Study Data Science at WUR

WAGENINGEN
UNIVERSITY & RESEARCH

How to specialize in data science at WUR?

As a MSc student you have various options to increase your knowledge or to specialize in data science. The Master's programmes in Geo-Information Science, Biosystems Engineering and Bioinformatics are so data-oriented that in practice they are subject-related Data Science Master's programmes. Six other Master's programmes offer Data Science tracks or clusters of Data Science courses.

These are: Biology, Earth and Environment, Forest and Nature Conservation, Nutrition and Health, Plant Biotechnology and Plant Sciences. Every Master's programme gives you the option of taking Data Science courses as electives. You can find a complete overview of the Data Science courses on the next page, and our website.

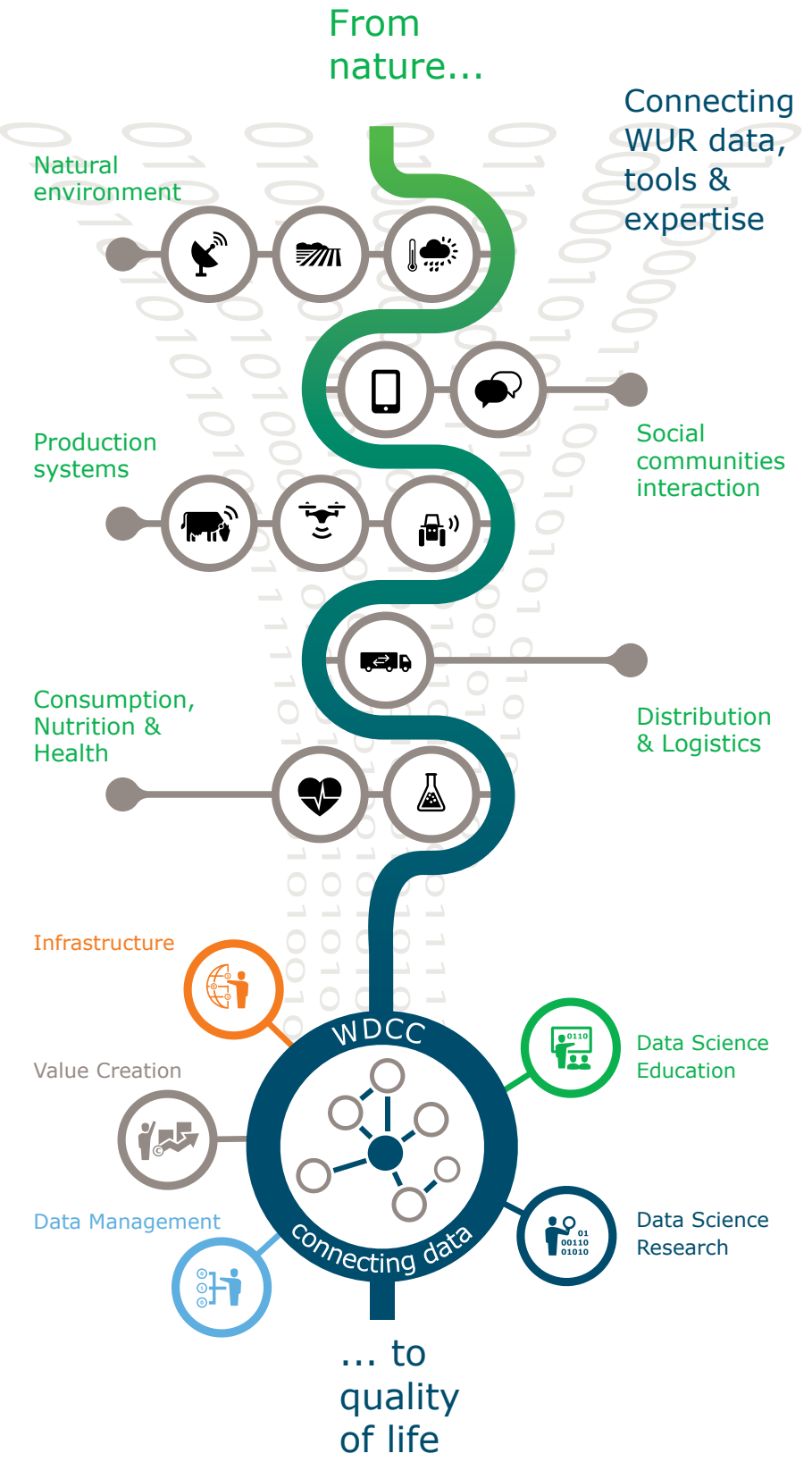
www.wur.eu/data

What is Wageningen Data Competence Center?

