the key players in Baden-Württemberg
- collaborations and corporations with regional initiatives and measurements
- Display the possibilities of new technologies to the demand side
- reduction of market constraints and market entry deterrence on the supply side
- development and testing of new business models
- information and clearing up of potential consumers
- networking with European and worldwide partners

Members are: AWO Kreisverband Schwarzwald-Baar e.V., BruderhausDiakonie - Stiftung Gustav Werner und Haus am Berg, Diakonie Kork, easierLife GmbH, Elektro Technologie Zentrum Stuttgart,

Entwicklungszentrum Gut altwerden GmbH, Evangelische Heimstiftung GmbH, Fachverband Elektro- und Informationstechnik Baden-Württemberg, Fachverband Sanitär-Heizung-Klima Baden-Württemberg, FLIXWORKER GmbH, Fraunhofer IAO, FZI Forschungszentrum Informatik (Universität Karlsruhe/KIT) Hahn-Schickard-Gesellschaft für angewandte Forschung e.V., Hochschule Konstanz Technik, Wirtschaft und Gestaltung (HTWG Konstanz), Hochschule Reutlingen, homeandsmart GmbH, IHK - Schwarzwald-Baar-Heuberg (Chamber of Commerce), itb - Institut für Technik der Betriebsführung im Deutschen Handwerksinstitut e.V., Kepler-Stiftung, KIMOCON GmbH, KUNDO Home Solutions GmbH, Landesfachverband Schreinerhandwerk Baden-Württemberg, Landesinnungsverband des Maler- und Lackiererhandwerks Baden-Württemberg, Landratsamt Schwarzwald-Baar-Kreis (County Council), Landratsamt Tuttlingen, Lebenshilfe für Menschen mit Behinderungen Crailsheim e.V., LION'S SHADE GmbH u. Co. KG, Schützinger Handelsvertretung GmbH, Sozialverband VdK Baden-Württemberg, Stadt Ludwigsburg, Tellur GmbH, Universität Stuttgart, Universität Tübingen, LebensPhasenHaus Tübingen, vbw Verband baden-württembergischer Wohnungs- und Immobilienunternehmen e.V., Wohlfahrtswerk für Baden-Württemberg.

3.4 Forum Gesundheitsstandort Baden-Württemberg

Since more than 1 million people in paid work are employed by the health- and care sector in Baden-Württemberg it is also one of the economic core branches within the State of Baden-Württemberg. Due to this fact the Premier Minister – in collaboration with the Ministry of Social Affairs and Integration, the Ministry of Economic Affairs, Labour and Housing and the Ministry of Science, Research and the Arts – installed a new expert committee in 2018: “Forum Gesundheitsstandort Baden-Württemberg”. Personally appointed by the Premier Minister of Baden-Württemberg the expert group started its work in July 2018, structured by three working groups on “Research”, “Economy” and “Patient-Centred Care”. After several workshops and meetings the groups were opened and new members joined the Forum in a bottom-up-process, representing the whole spectrum of the quadruple-helix:

ITHACA Case Study (5): State of Baden-Württemberg

Institution
Aesculap AG
AOK Baden-Württemberg
Baden-Württembergische Krankenhausgesellschaft
BIOPRO Baden-Württemberg GmbH
biosyn Arzneimittel GmbH
Boehringer Ingelheim Pharma GmbH & Co. KG
CeGaT GmbH
COWA-Service Gebäudedienste GmbH
CureVac AG
Deutsches Krebsforschungszentrum
DGB Bezirk Baden-Württemberg
Dr. Margarete-Fischer-Bosch-Institut für Klinische Pharmakologie
Dr. Willmar Schwabe GmbH & Co. KG
European Molecular Biology Laboratory Heidelberg
Fraunhofer-Institut für Produktionstechnik und Automatisierung
Gesundes Kinzigtal GmbH
Hochschule Esslingen
Innovationsallianz Baden-Württemberg
Karl Storz SE & Co. KG
Kassenärztliche Vereinigung Baden-Württemberg
Klinikum Stuttgart
Max-Planck-Institut für Immunbiologie und Epigenetik
Max-Planck-Institut für medizinische Forschung
Medizinische Fakultät der Universität Freiburg
Ministerium für Soziales und Integration Baden-Württemberg
Ministerium für Wirtschaft, Arbeit und Wohnungsbau Baden-Württemberg

ITHACA Case Study (5): State of Baden-Württemberg

Ministerium für Wissenschaft, Forschung und Kunst Baden-Württemberg
Pfizer Deutschland GmbH
Regionale Kliniken Holding RKH GmbH
Robert Bosch GmbH
Robert-Bosch-Krankenhaus
Roche Deutschland Holding GmbH
SAP Deutschland SE & Co. KG
Staatsministerium Baden-Württemberg
Steinbeis Transferzentrum Soziale und Technische Innovation
Universität Stuttgart
Universitätsklinik für Kinder- und Jugendmedizin Ulm
Universitätsklinikum Heidelberg
Universitätsklinikum Tübingen
ver.di Landesbezirk Baden-Württemberg
Verband der Chemischen Industrie e.V. Landesverband Baden-Württemberg
Verband der Ersatzkassen e. V.
Zentralinstitut für Seelische Erkrankungen
Zentrum für Medizinische Forschung Medizinische Fakultät Mannheim Universität Heidelberg
Zentrum für Psychiatrie Südwürttemberg

4. INTERVENTIONS AND IMPLEMENTATION ACROSS THE INNOVATION CYCLE

4.1 The Innovation Cycle in the State of Baden-Württemberg

During Baden-Württemberg's EEPE visiting delegates have been introduced to a wide spectrum of initiatives and interventions for scaling up smart solutions that can help to improve health, care and well-being, support the sustainability of the health and care sector and boost economic growth and the profitability of local SMEs. Some involved efforts to strengthen capacity and resources across the innovation cycle. Some offered support tailored to tackling the specific challenges of the health and care sector in certain municipalities. Overall, capacity building within the state of Baden-Württemberg has a strong focus on invention (i.e. basic research at universities or Max-Planck-institutes) and the supply side of the innovation system. State support for large scale deployment of successful solutions, especially in the area of social innovations in the area of health and care, has been traditionally weak – also due to a lack of competencies (i.e. national level, Gemeinsamer Bundesausschuss GBA).

4.2 Capacity Building

Baden-Württemberg is one of the leading economic regions not only in Germany but also Europe: Home to internationally renowned corporations and thousands of successful small and medium-sized enterprises, known for its innovative drive and inventive spirit, with a high level of productivity and low unemployment; 5,1 per cent of Baden-Württemberg's gross domestic product is ploughed back into research and development.

