

# SAS Powered Educators

22nd of June 2023

## SAS Skill Builder for Students

Klaus Vilstrup Pedersen  
Business Academy Aarhus



## Klaus Vilstrup Pedersen

Adjunkt | Associate professor at Erhvervsakademi Aarhus | Business Academy Aarhus

Middle Jutland, Denmark · [Contact info](#)

500+ connections

### Adjunkt/Associate professor

Erhvervsakademi Aarhus | Business Academy Aarhus · Full-time  
Mar 2020 - Present · 3 yrs 4 mos  
Aarhus

Development of BA programme in IT architecture,  
Lecturer in Business Analytics, Business Architecture, Data Architecture, IT Architecture and Software Architecture

### External Associate Professor

Aarhus University  
Jan 2008 - Present · 15 yrs 6 mos

Lecturer in Enterprise Architecture (Master)  
Lecturer in Business Development with Information Systems (Bachelor)  
Lecturer in Business Analytics (Master)  
Lecturer in SOA and Cloud Computing (Master)  
Lecturer in Project Management (Master)

### Associate Professor

Aarhus School of Business  
2001 - 2006 · 5 yrs



### Senior Advisor / Enterprise Architect

Difi - Agency for Public Management and eGovernment  
Jul 2009 - Mar 2020 · 10 yrs 9 mos  
Oslo Area, Norway

2018-2020 Peppol eDelivery leader, Norwegian Peppol Authority  
2017-2018 Development of Norwegian National Architecture  
2013-2020 OASIS BDX member  
2013-2018 Workpackage Manager on Building Block provision in the eSENS project ([www.esens.eu](http://www.esens.eu))  
2009-2020 OASIS UBL member  
2009-2013 Deputy Project Director in the PEPPOL project ([www.peppol.eu](http://www.peppol.eu))



### Workpackage Manager WP6 - ICT Building Block Provision

e-SENS Project  
Apr 2013 - Jul 2016 · 3 yrs 4 mos  
Europe

eSENS - Electronic Simple European Networked Services (<http://www.esens.eu/>)  
WP6 ICT Building Block Provision  
Consolidate and extend solutions for Cross border and Cross domain Pilot applications, by taking on board existing solutions and components from the participating LSPs and other relevant sources to create coherent, generalized and open components and specifications for solution implementation.



### Deputy Project Director

PEPPOL  
Aug 2009 - Mar 2013 · 3 yrs 8 mos

Project management and Technical Architecture coordination



### Enterprise Architect

National IT and Telecom Agency  
2006 - 2009 · 3 yrs

- Working on Enterprise Architecture models and solutions for public entities.  
- Project Manager in the PEPPOL project (WP 5 - eInvoicing and WP6 - technical infrastructure) [www.peppol.eu](http://www.peppol.eu).  
- OASIS UBL member  
- CEN BII/WS member

