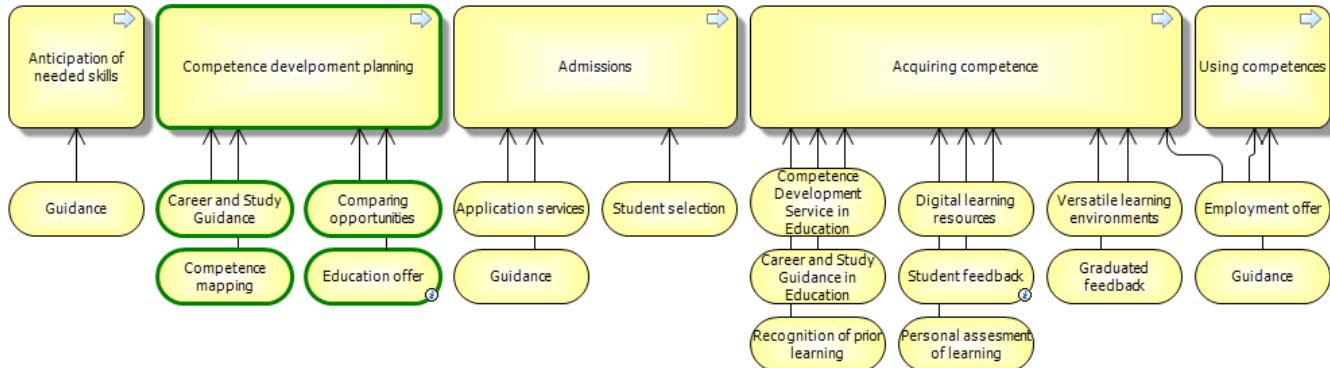


Desk research: Services in different EU-countries

This architecture model sums up the services that individual is using when developing competences in lifelong perspective. Circles are the generic services and in each EU-country there is different systems how these services are organized. Table under the picture is a summary what kind of different ways of organizing digital services there are.



For a list/table of similar projects, head here: [Similar projects](#)

Learner's path's services in different EU-countries

| Service | Description | Finland | Netherlands | Germany | .EU |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Guidance and mapping | Guidance and competence mapping services that help individuals to identify their competences and what competences they are missing | <p>http://ohjaamot.fi/ohjausta-verkossa (online guidance)</p> <p>Ammattiliittojen uraohjaus</p> <p>TE-toimistojen uraohjaus</p> <p>Tilaajavastuuun osaamis- ja työllistymisratkaisu</p> <p>Studyinfo.fi - how well at the moment?</p> <ul style="list-style-type: none"> • esihOKS? / Compleap competence profile (Prospective student can measure his/her personal competences and skills and make plans regarding further development of his/her skills and competences) <p>Osaan.fi</p> <p>Positiivinen CV</p> <p>Osaamisbotti</p> <p>Noodi</p> <p>kunkoululopuu.fi (TAT)</p> <p>Osaan.fi</p> <p>Tiviittori</p> | <p>Studiekeuze123</p> <p>Euroguidance.nl</p> <p>Employment Insurance Agency (Info on UWV in English): The 'beroepenvinder'</p> <p>Tests provided by Leerwerkloketten</p> <p>Many specialized tools: GoGeo Studiewijzer, The Competence Group</p> <p>Disadvantaged learners: SBB Werkverkenner</p> | <p>Potenzialanalyse</p> <ul style="list-style-type: none"> • a mandatory test aimed at learners age 13-14 • Used nationwide, different states and cities have different methods and implementations' • Measures social, personal and methodical competencies as well as work-oriented sets of skills • Basic information <p>Methods / services:</p> <ul style="list-style-type: none"> • http://portal.berufeuniversum.de/ • https://www.profil-ac.de/ <p>A test to find a career after school (VET + tertiary education): https://www.arbeitsagentur.de/bildung/was-passt-zu-mir</p> | <p>Skills mapping ESCO – European Classification of Skills /Competence; https://ec.europa.eu/esco/portal/home</p> <p>Guidance: https://www.euroguidance.eu/ Specific example, The European e-Competence Framework (e-CF): www.ecompetences.eu (more selfassessment frameworks exist, like Entrecomp)</p> <p>Recommendation for Key competences for lifelong Learning http://bit.ly/2GrSFnP</p> |

