

## Annex

### Digital health solutions developed by ESIP members

Innovative solutions that make use of health data and digital technologies can contribute to the transformation and sustainability of healthcare systems, while improving access to healthcare in a privacy-compliant setting. Building on the [ESIP 2019 position paper on the Digital Transformation of Health and Care](#), this document contains an updated compilation of digital health solutions developed or sponsored by ESIP Members.

## Contents

<b>Communication &amp; Prevention .....</b>	<b>3</b>
eSocialVersicherung .....	3
mHealth Belgium.....	3
Compte Améli.....	4
inKontakt.....	5
AOK Health and Long-Term Care Navigators.....	6
AOK online coaches .....	7
Gesundheitsterminal (Digital Touchpoint).....	8
Zorginzicht .....	10
<b>Diagnosis and Treatment: ePrescriptions .....</b>	<b>11</b>
e-Medikation .....	11
e-Prescription software.....	12
<b>Diagnosis, Treatment and Communication .....</b>	<b>13</b>
e-Card system .....	13
E-Carte Vitale .....	14
Dossier Médical Partagé (DMP).....	15
Espace numérique de santé (ENS).....	15
<b>Monitoring, Diagnosis and Treatment.....</b>	<b>17</b>
Electronic Immunization Registry (EIR).....	17
Telemedicine .....	19
Pilot project on tele-expertise for remote dermatological advice.....	19
Telemedicine .....	21
Mein Herz/ HerzConnect .....	21
Husteblume .....	23

<b>Rehabilitation and Long-term care .....</b>	<b>24</b>
MoveUp .....	24
AOK online informal long-term care course "Caring at home" .....	25
Pflegelotse .....	26
Nachderreha.de .....	26
<b>COVID-19 .....</b>	<b>28</b>
GreenCheck application .....	28
COVID-19 telemonitoring .....	29
Online service to declare a derogatory work leave/sick leave .....	30
CovidCare module .....	31

## Communication & Prevention

Organisation Country	Digital health solution	Stage of development	Financing
Main Association of Social Security Institutions (DVSV)  Austria	<b>eSocialVersicherung</b>  Online Portal of 80 different websites offering information and online services for insured people, healthcare providers and other partners.	Already fully operational and available online. Added value measured through usage statistics, active user feedback, hotline, surveys.	Financed by national social security institutions.

### Benefits for the user

- Electronic services and information available 24/7
- No need to go to local offices
- Accessible to all insured people in Austria
- Uses digital ID for registration

More information: [www.sozialversicherung.at](http://www.sozialversicherung.at)

Organisation Country	Digital health solution	Stage of development	Financing
National Institute for Health and Disability Insurance (NIHDI-INAMI- RIZIV)  Belgium	<b>mHealth Belgium</b>  Platform centralising all relevant and required information on mobile apps for patients, healthcare professionals and healthcare institutions as well as mHealth manufacturers e.g. CE marking, data protection, communication security, interoperability with other IT systems and the way in which the app is financed.  The platform consists of a validation pyramid	The mHealthBelgium initiati ve was launched by the government in 2018. The platform went live for the first time in January 2019. The validation pyramid has been finalised in January 2020 and since then the website exists in its current form. Due to the dynamic nature of mHealth the website and validation pyramid are regularly evaluated.  A broad stakeholder meeting on the scope of mHealthBelgium will be organised in the first few months of 2022: healthcare professionals and healthcare institutions will have the opportunity to share views on which information should be integrated into	mHealthBelgium is a public-private partnership. The maintenance and day-to-day management of the platform is in the hands of BeMedTech (Belgia n federation of the medical technologies industry) and Agoria (Belgian federation of the technologies industry). For this they receive financing from the NIHDI.  App manufacturers that wish to be listed on the website also pay a relatively low fee to mHealthBelgium.

	<p>in three levels. Every app enters at the lower level, M1 (= the app is a CE certified medical device), and can be upgraded to M2 (= the app is safely connected) and M3 (= the app showed social-economic evidence and gets reimbursed by the NIHDI). The platform provides information on which criteria were complied with in order to receive the M1, M2 or M3 label.</p>	<p>the mHealthBelgium website. Therefore, the platform format may change in the near future.</p>	
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Benefits for the user

mHealth Belgium is a central platform where a wide variety of mHealth apps are listed with a general description (in the form of M1, M2 or M3 label). App manufacturers also receive information on how to obtain the M1, M2 and M3 labels.

More information: <https://mhealthbelgium.be/>

<b>Organisation Country</b>	<b>Digital health solution</b>	<b>Stage of development</b>	<b>Financing</b>
<p>French National Health Insurance Fund (CNAM)  France</p>	<p><b>Compte Améli</b>  Personal account for all insured persons registered into the French national health insurance system.</p>	<p>Set up in 2007 Since 2007: 40,000 000 insured people have registered Since 2013 and 2016: accessible on Appstore and Google Play.</p>	<p>Financed and developed by national social security institutions, with dedicated staff.</p>

Benefits for the user

- Provides access to a vast amount of information on details and amounts of reimbursements, ordering of national and European Health insurance card, tracking of administrative procedures, and information on health promotion
- Allows insured persons to be more autonomous and saves time for insured persons and health insurance staff, allowing to focus more on complex issues
- Increases awareness of insured persons in the field of prevention

More information: <https://www.ameli.fr/assure/remboursements/rembourse/suivre-remboursements/compte-ameli>

