



ICT- ja digitaidot ICDL

Hallusinaatioita luokkahuoneessa –
IT-kouluttajat tekoälyn taikametsässä

ICDL Foundation ja ICDL Finland



1995 CEPIS luo konseptin

1997 ECDL syntyy



17+

70+

...
20 000 testikeskusta,
100 maata

ICDL Finland

ECDL Finland Oy

2006 alkaen

120+ vuotta opetuskokemusta



ICDL Foundation is a global social enterprise committed to raising standards of digital competence in the workforce, education and society.

YK:n kestävä kehityksen tavoitteet ja ICDL



- Digitaalinen lukutaito
- Ammatilliset digitaidot
- Tasapuolinen laadukas koulutus parantamalla opiskelijoiden keskeisiä tietokoneen käyttötaitoja.



- Digitaidot edistävät innovaatioiden kehitystä eri toimialoilla
- Teknisesti edistyneen infrastruktuurin kehittyminen vauhdittu



- Tasapuoliset mahdollisuudet digitaalisten taitojen hankkimiseen
- Tasapuoliset mahdollisuudet ammattitaidon osoittamiseen



- Standardoitu digitaalisten taitojen koulutus vähentää eriarvoisuutta
- Parantaa mahdollisuuksia henkilökohtaiseen ja ammatilliseen kasvuun



- Työllistymisen edistäminen digitaalisten taitojen kehittämällä
- Kestävä talouskasvu ja ihmisarvoinen työ digitaalisten taitojen kehittämällä

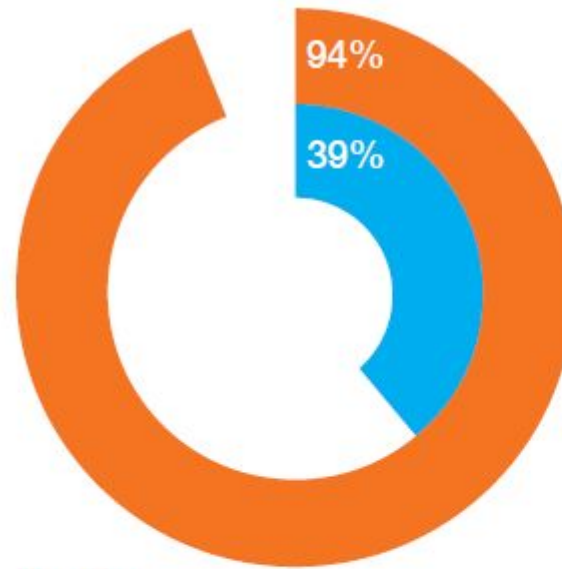


- Oppilaitosyhteistyö laajasti
- Yhteisö- ja yritysyhteistyö
- Kaikenlainainen yhteistyö digitaalisten taitojen kehittämiseksi globaalisti

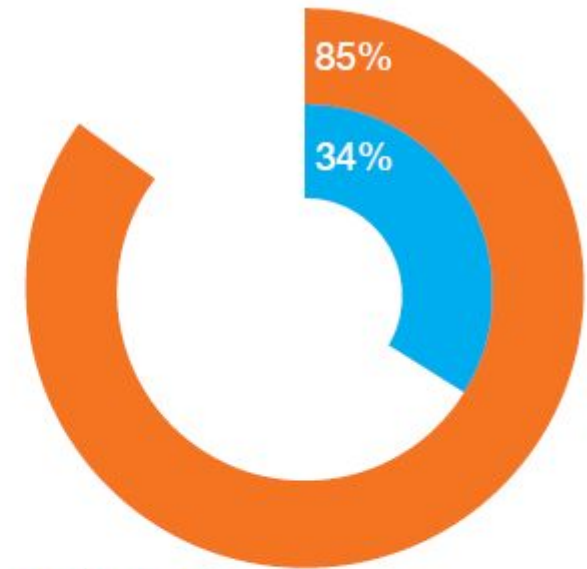
Osaamisen mittaaminen

Osaamisen mittaaminen ja itsearviointi

1. Itsearvioinnissa yliarvioidaan omat digitaidot
2. Kaikissa tutkituissa maissa o digitaitojen puutteita
3. Puutteita sekä Nuorten ja vanhempien keskuudessa
4. ICDL tai vastaavan sertifiointin hankkineet menestyivät paremmin



Austria
General Digital Skills
Actual Skills
Self Assessed Skills



Switzerland
Using the Internet and Email
Actual Skills
Self Assessed Skills

Työelämän ICT-taidot

itsearviointi – mitatut taidot

Country	Target Group		Spreadsheets	Presentation	Word
Denmark	First-year university students	Self-assessed	89%	84%	76%
		Actual	57%	58%	79%
Finland	First-year university students	Self-assessed	74%	87%	83%
		Actual	37%	60%	63%
Germany	First-year university students and final year higher-tier secondary education students	Self-assessed	79%	81%	84%
		Actual	38%	66%	60%
India	University students	Self-assessed	64%	86%	85%
		Actual	33%	60%	49%
Singapore	University and polytechnic students	Self-assessed	60%	66%	68%
		Actual	35%	57%	45%

Työelämän ICT-aidot itsearviointi – mitatut taidot




Country	Target Group		Spreadsheets	Presentation	Word
Denmark	First-year university students	Self-assessed	89%	84%	76%
		Actual	57%	58%	79%
Finland	Self-assessed		74%	87%	83%
	Actual		37%	60%	63%
Germany	final year higher-tier secondary education students	Actual	38%	66%	60%
India	University students	Self-assessed	64%	86%	85%
		Actual	33%	60%	49%
Singapore	University and polytechnic students	Self-assessed	60%	66%	68%
		Actual	35%	57%	45%