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|---------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Education offer | Search engines to identify education and learning opportunities | <p>Studyinfo.fi kunkoululoppuu.fi (TAT)</p> <p>noodi.me (Me-säätiö)</p> <p>Online opintotarjonta:</p> <ul style="list-style-type: none"> ■ nettiperuskoulu www.otavanopisto.fi /nettiperuskoulu ■ nettilukio www.otavanopisto.fi/nettilukio ■ avoin ammattiopisto, http://www.avoinmetammattilisetopinnot.fi ■ www.eamk.fi ■ | <p>http://www.leermogelijkheden.nl/</p> <p>VET: MBO Raad </p> <p>Overview at Leerwerkloketten: www.opleidingenwerk.nl/</p> <p>English-taught study programs and courses: Study in Holland</p> <p>Dutch language courses: Study in Holland; learndutch.org; iamexpat.nl; NT2 etc.</p> | <p>Info on the preparatory training for VET (under 25 year-olds): berufsvorbereitende Bildungsmaßnahmen</p> <p>Options in VET / berufliche Ausbildung: planet-beruf.de + Azubiwelt app</p> <p>Options in VET/ schulische Ausbildung: KURS-NET</p> <p>Options in VET / dual system: "duale Ausbildungsberufe" at bmwi.de</p> <p>Options in tertiary education: studiewahl.de and hochschulkompass.de</p> <p>Adult learning, up-skilling for career changers, courses etc.: KURS-NET</p> | https://ec.europa.eu/plateus/ |
| Application services | Application management services where admission is understood as the whole process from applying to accepting a study place. | Studyinfo.fi (application management services and My Studyinfo.fi) and educational institutions <ul style="list-style-type: none"> • yhteishaku • jatkuva haku • joustava haku (uusi?) - kysyntälähtöinen - opiskelija ilmoittaa kiinnostuksesta? Compleap? | Enrollment for Higher Education Institutions: studielink.nl , also for numerus fixus studies | <p>Three routes depending on e.g. restrictions on admissions</p> <p>i) uni-assist.de for international students and refugees</p> <p>ii) foundation for admission to higher education - admissions to many first cycle study programs and to all study programs with redistricted intake.</p> <p>iii) directly at the university - application usually online but enrollment takes often place in person in admissions offices (Studiensekretariat)</p> | |
| Student selection | Accepting the study place | My Studyinfo.fi -service (accepting study place and link to student financial aid application service at KELA) | Applying for a study grant: https://www.duo.nl/particulier/studiefinanciering-aanvragen/mbo-havo-of-universiteit.jsp | <p>Higher education institutions decide on their student selection. Requirements may vary between institutions.</p> | |
| Versatile learning environments | Learning environments to aid everyday teaching and learning | <p>Open learning resources (Perusopetuksen wikiloikka, Muikkuvekko, many institute specific sites)</p> <p>Many institute specific learning environments and resources</p> <p>Edu.fi - official platform for teachers</p> | <p>Non-formal online: studyube.nl. Higher education: divers initiatives by institutions. Many commercial providers.</p> <p>SURF's program "Education Innovation with IT" - ask them?</p> | <p>Bitkom's annual eLearning award "delinda" is granted for innovative learning technology solutions. See the award winners for some examples.</p> | |

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| Digital learning resources | Digital learning material | <ul style="list-style-type: none"> ■ avoin perusopetuksen oppikirjasto ■ www.edustore.fi ■ museoliitto.fi/oppimuseossa/museoiden-avoimetsisalot ■ OPH vähälevikkiset oppimateriaalit <p>Publishers (Otava, SanomaPro, edita, Alfabublishing etc),</p> <p>Digital publishers (Tabletkoulu),</p> | <p>The National Institute for Curriculum Development (SLO) helps schools to select teaching materials - ask them?</p> <p>+ Many commercial providers</p> | <p>The Minister for Education and Science Anja Karlick (03/2018) has restructured the Ministry so that digitization is on every department's agenda now (Der DigitalPakt).</p> <p>Open education resources (OER):</p> <ul style="list-style-type: none"> ■ FWU Medieninstitut der Länder (Schools) ■ Learning Lab der Universität Duisburg-Essen (University) ■ Bundesinstitut für Berufsbildung BIBB (VET) ■ Deutsches Institut für Erwachsenenbildung DIE (adult learning) <p>Some examples from NRW:</p> <ul style="list-style-type: none"> ■ "pro-digital schools" ■ digital learning material in schools <p>*) Study by Bertelmann's Stiftung Monitor Digitale Bildung (2016-2017): In general, there is rather skeptical attitude to digitalisation of education&learning in Germany.</p> | |
| Student feedback | Feedback on progression of studies and it's support | Arvo - national service for feedback | The NSE survey by Studiekeuze123 | HEIs are obliged to collect feedback from students every year institution specific surveys | |
| Graduated feedback | Feedback given after graduation to evaluate studies | Arvo - national service for feedback | not known, probably institution specific? | Institution specific graduate surveys + a nation wide project KOAB + a longitudinal survey AP2017 | |
| Competence development in education | Tools to identify and develop competencies during education | eHOKS - service for storing, maintaining and utilizing the learner's data related to personal development planning. Developed by Edufi. Planned first deployment January 2019. More info will be updated in Edufi wiki . www.workseed.fi https://tawasta.fi/ratkaisut/futural-skills | Toolkit for Volunteering organisations by Movisie http://bit.ly/2p9aNvc Movisie collaborates with European Volunteer Center. | | |
| Recognition of prior learning | | <p>Osaan.fi</p> <p>Digital open badges</p> <ul style="list-style-type: none"> ■ osaamismerkki.meke.wikispaces.net /oppimisprosessi ■ Open merkit ■ www.oppiminonline.com /osaamismerkinhakemuslinkit <p>Partioiden osaamismerkit</p> | <p>Initiative started around issuing Open Badges for modules (sesters) within HEI.</p> <p>Initiative started around non-formal education, issuing (smaller) badges based upon VET learning outcomes</p> | <p>Federal information portal</p> <p>Federal act on recognition of prior learning (2014) covers VET and regulated professions.</p> | |
| Career and study guidance in Education | Digital services that support guidance during education | http://ohjaamo.fi/ohjausta-verkossa (online guidance) (Opintojen aikana?) www.toimintakykyarvio.fi ammattivalinta.fi ammattinetti.fi ammattiosaaja.fi Korkeakoulujen urapalvelut? | <p>"The career guidance system is decentralized and involves both public and private providers." Euroguidance ... elaborate on this</p> <p>Dutch association for career professionals Noloc</p> | <p>Personal career guidance by Bundesagentur für Arbeit in local info points</p> | |
| Personal assessment of learning | Self-evaluation etc. tools | Qridi Skillzup | Institution specific? e.g self-evaluation of PhD students (Utrecht University) or Career Services on-line tools | | |

