Indledning

Det Tekniske Fakultet udarbejder fra 2012 uddannelsesspecifikke dimittendundersøgelser på alle uddannelsesretninger. Undersøgelserne vil omfatte de seneste tre årgange, der er dimitteret fra uddannelserne. Det forventes, at dimittendundersøgelserne vil blive gennemført hvert 3. år, og dermed vil alle dimittender på et tidspunkt kunne deltage i en undersøgelse.

Denne undersøgelse er rettet mod dimittender fra årene 2010-2012 på diplomingeniøruddannelsen i Global Management and Manufacturing.

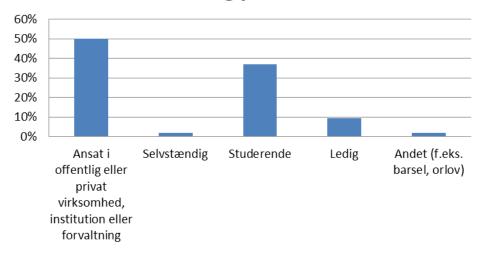
Spørgeskemaet er udsendt elektronisk i september 2012 til 78 dimittender (der er samlet 79 dimittender på de tre årgange, men det har ikke været muligt at finde den sidste mailadresse). 53 har besvaret dvs. at der opnået en svarprocent på 68 %. Besvarelserne fordeler sig med hhv. 18, 16 og 20 på årgangene 2010-2012

1. Erhvervsstatus - beskæftigelse

Samlet for de tre årgange ses det, at halvdelen har fundet ansættelse enten i offentlige eller private stillinger. En stor andel er stadig under uddannelse (37 %), mens 9 % er ledige. Kun en meget lille procentdel vælger at

blive selvstændige og starte egen virksomhed.

Samlet fordeling på erhvervsstatus



Blandt dimittender i beskæftigelse er langt størstedelen ansat i private virksomheder (94 %). Den branche, hvor flest dimittender finder ansættelse er inden for Maskin-, Jern- og Metalindustrien, hvor samlet hver fjerde dimittend svarer, at de er ansat indenfor. Øvrige brancher, hvor dimittender er ansat er bl.a.

- Fødevare, Kemi, Plast og Træ
- Forsyningsvirksomhed, Vand, Energi og Affald
- Den elektroniske industri

- Informationsteknologi og telemedicin samt
- Salg

Samlet er godt halvdelen blandt disse brancher. Se bilagsrapport for komplet branchefordeling samt stillingsbetegnelse.

Godt 70 % er ansat i store virksomheder, mens 21 % er ansat i mellemstore virksomheder. Kun 9 % er ansat i virksomheder med under 50 ansatte. Se bilagsrapport for liste over de konkrete virksomheder.

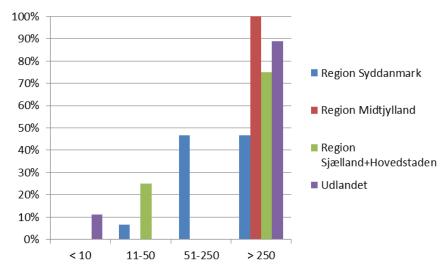
Lidt under halvdelen (44 %) har fundet job inden for Region Syddanmark, mens 18 % er beskæftigede i Region Midtjylland. 27 % af dimittenderne har fundet beskæftigelse uden for Danmark, hhv. 15 % og 12 % i lande inden for EU og lande uden for EU.

Når arbejdspladsens størrelse holdes op mod geografi ses det, at dimittenderne, der arbejder i Region

Syddanmark, fordeler sig nogenlunde ligeligt ift. mellemstore og store virksomheder.

For dimittender ansat i

Region Midtjylland tegner der sig et andet billede, hvor de alle har fundet beskæftigelse i større virksomheder. Samme tendens ses for dimittender, der er beskæftigede i Region Hovedstaden samt udlandet.