The fallacy of the 'digital native'

The myths of the digital native and the multitasker

Paul A. Kirschner^{a, b}  , Pedro De Bruyckere^c

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<https://doi.org/10.1016/j.tate.2017.06.001> 

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Highlights

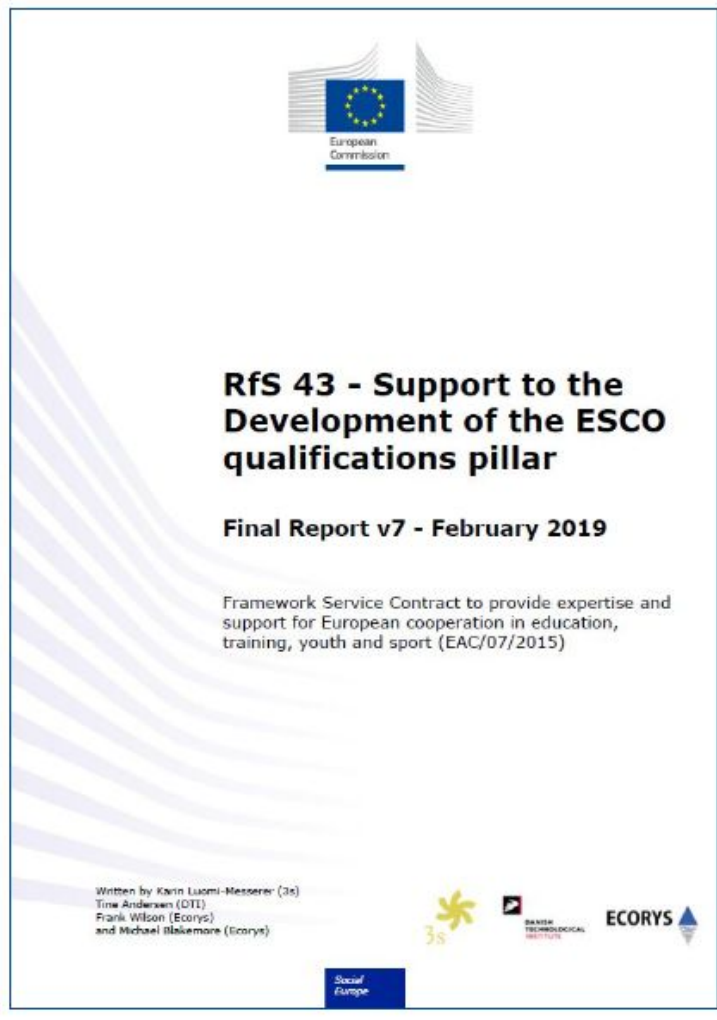
- Information-savvy digital natives do not exist.
- Learners cannot multitask; they task switch which negatively impacts learning.
- Educational design assuming these myths hinders rather than helps learning.

Abstract

Current discussions about educational policy and practice are often embedded in a mind-set that considers students who were born in an age of omnipresent digital media to be fundamentally different from previous generations of students. These students have been labelled *digital natives* and have been ascribed the ability to cognitively process multiple sources of information simultaneously (i.e., they can *multitask*). As a result of this thinking, they are seen by teachers, educational administrators, politicians/policy makers, and the media to require an educational approach radically different from that of previous generations. This article presents scientific evidence showing that there is no such thing as a digital native who is information-skilled simply because (s)he has never known a world that was not digital. It then proceeds to present evidence that one of the alleged abilities of students in this generation, the ability to multitask, does not exist and that designing education that assumes the presence of this ability hinders rather than helps learning. The article concludes by elaborating on possible implications of this for education/educational policy.

ICDL ja opetusalan viitekehykset

ICDL:n eurooppalaiset referenssit



The diagram shows the DigComp framework as a central dark blue pentagon labeled "DigComp". It is surrounded by five colored triangles, each representing a domain: "Problem solving" (pink), "Information and data literacy" (yellow), "Communication and collaboration" (light blue), "Digital content creation" (orange), and "Safety" (green).

177 ICDL learning outcomes map to the DigComp framework.

ICDL and DigComp

ICDL Foundation plays an active role in the development of DigComp, The European Commission's Digital Competence Framework.

ICDL:n eurooppalaiset referenssit



unicef
for every child

Digital Literacy for Children

Exploring definitions and frameworks

Scoping Paper No. 01 | August 2019
Office of Global Insight and Policy
Fabio Nascimbeni and Steven Vosloo



European Union
European Regional
Development Fund

Digital skills for jobseekers in Spain

EUROPE

ICDL EUROPE

SPAIN

The IC DL programme is used in two municipalities in Spain for the digital skills training and certification of unemployed people.



FRANCE
compétences

ECDL is on the National Register of Professional Qualifications (CPF) in France

EUROPE

FRANCE

ECDL has been mapped to the French National Qualification framework. The mapping to the National Register of Professional Qualifications means that IC DL (formerly ECDL) candidates in France will be able to access funding to build their digital skills under the Compte Personnel de Formation (CPF), an initiative that is open to millions of French employees and job seekers.

ICDL:n eurooppalaiset referenssit



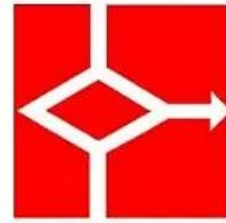
National Framework of Qualifications

ICDL Certification used as an exemption for over 40% of QQI awards

EUROPE

IRELAND

ECDL is mapped to the National Framework of Qualifications (QQI) in Ireland. Candidates can use ICDL Certification as an exemption for over 40% of QQI awards.



