DTU Business
Executive School of Business

BIG Data Business Academy

Create strategic value with Big Data

A groundbreaking new program, tailored to work across the organization, involving key employees and management. Focusing on actionable tech insights, identifying business opportunities and actual value creation.

DTU Compute
Department of Applied Mathematics and Computer Science

DTU

BiG Data Business Academy

The purpose of establishing the Big Data Business Academy is to make Danish companies and organizations better at utilizing big data for measurable value creation and new business activities.

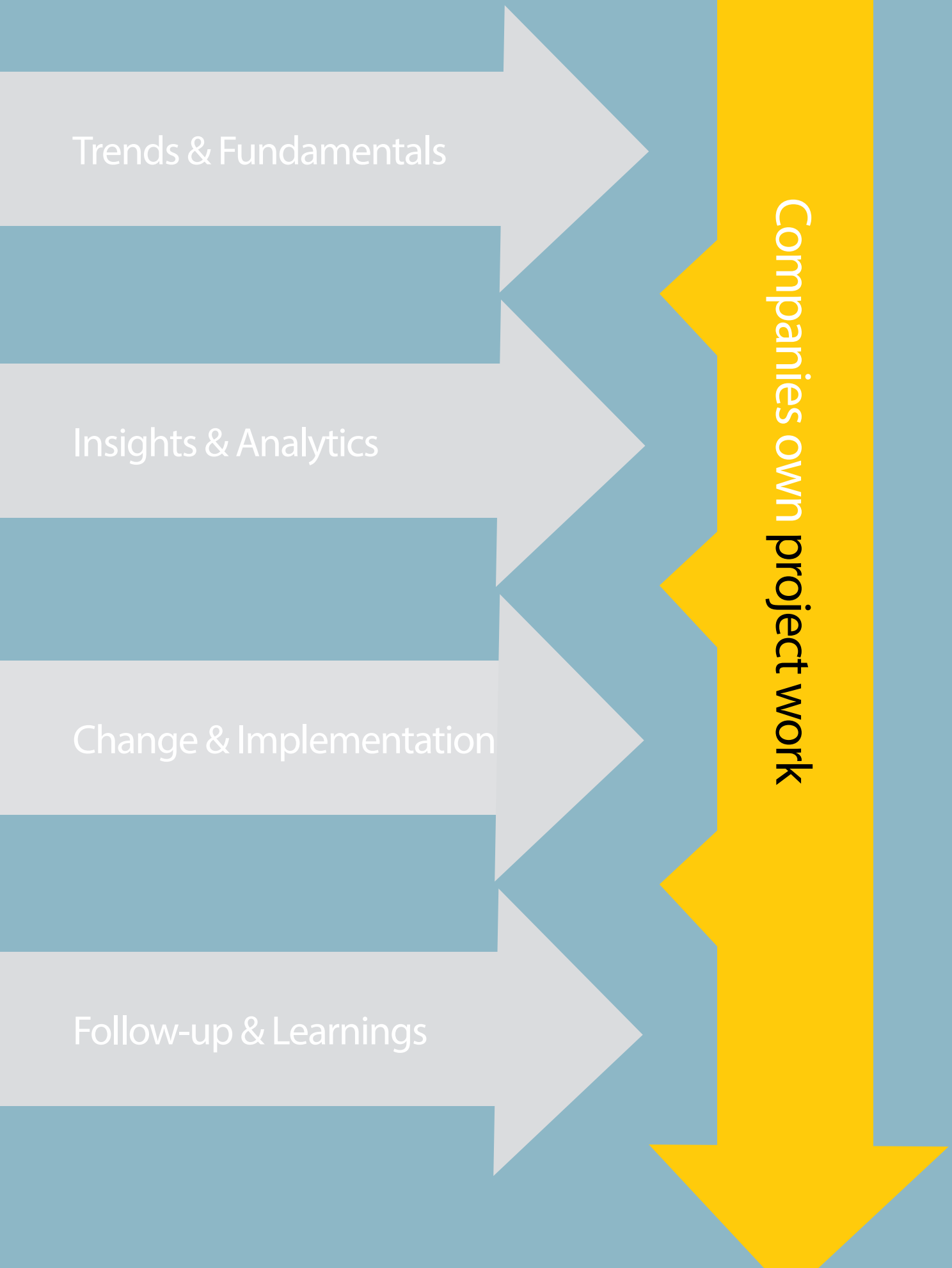
When you gain a larger strategic view of your own data, as well as the data of others, you will be able to create critical surplus value for the company across many vital areas and define new business models.
The focus is on hands-on value creation.