Organisation Country	Digital health solution	Stage of development	Financing
<p>AOK- Bundesverband GbR / Federal Association of the AOK</p> <p>Germany</p>	<p><b>inKontakt</b></p> <p>inKontakt is the AOK self-help newsletter, reporting on health policy issues that are of interest to chronically ill people, their relatives, as well as people who work or would like to work for self-help organisations.</p> <p>Dates and descriptions of self-help organisations are published.</p> <p>The newsletter is released every three months.</p>	<p>The newsletter has been first published in December 2014. It includes a federal part and currently five AOKs (AOK Hessen, AOK Niedersachsen, AOK Nordost, AOK Nordwest, AOK Rheinland/Hamburg und AOK Rheinland-Pfalz/Saarland) with regional parts (Berlin, Brandenburg, Hamburg, Hesse, Lower Saxony, Mecklenburg-Western Pomerania, Rhineland, Rhineland-Palatinate, Saarland, Schleswig-Holstein, Westphalia) participate.</p> <p>It currently counts about 2500 subscriptions. Depending on the readers' feedback, through regular reader surveys, the format could be updated and additionally a website could be published with dates and relevant information.</p> <p>So far, the newsletter only appears in German. It is barrier-free.</p>	<p>The newsletter is financed by the self-help funds for project funding, as self-help benefits. The articles are provided and selected by the employees of the AOK Federal Association and the participating AOKs and editorially revised and distributed by Ko mPart (PR agency).</p>

Benefits for the user

Chronically ill people and people who work for self-help can find out about current health policy issues and follow appointment suggestions.

More information: [www.aok-inkontakt.de](http://www.aok-inkontakt.de)

Adaptation of the system during the COVID-19 pandemic

During the pandemic, several editions focused on information about COVID-19. For example, issue 04/2021 reported on the self-help conference of the Federal Association of the AOK on the topic of "Self-help after the corona lockdown - upgrade to a new level" and linked to further information.

Organisation Country	Digital health solution	Stage of development	Financing
AOK- Bundesverband GbR / Federal Association of the AOK  Germany	<p><b>AOK Health and Long-Term Care Navigators</b></p> <p>Online navigators allowing users – all insured persons and healthcare providers – to search for a wide range of user-friendly, high-quality and reliable information on health and long-term care e.g. information on symptoms, illnesses, hospital and follow-up treatments, (long-term) care facilities and counselling services, (long-term) care reimbursement, as well as palliative medical and care providers.</p> <p>It also offers a calculation tool to determine the costs of long-term care services.</p>	<p>The health navigator is available online at:  <a href="https://www.aok.de/pk/uni/medizin-versorgung/gesundheitsnavigator/">https://www.aok.de/pk/uni/medizin-versorgung/gesundheitsnavigator/</a></p> <p>The long-term care navigator is available online at:  <a href="https://www.aok.de/pk/uni/pflege/pflegenavigator/">https://www.aok.de/pk/uni/pflege/pflegenavigator/</a></p>	<p>The AOK community finances the Health and Care Navigator, provided online and free of charge.</p>

Benefits for the user

Extensive information is presented in a way that is easy for to understand:

- for patients, with the aim of increasing digital health literacy, e.g. on hospital treatments determined on the basis of billing data received from the hospitals;
- for hospitals, e.g. information is displayed on the quality of treatment or the satisfaction of other patients,
- for doctors, e. g. information on language skills, and
- for long-term care facilities, e.g. information on costs and quality.

Organisation Country	Digital health solution	Stage of development	Financing
<p>AOK- Bundesverband GbR / Federal Association of the AOK</p> <p>Germany</p>	<p><b>AOK online coaches</b></p> <p>The four AOK family coaches are aimed at family members and friends of people suffering from depression (<b>Depression Family Coach</b>), cancer (<b>Cancer Family Coach</b>), Attention Deficit Hyperactivity Disorder (<b>ADHD Parent Coach</b>), as well as relatives of people in need of care (<b>Caregiving Family Coach</b>). The Coaches provide evidence-based information about the respective diseases and provide support to cope with everyday life as well as to assist the ill person. The Family Coach Caregiving addresses dementia and stroke, amongst other frequent illnesses.</p> <p>The <b>online Coach Diabetes</b> is aimed at patients with diabetes mellitus type 2. It helps patients to better understand the disease and to tackle lifestyle changes, through nine online topic-specific modules, accessible via a web application.</p>	<p>The AOK family coaches are freely accessible internet services that can be used free of charge and anonymously by all interested parties.</p> <p>The AOK online diabetes coach has been available free of charge as a web application in German for interested AOK insured persons since 1 December 2020. Registration is necessary to go through the complete coach.</p> <p>The effectiveness of the AOK online coaches is currently being investigated in randomised studies as part of several scientific projects.</p>	<p>The online coaches were developed and implemented by experts on the initiative and with the support of the AOK community.</p> <p>The product is financed by the AOK community.</p>

### Benefits for the user

- Users of the AOK **online family coaches** receive evidence-based information on the respective diseases as well as practical advice on how to protect themselves from overload in a difficult life situation, how to better assist their ill relative while strengthening their relationship with the ill person. In this way, stress-related overstrain of the caring relatives is to be prevented and better care is to be provided to the benefit of the patient.
- The **online coach diabetes'** modules provide information about the causes and risks of the disease, treatment options, lifestyle adjustments and the everyday management of diabetes. Users are supported in making lifestyle changes through the so-called WOOP (wish, outcome, obstacle and plan) method for self-motivation, based on more than 20 years of motivational psychology research and also known in science as Mental Contrasting with If-Then Plans. In addition, the content of the online coach can be displayed tailored to the user by answering personal questions, and knowledge tests and exercises can be used to practically apply and consolidate what has been learned.

More information: <https://www.aok.de/pk/uni/leistungen-services/online-programme-der-aok/>

- Family Coach Depression: <https://depression.aok.de/>
- Family Coach Care: <https://pflege.aok.de/>
- Family Coach Cancer: <https://krebs.aok.de/>
- ADHD Parent Coach: <https://adhs.aok.de/>

Online Coach Diabetes: <https://diabetes.aok.de/>

### Adaptation of the system during the COVID-19 pandemic

The majority of the AOK online coaches were developed before the Covid19 pandemic. They did not aim to offer an alternative access to care during the pandemic. However, they also fulfil their function very well during the pandemic by providing low-threshold access to health information regardless of location and time.