AICA

Agreement between AICA and Ministry of Education helps spread digital skills in Italy

EUROPE

ITALY

AICA, the ICDL National Operator in Italy signed an agreement with the Ministry of Education to strengthen and improve the spread of digital competences and ICT culture in the schools.



Ministry of Education and Science

ECDL mentioned in Polish Ministry of Education guidelines

EUROPE

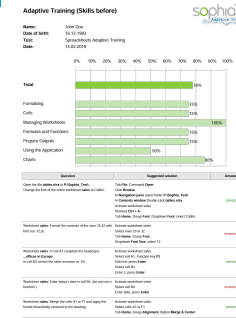
POLAND

Since 2010, EC DL is the only digital skills certification which is explicitly mentioned in the guidelines published for funding perspective 2014-2020 by the Polish Ministry of Education. The guidelines describe qualifications that can be used in the projects funded from Polish allocation of European Social Funds ESF.

ICDL testit

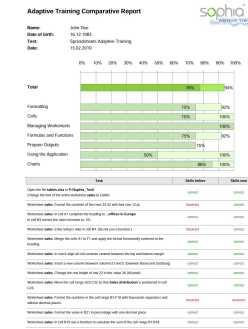
Alkukartoitus

- Suositus 45 min/moduuli
- Itsenäinen tai valvottu
- Objektiivinen lähtötaso



Harjoittelu

- Käytännön harjoittelu
- Itsenäinen edistyneelle
- Ohjattua aloittelijalle



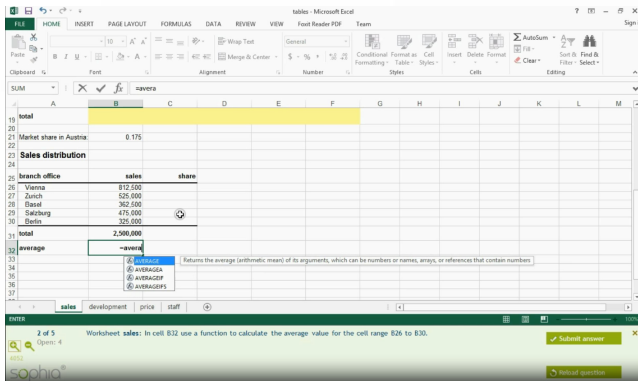
- Automaattinen arviointi
- Lähtötasotesti kuvaa täsmällisesti
- Täsmäkoulutus taitojen mukaan
- Itseopiskelusta ohjattuun opetukseen
- Tutkinnon perusteiden mukainen

Testi

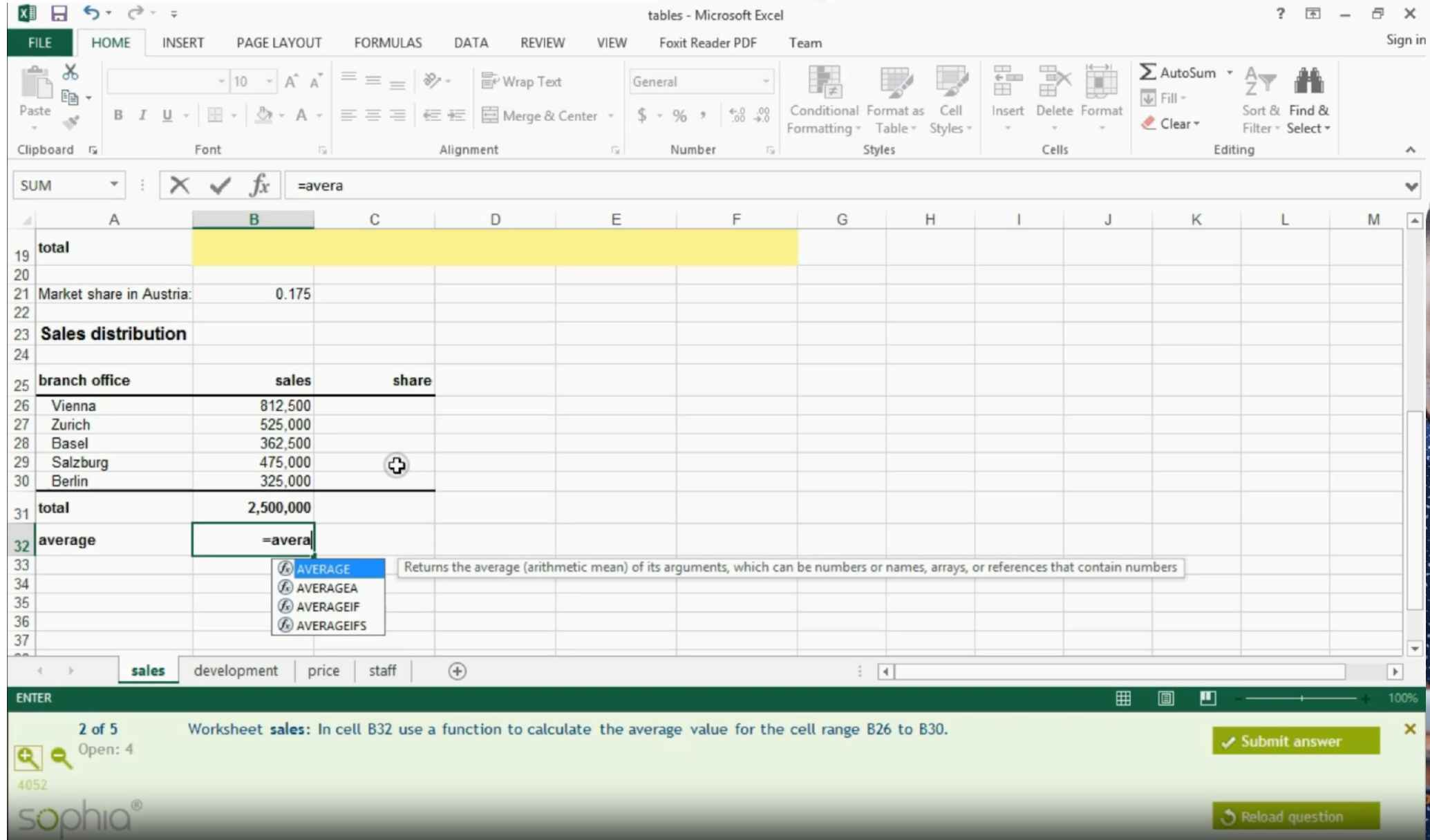
- Valvottu
- Käytännön koe
- 75% oikein
- Tutkinnon perusteet
- Erillinen Sertifikaatti