1.1 Sammenhæng mellem beskæftigelse og uddannelsens faglige område

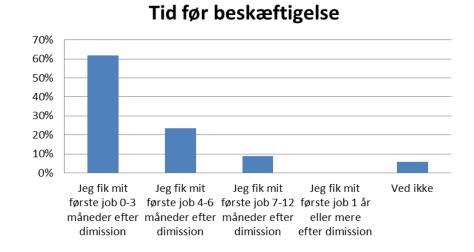
Undersøgelsen viser, at dimittenderne i overvejende grad har arbejdsopgaver inden for deres faglige felt. De to opgavetyper, der scorer højest er således drift og analyser (44 % for begge). Derudover vurderer godt en tredjedel, at ledelse og organisation er en af de arbejdsopgaver, der fylder mest. Se bilagsrapport for komplet liste.

Samlet vurderer 53 % af dimittenderne, der er i beskæftigelse, at deres job ligger inden for uddannelsens faglige område. En tredjedel svarer, at jobbet ligger uden for uddannelsens faglige område, men kræver generelle kvalifikationer erhvervet via uddannelsen. 12 % svarer, at der ingen naturlig sammenhæng er mellem job og uddannelse.

1.2 Tid før ansættelse samt ansættelsestype

Blandt dimittenderne har størstedelen fundet job inden for et halvt år efter dimission.

85 % af dimittender i beskæftigelse er i faste stillinger, mens 15 % er i tidsbegrænsede stillinger.



2. Ledighed

Ledighedsprocenten på 9 % er højere sammenlignet med den generelle ingeniørledighed, der ligger på 4,7 % for diplomingeniører (og 3,8 % for produktionsingeniører). Det kan dog forklares ud fra dimittendernes aldersgruppe, og at alle de udvalgte dimittendårgange er/ kan være nyligt indtrådt på arbejdsmarkedet. Ledighedsstatistik fra IAK viser, at den generelle ledighed for ingeniører i aldersgruppen 20-29 år er på 12,9 %

Adspurgt om de ledige dimittender har været i ansættelse siden de dimitterede svarer 83 % nej.

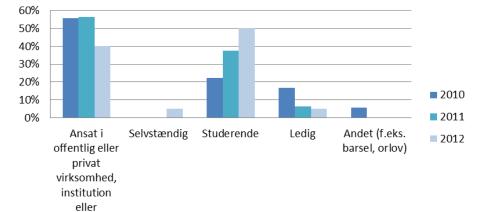
3. Studerende

Der er en stor andel af dimittender, der vælger at læse videre efter endt uddannelse som diplomingeniør i Global Management and

Manufacturing.

Samlet er 37 % studerende, mens halvdelen af dimittenderne fra 2012 er studerende.

De fleste vælger at læse en kandidatoverbygning, der ligger i naturlig forlængelse af diplomingeniøruddannelsen, eks. kandidatuddannelsen på PDI eller cand. merc. på Det



Erhvervsstatus fordelt på årgang

Samfundsvidenskabelige Fakultet. Samlet fordeler de studerende sig således.

forvaltning

- Syddansk Universitet, Product Development and Innovation -7
- Syddansk Universitet, cand.merc 6
- Aalborg Universitet Master Programme in Operations and Supply Chain Management/innovation management -3
- Aalborg Universitet Esbjerg Master in Eng. in Oil and Gas Technology 2
- Aalborg Universitet (virksomhedssystemer civilingeniør) -1

Blandt dimittenderne, der angiver, at de pt. er studerende, har en fjerdedel været i beskæftigelse efter de dimitterede fra diplomingeniøruddannelsen i Global Management and Manufacturing.

4. Vurdering af uddannelsen

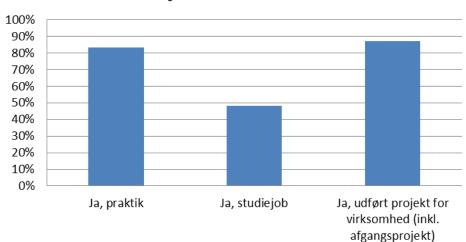
4.1 Interaktion med erhvervsliv under uddannelsen

Langt størstedelen af dimittenderne har i løbet af deres studietid arbejdet sammen med virksomheder, enten i form af praktik,

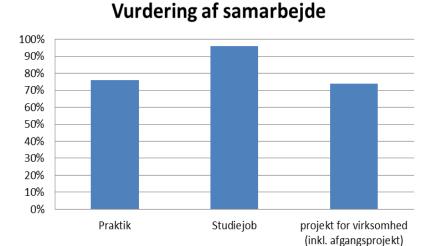
studiejob eller et projekt.