Baden-Württemberg is also home to some of the oldest, most renowned, and prestigious universities in Germany, such as the universities of Heidelberg (founded in 1386, the oldest university within the territory of modern Germany), Freiburg (founded in 1457), and Tübingen (founded in 1477). It also contains three of the eleven German 'excellence universities' (Heidelberg, Tübingen, and Konstanz and formerly, Freiburg and Karlsruhe).

Other university towns are Mannheim and Ulm. Furthermore, two universities are located in the state capital Stuttgart, the University of Hohenheim, and the University of Stuttgart. In addition to that, here are more than a dozen Fachhochschulen, i.e., universities of applied sciences, as well as Pädagogische Hochschulen, i.e., teacher training colleges, and other institutions of tertiary education in Baden-Württemberg (a.o. in Aalen, Biberach an der Riss,

Esslingen, Karlsruhe, Ludwigsburg, Nürtingen, Pforzheim, Ravensburg-Weingarten, Reutlingen, several in Stuttgart, Schwäbisch Hall).

The State is also home to many lead research institutions, including the Institutes of the Max-Planck Society, the German Cancer Research Centre in Heidelberg and various Institutes of the Fraunhofer Society. In summary, the state has the highest density of academic institutions of any territorial state in Germany.

Besides this, there are various support agencies and associations for start-ups, also in the area of social innovation and social entrepreneurship (i.e. MedTech Startup-School Tübingen, LifeScience Accelerator BW, BW con Innovation Academy, Social Impact Lab, SocEntBW etc.).

Demonstration and Testing

Baden-Württemberg is proud of a variety of demonstration and testing facilities for innovation in health and care (i.e. LebensPhasenHaus Tübingen, IBH Living Lab, Besser Wohnen im Alter/Schwarzwald-Baar-Kreis, Fachhochschule Furtwangen, FZI Karlsruhe/ Karlsruhe Institute of Technology KIT, Evangelische Heimstiftung, Kommunalverband für Jugend und Soziales Baden-Württemberg KVJS etc.). During the EEPE some of them gave a presentation, like the LebensPhasenHaus in Tübingen.

LebensPhasenHaus

Located at the University of Tübingen and operated by the Steinbeis Transfercenter Social and Technological Innovation, the LebensPhasenHaus is a place for research, demonstration and knowledge transfer, where users can work together with developers, manufacturers and service providers on solutions that should enable us all to live as long a healthy and self-determined life as possible in our own homes – throughout all the phases of our life.

The LebensPhasenHaus combines technical and social innovations. This is where the use of new services, technical assistance systems and practical everyday helpers is tested and brought to life. Anyone who is interested can make their own impression of the wide range of possible applications and can also actively participate in designing innovations in the LebensPhasenHaus through direct feedback or by joining in one of many research projects. In addition, trades, architects, nursing staff, doctors, manufacturers, insurance companies, public administrations, associations and educational institutions use the building for training courses and many other events.

The LebensPhasenHaus is a successful example of a public-private-partnership. Eight initial partners have created the LebensPhasenHaus: University of Tübingen, Chamber of Commerce and Industry of Reutlingen, RIDI Group, SchwörerHaus KG, Somfy GmbH, Stadtwerke Tübingen GmbH, Association for Horticulture, Landscape Gardening and Sports Field Construction Baden-Wuerttemberg and University Hospital of Tübingen. In the beginning, the LebensPhasenHaus was also financially supported by the Ministry of Social Affairs and Integration. In addition to that, another nine enterprises are currently represented in the house: Gretsch-Unitas, Herrmann + Co. GmbH, Interstuhl Büromöbel GmbH, Kemmlit Bauelemente GmbH, Leoba GmbH, Rainpro Vertriebs-GmbH, tielsa GmbH, Geberit Vertriebs GmbH, Hörmann KG Verkaufsgesellschaft.



Every Friday from 1 p.m. to 5 p.m. there is the opportunity to explore the LebensPhasenHaus with the support of special **Senior Technology Advisors**, volunteers that have been trained to show, explain and advise on solutions for active and healthy as well as independent living. In addition, the lecture series "Meeting point: LebensPhasenHaus – How do we want to live in future?" takes place on every first Friday of the month, immediately after visiting hours.

Cluster and Innovation Platforms

Besides facilities like the LebensPhasenHaus, also the Ministry of Finance and Economics supports the development and testing of innovative products and services through regional cluster initiatives and innovation platforms. This support is based on the ERDF administrative directive - Cluster and Innovation

Platforms - CLIP 2014-2020, in connection with the corresponding call. All in all, there is additional EUR 2 million available for this in the current ERDF funding period.

The goal of this support programme is to intensify the cooperation between companies, universities, research institutions and other stakeholders of clusters and networks in the fields of specialization of the state of Baden-Württemberg. Cooperation between the cluster initiatives is to be intensified and new stakeholders, especially small and medium-sized enterprises, are to be attracted and involved in the cluster activities. Among other things, the aim is to advance the development and spreading of new technologies and strengthen the innovative power. With this funding, cluster initiatives and state-wide networks are to be developed in a quality-oriented manner, mainly with respect to internationalization and an extension of cross-cluster cooperation projects (inter-, cross-, and meta-clusters). This type of grant is intended to advance the professionalization of the cluster initiatives and state-wide networks as well as their services in order to develop and strengthen sustainable self-supporting structures.

4.3 Implementation

Driven by European, national and regional funding (Ministries, health insurers, foundations), over the years many research and innovation projects in the field of health and care have been implemented in Baden-Württemberg. However, most of them stayed in the pilot phase. Only a few of them were able to scale-up and to develop sustainable and successful business models. During the EEPE in Baden-Württemberg, some of them have been mentioned. Here are some examples in the area of integrated care, tele-health and tele-care.

Scaling up Integrated Care

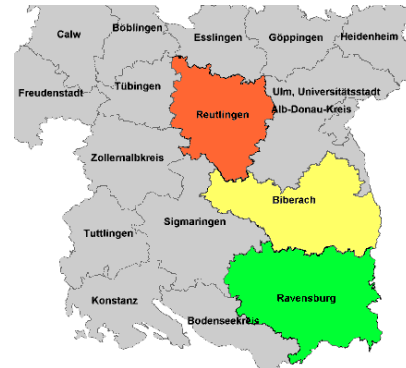
Pilot Project in Southern-Württemberg

As mentioned before, Germany's health- and care-system is highly fragmented, but there is strong wish across various actors within the system but more over a strong demand by society for more patient-centered integration. Therefore, the Ministry of Social Affairs and Integration Baden-Württemberg has launched a pilot project for intersectoral health-care, running from 2016 to 2018.