ICDL testit



ICDL testit



tables - Microsoft Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW Foxit Reader PDF Team Sign in

Clipboard Font Alignment Number Styles Cells Editing

SUM : X ✓ fx =avera

	A	B	C	D	E	F	G	H	I	J	K	L	M
19	total												
20													
21	Market share in Austria:	0.175											
22													
23	Sales distribution												
24													
25	branch office	sales	share										
26	Vienna	812,500											
27	Zurich	525,000											
28	Basel	362,500											
29	Salzburg	475,000											
30	Berlin	325,000											
31	total	2,500,000											
32	average	=avera											
33													
34													
35													
36													
37													

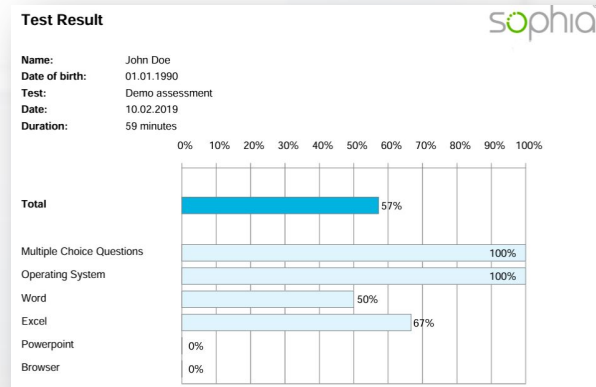
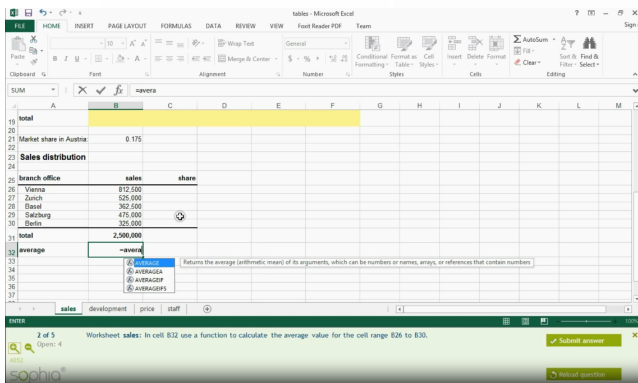
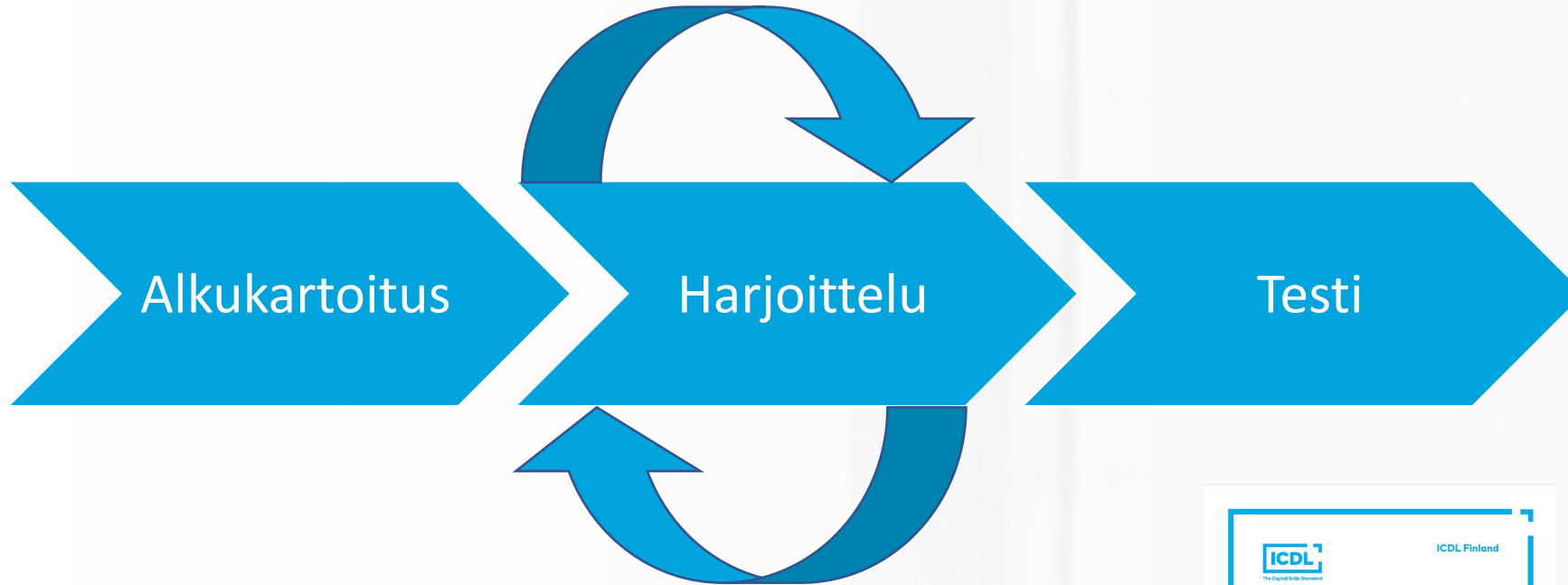
ENTER