Organisation Country	Digital health solution	Stage of development	Financing
DAK-Gesundheit  Germany	<b>Gesundheitsterminal (Digital Touchpoint)</b>  The digital touchpoint is a privacy-compliant, multifunctional terminal for social and health data. It provides another secure communication channel supplementing the DAK-Gesundheit offer (insurer's	The technology was developed and is provided by DeGIV GmbH (Deutsche Gesellschaft für Informations- und Versorgungsmanagement). The provider also developed and implemented processes for individual checkout applications, such as DAK-Gesundheit.  Development started in 2005 and currently a total of 325 devices have been manufactured, of which 250 are fully operational 24/7.	The health terminal was developed and financed by the DeGIV company.  DAK-Gesundheit finances its individual applications and rents the hardware, operation and maintenance for a term of 36 months each.



	<p>homepage and app) and allowing users to access their health insurance card, electronic patient file or electronic medication plans, communicate directly with health insurance companies and accessing digital services (scan documents, transfer medical certificates, take picture of the health insurance card, etc.)</p> <p>The digital touchpoint is accessible for all insured and uninsured persons in selected locations such as pharmacies, hospitals, municipalities, banks, universities or community health centres.</p>	<p>The system is intended for nationwide distribution and is it particularly widespread in the federal state of Saxony through a government funding measure.</p> <p>In addition to some scientific work by the Osnabrück University of Applied Sciences, the system is assessed through patient surveys and a rating system. More than 4000 users have given a rating that is almost 100 percent positive.</p>	
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Benefits for the user

- The terminals facilitate operations for accessing and controlling health data, with no requirements for ownership or knowledge of technology, reducing technical or account-related hurdles while improving the quality of information.
- The terminals integrate an infotainment platform with large signage screens, a device-specific transmission program and the possibility to promote (digital) health education and barrier-free access to information, even for non-tech-savvy population groups.
- The terminals are easy to use and equipped with encrypted, secure data transmission pathways. As the system ensures privacy protection according to the GDPR, the terminal is used as a "trust platform", which completely avoids data storage of the data entered by the user.

Furthermore, the health insurance companies can strengthen their communication and information channels with their insureds and accelerate the direct processing of forms and paperless applications. Overall, the health terminals lead to process acceleration and cost reductions despite service improvements.

More information: <https://degiv.net/>; <https://www.dak.de/dak/kontakt/gesundheitsterminals-2103358.html#/>

#### Adaptation of the system during the COVID-19 pandemic

A number of functions or additional application options have been adapted for the COVID-19 pandemic, starting with information on personal protective equipment and safety regulations, access to authorisation procedures or a completely paperless, smartphone-supported, hybrid process for vaccination (for making appointments, carrying out vaccination including Batch registration and waiting time management after vaccination).

The terminal can completely replace closed offices, provided that video advice is integrated (optional).

Organisation Country	Digital health solution	Stage of development	Financing
National Healthcare Institute (ZIN)  The Netherlands	<b>Zorginzicht</b>  Website providing information on guidelines and quality indicators; Public data on the quality of health care.	Website already accessible and routinely updated.	Financed by the Ministry of Health.

#### Benefits for the user

- Overview for healthcare professionals of relevant guidelines, quality indicators, information standards and best practices which meet the established criteria and are therefore authorized by patient organisations, health care providers and health care insurers
- Information to users on the quality of healthcare and the organisation of health systems

More information: [www.zorginzicht.nl](http://www.zorginzicht.nl)

## Diagnosis and Treatment: ePrescriptions

Organisation Country	Digital health solution	Stage of development	Financing
<p>Main Association of Social Security Institutions (DVSV)</p> <p>Austria</p>	<p><b>e-Medikation</b></p> <p>Electronic storage of a patient's prescribed and dispensed medication (of the last 18 months).</p> <p>Data on prescribed and over-the-counter drugs (just relevant drug-to-drug interaction stored).</p> <p>Patients can decide which data is saved in the electronic health record (ELGA) and which pharmacy/doctor can access it. The patient has full access to the log files including information like: who was prescribing, who has dispensed the medication and who has accessed the data. This is done over the ELGA Webportal (EBP) using an electronic ID („Bürgerkarte“) by the patient itself or via the ELGA „Ombudsstelle“.</p> <p>Doctors and pharmacies can access the data only when a contact with the patient has been confirmed by using the social security card, the e-card (typically the access right is valid for 28 days, but can be configured by the patient from 1 to up to 365 days).</p>	<p>Rollout in all 9 federal states of Austria was completed in 2019.</p> <p>As per October 2021 6.500 medical practices, 1.400 pharmacies and 60 Hospitals are using e-Medikation.</p>	<p>Financed by the Austrian government and social security institutions.</p>

Benefits for the user

- Allows evaluation of the interaction of pharmaceuticals prescribed by different doctors, and prevent multiple prescriptions
- Availability of standardised medication data (IHE Standards)
- Nationwide connection through the ELGA infrastructure and access to a full medication list for all the involved health professionals
- Patient empowerment through the ELGA Citizen Portal

More information:

<http://www.chipkarte.at/portal27/ecardportal/content?contentid=10007.678580&viewmode=content> and <https://www.gesundheit.gv.at/elga/was-ist-elga/e-medikation>

Adaptation of the system during the COVID-19 pandemic

During the COVID 19 pandemic e-Medikation has been adapted. It is now possible to access the data without using the health insurance card, but by using the patient unique social security number. Thereby patients may order prescriptions by telephone, without visiting the doctor's office. Thus, physical contact can be reduced, which is especially important for high-risk groups and reduces the risk of spreading the disease.