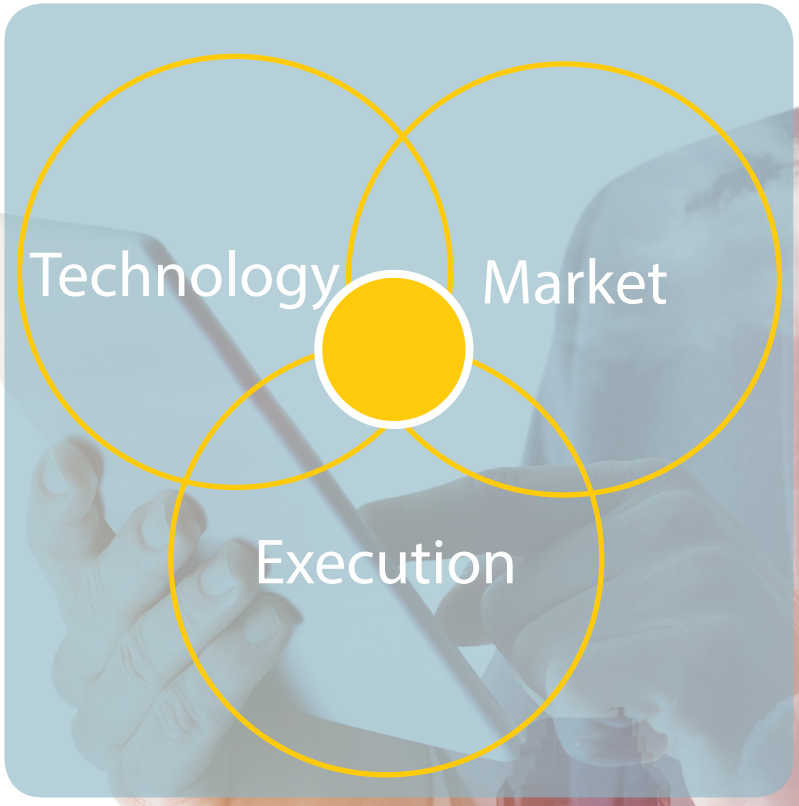
Key elements of the program

- Work with international experts on various key topics within Big Data
- World-class faculty, content and facilities
- Top level program design covering the strategy – learning – doing progress
- Flexibility: Assign different key employees to the topics most relevant to them
- Opportunity to tap into our pool of talented student to work on your company cases
- Adapting a new protocol for cooperation, sharing and ownership in relation to Big Data
- Professional counseling available in relation to business implementation
- Contextual action and peer learning opportunities across functions and industries
- Follow-up to ensure actual business results and learnings

The development of Big Data Business Academy is sponsored by Industriens Fond and is a cooperation between CLEAN, DTU Compute, DTU Business, Danish Technological Institute and Alexandra Institute.

Program Design





DTU Module 1 Trends & Fundamentals

DTU Module 2 Insights & Analytics

DTU Open Innovation X student collaboration

DTU Module 3 Change & Implementation

DTU Module 4 Follow-up & Learnings

Module 1 - Trends & Fundamentals

Day 1 - Disruption and Trends – everything is data!

- Internet of things and Big data by Deputy Head of Department, Jan Madsen, DTU Compute
- Big Data & Disruptive Business Trends by Kenneth Cukier, Data Editor, The Economist
- Big Data winner case

Day 2 - Mastering privacy and security as a competitive advantage?

- Trust and data security by Christian D. Jensen, Associate Professor, DTU Compute
- Using Public Data for Analytics by Michael Israelson, Business Unit Manager at KMD
- Security and privacy – Legal issues by Susanne Stougaard Associate, Bech-Bruun
- Machine learning – Turning security into business by Anders Kofoed-Petersen, Professor, Deputy Director, The Alexandra Institute

Module 2 - Insights & Analytics

"Getting your hands dirty"

Day 1

- The fundamentals - from data for the visualization by Sune Lehmann Jørgensen, Associate Professor. DTU Compute
- Behind the scenes in the Big Data Research Lab at Roskilde Festival by Henrik Hammer Eliassen, Analytics Architect, IBM; Søren Ravn, Analytics Architect, IBM; and Claus Samuelsen, Senior IT Specialist, IBM
- Cases and reflection

Day 2

- Machine learning, datamining and Big data analytics 1 by Bjarne Kjær Ersbøll, Professor, head of section, at DTU Compute and Line Katrine Harder Clemmensen, Senior Business Analyst at Maersk Line

Day 3

- Machine learning, datamining and Big data analytics 2 by Bjarne Kjær Ersbøll, Professor, head of section, at DTU Compute and Line Katrine Harder Clemmensen, Senior Business Analyst at Maersk Line

Day 4

- Scalability I: Tools for Scalable Computation on Big Data by Inge Li Gørtz, Associate Professor, DTU Compute and Philip Bille, Associate Professor, DTU Compute
- Scalability II: Techniques for Scalable Computation on Big Data by Inge Li Gørtz, Associate Professor, DTU Compute and Philip Bille, Associate Professor, DTU Compute

DTU



Think Big!