2 of 5 Worksheet sales: In cell B32 use a function to calculate the average value for the cell range B26 to B30. Submit answer Reload question

4052 sophia®



ICDL testit



ICDL testit: Adaptive Training



Worksheet: sales. In cell B12 use a function to calculate the average value for the cell range B25 to B30.

branch	office	sales	share
Vienna		812.000	
Zürich		525.000	
Düsseldorf		342.000	
Saarlouis		475.000	
Paris		325.000	
Total		2.299.000	

Function call: `=AVERAGE(B25:B30)`

Adaptive Training (Skills before)

Progress bar chart showing 75% completion for skills before.

Question	Suggested solution	Answer
Open the folder when a PDF document is...	File tab, Command Options	correct
Change the font size and color of the text...	Font tab, Font	correct

Adaptive Training Comparative Report

Progress bar chart showing 94% completion for skills before.

Module Name	Syllabus/Software Version	Date
Digital Marketing	V1/V1.0.0	00/00/0000
Advanced Presentation Computing	V1/V1.0.0	00/00/0000

ICDL Profile Certificate

ICDL Finland

Forename Surname: 012345678910
 Candidate Name: Candidate No:

has successfully completed the following modules:

ICDL Workforce

Module Name: Syllabus/Version Date

Module Name	Syllabus/Software Version	Date
Word Processing	V1/V1.0.0	00/00/0000
Spreadsheets	V1/V1.0.0	00/00/0000
IT Security	V1/V1.0.0	00/00/0000

ICDL Professional

Module Name: Syllabus/Software Version Date

Module Name	Syllabus/Software Version	Date
Digital Marketing	V1/V1.0.0	00/00/0000
Advanced Presentation Computing	V1/V1.0.0	00/00/0000

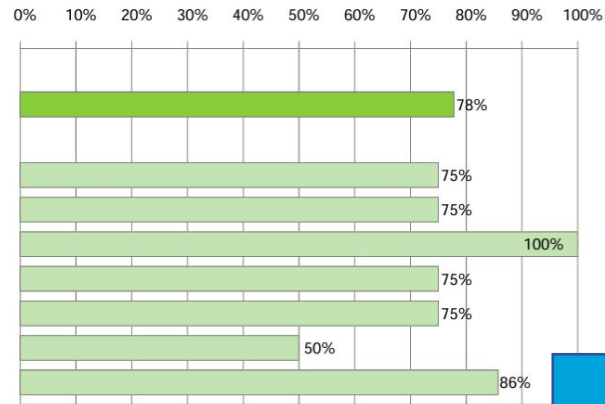
Signature: DD/MM/YYYY
 Forename Surname, IC DL Operator Date

ICDL testit: Adaptive Training

Adaptive Training (Skills before)



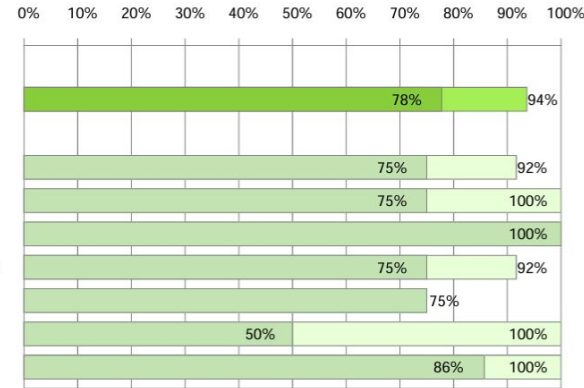
Name: John Doe
Date of birth: 16.12.1983
Test: Spreadsheets Adaptive Training
Date: 15.02.2019