First of all, guidelines for health promotion and prevention, medical care and long-term care had to be developed. The aim was to enhance cooperation among all relevant agencies, to support citizens to live a healthy life embedded

in their local communities. Guidelines have been elaborated with comprehensive citizen involvement. They provide information regarding current provision of health, provide binding directives for further development of the health-system with concrete steps, following the overall goal of a patient-centered, regional and wellconnected health-provision for all.

The pilot was developed in three districts of the state in the so called Southern Württemberg area: Reutlingen county, Biberach County (Oberschwaben) and Ravensburg County. The results of experiences shall be made transferable to other regions afterwards.



Guiding Questions:

- How can demand and supply of healthcare be coordinated/harmonized in a model region?
- How can cooperation succeed in the intersectional areas (in and outpatient care, prevention, health promotion etc.)?
- Are there interdistrict approaches to securing a comprehensive and high-quality in and outpatient care (f.e. implementation of multiprofessional /interdisciplinary care centres)?

Successful implementation and scaling-up: example of Gesundes Kinzigtal

Gesundes Kinzigtal is a health care management company in the German town of Hausach in the Black Forest. The name means "healthy Kinzig valley". Since 2006 Gesundes Kinzigtal GmbH is running in cooperation with a network of physicians (Medizinischen QualitätsNetz Ärzteinitiative Kinzigtal e.V) and the healthcare management company OptiMedis AG. It is a so far very successful attempt to overcome the traditionally fragmented German health care system.

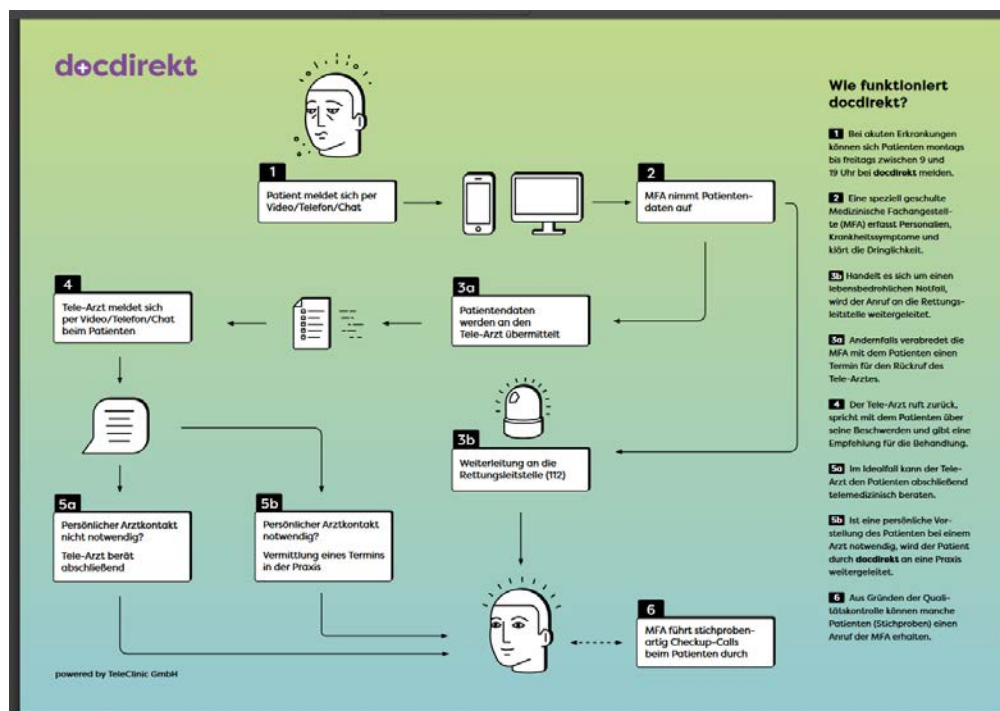
Gesundes Kinzigtal operates a regional integrated care system. It works with two statutory health insurers, AOK Baden-Württemberg (the biggest health insurer in the region) and Sozialversicherung für Landwirtschaft, Forsten und Gartenbau (a specialist insurer which is only available to farmers and their families). Long-term contracts were agreed with the insurers for their insured populations, covering all age groups and care settings, at the beginning of the project. If the sickness funds spend less on health care than the population budget, Gesundes Kinzigtal shares the benefits

If the evaluation of Gesundes Kinzigtal Integrated Care provides sufficient evidence of a significant improvement in effectiveness and/or efficiency of health services under conditions of a Kinzigtal type system, Gesundes Kinzigtal Integrated Care could become a role model for many similar regions in Germany. Between 2006 and 2010, the project reduced costs by 16.9% against the population budget for members of one of the sickness funds, compared with a group of its members from a different region. This was chiefly because emergency hospital admissions only increased by 10.2% for patients in Kinzigtal, compared with the 33.1% increase in the comparator group. Overall, by 2017, the project reported a reduction of 6% in healthcare expenditure compared with that expected for the population.

Scaling up Telehealth and Telecare

docdirekt

As a pioneer within the German health- and care-system, Baden-Württemberg installed the docdirekt-Service (online doctor-patient consultation). In the pilotphase, docdirekt was only provided to patients in the city of Stuttgart and the rural district of Tuttlingen. Since the feedback and the overall evaluation were so positive, it was rolled out throughout the whole state. The telehealth-service (via phone, Website, Chat or Smartphone-App) is free of charge for all members of SHIs (GKV) in Baden-Württemberg.



QuartrBack

QuartrBack is a research project funded by the Federal Ministry of Education and Science (BMBF). In a neighbourhood centred collaboration of citizens with professional care-givers and by support of technology (so called "Bürger-Profi-Technik-Mix"), people with dementia have been assisted in their everyday living. The project consortium consists of partners like Evangelische Heimstiftung, FZI, KIT, martin electronic system and Senso group. Parts of the project are still running.

Kobial 4.0

The aim of the Kobial-project is the development of novel value-added systems (in the sense of modern IT-based cross-company value creation networks) for craftsmen, consultants / planners, architects and operators of living facilities for people in need of help and care. This happens through the development of new business models.