The prescription can be filled by the patients themselves or by a patient trusted third party by using the social security number.

Organisation Country	Digital health solution	Stage of development	Financing
French National Health Insurance Fund (CNAM)  France	<b>e-Prescription software</b>  Software allowing healthcare professionals to prescribe electronically to patients.	Introduced in 2019, the e-prescription software is now fully deployed. The objective is to generalise the practice of electronic medical prescriptions by the end of 2024.	Financed by the National Health Insurance.

Benefits for the user

E-prescription can support the activity of the healthcare professional and has the potential to improve the quality of care by

- Simplifying and securing the prescription pathway
- Easing and supporting exchanges between physicians
- Fostering coordination of care
- Making reimbursements more reliable
- Reducing the risk of falsification

More information: <https://www.vie-publique.fr/loi/277266-ordonnance-18-novembre-2020-prescription-electronique-medicale>

## Diagnosis, Treatment and Communication

### eHealth Records, eHealth Cards, health data spaces

Organisation Country	Digital health solution	Stage of development	Financing
Main Association of Social Security Institutions (DVSV)  Austria	<p><b>e-Card system</b></p> <p>Server application, that can be fully integrated into the software used by health service providers or accessed online.</p> <p>The e-card system is the platform for administrative and medical services like <b>ABS</b> (Medical Approval Service), <b>eAUM</b> (Electronic Temporary Disability Report), <b>PROP</b> (Pre-operative Questionnaire), <b>BKFP</b> (Breast Cancer Prevention Screening Programme), <b>KFO</b> (Orthodontics), <b>eKOS</b> (Electronic Communication Service), <b>DBAS</b> (Preventive Medical Check-up Documents), <b>KSE (KONV)</b> (Electronic Health Insurance Voucher), <b>STS</b> (Authentication Service), <b>SAS</b> (Social Security Query Service), <b>VDAS</b> (Electronic Check of Entitlement for Hospitals), <b>BKFP</b> (Invitation Service), <b>TAV/DMP</b> (Disease Management Programme), <b>FUS</b> (Questionnaire Transmission Service)</p> <p>In the future it will include <b>E-REZEPT</b>, the Austrian electronic prescription system. The system will be</p>	<p>Fully operational system, evaluated with usage statistics, user feedback and surveys.</p> <p>Rollout of smartcards with photo to be finalised by the end of 2023.</p>	<p>Mainly financed by the national social security institutions; some services and projects are co-financed by other public funds.</p>

	<p>soon rolled out after a successful piloting phase.</p> <p>The e-card system supports and enables ELGA (Electronic Health Record) and is integrated with the e-medikation system as well as electronic vaccinations records.</p>		
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Benefits for the user

- Provides secure access to health data: authentication and authorisation based on up-to-date cryptography through smart cards
- Facilitates contacts between patients and health service providers (physicians, pharmacies, hospitals, nursing homes, etc.)
- Smartcards with photo widely accepted as ID cards in Austria

For providers, the system offers simplified interfaces to be fully integrated into their software. The system contributes to the digitalisation of healthcare: from the point of care; through administrative approval services combined with efficient electronic processes between healthcare providers and national health insurance institutions; to the invoice and generation of statistical data.

More information: [www.chipkarte.at](http://www.chipkarte.at)

Adaptation of the system during the COVID-19 pandemic

The e-card system was adapted to reduce contacts between providers and patients, by means of e-prescriptions through the [e-Medikation system](#) integrated into the electronic health record (ELGA). It also helped with the rollout of electronic documentation of COVID-19 vaccination.

<b>Organisation Country</b>	<b>Digital health solution</b>	<b>Stage of development</b>	<b>Financing</b>
<p>French National Health Insurance Fund (CNAM)</p> <p>France</p>	<p><b>E-Carte Vitale</b></p> <p>E-social security card/E-health insurance card.</p> <p>It is an application that allows the identification and digital authentication</p>	<p>Being tested in 12 departments.</p> <p>Nationwide deployment by the end of 2022.</p>	<p>Financed by the National Health Insurance.</p>

	of insured people and contains data of their health insurance card. This dematerialised card allows the reimbursement of act and services and also access to different services such as <a href="#">Compte Améli</a> .		
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Benefits for the user

This card allows users to benefit from dematerialised identification and authentication solutions on smartphone or table to access the same services as those offered by the classic card.

More information: <https://sesam-vitale.fr/enjeux-appli-carte-vitale>

Organisation Country	Digital health solution	Stage of development	Financing
French National Health Insurance Fund (CNAM)  France	<b>Dossier Médical Partagé (DMP)</b>  Shared Individual eHealth Record.  Electronic storage of patients' health records with patient control over who has access to the data.	Nationwide implementation has started since October 2018 and will be made available for everyone by January 2022.	Financed by the National Health Insurance.

Benefits for the user

For the insured person it offers the possibility to:

- easily share his/her medical record with a chosen healthcare professional;
- find his personal health history in a single place;
- control who accesses his own record.

For the physician, it enables a more precise and efficient medical follow-up and lowers the risk of duplications of prescription (examinations, medicines).

More information: [www.dmp.fr](http://www.dmp.fr)

Organisation Country	Digital health solution	Stage of development	Financing
French National Health Insurance Fund (CNAM)	<b>Espace numérique de santé (ENS)</b>	Being tested in 3 department.	Financed by the National Health Insurance.

France	<p>French digital health space.</p> <p>Platform that will contain digital health information such as administrative data, reimbursement information, a secure messaging system and the <a href="#">shared individual eHealth record (Dossier Médical Partagé)</a>.</p>	Nationwide implementation in 2022.	
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Benefits for the user

The platform will facilitate exchanges between patients and practitioners through a secure mailbox. Linked with the [Dossier Médical Partagé](#), these tools represent progress towards personalised and preventive medicine.