Adaptive Training Comparative Report

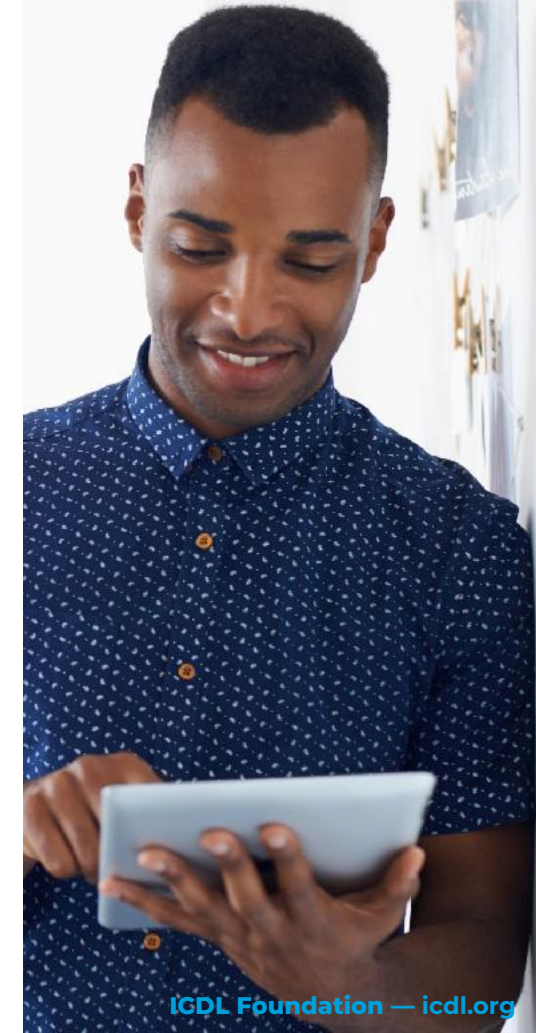


Name: John Doe
Date of birth: 16.12.1983
Test: Spreadsheets Adaptive Training
Date: 15.02.2019




Question	Suggested solution	
Open the file tables.xlsx in P:\Sophia_Test\ Change the font of the entire worksheet sales to Calibri.	Tab File , Command Open Click Browse In Navigation pane select folder P:\Sophia_Test\ In Contents window Double-click tables.xlsx Activate worksheet sales Shortcut Ctrl + A Tab Home , Group Font , Dropdown Font , select Calibri	correct
Worksheet sales : Format the contents of the rows 25:32 with font size 12 pt.	Activate worksheet sales Select rows 25 to 32 Tab Home , Group Font Dropdown Font Size , select 12	incorrect
Worksheet sales : In cell A1 complete the heading to ...offices in Europe In cell B3 correct the sales increase to: 3%	Activate worksheet sales Select cell A1, Function key F2 Edit text, press Enter Select cell B3 Enter 3, press Enter	correct
Worksheet sales : Enter today's date in cell B4. (do not use a function.)	Activate worksheet sales Select cell B4 Enter date, press Enter	incorrect
Worksheet sales : Merge the cells A1 to F1 and apply the format horizontally centered to the heading.	Activate worksheet sales Select cells A1 to F1 Tab Home , Group Alignment , Button Merge & Center	correct

Task	Skills before	Skills now
Open the file tables.xlsx in P:\Sophia_Test\ Change the font of the entire worksheet sales to Calibri.	correct	correct
Worksheet sales : Format the contents of the rows 25:32 with font size 12 pt.	incorrect	correct
Worksheet sales : In cell A1 complete the heading to ...offices in Europe In cell B3 correct the sales increase to: 3%	correct	correct
Worksheet sales : Enter today's date in cell B4. (do not use a function.)	incorrect	correct
Worksheet sales : Merge the cells A1 to F1 and apply the format horizontally centered to the heading.	correct	correct
Worksheet sales : In row 6 align all cell contents centred between the top and bottom margin.	correct	correct
Worksheet sales : Insert a new column between columns D and E (between Basel and Salzburg).	correct	correct
Worksheet sales : Change the row height of row 22 to the value 36 (48 pixel).	correct	correct
Worksheet sales : Move the cell range A23:C32 so that Sales distribution is positioned in cell C23.	correct	correct
Worksheet sales : Format the numbers in the cell range B7:F18 with thousands separators and without decimal places.	incorrect	incorrect
Worksheet sales : Format the value in B21 in percentage with one decimal place.	correct	correct
Worksheet sales : In cell B19 use a function to calculate the sum of the cell range B7:B18.	correct	correct



ICDL Adaptive training




SUGGESTED SOLUTION

Activate worksheet sales
Select cell B32
Tab **Home**, Group **Editing**, Dropdown **AutoSum**
Command **Average**, select cells B26 to B30, press **Enter**

	A	B	C	D	E	F	G	H	I
16	October	65380.00	44740.00	39670.00	40900.00	20790.00			
17	November	68380.00	48160.00	33300.00	35360.00	19100.00			
18	December	68510.00	36340.00	31570.00	30820.00	23480.00			
19	total								
20									
21	Market share in Austria:	0.175							
22									
23	Sales distribution								
24									
25	branch office	sales	share						
26	Vienna	812,500							
27	Zurich	525,000							
28	Basel	362,500							
29	Salzburg	475,000							
30	Berlin	325,000							
31	total	2,500,000							
32	average								
33									
34									

...d fell. As a consequence my



ITEMS: 1 READY sales development price staff 100% 100%

1 of 2 Worksheet sales: In cell B32 use a function to calculate the average value for the cell range B26 to B30.