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|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Employment offer | Open job positions | Työmarkkinatori Private systems | | | |
| Authentication | Identification methods | Haka-federation (for administrators and HEI students), Suomi.fi (strong authentication (eIDAS) for learners and administrators), studyinfo-authentication, google-authentication | SURFcontext (single signon with student account for many educational services,); Digid (National governmental authentication system); | | eIDAS / eID |
| Management of Learner IDs | Way to manage learner's unique person identification codes. | National learner ID register *Register consist unique person OID codes for all the learners *every learner can be identified by using the OID code | Students in the Netherlands have a national student-ID (onderwijsnummer), for Dutch citizens this is normally the same as their social security number | Institution specific? See "Hochschulrechenzentrum" of each institution | |
| e-Authorization | Reliable verification of a person's right to specific services | Suomi.fi *Suomi.fi e-Authorizations is a service for reliable verification of a person's or organisation's authorization and right to use digital services on behalf of another person or organisation regardless of time or place. | na | German eID | |
| "Student data warehouse" | National register for study rights, study attainment and study achievements | KOSKI (National register for study rights, study attainment and study achievements) * | BRON National register of student admissions from primary, secondary and tertiary education; and study results (@DUO) | | |
| Consent Management | | Not available | na | | |
| Employer feedback and needs | To be filled in by CSC | Arvo - national service for feedback | not known, probably institution specific? | | |
| Education Statistics | Collects official education statistics | Vipunen.fi (Education statistics Finland), Statistics Finland | kept by the national agency for statistics: http://www.cbs.nl/nl-nl/maatschappij/onderwijs | | Eurostat http://bit.ly/2cZYOp8 |
| Learning Analytics | Hanni Muukkonen saisiko teiltä tähän sisältöjä? | | | The LACE-project: http://www.laceproject.eu/ Connecting communities working with learning analytics, create and curate knowledge for evidence, develop and investigate new tools for Learning analytics SHEILA-project: http://sheilaproject.eu/2017/04/18/the-state-of-learning-analytics-in-europe-executive-summary/ Ethical use of learning analytics, guidelines for higher education institutions. Open Skills Matcmaker: http://openSkills.eu/ | |
| Labour market needs gathering (foresight /anticipation) | Use of labour market and skills information to predict and develop policy responses to future skills needs. | Done in various institutions (eg. Edufi) The national education authorities cooperate with the enterprises as well as employee and employer organisations to monitor and anticipate the developments in skills needs in the labour market. Key actors in this work are the National Education and Training Committees, tripartite bodies established for each occupational field. | Diverse commercial initiatives The Research Centre for Education and the Labour Market (ROA) OECD Skills Strategy Diagnostic Report: The Netherlands (2017) | | Skills Panorama: http://skillspanorama.cedefop.europa.eu/en labour market Information (LMI) toolkit: http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit |
| Work placement | Official platforms for finding work placements | http://www.te-palvelut.fi | A website that publishes all offerings on work placements for VET-students https://www.stagemarkt.nl Employment Insurance Agency's (UWV) listing werk.nl - incl. links to other job platforms, too. | | Free information service on European work, study, travel and volunteering opportunities: https://eurodesk.eu/ |

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| Credential issuing | | | Initiative started around issuing Open Badges for modules (sesters) within HEI. Initiative started around non-formal education, issuing (smaller) badges based upon VET learning outcomes | | |
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Services on competence mapping and comparing educational opportunities and other such projects close to Compleap

| Service | Description | Data they use | Country | Target group |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|------------------------------------------|
| Positive CV | Children evaluate their competences to build a "positive CV" - CV that describes what they are good at | Generated in the service | Finland | Children / youth without work experience |
| HeadAi's artificial intelligence / Microcompetencies | An artificial intelligence that predicts what sort of expertise is needed in the future. The artificial intelligence understands natural language and uses open data | | | |
| Foredata /foreammatti | | | | |
| Me-säätiö / Noodi www.noodi.me | | | | |
| Töissä.fi | | | | |
| Valmentavasta valmiiksi -hanke, SIMHE-hanke | | | | |
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