Kun 3 % svarer nej til at have samarbejdet med virksomheder i form af praktik, studiejob eller et projekt.

Samarbejde med virksomheder



Størstedelen vurderer, at de i overvejende grad har kunnet bruge erfaringerne herfra efter endt uddannelse.

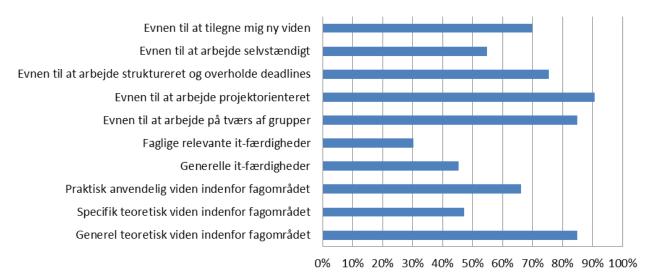


4.2 Tilegnede kompetencer og kvalifikationer

Dimittenderne er blevet adspurgt, om de gennem uddannelsen har opnået de nødvendige faglige kvalifikationer og kompetencer, der skal til for at virke professionelt inden for uddannelsens typiske erhvervsfelt. Her svarer 72 %, at det har de i overvejende grad, mens kun 8 % svarer, at det har de i overvejende grad ikke.

I den nedenstående tabel ses hvilke kompetencer og kvalifikationer dimittenderne vurderer, at de har tilegnet sig via uddannelsen. Topscorerne er evnen til at arbejde projektorienteret, generel teoretisk viden indenfor fagområdet samt evnen til at arbejde påtværs af grupper.

Kompetencer og kvalifikationer via uddannelsen



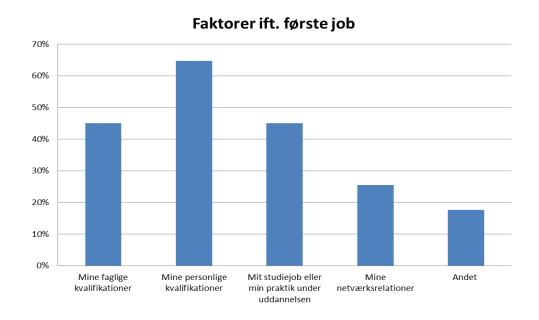
I spørgeskemaet var der mulighed for at uddybe hvilke kompetencer og kvalifikationer man gerne så uddannelsen også indeholdt, eller lagde mere vægt på.

Nogle af de svar, der er gået igen er:

- Større kendskab/brug af Excel, samt andre værktøjer eks. statistik og ERP.
- Flere tekniske kurser mere i dybden. Uddannelsen er for overfladisk
- Svært skifte fra GMM til cand.merc., hvor det videnskabelige/teoretiske niveau er meget højere.

Se bilagsrapport for alle kommentarer.

De personlige kvalifikationer vurderes at have været mest udslagsgivende ift. at få det første job. Dernæst kommer faglige kanlifikationer samt studiejob eller praktik under uddannelsen.



Afslutningsvist blev dimittenderne adspurgt om de ville anbefale uddannelsen til andre og her svarer hele 79 % ja, mens kun 8 % svarer nej.

Blandt de uddybende kommentarer er bl.a.

- Det er en god praktisk all round uddannelse.
- Det er en ok basisuddannelse, men vil anbefale, at man læser en overbygning.
- Uddannelsen er for bred/generel, man kommer ikke nok i dybden. Det faglige niveau er for lavt.

Se bilagsrapport for alle kommentarer.