Especially in the field of home automation there is a large technology portfolio. The functionalities that result make it difficult for the users, their relatives, the consultants (eg nursing consultants, housing consultants, etc.), planners, craftsmen and social organizations to keep the track of benefits and applicability as well as realization and combination possibilities of the corresponding devices and ICT. On the other hand, services based on Smart Home & Living technologies and the resulting customer benefits depend very much on the cooperation of several stakeholders (care, crafts, consultants, planners). The networking of actors is currently insufficiently covered.

The main stakeholders and beneficiaries of the project are craftsmen and planners, social organizations as well as people in need of support and their relatives.

The project "KoBial" addresses the integrated support of planning from Smart Home & Living technologies. By means of requirements from support and care needs, as well as living environment, building projects can be implemented individually. This closes the currently existing gap between the technical implementation (for example, for the support and care in the home) and the construction planning, as well as the system installation.

Through trainings or interdisciplinary workshops, the topic of novel value-added systems and their benefits can be sensitized. This makes it easy to transfer this idea to other contexts

The project is coordinated by the Bruderhaus Diakonie and funded by the Ministry of Economic Affairs, Labour and Housing in Baden-Württemberg. Other partners are easier life, HWP, DHI, nubedian and open experience

IBH Living Lab Active and Assisted Living

This Interreg-project uses the living lab approach, where people test in real life settings technologies, to identify and test strategies on how to overcome barriers in the field of AAL technologies. Beside this a purpose of this project is to connect key stakeholders in the field of AAL in the lake constance region (Germany, Switzerland and Austria) and to foster cooperation and work on solutions together. Therefore 23 project partners from science, social services and technology providers are involved in this project as well as external advisors from politics.

Staying in the own home as long as possible, living independently and participating in social and economic life is desired by most people. For those people in need of support due to physical and/or mental disabilities, AAL (Active & Assisted Living) technologies can contribute to an independent life. Although lots of research has already been done and technical developments in this field are on the rise, AAL technologies haven't yet reached the market successfully due to several barriers.

Main stakeholders include: elderly people and people with disabilities, social institutions and service providers, technology providers, science and politics.

Living labs are societal experimental areas in which new technologies, products, services and forms of living can be developed and tested in a real life setting. This approach not only takes into account the technical environment and the psycho-physiological aspects but also cultural, organizational, legal, and market-relevant aspects. This allows a broad understanding of the barriers that prevent a successful market entry of AAL technologies and the possibility to test new ways and ideas in real life. Since many elderly people and people with disabilities are involved in the project it also helps to rise awareness for AAL technologies. The living lab approach can be used for different products and services and therefore would be easy to transfer to other contexts.

5. PEER EVALUATION PROCESS, FEEDBACK AND RECOMMENDATIONS

5.1 Peer Evaluation Process

The Baden-Württemberg EEPE involved diverse stakeholders from across the region's eco-system. It showcased the strategic and policy context, the shape of the eco-system and the range of interventions and innovations across, and to strengthen, the regional innovation cycle for health, care and well-being. This final section of the case study discusses the findings from the exchange of experience and peer evaluation process and sets out recommendations, for Baden-Württemberg (and particularly the regional ITHACA Stakeholder Group) and for the wider ITHACA partnership, that derive from them.

Visiting delegates to the Baden-Württemberg EEPE acted as an 'evaluation and feedback team' who observed and provided structured feedback to the hosts about what they saw and learnt at the EEPE. This was delivered during a verbal peer evaluation feedback session in the final afternoon of the EEPE.

Visiting delegates were asked to provide feedback on one of five themes. All themes were covered by the overall delegation. The key themes were:

- Policies, priorities, objectives and aims
- Eco-systems and clusters
- Implementation across the innovation cycle
- Innovation in policy and practice, dissemination and transferability
- Evaluation and impact

For each theme, delegates peer evaluation reviews focused on:

- What the host region has done;
- Strengths, areas for improvement and gaps;
- Good practices - and potential for transferability;
- Lessons learnt and their implications;
- Recommendations for the host region;
- Recommendations for other ITHACA regions.

For reasons of team building and the development of trust, each of the five above mentioned "theme-teams", were gathered in specific punting boats during the EEPE in Tübingen. There they had the time and opportunity to meet certain thematic experts of the region, to get detailed answers to their questions and to prepare first parts of the feedback. During a second workshop

in the Wizemann Space in Stuttgart on the afternoon of the last day of the EEPE, the evaluation was finalized – and then presented to the hosts afterwards.

The final sections of this case study summarise the key comments provided by the delegation. It is structured according to evaluation theme. Recommendations flowing from the peer evaluation - and the EEPE event overall - are flagged up.

5.2 Peer Evaluation Feedback and Recommendations

Policies, priorities, objectives and aims

Delegates highlighted that Baden-Württemberg is a good example of how political decision makers and other stakeholders can prepare a comprehensive plan for improving the well-being and health of the population. It was mentioned that the managing authority is working hard in order to create an overall strategy for smart health and care; programs are innovative as such compared to other regions in Germany. Many strategies and guidelines have been developed.

One of the key strengths of the region is its **awareness of weaknesses** such as, e.g. **lack of communication between the sectors**. What did become obvious during the EEPE is that the different actors, also in government, are interested in changing this. For being able to implement change it is important to involve and engage different actors, amongst others also most importantly the citizens. This would provide an opportunity for social and economic development.

One gap is the (in a way universal) challenge of transferring project results into real life. There is a lack of guidelines on what happens after the project ends. Already in the project proposal and at the start of project there should be guidelines on how to transfer after the project finishes – it will be easier.

One good practice identified during the EEPE were the neighbourhood concepts (Quartier 2020). It is very important that people are able to help each other. The delegates complimented the regional government for being aware of future problems, aware that new solutions need an integrated approach, i.a. including private companies. Loneliness was also an important point touched on.

Another good policy practice, that the delegates mentioned, is that the government tries to integrate different actors, stresses the importance of

taking care of each other and building capacities in this respect (i.e. Forum Gesundheitsstandort B-W, Smart Home & Living)

Delegates were also referring to the importance of dialogues between the ministries and the local level. Here, at the local level e.g. with the health conferences as an useful instrument to engage different actors from different sectors. Although this seems to work for the most part, the transfer to the next political level could be more difficult. Here efforts could be made to improve the dialogue between the actors at the local level as well as between and across different political levels and silos.