WDCC is established to support developments in the field of (big) data and data science at Wageningen University & Research. WDCC brings education, research, value creation, infrastructure and data management together. If you have any questions related to the use of data during your study, please contact WDCC. We offer help related to data management, big data analytics infrastructure and education in data science.

About Wageningen University & Research

Wageningen University & Research offers a wide selection of courses in different domains such as plant, animal, environmental, social and agrotechnology & food sciences. Research in these fields requires an increasing set of skills and knowledge in the field of big data and data science. An increasing number of courses with focus on data science is being offered by Wageningen University & Research.

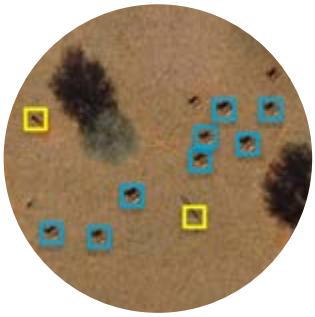


Subject specialist with data skills

Maartje Holtslag (25) did the WUR Master's in Geo-Information Science. 'That is actually a Data Science Master's that focuses on spatial data.' In short, training to become a subject specialist with data skills. During her Master's internship at the Environmental Systems Research Institute (ESRI), Holtslag did an assignment for the Dutch Society for the Blind. 'I trained a computer model to detect zebra crossings automatically in aerial photos.' To do that, Holtslag first had to make training data. 'I drew surfaces on zebra crossings on photos, which the model could use as examples. Then I put new photos into the model to see if it recognized zebra crossings on those.'

'I trained a computer model to detect zebra crossings in aerial photos'

Maartje Holtslag Geo-Information Science graduate



'With data science you can end up in lots of different jobs, but most of them are within a specific subject area. So you want to know the subject area well and to be able to handle data.'

Maartje Holtslag Geo-Information Science graduate

Job opportunities

After graduating with her degree, Holtslag got a job as a programmer at ESRI. 'I find out things like which roofs have solar panels on them. Or I use data from cameras at junctions to see how many cars and cyclists cross them. That enables you to work out whether the cycle path is safe or how the coordination of the traffic lights could be improved. As a programmer, you focus on the technical side of it. So it's not my job to analyse the results, it's more about obtaining the results.'

Interested?

Talk to the study advisers of the specific programs about the possibilities for you. Or contact the WDCC for more information and options. datascience.wdcc@wur.nl

Data Science Courses

Programs which included data science courses as restricted optional. If not included, courses may be chosen as free choice.

Course name	Recommended for	Course code	BAT Biosystems Engineering	BSW Soil, Water, Atmosphere	MBE Biosystems Engineering	MBF Bioinformatics	MBI Biology	MBS Biobased Sciences	MCH Communication, Health and Life Sciences	MEE Earth and Environment	MES Environmental Sciences	MFN Forest and Nature Conservation	MGI Geo-Information Science	MID International Development Studies	MLE Leisure, Tourism and Environment	MME Management, Economics and Consumer Studies	MML Molecular Life Sciences	MNH Nutrition and Health	MPB Plant Biotechnology	MPS Plant Sciences	MTO Tourism, Society and Environment
Data Management*	All students	INF-21306	■		■	■							■						■	■	■
Big data*	All students	INF-33806		■	■					■			■								
Data Analysis and Visualisation*	All students	BIF-51306																			
Programming in Python*	All students	INF-22306	■	■		■					■		■				■		■		
GIS for Society*	All students	GRS-51306																			
Concepts of data science	All students	INF-34306		■			■			■	■	■			■			■	■	■	
Data science ethics	All students	CPT-30503				■	■	■	■			■		■		■		■	■	■	
Statistics for Data Scientists	All students	MAT-32806				■	■					■						■	■	■	
Deep learning	All students	GRS-34806			■					■			■								
Data-driven discovery in the life sciences	Plant and Animal sciences	BIF-31806				■	■											■	■	■	
Smart Environments	Environmental sciences	GRS-35306									■	■	■		■						■
Environmental Data Collection and Analysis	Environmental sciences	YWU-30806								■											
Data Science for Health I	Health, Nutrition, Consuments studies	CHL-34303							■									■			
Data Science for Health II	Health, Nutrition and Consuments studies	HNE																■			
Data driven supply chain	Economy, Social and Food sciences	ORL-33806														■					
Data science for Ecology	Ecology	REG-33806					■					■								■	■
Linked Data	All students	INF-33306				■															
Machine Learning	All students	FTE-35306			■	■				■			■								
Big Data for Business Decisions	Economy, Social and Food sciences	BEC-55306								■											

For a complete overview of WUR data science, data and informatics related courses click here

* *courses are part of BSc Data Science Minor.*

About

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Competence Center
www.wur.eu/data
datascience.wdcc@wur.nl

Study at Wageningen University
www.wageningenuniversity.eu