More information:

<https://esante.gouv.fr/mon-espace-sante> or <https://assurance-maladie.ameli.fr/actualite/mon-espace-sante-le-futur-espace-numerique-de-sante-pour-tous-en-phase-de-test>



## Monitoring, Diagnosis and Treatment telemedicine, eHealth apps, registries

Organisation Country	Digital health solution	Stage of development	Financing
<p>Main Association of Social Security Institutions (DVSV)</p> <p>Austria</p>	<p><b>Electronic Immunization Registry (EIR)</b></p> <p>Collects document immunization records of patients treated in Austria. Provides standard interfaces for immunization records (based on IHE/integrating the Healthcare Enterprise).</p> <p>All insured persons in Austria have the possibility to store vaccination data into the EIR. Information is made available to patients (through a web portal) and healthcare providers (in detail) as well as healthcare policy-maker (aggregated statistical data). This is useful to monitor the vaccination progress and derive actions necessary to fight the pandemic.</p> <p>There are several ways of entering the data into the central registry:</p> <ul style="list-style-type: none"> <li>App (“<b>e-Impfdoc</b>”): entitled medical practitioners identified via the Austrian e-government mechanism, patient identified via a scan (OCR) of the personal insurance card which includes also the social security number. Doctors select vaccine/dose/date/etc. in the app and verify the</li> </ul>	<p>The documentation of vaccinations started in October 2020, first with focus on influenza vaccinations. It is currently deployed nationwide.</p> <p>The implementation was done by the IT companies affiliated with the Austrian Social Security: ITSV GmbH (<a href="http://www.itsv.at">www.itsv.at</a>) SVC GmbH (<a href="http://www.svc.co.at">www.svc.co.at</a>).</p> <p>Since December 2020 the focus shifted towards EMA-approved COVID-19 vaccines.</p>	<p>Financed by the Austrian government and social security institutions, the 9 Austrian federal regions and the Austrian government.</p>

	<p>data, before it is sent to the EIR.</p> <ul style="list-style-type: none"> <li>▪ <b>Web solution (“e-card WebGUI”):</b> a standard web solution provided centrally by the social security for all entitled medical practitioners to enter data into the EIR</li> <li>▪ <b>local IT-solutions</b> for doctors/hospitals using the standardized IHE interface. Local IT solutions are not under the responsibility of Austrian social security institutions.</li> </ul>		
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Benefits for the user

The application not only provides near real time insights for policy makers on immunization distributions across the Austrian population, but also ensures transparency for the citizens. Furthermore, the application adds value for medical practitioners by ensuring consistent documentation on immunizations either due to vaccination, or soon also due to recovery of epidemic illnesses and antibody determinations.

During the current pandemic, the EIR is a major building block for issuing Austrian EU digital COVID vaccination certificates. In the near future the EIR will also provide further information for medical practitioners as well as citizens, by displaying vaccination recommendations (e.g. booster vaccinations) and reminder functions based on the Austrian vaccination guidelines.

More information: <https://www.elga.gv.at/e-impfpass/e-impfpass/> & <https://www.e-impfpass.gv.at/app-e-impfdoc-tablet/>

Adaptation of the system during the COVID-19 pandemic

The roll-out of the product was heavily accelerated due to the COVID-19 pandemic. Currently, the Electronic Immunization Registry (EIR) is primarily used for documentation of COVID-19 vaccination.

New functionalities were introduced due to the pandemic. The EIR started as a master dataset to generate the vaccination QR Codes / Digital Covid Certificates. A digital verification app was developed.

Organisation Country	Digital health solution	Stage of development	Financing
National Institute for Health and Disability Insurance (NIHDI-INAMI-RIZIV)  Belgium	<p><b>Telemedicine</b></p> <p>A new framework for telemedicine was put in place to assure the continuation of health care during the COVID-19. It allows healthcare providers to provide their services remotely using a telephone or video connection.</p> <p>The number of remote health care services provided is monitored.</p>	<p>Telemedicine services were made immediately available for all insured during the pandemic.</p> <p>New frameworks are put in place in consultation with healthcare providers as well as patients (2020 a patient survey).</p> <p>The KCE (Belgian Health Care Knowledge Centre) also made a report on the effect of videoconsultations in the follow-up of patients with chronic somatic disorders.</p>	Remote health care services are reimbursed in the same way as regular health care services.

#### Benefits for the user

The new framework on telemedicine regulates remote healthcare services provided by GPs allowing patients to access healthcare remotely from home, while.

More information:

[http://www.ejustice.just.fgov.be/cgi\\_loi/change\\_lg.pl?language=fr&la=F&cn=2020051306&table\\_name=loi](http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2020051306&table_name=loi) (FR);

<http://www.ejustice.just.fgov.be/eli/besluit/2020/05/13/2020041295/justel> (NL)

#### Adaptation of the system during the COVID-19 pandemic

The roll-out of telemedicine was accelerated due to the COVID-19 pandemic. Some services are temporary in nature, but new frameworks are put in place that permanently make remote healthcare services part of the regular health care system.

Organisation Country	Digital health solution	Stage of development	Financing
National Institute for Health and Disability Insurance (NIHDI-INAMI-RIZIV)	<p><b>Pilot project on tele-expertise for remote dermatological advice</b></p> <p>The pilot project investigates a new</p>	The pilot project started on 11 February 2021 and ended on 1 December the 2021 because the goal of 2000 delivered tele-expertise advices was achieved.	Dermatologists received 22.33 EUR for each tele-expertise they performed.