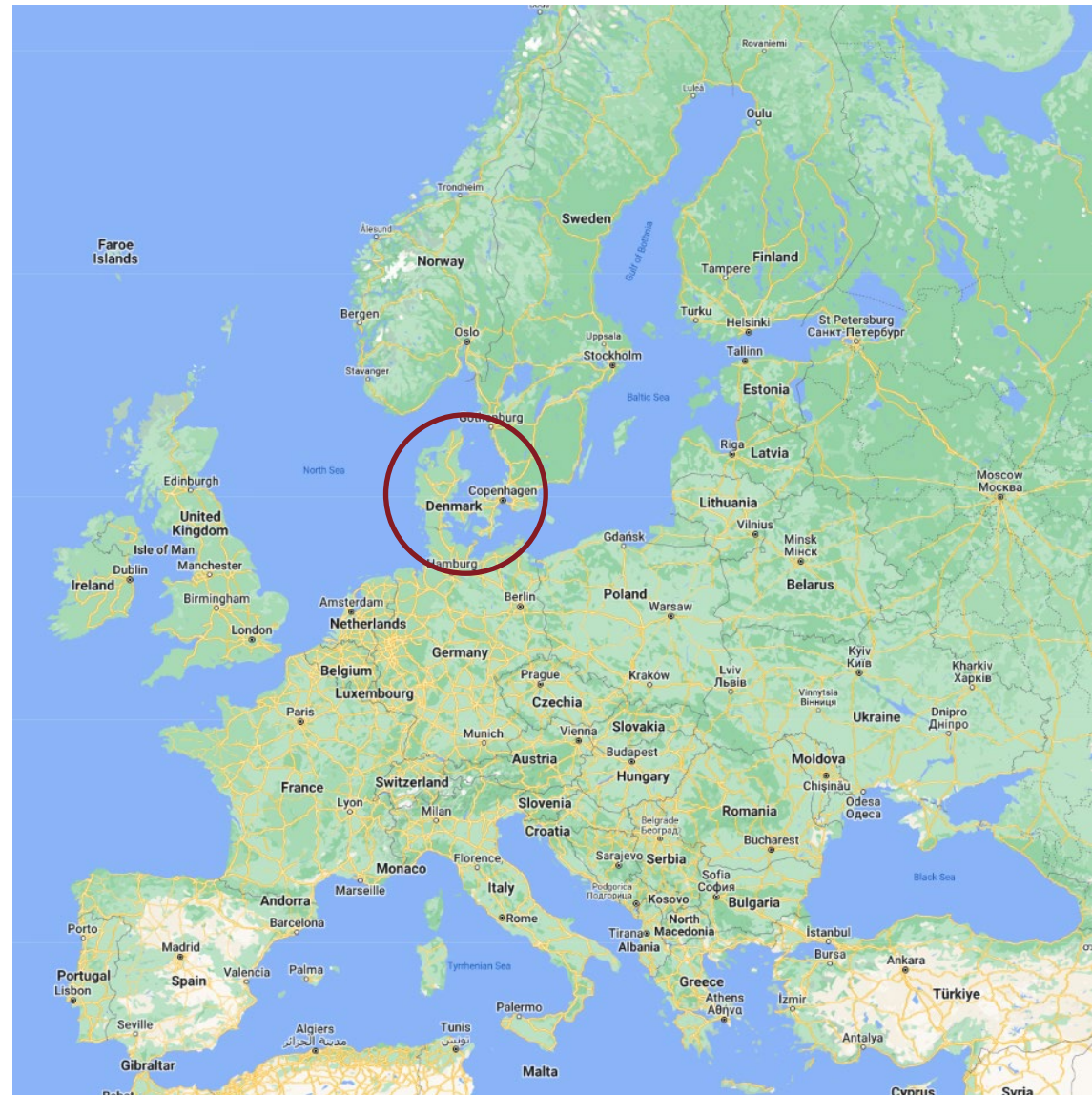


### Enterprise Architect

IT- og Telestyrelsen  
2006 - 2009 · 3 yrs

Working on Enterprise Architecture models and solutions for public entities. Project Manager in the PEPPOL project (WP 5 - eInvoicing) [www.peppol.eu](http://www.peppol.eu).

# WHO AM I AND WHERE ARE WE?



LOCATION

ERHVERVSAKADEMI  
AARHUS

### Aarhus, Denmark

The sea and the stars



ark in Aarhus, Denmark. Courtesy: Russian Ministry of The Science Museums/Aarhus University

<https://time.com/collection/worlds-greatest-places-2023/6261658/aarhus-denmark-2>



©3 May 2021

#### Aarhus - Denmark's best place to study 2021

AARHUS STUDIEBY 2021

Are you looking for a place to study that are both ranked top-level with regards to academic excellence and social settings? Or are you looking for a city with easy transportation options and a wide variety of options to remain active? Then look no further. Aarhus is this year's winner on Studentum.dk's annual list of Denmark's best cities to study in, and could very well be the place you are looking for!

On Studentum.dk's list of Denmark's best cities to study in, Aarhus snags this year's top spot. On the basis of high scores on parameters such as 'Career', 'Professionalism', 'Social environment', 'Student jobs' and 'Sports', the Jutlandian municipality correlates as a great fit with what students weighed heaviest in their preferences of their study place. Read more about why you should choose Aarhus as your next city to study in below.

Facts about Aarhus:	
Population:	Approximately 350,000
Associations:	8,577
Bars & cafes:	445
Average rent:	115 dkk / sqm
Student jobs per year:	678

#### Aarhus - The city of smiles

It is no coincidence that Aarhus ranks highest on this year's list. As Denmark's 2nd largest city, Aarhus presents a lot of the

<https://www.studentum.dk/aarrets-studieby/aarrets-studieby-byer/aarhus-best-student-city-2021-20410>

# LOCATION

# ERHVERVSAKADEMI AARHUS

### Aarhus, Denmark

The sea and the stars



The Øie Ramer Observatory Science Park in Aarhus, Denmark. Courtesy: Russian Ministry of The Science Museums/Aarhus University



03 May 2021

#### Aarhus - Denmark's best place to study 2021

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LOCATION

ERHVERVSAKADEMI  
AARHUS



Menu



BUSINESS ACADEMY AARHUS (EAAA.DK)



IT Architecture is about the important stuff  
.....Whatever that is.