Bilagsrapport

- 1. Brancheliste
- 2. Stillingsbetegnelse
- 3. Liste over hvilke virksomheder/arbejdspladser dimittenderne er ansat i, samt navne på egne virksomheder.
- 4. Liste over arbejdsopgaver
- 5. Liste over hvilke kompetencer man savner/kunne have været en del af uddannelsen
- 6. Kommentarer vedr. anbefaling af uddannelsen

1. Brancheliste

	Respondenter	Procent
Raw material extraction, farming, forestry and fishing	0	0,0%
Utility company, water, energy and waste	3	8,8%
Food, chemistry, plastic and wood	4	11,8%
Biotechnology and pharmaceutical industry	1	2,9%
Machinery, iron and metal working industry	8	23,5%
Electronic industry	3	8,8%
Engineering Consultancy company	1	2,9%
Building and construction contractors	0	0,0%
Information technology and telecommunication	3	8,8%
Financial business etc.	0	0,0%
Public administration, teaching and health	2	5,9%
Culture and other services	0	0,0%
Other (please state type)	9	26,5%
l alt	34	100,0%

Andre:

- Sales, service, logisics
- Fashion industry
- sales
- Beverages
- Retail
- Manufacturing of wood components
- Service provider
- Furniture manufacturing industry
- Sales and marketing/business development

2. Stillingsbetegnelse

Supply chain manager

•	Demand Planner
•	Postgraduate
•	sales agent
•	Innova System Consultant
•	International Student Advisor
•	Business Controller; controlling and analysing none value adding activities
•	Study job within Global Planning department
•	Production Planner Cans
•	Business Consultant
•	Consultant / Teacher
•	Senior Logistic Analyst
•	Sales Engineer
•	International Sales (Graduate programme)
•	Planning and Logistics Coordinator
•	Production Planner
•	Supply Chain Coordinator
•	Nordic Solution Specialist in New Product and Solution
•	In my contract: production engineer, yet i work as a project manager
•	Busyness analyst
•	Helpdesk analyst
•	Operations Engineer
•	Project manager in Continuous Improvements
•	Driftsingeniør / Production Engineer
•	Delivery planner
•	Production Engineer
•	Project engineer
•	Engineer - Maintenance Department
•	Consultant
•	Marketing & Logistik
•	Quality Manager
•	Project Manager
•	Logistics and UK market orders
•	Quality manager and business development assistent

3. Virksomheder/arbejdspladser dimittenderne er ansat i, samt navne på egne virksomheder.

- Advania
- Aluwind
- Andresen Towers A/S
- Bestseller Jack & Jones
- Brüel & Kjær A/S
- Carlsberg Danmark
- Danfoss 2
- Dansk Supermarked
- D-S Sikkerhedsudstyr A/S
- Grundfos Distribution Service BV
- Ib Andresen Industri
- International Business College
- LEGO 2
- Marel
- Novo Nordisk
- Skærbæk Bygningsindustri A/S (part of VELUX)
- Syddansk Universitet
- Vestas

Egen virksomhed:

OnLine Telemarketing ApS

4. Arbejdsopgaver, der bruges mest tid på

	Respondenter	Procent
Product development / innovation	4	11,8%
Administration	6	17,6%
Analysis	15	44,1%
Counselling	2	5,9%
Teaching	1	2,9%
Management and organisation	12	35,3%
Sale	6	17,6%
Research	3	8,8%
Operation	15	44,1%
Other (please state)	9	26,5%
I alt	34	100,0%

Andet:

- Purchasing
- Implementation of IT systems
- meetings/coordination
- Developing and introducing new tactical processes for the regional plants, developing capacity monitoring tool etc.
- Process development
- production planning and raw materials forecast
- Project manager
- Production operations
- Documentation ERP System
- Logistics