Belgium	<p>method where three parties (patient, GP and dermatologist) exchange medical information and pictures via a secured communication channel. The aim is to improve diagnosis, treatment and prevention of skin afflictions.</p> <p>GPs can send clinical questions concerning a skin affliction to a dermatologist through an electronic form (using his electronic medical dossier). Personal and medical information as well as pictures of the afflicted area can be shared. The dermatologist will then respond as soon as possible via the same communication channel with a diagnosis, treatment proposal or the request to refer the patient to him. The GP will then contact the patient again.</p>	<p>The KCE (Belgian Health Care Knowledge Center) is preparing an evaluation report expected by March 2022.</p> <p>50 dermatologists as well as 400 GPs across the country took part in the pilot project.</p>	
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Benefits for the user

The project provides

- a solution to the long waiting lists for seeing a dermatologist
- secure channels to exchange sensitive medical information
- payment for the advices delivered by dermatologists

More information:

<https://www.riziv.fgov.be/fr/professionnels/sante/medecins/soins/Pages/tele-expertise-projet-pilote-dermatologie.aspx> (FR);

<https://www.riziv.fgov.be/nl/professionals/individuele zorgverleners/artsen/verzorging/Paginas/tele-expertise-pilootproject-dermatologie.aspx> (NL)

Organisation Country	Digital health solution	Stage of development	Financing
French National Health Insurance Fund (CNAM)  France	<p><b>Telemedicine</b></p> <p>Based on a secured video transmission system, any physician is able to propose teleconsultations to his patients when necessary.</p> <p>Tele expertise to be fostered to allow doctors to remotely request a colleague's advice on a particular medical situation, because of his/her academic background or his/her specific competence.</p>	<p>A nationwide law for the reimbursement of telemedicine consultations was adopted early 2018, it is officially implemented since September 2018.</p> <p>The national health insurance reimburses these consultations under certain conditions.</p>	Financed by the National Health Insurance.

Benefits for the user

- Ensures better access to care, especially in medical deserts
- Improves health literacy of the public, including people with lower levels of education e.g. with functional illiteracy, through the use of videos
- Access to telemedicine procedures reimbursed by the statutory health insurance: teleconsultation of a patient with a practitioner, tele appraisal allowing a practitioner to ask another for advice and medical remote monitoring to allow a practitioner to remotely interpret data

Organisation Country	Digital health solution	Stage of development	Financing
DAK-Gesundheit  Germany	<p><b>Mein Herz/ HerzConnect</b></p> <p>Remote monitoring system targeted to patients suffering from heart failure.</p> <p>After an in-patient stay, follow-up care continues at the patient's home</p>	<p>Telemedical follow-up of patients with an inpatient stay due to cardiac insufficiency is currently only offered for patients in the region Bad Segeberg in the federal state of Schleswig-Holstein.</p> <p>Previous contracts in other regions have expired due to the fact that this service will</p>	The telemedicine service is financed by a special hospital service contract between DAK-Gesundheit and the Segeberger Klinik en.

	<p>under medical supervision via a telemedicine center.</p> <p>The technical equipment for telemedical care includes an ECG device, a scale and a blood pressure monitor. Patients receive appropriate instructions on the devices and on when and which values are to be measured. The values are transmitted to the telemedicine center via Bluetooth using an app. With the help of algorithms, abnormalities of vital signs are immediately detected and forwarded for medical clarification.</p>	<p>be transferred to standard care from 2022.</p> <p>The benefits of this "telemedical aftercare" service have been proven in various studies. This also explains the transfer to standard care.</p>	
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Benefits for the user

The added value of this telemedical solution lies in the "24-hours" follow-up care of patients with cardiac insufficiency at one's home by measuring their heart values (ECG), blood pressure values and weight on a daily basis. The aim is to give patients reassurance and, if necessary, avoid further hospitalisation.

More information:

<https://www.dak.de/dak/kontakt/mein-herz-telemedizin-in-bad-segeberg-2080736.html#/>

Organisation Country	Digital health solution	Stage of development	Financing
Techniker Krankenkasse  Germany	<p><b>Husteblume</b></p> <p>Digital app targeted to patients with pollen allergy or hay fever, available also for non TK-insured persons.</p> <p>It contains a pollen load forecast for the next few days, information about flowering times, the most common allergens and cross-reactions, as well as therapy and treatment methods. Users can activate a pollen alarm to receive an early warning of exposure.</p> <p>It allows users to record and evaluate their symptoms and their medication intake in a diary, with daily reminders and extensive evaluation functions. The data can be shared with the treating doctor.</p>	<p>The app is currently available for iPhones and Android Smartphones.</p> <p>A study was conducted with the University of Freiburg on usage behaviour and effectiveness. In addition, the app is regularly checked in user tests and continuously developed further.</p>	<p>Completely financed by Techniker Krankenkasse (TK).</p> <p>The app is free of advertising and can be used free of charge.</p>

#### Benefits for the user

- Reliable forecast data and qualified information on the subject of pollen allergy
- Comprehensive diary and evaluation functions
- Anonymous use without registration or providing personal information

More information: <https://www.tk.de/techniker/magazin/digitale-gesundheit/apps/husteblume-allergie-app-2025388>

## Rehabilitation and Long-term care

Organisation Country	Digital health solution	Stage of development	Financing
National Institute for Health and Disability Insurance (NIHDI-INAMI-RIZIV)  Belgium	<p><b>MoveUp</b></p> <p>mHealth application supporting rehabilitation after hip or knee surgery, accessible both to patients and physiotherapists.</p> <p>Before rehabilitation, the patient receives information about the treatment via the app and the physiotherapist assigns a profile to the patient based on anamneses, PROMs, and information from the surgeon.</p> <p>During the treatment, the app sends measurements to the physiotherapist and proposes a revalidation scheme to the patient.</p>	<p>The application is developed by MoveUp. It is currently a pilot project/randomised clinical trial to assess its cost-effectiveness.</p> <p>Hospitals and physiotherapists have to sign up for the clinical trial in order to make use of the solution and receive reimbursement. Patients can only make use of the solution if their physiotherapist has signed up for the trial.</p> <p>The university research unit that manages the clinical trial will compile an evaluation report after enough participants have been enrolled in the trial.</p>	The NIHDI finances the study and reimbursement of the physiotherapists participating.