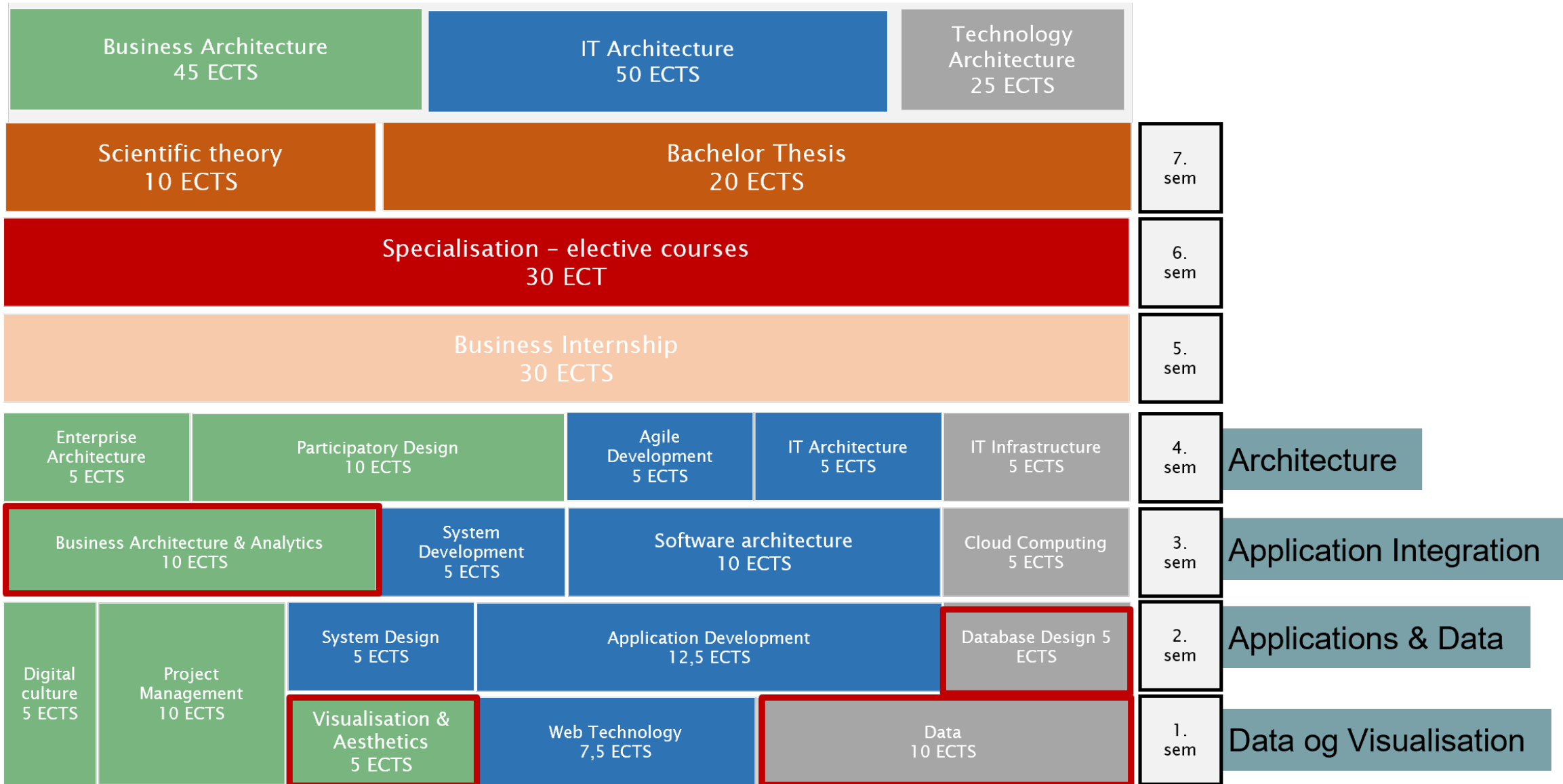
Ralph Johnson, who co-authored *Design Patterns: Elements of Reusable Object-Oriented Software*

PBA IT-ARCHITECTURE

- Programme started in 2021
- Business need is front and center
- Project oriented
- Case based
- Cooperative Learning