4 modules
20+ specialists and key note speakers
Tap into talented students
Large network of experts

Visionary mindset
Frontrunner research

Module 2 - Insights & Analytics

Advanced topics [Parallel tracks]

- High Performance Computing by Bernd Dammann, Associate Professor, DTU Compute
- Introductory course in image analysis by Anders Bjorholm Dahl, Associate Professor, DTU Compute
- Process mining: What is going on in your business? by Ekkart Kindler, Associate Professor, DTU Compute
- User Experience Engineering by Michael Kai Petersen, Associate Professor, DTU Compute

Open Innovation X Developer weekend (opportunity to have students work on your challenge)

- Key note talk - based on incoming challenges
- Company Pitch - Each company pitch a challenge or a 'technology scoping' for exploration.
- Team Exercise & Dinner - A team session is facilitated to bring the teams in dialogue with the companies. 'Extended version of speed dating'
- Each team work on their projects supervised by company mentors
- Lunch & Pitch'N'Feedback - Session on pitching and communication. Methods and approaches will be presented via a workshop format – practice and learn.

Module 3 - Change & Implementation

Change Management

- Data-driven Business Development by Thomas Ritter, Professor of Market Strategy and Business Development at the Copenhagen Business School.
- New business creation landscapes and the hardships of change management by Bart Clarysse, Chairman of entrepreneurship at ETH Z
- Innovative business modelling and implementation in practice by Bart Clarysse, Chairman of entrepreneurship at ETH Z and Sam Kondo Steffensen, Program Director at DTU Business
- Applying change management and execution strategies to case-work by Bart Clarysse, Chairman of entrepreneurship at ETH Z and Sam Kondo Steffensen, Program Director at DTU Business

Open Innovation X Final (at DTU Skylab)

- Pitch session I - Each team pitch their concept and solution.
- Dinner and networking
- Pitch session II - Keynote speech + judges evaluate
- Winners are announced and the checks of a total of 100.000 DKK are handed out

Module 4 - Follow-up & Learnings

- Final workshop
- Reflections and learnings

The rest of Module 4 will be based on the learnings and experiences from previous modules

Facts

Integrating theory and practice

Flexibility and value creation are the key words of this program. Participants will define and work on their own company relevant cases throughout the program. Models and theories are therefore adapted to the participants' experience, knowledge and challenges. It will also be possible for companies to change out key employees during the program, so that each employee is assigned the topics most relevant to their work. This way we ensure that knowledge is directed to where it is most useful and relevant for the company.

Requirements

Companies are required to take an active role in the program, both from management and key employees who will define and work on own their own cases, of strategic importance to the business going forward.

Place

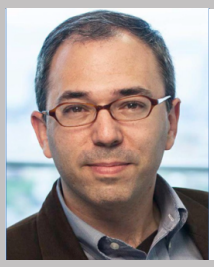
All sessions are conducted at DTU Business - www.business.dtu.dk

Project partnering opportunities

Is your organization in the early phase of identifying and maturing big data related projects, and/or investigating technology solutions and business opportunities? Or do you need external expert support and facilitation to ensure qualified progress and screening of your potential business opportunity?

In that case, you can always work with DTU Business and DTU Compute, on an individual basis, related to a specific project within your organization. The cooperation might include customized workshops focusing on infusing value and experts insights to your project.

Faculty Overview
Tentative



Kenneth Cukier

Data Editor, The Economist
Coauthor of Big Data: A Revolution That Will Transform How We Live, Work, and Think. He explores the amazing new possibilities of big data.

Jan Madsen

Deputy head of Department of Applied Mathematics and Computer Science (DTU Compute) EU Horizon2020 expert and member of the NTF evaluation panel for Nano-Tera

Christian Damsgaard Jensen

Associate professor at DTU Compute, where he teaches and conducts research in the areas of privacy, security and trust.

Michael Israelson

Business Unit Manager at KMD, holds a M.Sc, Computer Science from DTU. A background in GIS and has over time worked for different companies with focus on digitalization, analytics and GIS,

Simon Schøler

Holds a Master in Science in Public Administration from AAU. More than 15 years of experience working with organizational and management development in the public sector as management consultant and manager.