In particular, peer evaluation flagged up the positive effects on innovation and scaling up of smart solutions that flow from:

- A very developed eco-system.
- An economically very successful and prosper production model (but: low unemployment means also mismatch on the labour market; lack of health and care professionals)
- The Ministry of Social Affairs and Integration. This is an achievement, usually the sectors of social affairs, health and integration are broken up → provide for some kind of thinking across sectors, if integrated in same ministry.
- A strong will to adapt change and innovate in social affairs.
- Focus on demographic change (Demografiebeauftragter; demography concepts) and getting young families into rural areas.

Recommendations for Baden-Württemberg

It is recommended that:

- future smart specialisation strategies for Baden-Württemberg **continue to recognise the economic growth potential of innovation in health, care and well-being** and build on growing assets and experience;
- policy-makers should focus on specific objectives and understand the impact of it (i.e. taking more **social innovation** into account);
- the relationship between the health and care sector, public institutions and the insurance companies is not quite clear and rather complex. Thus, the more actors are involved, the more it is **necessary to correlate and coordinate**, e.g., finding a same language;
- efforts are further strengthened to **spread policy implementation across the whole of the region** – in the process, driving improved pathway consistency and exploiting the benefits of economies of scale;
- the Baden-Württemberg stakeholder group ensures that **learning from all ITHACA EEPEs and other events is taken into account in shaping future strategies and policies** at city region, sectoral and organisational levels
- strengthen the dialogue between the different actors, horizontally and laterally by using existing institutions like the health conferences in order to integrate the health- and care-system in a person-centred way.

Recommendations for ITHACA partners

It is recommended that:

- the **good practice lessons** from Baden-Württemberg relating to strategy and policy feed into the shaping of the ITHACA Framework Strategy;
- ITHACA partner regions **recognise the potential of a strategic framework for scaling up smart solutions for health, care and well-being** – and the importance of alignment with sectoral and stakeholder strategic priorities – that together can demonstrate and secure political leadership and ownership of the agenda by key stakeholders and drive demand.

Eco-systems and clusters

Delegates alluded the fact that Baden Württemberg is a very industrialized region, with a long tradition, yet now is the time to develop a strategy that

involves stakeholders more. It seems as though there are initiatives from the managing authorities to lift the different sectors out of old scope, which is commendable.

There are policies and strategies (Quartier 2020 and Digitalisation Strategy) that provide a framework for working together, involving population and in developing new requirements, like e-health and the digitalisation of the health and care sector. Yet, these policies need to be put into action.

Delegates flagged up that the cluster agency is reforming itself – assists also reformation and professionalization of clusters, moving from 3xhelix approach and towards the 4xhelix. This shows that a change from old to new ways of thinking has been initiated. Clusters are top-driven but moving increasingly to being self-sustaining with the help of the Cluster Agency by providing services; driving force for development in the various areas. However, some of the delegates weren't sure if there is one for health, there is scope but maybe that sector is not mature yet. Nonetheless there is a promising framework to support the health and care focused clusters once they are established. Delegates highlighted the existence of a variety of good practices for collaboration amongst all relevant stakeholders, i.e.:

- social impact lab
- smart home & living
- LebensPhasenHaus

The peer evaluation also revealed several areas of potential improvement that, delegates argued, could enhance the strength of Baden-Württemberg's ecosystem and its impact on the innovation cycle. Despite the important role played by the Cluster Agency, it was argued that "a more systematic approach and visible overview of ecosystem actors" could generate more inter-sectoral interventions and enhance innovation and its deployment within the home care field. Equally, delegates also highlighted that whilst there were examples of academic, research and end user involvement within the region, greater integration with Universities and end users across the innovation cycle could further enhance impact and outcomes. Generally, it was argued that a more structured and systematic integration of quadruple helix stakeholders could increase innovation, service and economic potential.

Delegates also pointed out the importance of ensuring that, to maximise potential, smart health and care services and solutions should reach all parts of the region and involve end users in the process.

Recommendations for Baden-Württemberg

It is recommended that:

- options for further developing a **structured and systematic integration of quadruple helix stakeholders** – including, possibly, those from other hi-tech sectors - are examined;
- the **whole spectrum** of stakeholders should be involved more (i.e. patient, citizens, end-users) like in the LebensPhasenHaus;
- there should be more focus on **demands, needs, and challenges**;
- the eco-system would be strengthened by **formalising relationships between the universities and other quadruple helix stakeholders** with the purpose of simplifying academic access to health and care practice and industry;
- there should be more public **support** in the **up-scaling** and **acceleration** phase;
- plans to **develop a Baden-Württemberg Living Lab network** with the possibility for longitudinal impact measurement and evaluation are progressed.

Recommendations for ITHACA partners

It is recommended that ITHACA partner regions:

- explore the potential, within their own regional contexts, of **establishing regional Living Lab networks** that bring together innovation spaces (i.e. LebensPhasenHaus) with real world testing and deployment settings;
- begin the process of scoping the potential for **developing trans-national living labs with Baden-Württemberg and each other** – to facilitate creating trans-national markets and scaling up across regional and national borders.

Implementation across the innovation cycle

Based on the evidence from the EEPE event, delegates identified their understanding of the resources available and the approach taken in Baden-Württemberg to support SMEs and other stakeholders across the innovation cycle. They highlighted the value of the universities and Fachhochschulen, the Cluster Agency and living lab resources like the LebensPhasenHaus. Delegates mentioned that especially the first half of the innovation process is very developed, i.e. the invention and co-creation part. One delegate said: “The policy as such is very impressive, also the extensive citizen engagement. Policy drivers are well developed with a clarity on what the state wants to achieve with respect to policy development. However, when it comes to the implementation and scaling part, things become a bit more fragmented.”

Delegates got the impression that there is a heightened awareness of what is needed, what are the difficulties, how are they addressed and brought together; and that there is a wealth of start up support especially with respect to co-creation and invention. Programs are mature and process-driven in order to support them.

Delegates also flagged up potential areas for improvement. They indicated that:

- Due to the success of the past, Baden-Württemberg has to struggle with certain lock-in effects and path-dependencies, making it more difficult for disruptive innovation (“If it’s not broken, don’t fix it. If the system is not working badly, why change it? This attitude drowns many incentives.”).
- In Baden-Württemberg there seems to be a struggle: on the one hand, policy development encourages the involvement of citizens and groups in regions, and on the other there is extensive support provided for invention and co-creation. However, the question remains on how to bring them together? No cross-over to policy development – what is important and what do we want to support with respect to policy development // which SMEs will get supported and which one’s don’t?
- Inequality in access: how do SMEs and SUs get funds? How do you get innovation into state system to be adopted nationally? Massive gulf – barrier to scaling up for SMEs.
- If you can afford to buy separate services, then it’s ok, but if you can’t then you have to use services provided by the state.
- Digital Infrastructure is not mature, especially in rural areas.