# PBA IT ARCHITECTURE - STRUCTURE



USING SAS

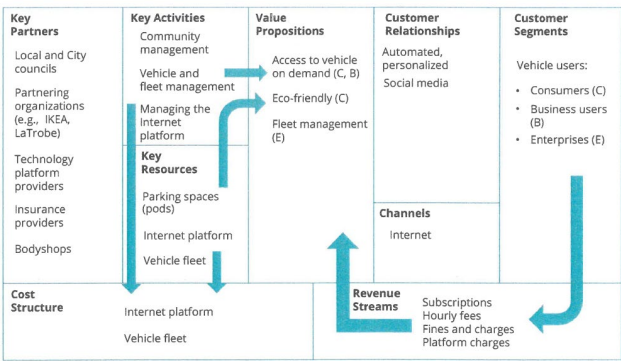
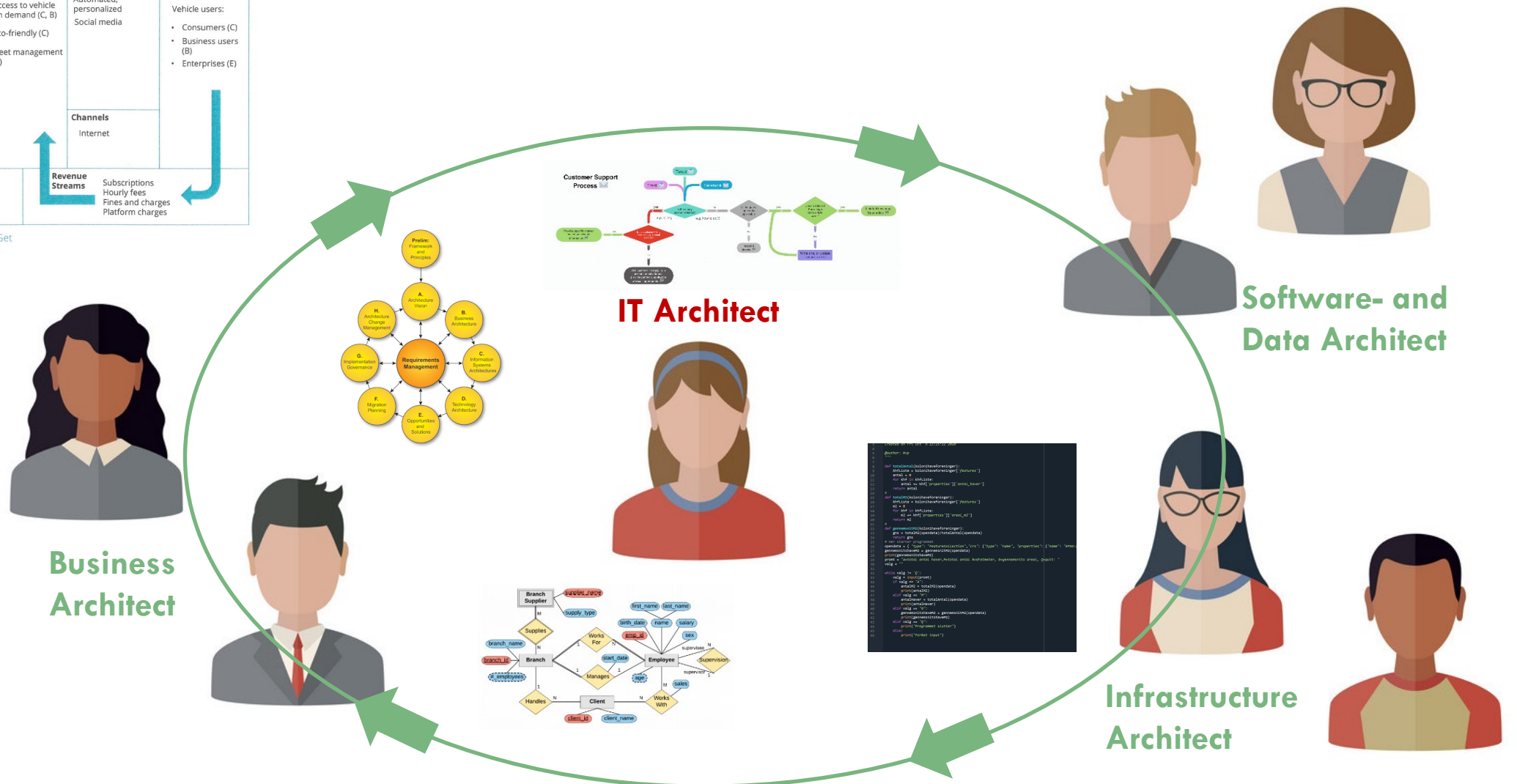