### Benefits for the user

- Allows personalised treatment via remote monitoring
- Includes a messaging system allowing patients to ask questions to the physiotherapist and physiotherapists to respond with personalised advice.

More information:

<https://www.riziv.fgov.be/fr/themes/cout-remboursement/Pages/remboursement-soins-distance-reeducation-prothese-genou-hanche-application-mobile.aspx> (FR);

<https://www.riziv.fgov.be/nl/themas/kost-terugbetaling/Paginas/terugbetaling-zorg-op-afstand-revalidatie-heup-knieprothese-mobiele-toepassing.aspx> (NL)



Adaptation of the system during the COVID-19 pandemic

The project was launched before the COVID-pandemic. The pandemic delayed inclusions in the randomised trial phase due to non-essential care (like knee- and hip surgeries) being postponed.

Organisation Country	Digital health solution	Stage of development	Financing
AOK- Bundesverband GbR / Federal Association of the AOK  Germany	<b>AOK online informal long-term care course "Caring at home"</b>  "Caring at home" is an e-learning service available to informal carers and caregivers insured with AOK but also with other long- term care insurance funds.  It provides the necessary know-how on (long-term) care practices at home including safe administration of medication, communicating with the care recipient and self-care, amongst others.	The technical implementation of the online informal long-term care course is complete.  The course is being made available and applied in different regions.	The product was commissioned and financed by the AOK community.

Benefits for the user

The course is free of charge and can be accessed from any device (smartphone, tablet or PC). The informal carer/caregiver can decide when and in which order to access learning units and are therefore not bound to any fixed dates. Furthermore, they can repeat learning units whenever they need to.

More information: <https://www.aok.de/pk/nordwest/inhalt/online-pflegekurs-der-aok-4/>

Adaptation of the system during the COVID-19 pandemic

The product was further developed thematically and supplemented with the following learning modules: provide first aid, violence prevention, medically prescribed care, nutrition in old-age, help in the bureaucratic red tape, personal hygiene, people with dementia, mobility and positioning, avoiding falls, living in old-age.

Organisation Country	Digital health solution	Stage of development	Financing
German organisation representing the substitute health insurance companies (vdek)  Germany	<b>Pflegelotse</b>  Pflegelotse (“care guide”) is an independent and free online information tool that helps finding a suitable care facility. At the same time, it fulfils the legal obligation to publish information about the services provided by care facilities and their quality. The online tool provides up-to-date information on approximately 30.000 care facilities nationwide.	Fully deployed	Developed by vdek.

#### Benefits for the user

It allows users to find the most suitable care and long-term care services in Germany. It provides information about size, costs, types of care, and the location and addresses of providers. The online tool also provides information about the quality of the facilities based on objective test results.

More information: <https://www.pflegelotse.de/>

Organisation Country	Digital health solution	Stage of development	Financing
German Federal Pension Insurance (DRV-Bund)  Germany	<b>Nachderreha.de</b>  Website with an integrated database for rehabilitation aftercare, allowing users to search for aftercare service providers. It includes profile descriptions of care providers or aftercare (contact, equipment,	The website was released in December 2016 and can be used by rehabilitation facilities and insured persons.  It comprises more than 3000 entries of rehabilitation aftercare services in Germany. The website layout was recently adapted to the corporate design of DRV-Bund.	The website was established through a research project (2011-2014) funded by the German Pension insurance. With further funding (project 2015-2016), the database was expanded, optimized and published. The current project is to record all rehabilitation

	<p>appointments). Data is collected via a self-report portal. The service addresses chronic patients who require follow-up therapeutic services after hospital or ambulatory rehabilitation provided by the German pension insurance. The success of rehabilitation is to be sustained through aftercare so that a successful return to work can be achieved.</p>		<p>aftercare offers with the database.</p>
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#### Benefits for the user

- Follow-up database for physicians and therapists to check whether suitable rehab aftercare is available for rehabilitants.
- Information to insured persons about the aftercare services in their home region in a user-friendly web portal.
- Provision of crucial information for the preparation and recommendation of rehabilitation aftercare.
- Offers reviews by the users (care providers and rehabilitants) on acceptance and usability of services.

More information: [https://www.nachderreha.de/DE/Home/home\\_node.html](https://www.nachderreha.de/DE/Home/home_node.html)

#### Adaptation of the system during the COVID-19 pandemic

Regulations about the conditions under Corona/pandemic conditions were added as well as information regarding online aftercare provisions.

## COVID-19

Organisation Country	Digital health solution	Stage of development	Financing
<p>Main Association of Social Security Institutions (DVSV)</p> <p>Austria</p>	<p><b>GreenCheck application</b></p> <p>Digital verification app to check the Digital Covid Certificates by scanning the QR Code.</p> <p>The App covers several use cases starting from simple entry checks for restaurants, to nightclubs and even entry checks for cross-border travel, according to the current legislative framework.</p> <p>Everyone in Austria can use the GreenCheck app to verify their digital COVID certificate.</p> <p>More information: <a href="https://greencheck.gv.at/">https://greencheck.gv.at/</a></p>	<p>Developed in the context of the Electronic Immunization Registry, fully deployed nationwide.</p>	<p>Developed by the Austrian association of social security institutions, the 9 Austrian federal regions and the Austrian government.</p>