Recommendations for Baden-Württemberg

It is recommended that:

- Baden-Württemberg's stakeholders generally, **reinforce their commitment to citizen involvement in innovation** for the health and care sector and, in particular, build co-creation into the design phase of creating smart solutions and so avoid risks of stigmatising of products that can result in them being unattractive to and unwanted by citizen end users;
- stakeholders should also ensure **that businesses benefit from input from health and care practitioners** when developing new health, care and well-being products and services;
- stakeholders review the extent and effectiveness of **support to SMEs to commercialise and export** new innovations;
- Improve and **simplify the process of route to market** (in UK business support run by NHS who directly provide support services to SMEs and SUs based on their needs, in this way they are also able to control barriers to for market entry, provide access to hospitals // don't have to go through central purchasing)
- Baden-Württemberg can learn from other countries / regions in using **public procurement as a driver for innovation**, use it much more strategically at the state but also at the local level.

Recommendations for ITHACA partners

It is recommended that:

- ITHACA regions examine the extent, and identify any blockages to, their **own health and care organisations acting as a catalyst and driver** for innovation.

Innovation in policy and practice, dissemination and transferability

This theme provided the opportunity for peer evaluators to highlight the most innovative aspects of the host region's policy, programme, projects and solutions – as well as their specific elements (such as processes or techniques) that are important for successful outcomes. It also focused on the extent of, and peer evaluators' judgement of the potential for meaningful dissemination and transferability to other regions and countries.

Delegates emphasised the importance of Baden-Württemberg's ambitious policy agenda, and its strategic framework, as a key driver for innovation and the scaling up of smart solutions for health, care and well-being. They considered that the explicit recognition of citizens' needs and the potential of smart solutions to contribute to meeting them whilst addressing efficiencies and effectiveness within the health and care sector is fundamental to progressing the strategic agenda (i.e. Quartier 2020, demography concepts, digitalisation strategy).

The peer evaluation also flagged up specific innovations that have important lessons for ITHACA and its partners. These included successes within Baden-Württemberg like the Gesundes Kinzigtal, Quartier 2020, the LebensPhasenHaus and the Senior Technology Advisors.

However, delegates also observed that more emphasis could be given to supporting SMEs, after initial testing of smart solutions, to secure private sources of finance and to gain traction in the market. It was suggested that bringing private companies into the innovation loop at an early stage could enable more consideration to be given to business models and the potential to exploit national and international markets. It was also highlighted that it is not

Recommendations for Baden-Württemberg

It is recommended that Baden-Württemberg's stakeholders should:

- **ensure that SMEs are supported to access private sector finance**, where required, for later stage development and market penetration of smart solutions;
- enhance **support for SME business planning and business models to incorporate exporting** to other regions and internationally;
- Use more desing thinking methodology, in order to be aware of the shifts in thinking and importance of using and involving end users in design concept.

Recommendations for ITHACA partners

It is recommended that:

- ITHACA partners **build in learning from the good innovation practices** (i.e. Senior Technology Advisors, LebensPhasenHaus, neighbourhood concepts/Quartier 2020, Social Impact Lab, SocEntBW, Cluster Agency) in Baden-Württemberg into its considerations **for shaping the ITHACA Framework Strategy and the subsequent Regional Action Plans**.

Evaluation and impact

Given the amount of excellent research facilities and the extensive range of initiatives being carried out within the State of Baden-Württemberg, EEPE delegates felt that more investment should be made in larger Living Lab infrastructures and longitudinal studies as well as in evaluating impacts, lessons learnt and how findings can feed back into the policy process.

Recommendations for Baden-Württemberg

It is recommended that:

- **where evaluations have been carried out, they are disseminated visibly and widely** to other regions so that learning about what works well or works less well is shared effectively;
- stakeholders should **consider increasing the resources available for evaluations of health, care and well-being programmes, specific interventions and new innovations** – particularly where such assessments could improve future actions and future policies;
- Baden-Württemberg **stakeholders look to learn from evidence of good practices and lessons abroad or within Europe - from other ITHACA regions and elsewhere** - to more rapidly progress its aims to scale up smart health and care solutions that can benefit the health and care sector, the regional economy and citizens;
- Baden-Württemberg should therefore strengthen **European collaboration**.

Recommendations for ITHACA partners

It is recommended that:

- **ITHACA regions take account of the evaluation lessons from the Baden-Württemberg's EEPE** – both within their own regions and in shaping the ITHACA Framework Strategy.



„InnovaTion in Health and Care for All“

EEPE in Baden-Württemberg

2nd – 4th July 2018

Monday, 2 July 2018

(Location: Gutbrod, Friedrichstraße 10, Stuttgart)

18:30h

Welcome

Setting the Scene and Soft Facts about Baden-Württemberg
Organisation of the EEPE

Dr. Andreas Marg / Prof. Dr. Daniel Buhr / Dr. Sandra Evans

Dr. Dr. Heidrun Sturm

Jon Dawson

Maultaschen and Drinks

Tuesday, 3 July 2018

8:30h

meet at Lobby JAZ Hotel (Wolframstraße 41, Stuttgart)

9:00 - 10:15h

(Location: Room Mannheim – Ministry of Economic Affairs, Labour and Housing / Haus der Wirtschaft, Willi-Bleicher-Str. 19, Stuttgart)

Welcome and Moderation

Christine Engelhardt

Director Social Affairs, Ministry of Social Affairs and Integration Baden-Württemberg