Figure 14.7 Business model canvas for GoGet



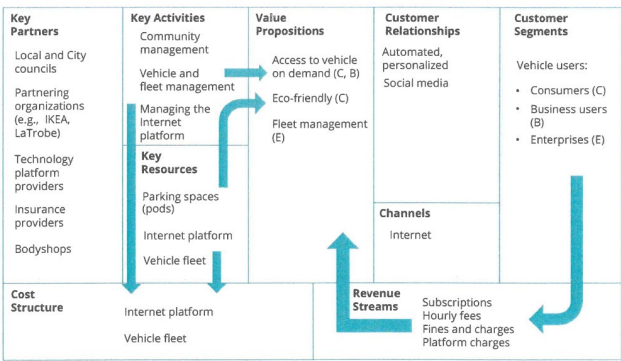
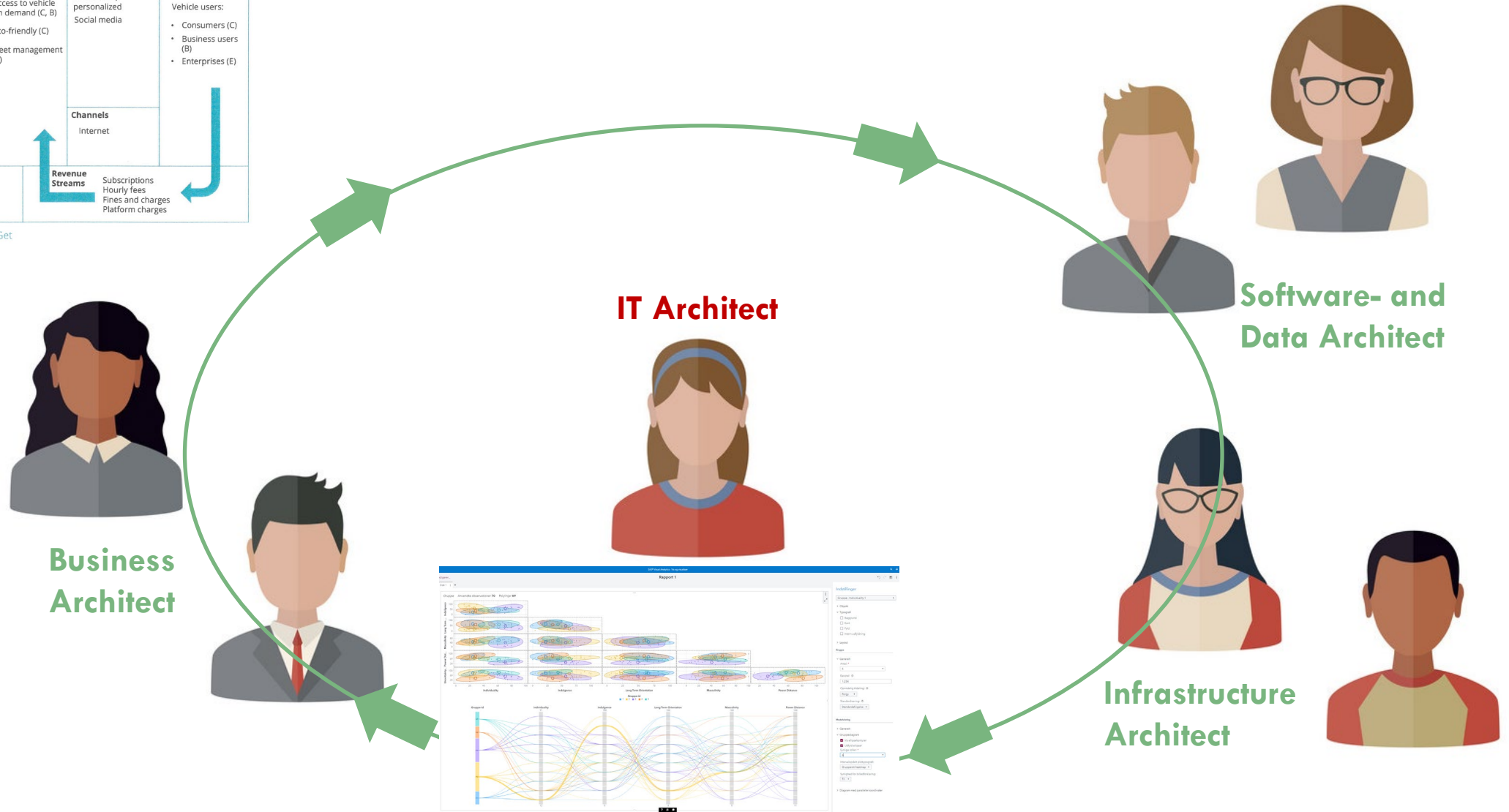


Figure 14.7 Business model canvas for GoGet



.... AND ANALYTICS

# SAS Skill Builder for Students

Your future starts here

94% of decision makers worldwide said certified team members added value above and beyond the cost of certification.