Anders Kofoed-Petersen

Deputy Director at the Alexandra Institute and Professor of applied artificial intelligence and the Norwegian University of Science and Technology.

Henrik Hammer Eliassen

Analytics Architect at IBM Nordics. His role is to infuse analytics and innovation into organisations. Finding the right use cases, supported by data and converting them into a viable solution.

Søren Ravn Pedersen

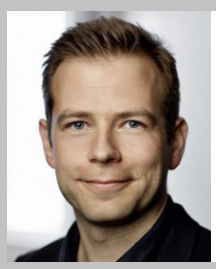
Analytics Architect in IBM Denmark. During the last 5 years , Søren has been developing and delivering Big Data & Analytics solution architecture for key IBM customers across multiple industries. and Nordic countries.

Claus Samuelsen

Senior IT Specialist at IBM, working with Big Data (noSQL) and streaming technologies in a pan-European role. Claus has worked with database technologies and data warehousing.

Susanne Stougaard

Associate, Bech-Bruun, advises Danish and foreign businesses as well as public authorities on data protection law and compliance, including data protection compliance audits, analyses and due diligence in connection with business transfers.



Sune Lehmann Jørgensen

Associate Professor at the Department of Applied Mathematics and Computer Science, DTU. Currently working in the intersection between physics, sociology, and computer science.

Line Katrine Harder Clemmensen

Senior Business Analyst at Maersk Line and former Associate Professor at DTU Compute, the Section for Statistics and Data. Analysis. Research interests include: Data science, machine learning, statistical learning, spectral image analysis.

Bjarne Kjær Ersbøll,

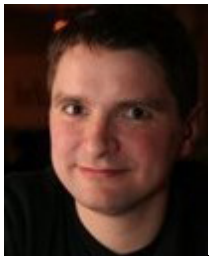
Professor, head of section, at DTU Compute. His work is mainly on applied statistics and data analysis: Research based Consultancy, Big Data, Image Analysis, Image Processing and Multivariate Statistics

Inge Li Gørtz,

Associate Professor in the Algorithms, Logic, and Graph Theory group (AlgoLog) at DTU Compute. scientific interest is in data structures with focus on data compression, pattern matching, approximation algorithms.

Bernd Dammann

Associate professor and he is affiliated both with the Scientific Computing section at DTU Compute, and with the HPC Competence Center at DTU.. Dammann works with all aspects of High-Performance Computing.



Anders Bjorholm Dahl

Associate Professor and Head of Section at the Section for Image Analysis and Computer Graphics (IACG) at DTU Compute. Scientific interest is Computer Vision, Object Recognition, Object Classification, 3D Reconstruction.

Thomas Ritter

Professor of Market Strategy and Business Development at Copenhagen Business School. Academic Director of the CBS Competitiveness Platform and leads the "From Big Data to Big Business" research project.

Helle Rootzén

Professor at the Technical University of Denmark and from 2010 to 2015 director of DTU Compute. Her scientific field interests are on learning objects, e-learning, learning platforms and student based learning

Philip Bille

Associate professor in the Algorithms, Logic, and Graph Theory group (AlgoLog) at the Technical University of Denmark, Department of Applied Mathematics and Computer Science

Ekkart Kindler

Associate professor at the Software Engineering Section of DTU Compute . Kindler's main research interest is in Model-bases Software Engineering (MBSE) and Business process management.

Michael Kai Petersen

Assistant Professor in Cognitive Systems and Head of Studies for the Digital Media Engineering MSc program at DTU Compute 30 years of experience within digital media engineering.

Bart Clarysse

Chairman of entrepreneurship at ETH Zürich, part-time professor in Entrepreneurship at Imperial College London Business School. Co-founded a portfolio of successful start-ups in businesses such as digital cinema, mobile internet and venture incubation

DTU Business
Executive School of Business

DTU Compute
Department of Applied Mathematics and Computer Science

Program Director
DTU Business
Sam Kondo Steffensen,
sakost@business.dtu.dk
Cell: +45 3119 7300

Head of Innovation
DTU Compute
Mark Bernhard Riis
mberi@dtu.dk
Cell: +45 61396354

Official sponsor

INDUSTRIENS FOND
FREMMER DANSK KONKURRENCEEVNE
The Danish Industry Foundation

Partners

TEKNOLOGISK INSTITUT

clean
INNOVATING GREEN SOLUTIONS

ALEXANDRA INSTITUTTET