Digitalisation Strategy with special focus on health and care

Katja Schnell

Health Policies Unit, Ministry of Social Affairs and Integration

Baden Württemberg's path to Integrated Care

Dr. Layla Distler

Ministry of Social Affairs and Integration

Neighbourhood Concepts

Sarah Waschler

Ministry of Social Affairs and Integration

10:15 – 10:30h

Coffee Break

10:30 – 11:00h

Demography Concepts

Thaddäus Kunzmann

Ministry of Social Affairs and Integration Baden-Württemberg

Clusterpolicy / Cluster-Agency / SmartHome & Living

Konstantin Schneider

Cluster-Agency Baden-Württemberg

- 11:00 – 11:30h **Roundtable 4 Motors**
Holger Albrich
European Affairs Unit, Ministry of Social Affairs and Integration; *Representatives from Lombardia, Rhone-Alpes, Catalyuna*
- 11:30 – 11:45h **Welcome to Baden-Württemberg**
Bärbl Mielich
State Secretary, Ministry of Social Affairs and Integration
- 12:00 - 13:30 *Transfer to Tübingen / Lunch at Rosenau*
- 13:30 - 16:00h *(Location: LebensPhasenHaus, Rosenau 9, Tübingen)*
- Welcome to Tübingen**
Dr. Christine Arbogast
First Mayor of Tübingen
- LebensPhasenHaus**
Prof. Dr. Udo Weimar
University of Tübingen
Karin Goldstein
Chamber of Commerce Reutlingen/ Tübingen/ Zollernalb
- SeniorenTechnikBegleiter**
Oscar Honz and Albrecht Weber
Senior Citizens Council Tübingen County
- Dementia Network**
Nathalie Küster
County Council of Tübingen
- Kobial 4.0**
Verena Pfister
Bruderhaus Diakonie, Reutlingen
- KinzigTal**
Dirk Günther
Gesundes Kinzigtal, Hausach
- Community Healthcenter in rural area**
Prof. Barbara Steiner and Dr. Gottfried Roller
Reutlingen County
- IBH Living Lab**
Isabella Hämmerle
FH Vorarlberg

- 16:30h **PuntingBoatWorkingSession**
together with local ITHACA ecosystem in thematic boats:
- Policies, priorities, objectives and aims
 - Implementation across the innovation cycle
 - Eco-systems and clusters
 - Evaluation and impact
 - Innovation in policy and practice, dissemination and transferability
- Beergarden & Vesper*
- 21:30h *Transfer to Stuttgart (JAZ Hotel, Wolframstraße 41, Stuttgart)*

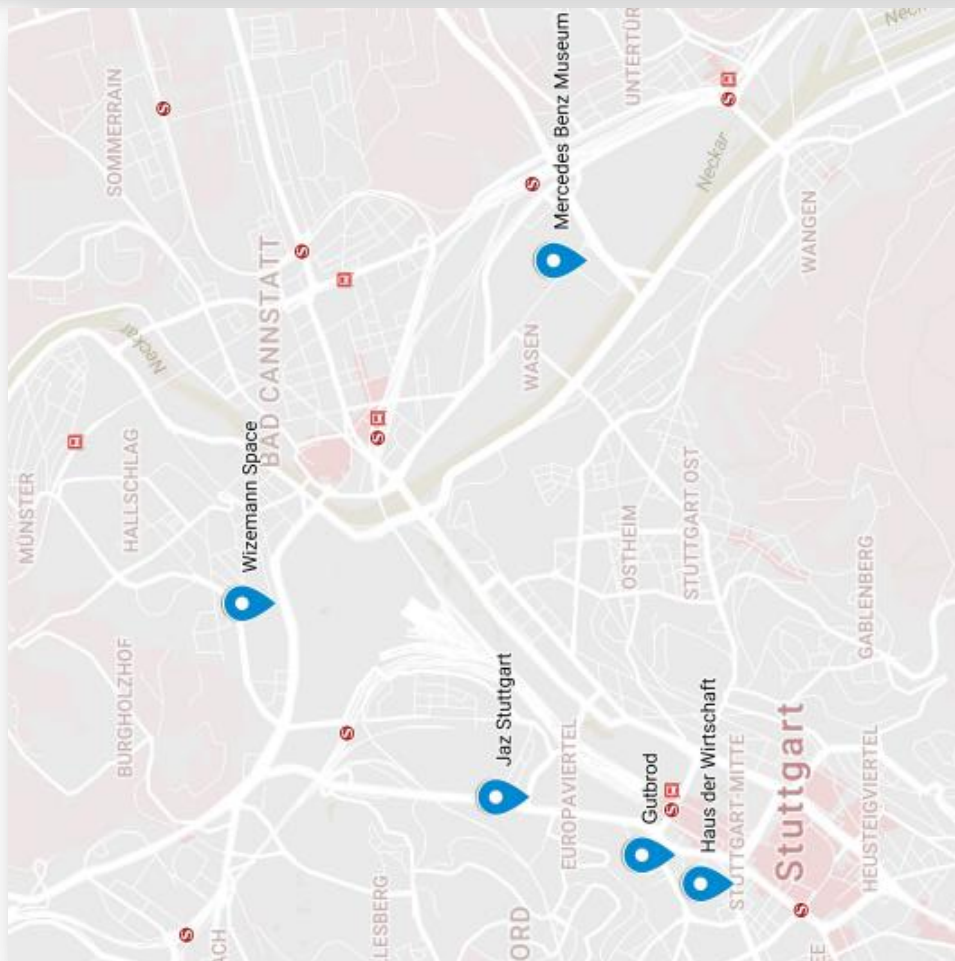
Wednesday, 4 July 2018

- 8:30h *meet at Lobby JAZ Hotel (Wolframstraße 41, Stuttgart)*
- 9:00-10:30h **Mercedes-Benz Museum** (Mercedesstraße 100, Stuttgart)
- Transfer to Wizemann Space (Quellenstraße 7a, Stuttgart)*
- 10:45-12:30h **Tour of Wizemann Space**
- Baden-Württemberg Connect**
Alexandra Rudl
Head of Innovation Academy, BW con, Stuttgart
- Social Impact Lab Stuttgart**
Annika Surmeier and Tom Krug
Social Impact Lab
- Baden-Württemberg's Status regarding Digitalisation of Health and Care
– from the insurers perspective**
Britta March
Head of Care Unit, AOK Baden-Württemberg
- 12:30 - 13:30h *Lunch*
- 13:30 - 14:30h **Peer Evaluation in Groups**
- 14:30 - 16:00h **Presentations and Discussion**
Moderation: Jon Dawson and Christine Engelhardt
Ministry of Social Affairs and Integration