- Global Knowledge 2020  
'IT Skills and Salary Report'



## Free software

- Two cloud-based options:  
[SAS Viya for learners](#)  
[SAS OnDemand for Academics](#)

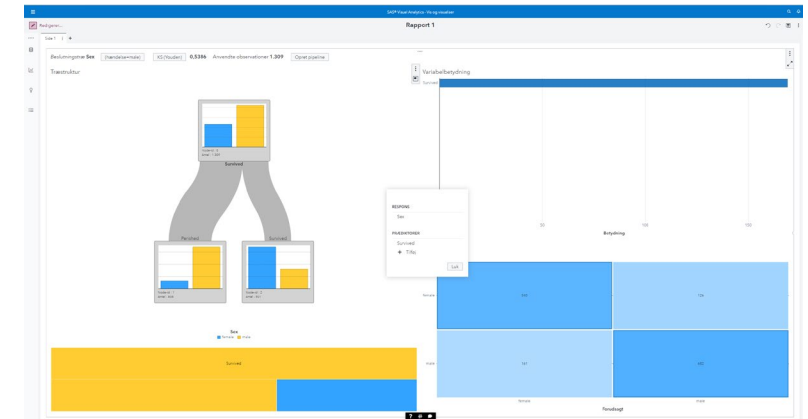
## Learn on your time

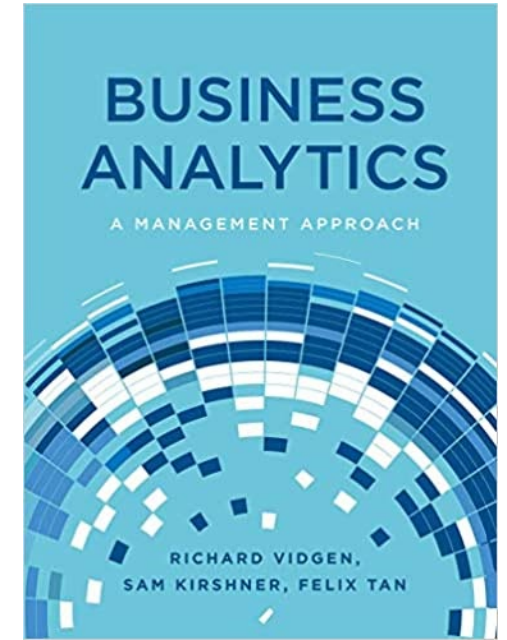
- 24/7 access to a virtual learning environment
- Free e-learning courses – 29 available right now
- Learning badges awarded for completion
- Certification prep materials



# Business Architecture and Analytics

- Data – Information – Decision making
- Visualisation
- Statistics
- Decision Trees
- Clustering
- Neural Networks
- Data Analytics Architecture





## Spring 2022

- + Exercises from "Business Analytics" using SAS
- + SAS Viya for Learners

## Autumn 2022

- + SAS Skill builder
- + Videos

## Spring 2023

- + SAS Skill builder (more)
- + Videos (more)



## Welcome to Data Literacy Essentials

Welcome Klaus, You are on your way to better understanding all the ways you interact and engage with data. Allow yourself about 25 minutes to complete each module.

[Watch the introduction](#)



Your progress

<b>OVERVIEW OF DATA LITERACY</b>	<b>Module 1</b> Why Data Literacy Matters	<b>Module 2</b> Data Literacy Practices	
<b>DATA LITERACY IN ACTION</b>	<b>Launch module</b> Follow along as a concerned parent works to find the most relevant, useful and reliable data to make an important COVID-related decision for her family. Identifying Reliable Data	<b>Module 4</b> Discovering the Meaning of Data	<b>Module 5</b> Making Data Informed Decisions
<b>DATA ETHICS</b>	<b>Module 6</b> Working with Data Responsibly		
<b>ASSESS YOUR DATA LITERACY</b>	<b>Quiz</b> Demonstrate Your Knowledge		



SAS | Virtual Learning Environment

## SAS Visual Analytics 1 for SAS Viya: Basics (8.5)

[Dashboard](#) / [Courses](#) / [SAS Visual Analytics 1 for SAS Viya: Basics \(8.5\)](#)

### Course Description

This course provides an introduction to data preparation, data discovery, and report creation in SAS Visual Analytics.