Organisation Country	Digital health solution	Stage of development	Financing
National Institute for Health and Disability Insurance (NIHDI-INAMI- RIZIV)  Belgium	<p><b>COVID-19 telemonitoring</b></p> <p>Monitoring of COVID-19 patients before and after hospitalisation in the context of an integrated medical approach supported by digital applications.</p> <p>The project is targeted to patients that only have relatively mild COVID symptoms or partially recovered patients as well as to the monitoring team of healthcare professionals including homecare nurses. Patients are monitored from home using medical devices. Healthcare professional can choose different technologies, either developed commercially or in house by the hospital.</p> <p>Some information is collected automatically, while other information requires patient input (with support from a homecare nurse).</p>	<p>This pilot project is a direct response to the COVID-pandemic and was specifically developed for COVID-19 patients. It will end on 30 June 2022 but can be extended by another six months.</p> <p>The KCE (Belgian Health Care Knowledge Centre) will write an evaluation rapport which is expected to be delivered in the first half of 2022, using monitoring data up to November 2021.</p> <p>The lessons learned from this project will be used for other telemonitoring projects and the establishment of a general framework for telemonitoring.</p>	<p>Hospitals/Health care provider groups receive a lump sum for each patient involved in the project (34 euro) and a weekly allowance per patient (between 65 euro and 100 euro per week, dependent on the use of telemetry and whether the patient is monitored before or after hospitalisation).</p>

#### Benefits for the user

When declining or deviating values are measured, the monitoring team will contact the patient to follow up more closely and to reassure the patient when required. In case of serious worsening, the monitoring team will contact the required health care provider to change the medical care. This results overall in the reduction of hospitalisation rates.

More information: <https://www.riziv.fgov.be/fr/covid19/Pages/soins-distance-patients-covid19-domicile-telemonitoring.aspx> (FR);  
<https://www.riziv.fgov.be/nl/covid19/Paginas/zorg-afstand-covid1-patienten-thuis-telemonitoring.aspx> (NL)

Organisation Country	Digital health solution	Stage of development	Financing
<p>French National Health Insurance Fund (CNAM)</p> <p>France</p>	<p><b>Online service to declare a derogatory work leave/sick leave</b></p> <p>The service allows symptomatic employees or close contacts awaiting a Covid-19 test (and who can't do remote work) to benefit from paid sick leave. The request can be filed online on the <a href="#">SHI website</a>. Daily allowances for employees who are ill with Covid-19 are paid from the first day of sick leave.</p> <p>More information:  <a href="https://www.ameli.fr/assure/actualites/demande-darret-de-travail-dans-lattente-des-resultats-dun-test-covid-ouverture-dun-teleservice">https://www.ameli.fr/assure/actualites/demande-darret-de-travail-dans-lattente-des-resultats-dun-test-covid-ouverture-dun-teleservice</a> &amp;  <a href="https://declare.ameli.fr/cas-contact/conditions">https://declare.ameli.fr/cas-contact/conditions</a></p>	<p>Introduced in January 2021, temporary measure applied until 30 September 2021 for private employees affected by COVID-19 and until 31 December 2021 for public employees affected by COVID-19.</p>	<p>Financed by the National Health Insurance.</p>

Organisation Country	Digital health solution	Stage of development	Financing
<p>AOK Baden-Wuerttemberg</p> <p>Germany</p>	<p><b>CovidCare module</b></p> <p>Web application to support general practitioners (GPs) in the care of patients with confirmed COVID-19 disease and simultaneous presence of risk factors according to the Robert Koch Institute (RKI) criteria. The goal is the timely recognition of deteriorations in the health status of patients with COVID-19 and existing risk factors for a severe course of the disease who are receiving medical care at home.</p> <p>CovidCare is implemented via the CareCockpit software and offers participating GPs the possibility to record symptoms, their onset and development, in a structured way.</p> <p>In addition, CovidCare is used to plan telephone monitoring appointments targeted to each individual patient (in terms of frequency</p>	<p>CovidCare has been in use since April 2020 and is contractually anchored in the GP-centred care contract (Hausarzt-zentrierte Versorgung HZV) of the AOK Baden-Wuerttemberg.</p> <p>The participating contractual partners are HÄVG (GP contractual association plc) and MEDI-Verbund (stakeholder of member physicians).</p> <p>GPs participating in the HZV contract that employ a care assistant (VERAH) can use the module, provided that the VERAH has completed a one-time online training and the software has been installed in the GP-centred care practice. The centred care GP can participate in the training on a voluntary basis.</p> <p>CovidCare can be used for all COVID-19 patients aged 18 years and older (by definition, symptomatic patients with a positive PCR test) who are in home isolation, with one or more risk factors for a severe course according to the RKI, that justifies telephone monitoring by the GP practice individually adjusted in frequency (age &gt;50 years, cardiovascular diseases, diabetes mellitus I and II, lung diseases, chronic kidney or liver diseases, diseases with an</p>	<p>The development of the module by the Heidelberg University Hospital, Department of General Medicine and Health Services Research, as well as the medical remuneration are covered by the GP-centred care contract (HZV contract).</p>

	<p>and measurements e.g. fever, oxygen, blood pressure, taken by the patient or relatives at home). Reminder functions and an appointment overview enable systematic calling and follow-up.</p>	<p>immune deficiency, obesity or Down syndrome).</p> <p>The CovidCare module is integrated into the CareCockpit software, that allows GP to manage chronically ill patients. The CareCockpit has a modular structure and enables rapid further development.</p>	
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#### Benefits for the user

- A visually displayed patient-specific timeline and coloured markers (on symptoms' onset and progression) enable the physician to early identify deteriorations in health status and initiate appropriate measures.
- The assessment is carried out by the GP's care assistant (VERAH) and an assessment report is prepared for consultation with the doctor, contributing to easing GPs' workload.
- Patients have access to of telephone monitoring appointments targeted to their needs/health status.

More information:

<https://www.carecockpit.org/public/covidcare/>