Open: 0

4052

sophia®

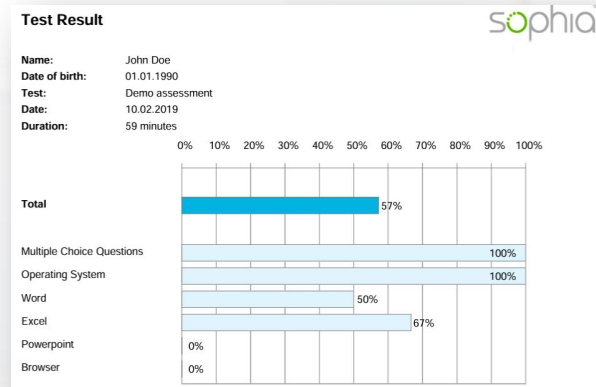
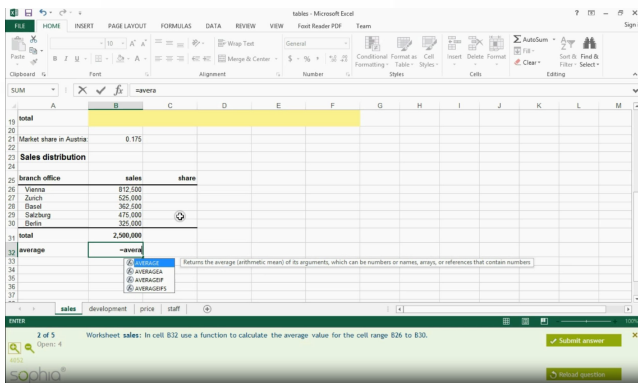
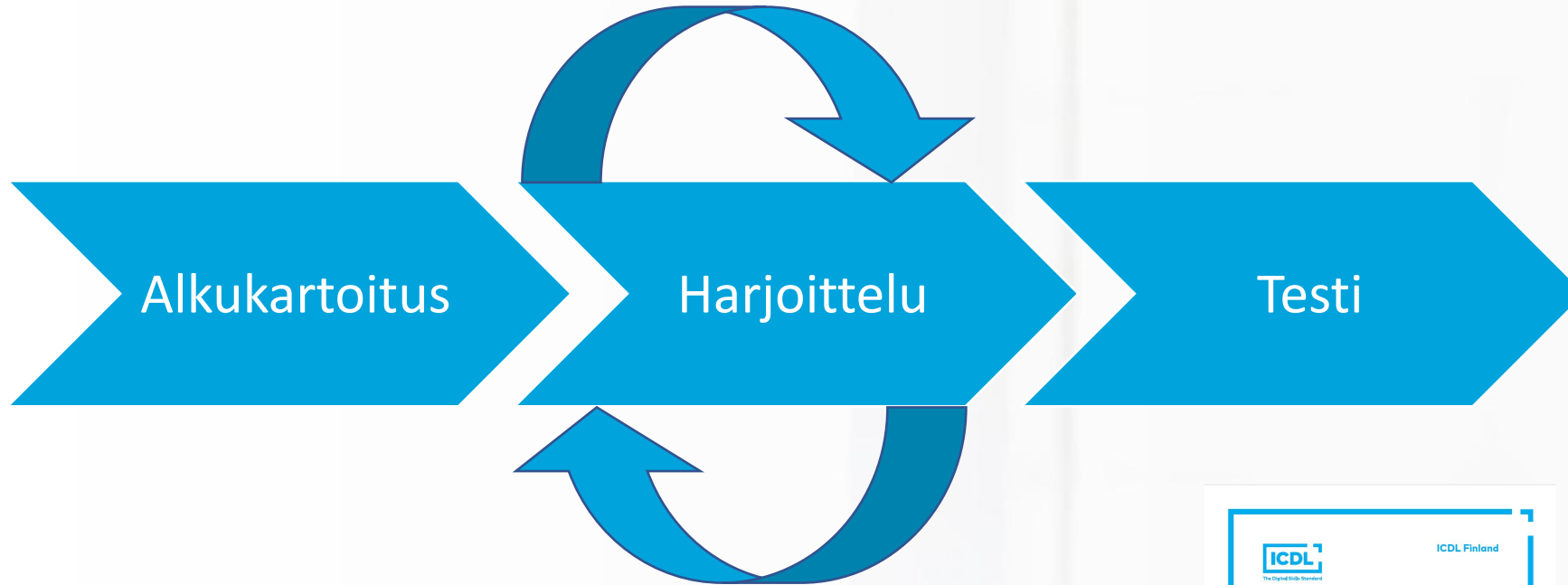
Submit answer

Skip question

Reload question



ICDL testit



Test Result

Name: John Doe
Date of birth: 01.01.1990
Test: Demo assessment
Date: 10.02.2019
Duration: 59 minutes

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Total

57%

Multiple Choice Questions

100%

Operating System

100%

Word

50%

Excel

67%

Powerpoint

0%

Browser

0%



Alkukarto

Microsoft Excel - sales - Microsoft Excel

branch office	sales	share
Vienna	812.000	
Zurich	525.000	
Basel	362.000	
Stuttgart	475.000	
Berlin	320.000	
total	2.500.000	

Formulas: =AVERAGE(B2:B10)

Worksheet: sales: In cell B12 use a function to calculate the average value for the cell range B2 to B10.

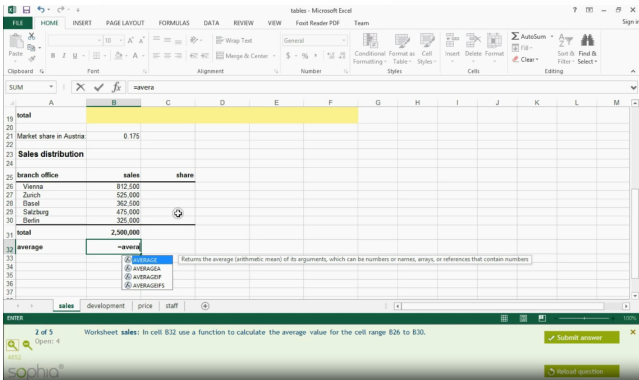
Signature
Forename Surname, ICDL Operator

DD/MM/YYYY
Date

ICDL

ICDL testit

Alkukartoitus



The Digital Skills Standard

ICDL Finland

ICDL Profile Certificate

Forename Surname 012345678910

Candidate Name Candidate No.

has successfully completed the following modules:

ICDL Workforce

Module Name	Syllabus/Version	Date
Word Processing	V1 / V0.0	00/00/0000
Spreadsheets	V1 / V0.0	00/00/0000
IT Security	V1 / V0.0	00/00/0000

ICDL Professional

Module Name	Syllabus/Software Version	Date
Digital Marketing	V1 / V0.0	00/00/0000
Advanced Presentation	V1 / V0.0	00/00/0000
Computing	V1 / V0.0	00/00/0000

Signature

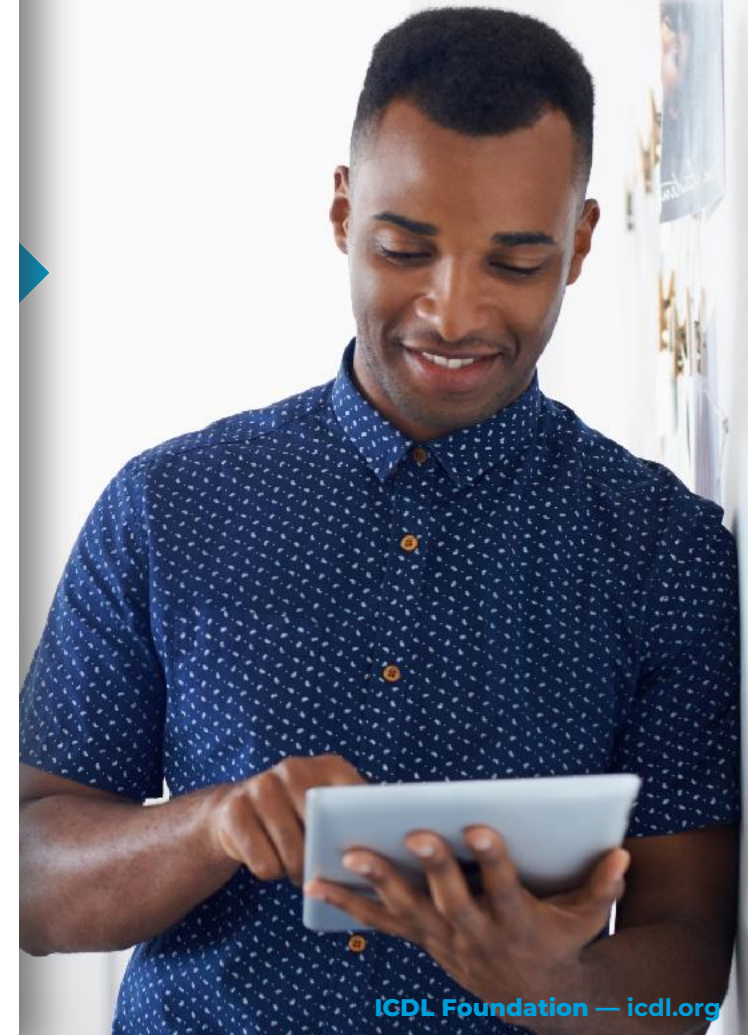
Forename Surname, ICDL Operator

DD/MM/YYYY

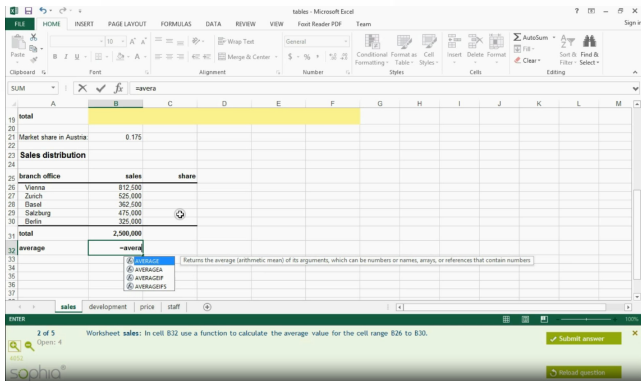
Date



The Digital Skills Standard



ICDL testit



ICDL Moduulit



Työn tuottavuutta lisäävät digitaidot

Perustaidot



Laitteisto & käyttöjärjestelmä



Verkkoviestinnän perusteet

Toimistosovellukset



Tekstinkäsittely



Taulukkolaskenta



Esitysgrafiikka



Online Collaboration

Hyvät käytännöt



Tietoturva



Vuorovaikutus & yhteistyö
verkossa




Data Protection




Remote Work

Asiantuntijan digitaaliset taidot

Luovuus

 Esitysgrafiikka
(Edistynyt)

 Tekstinkäsittely
(Edistynyt)

 Verkkojulkaisu

 2D Suunnittelu

 3D Design

 Kuvankäsittely


Liiketoiminta


 Digital Marketing

 Projektisuunnittelu

 E-Commerce

Talous ja analytiikka


 Management
Spreadsheets

 Financial
Spreadsheets


 Data Analytics

 Coding Principles

 Tietokannat

 Tietokannat
(Edistynyt)

Alakohtainen

 ICT in Education

Digitaalinen ymmärrys liiketoimintajohdolle

TRENDING AND EMERGING TECHNOLOGY



Cloud Computing



Artificial Intelligence



Industry 4.0



Internet of Things (IoT)



Big Data



Blockchain

Henkilöille vailla kokemusta tietokoneista ja internetistä



ICDL Digitaalinen Kansalainen



ICDL Digitaalinen Kansalainen Plus

Kiitos!

Testitunnukset, hintatiedustelut,
sopimusasiat
miina.rantala@icdl.fi

harri.hautala@icdl.fi