[More...](#)

### Lessons

- Using SAS Viya for Learners with this course
- Course Overview
- Lesson 1: Getting Started with SAS® Visual Analytics
- Lesson 2: Preparing Data Using SAS® Data Studio
- Lesson 3: Analyzing Data Using SAS® Visual Analytics
- Lesson 4: Designing Reports with SAS® Visual Analytics

SAS SKILL BUILDER

ERHVERVSAKADEMI  
AARHUS







Lesson -  
Introduce

Student -  
Do SAS  
course

Lesson -  
Discuss SAS  
course

Lessons  
sons

Lesson -  
Cooperative  
learning on  
SAS Course

- Professional and aimed at Students
- Personalised (groupwise) learning
- Small videos and exercises
- Stop and Go resources
- Relatable – from Personal to Enterprises
- E-learning oriented
- Badges



Elective course for Autumn 2023  
and Spring 2024

Building on top of the Business Architecture and Analytics  
course

- Statistics and Machine Learning with SAS
- Programming in SAS
- SAS Videos
- Other material

Designed for self study in groups!



## ⊖ Programming

### E-LEARNING COURSES

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- ▶ SAS Programming 1: Essentials ▾
- ▶ SAS Programming 2: Data Manipulation Techniques ▾
- ▶ SAS Programming Certification Review
- ▶ SAS Programming 3: Advanced Techniques
- ▶ SAS SQL 1: Essentials
- ▶ SAS Macro Language 1: Essentials
- ▶ SAS Macro Language 2: Advanced Techniques
- ▶ Programming for SAS Viya