Map of Baden-Württemberg



Map of Stuttgart



	NAME	First name	Organisation / Region	E-Mail	Participation / Speech		
					2. July	3. July	4. July
1	ALBRICH	Holger	<i>European Affairs Unit, Ministry of Social Affairs and Integration Baden-Württemberg</i>			X 11:00 -11:30h	
2	APUZZO	Gian Matteo	<i>CEI, FVG / Friuli Venezia Guilia, IT</i>				
3	ARBOGAST, DR.	Christine	<i>First Mayor of Tübingen</i>			X 13:30 -16:00	
4	BERDÚN PEÑATO	Jesús	<i>Fundació TIC Salut Social / Catalonia Region</i>				
5	BRANDER	Erik	<i>Region Sjaelland, DK</i>				
6	BUHR, PROF. DR.	Daniel	<i>University of Tübingen / Baden-Württemberg, DE</i>			X 13:30 -16:00	
7	BUKKEMS	Geert	<i>Peelpioniers / Noord Brabant, NL</i>				
8	CANCIANI	Elena	<i>FVG / Friuli Venezia Guilia, IT</i>				
9	CHRISTENSEN	Susanne	<i>Journalist Assistant / Sjaelland, DK</i>				
10	DAWSON	Jon	<i>Liverpool, UK</i>				X 14:30-16:00
11	DESCAZEAX	Jacqueline	<i>Bordeaux Metropole / Limousin, FR</i>	_____			
12	DISTLER, DR.	Layla	<i>Ministry of Social Affairs and Integration</i>			X 9:00 - 10:15h	
13	ENGELHARDT	Christine	<i>Director Social Affairs, Ministry of Social Affairs and Integration Baden-Württemberg</i>			X 9:00 - 10:15h	X 14:30-16:00
14	EVANS, DR.	Sandra	<i>University of Tübingen / Baden-Württemberg, DE</i>	_____			

15	GARCIA FONT	Adrià	<i>Fundació TIC Salut Social / Catalonia Region</i>				
16	GAVRIĆ	Dalibor	<i>Health Insurance Institute of Slovenia / Ljubljana, SI</i>				
17	GIRARD	Joël	<i>Representation of the State of Baden-Württemberg to the EU</i>				
18	GOLD	Stewart	<i>University of Tübingen / Baden-Württemberg, DE</i>				
19	GOLDSTEIN	Karin	<i>Chamber of Commerce Reutlingen/ Tübingen/ Zollernalb</i>			X 13:30 -16:00	
20	GREANDA	Małgorzata	<i>Region Małopolska, PL</i>				
21	GÜNTHER	Dirk	<i>Gesundes Kinzigtal, Hausach</i>			X 13:30 -16:00	
22	HÄMMERLE	Isabella	<i>FH Vorarlberg</i>			X 13:30 -16:00	
23	HOFFMANN	Sabrina	<i>University of Tübingen / Baden-Württemberg, DE</i>				
24	HONZ	Oscar	<i>Senior Citizens Council Tübingen County</i>			X 13:30 -16:00	
25	HORSFIELD	Dave	<i>Liverpool, UK</i>				
26	JACOB	Eduado Juan	<i>University of the Basque Country / Biscay Region, ES</i>				
27	JANALHIAC	Marie Pierre	<i>Autonom'Lab / Limousin, FR</i>				
28	KAAG	Astrid	<i>Region Noord Brabant / Noord Brabant, NL</i>				
29	KJÆR-SØRENSEN	Pia	<i>Holbæk Municipality / Region Sjælland, DK</i>				
30	KLIMCZYK	Magdalena	<i>Region Małopolska, PL</i>				
31	KRUG	Tom	<i>Social Impact Lab Stuttgart</i>			X	

						10:30-12:30h	
32	KUNZMANN	Thaddäus	<i>Ministry of Social Affairs and Integration Baden-Württemberg</i>			X 10:30-11:00h	
33	KÜSTER	Nathalie	<i>Senior Citizens Council Tübingen</i>			X 13:30 -16:00	
34	LEFUSTEC	Benjamin	<i>Resanté Vous / Limousin, FR</i>				
35	LETAMENDI	Iker	<i>Basque Foundation for Health Innovation and Research (BIOEF) / Biscay Region, ES</i>				
36	LUCCI	Veronica	<i>Social Cooperative / Friuli Venezia Giulia, IT</i>				
37	MARCH	Britta	<i>Head of Care Unit, AOK Baden-Württemberg</i>				X 10:30-12:30h
38	MARG	Andreas	<i>Ministry of Social Affairs and Integration BW / Baden-Württemberg, DE</i>				
39	MARGIOTTA	Valentina	<i>Autonom'Lab / Limousin, FR</i>				
40	MIELICH	Bärbel	<i>State Secretary, Ministry of Social Affairs and Integration Baden-Württemberg</i>			X 11:30 -11:45h	
41	NAGODE	Mateja	<i>Social Protection Institute of the Republic of Slovenia / Ljubljana, SI</i>				
42	OLESEN	Kjeld B.	<i>Danish Sound Network / Region Sjaelland, DK</i>				
43	PFISTER	Verena	<i>Bruderhaus Diakonie, Reutlingen</i>			X 13:30 -16:00	
44	RAMIREZ LAURITSEN	Xenia	<i>Region Sjaelland, DK</i>				
45	ROLLER, DR.	Gottfried	<i>Reutlingen County</i>			X 13:30 -16:00	

46	RUDL	Alexandra	<i>Head of Innovation Academy, BW con, Stuttgart</i>				X 10:30-12:30h
47	SCHNEIDER	Konstantin	<i>Cluster-Agency Baden-Württemberg</i>			X 10:30 -11:00h	
48	SCHNELL	Katja	<i>Health Policies Unit, Ministry of Social Affairs and Integration</i>			X 9:00 - 10:15h	
49	ŠETINC	Mojca	<i>University of Ljubljana / Ljubljana, SI</i>				
50	ŠIFTAR	Amalija	<i>Slovene Federation of Pensioners' Associations / Ljubljana, SI</i>				
51	STEINER, PROF. DR.	Barbara	<i>Reutlingen County</i>			X 13:30 -16:00	
52	STURM, DR. DR.	Heidrun	<i>Tübingen</i>				
53	SURMEIER	Annika	<i>Social Impact Lab Stuttgart</i>				X 10:30-12:30h
54	SWINKELS	Marielle	<i>Smarter Futures / Noord Brabant, NL</i>				
55	USSAI	Silvia	<i>Directorate Social Welfare / Lombardy Region</i>				
56	VAN BOXTEL	Ellis	<i>Zorgbelang / Noord Brabant, NL</i>				
57	VIALLE	Pierre	<i>Autonom'Lab / Limousin, FR</i>				
58	WASCHLER	Sarah	<i>Ministry of Social Affairs and Integration</i>		X 9:00 - 10:15h		
59	WEBER	Albrecht	<i>Senior Citizens Council Tübingen County</i>			X 13:30 -16:00	
60	WEIMAR, PROF. DR.	Udo	<i>University of Tübingen</i>			X 13:30 -16:00	
61	WESTON	Sandra	<i>Liverpool, UK</i>				