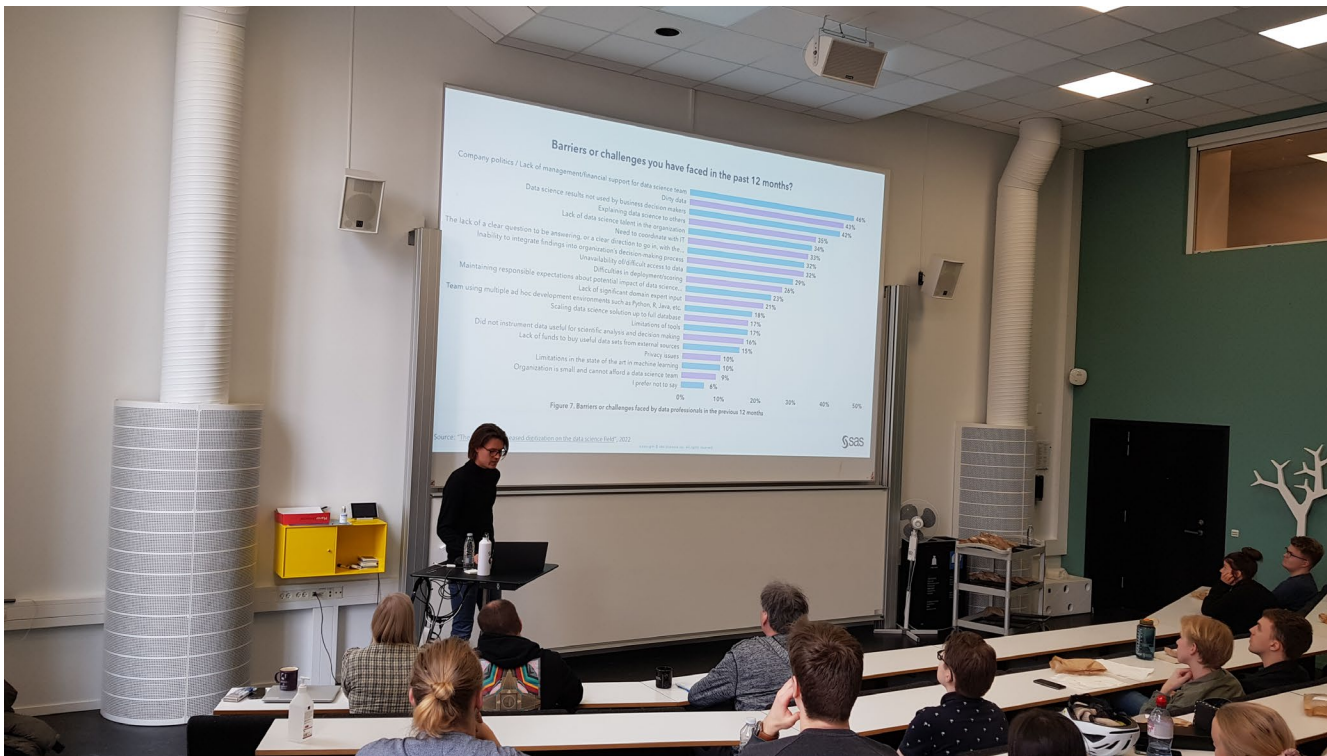


## ⊖ Statistical Analysis, Predictive Modeling, and Machine Learning

### E-LEARNING COURSES

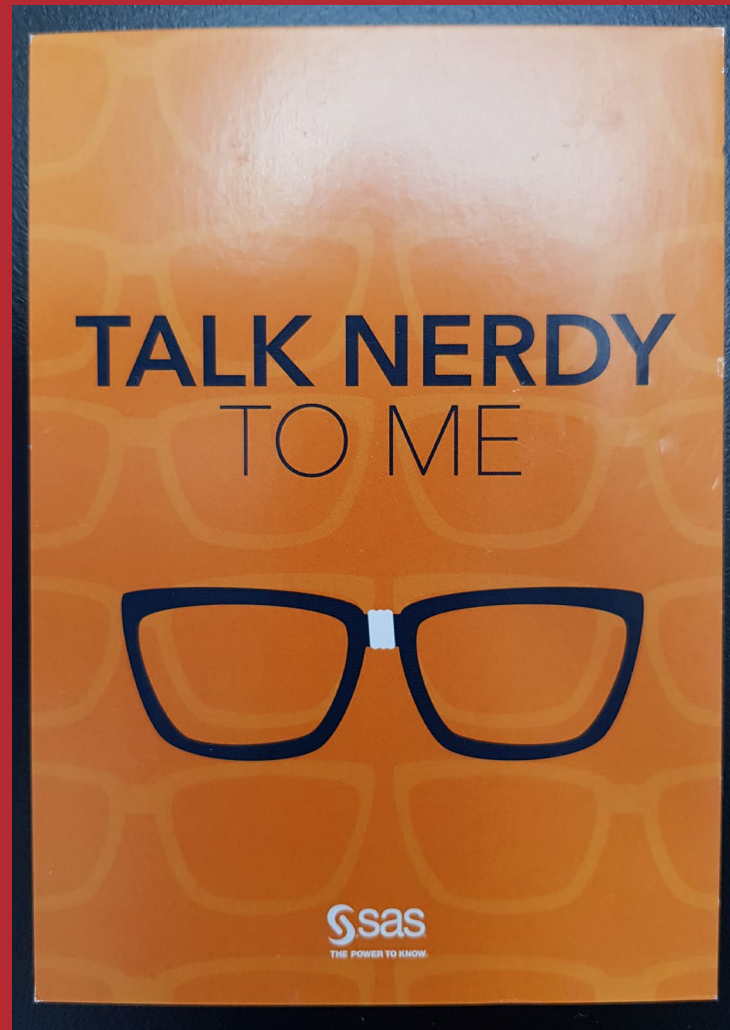
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- ▶ Statistics 1: Introduction to ANOVA, Regression, and Logistic Regression
- ▶ Statistics 2: ANOVA and Regression
- ▶ Predictive Modeling Using Logistic Regression
- ▶ Applied Analytics Using SAS Enterprise Miner
- ▶ Machine Learning Using SAS Viya
- ▶ SAS Visual Data Mining and Machine Learning in SAS Viya: Interactive Machine Learning
- ▶ Using SAS Viya REST APIs with Python and R



- SAS Viya
- Skill Builder
- Videos, Books and Solutions (cases)
- Support from local SAS Academic Manager
- Reality Check





# VALUE OF PBA IT-ARCHITECTURE AND SAS

## For Organisations and Businesses:

- Small and Medium Enterprises is forced to get on the Data Oriented wagon.
- SME's need to utilize Data for Decisions through Visualizations, Statistics and Machine Learning (Predictive)
- SME's need for easy to use, high performance and flexible tools (SAS)
- Need for Competencies with knowledge of the Frontend (Business side) for creating the Backend (*PBA IT-Architecture*)



## For the Educator and Students:

- Easy and wide range access to SAS platform.
- Getting to the core quickly i.e. working with data and analytics.
- Good Data sources that are relatable.
- Support from local SAS offices.
- Hand on working with Data and Machine Learning.
- Students gets salespoints on their CV....Badges.
- Works well with theory
- Students gets competencies in a professional tool.

- Move certain subjects to other courses.
- Add more SAS offerings to the courses.
- Take own medicine i.e. create data around the course and let the students investigate the behaviour and performance of the course stakeholders.
- Get local analytical cases and data to work on.
- Workshop.
- Motivate more for the badges.
- Cooperation with colleagues from other parts of EAAA.



Cooperation across national borders and across academic disciplines

Sharing of cases, data and analytics





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[KVP@EAAA.DK](mailto:KVP@EAAA.DK)

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THANK YOU



Q3 2023

Featured university: North-West University, South Africa

Educator: Prof Helgard Raubenheimer,  
Director  
Centre for Business, Mathematics and Informatics

Topic: Talent connection through industry projects

Date: September 21st, 2023