5. Kompetencer man savner/kunne have været en del af uddannelsen

- More accouting
- Maybe this survey is only about my first degree as a bachelor of engineering in GMM but I have also
 obtained a masters degree in engineering, which was much better for me so I am not sure if the
 answers are mis-guiding... I now work in the food industry but as a manufacturing engineer we have
 never had projects or cases about the special environment of working in the food industry this I find
 strange.
- Could be very cool if it would be possible to keep being in touch with Tek and get updated on the newest within our field!! Could be a part of blackboard and maybe small cources.
- Which study program are you talking about? Is it the GMM program- if yes. The GMM program is too easy. My academic understanding became complete with my cand.merc studies. The GMM program cannot stand alone, as there are severe lacks of knowledge, so said another way, the knowledge is too shallow. That lack of knowledge is mainly due to that teachers, and other consultants from outside that came to teach e.g. about LEAN and diverse, are from the industry. That, does not provide the deep understanding. Thus, students go to school to learn the theoretical background, hereafter the consultant-approach can be applied. The teachers at GMM are not science professors, they lack academic understanding which became evident when switching to the Master degree... in prolongation to the GMM program, I had a course called "Value Chain Design" at cand. merc and first then I realized how little I had understood of LEAN at the GMM education (here I will note that I am a student in 5%, so it cannot be my own understanding that is wrong). Let me ask, how did I get that high an avergage in grades at GMM, if had not understood much? First, in my masters education did I come to understand what LEAN is really about, thanks to the master studies, eventhough the GMM education incorporates LEAN from semester 1, the knowledge provided by teachers of LEAN is simply not deep enough. Which is also evident if considering the teachers CV. The tuition at GMM is simply not good enough, the teachers are not science professors, but I've learned lots of "firefighting" at GMM, which is applicable in my future job. Further, at GMM there is lots of project work, which is good - the thing I still do not understand is how it is possible to put slackers together with highperformance students..... Students that should never have been engineers came through anyway. GMM should set an output-quality and begin caring about its reputation. GMM is a kindergarden, where teacher make sure to cover your back, regardless - that is not ok!
- Change Management
- Generally it would have been beneficial, if technical courses i.e. within Excel would have been higher
 on the agenda. It is a problem with the bundled exams on the first semesters, as employeers cannot
 see what e.g. MAP3 is in detail. More in-depth SCM... we are only taught the "buzz-word" part of it,
 and not the in-depth science.
- Learning (and applying in practice) more specific project management tools would have been very beneficial. We could have also had more exercises requiring deep knowledge in Excel, because in most companies it is the key internal data management tool. And in general, it would have been good to learn more tools and models, which could be applied in firms when optimizing its supply chains or production processes. For example, some statistics based tools through which we would learn the key inputs needed for assessing the current situation, and the leavers which would help in reaching the "to be" level.
- More interaction with private companies. Practical research methods and data collection within the academic field.
- Finance marketing market understanding
- More insight to the use of materials and processes, rather than accounting and Business english

- -strong engineering background -more materials/chemical knowledge -sales and marketing
- Der burde være LANGT mere fokus på metode i projekterne end da jeg blev færdig i 2011.
- Class should be more international with an equal split international vs. Danish students.
- SAP, advanced level of Excel, chemical raw materials forecasting (or forecasting of non-bill of material driven raw materials usage)
- Today I would have liked to have obtained a more technical knowledge about machines during my education. Just a generel information.
- I would have preferred to have learned to use Harvard Referencing during my bachelor program as every teacher on the master program expect us to know this well from the beginning. I would also have liked to know a lot more about SAP and related software instead of merely following a 3 hour crashcourse where 3 people shared one computer.
- Companies do not search for this type of engineer.
- i don't know for the moment!
- More analytical skills
- After the GMM degree I had a understanding of how supply chain management worked and the work available to me was within purchasing, which I felt I was over qualified for. I missed being able to design and structure supply chains for a company. This is why I'm getting my masters degree in Supply chain.
- If you decide to study a Master programme you'll need further skills in science, Reading academic articles, Setting up projects inclusive methology, acquiring empirical data etc.
- More emphase on quantitative methods in connection with logistics. Microeconomics Engineering related knowledge of systems used at logistics, for examle, conveyor belts, forklifts etc. More specific 'hard' subjects which requires quantitative approach.
- missing QM, and need WAY better economics. Hard to say what skills i'm missing, but GMM feels like a waste of time the first 3 semesters. 4 semester is very good. 5 semester abroad 6 semester intern 7 semester theses thats leaves GMM with only 1 good semester... I really hope that you will improve, cause i cant recommend GMM to anyone how it was when i started in 08
- Would prefer some tangible tasks and some usefull basic tools how too solve basic problems. School
 tends to focus on high level theoretical problems, but in real world we often fight with basic "down to
 earth" problems. These problems can then be liftet to a higher theoretical level, but if you don't
 understand the core of the problem, you can't help solving the problem on a top level. All in all I
 would say; don't loose the grip of the real world.
- Since i do not have a job i have a hard time stating what is missing for the "real life". But the things i missed in supply chain i have the impression i get now as i study the PDI GSD. A thing i realy missed when writing my bachelor was a better insight to the erp system SAP. I have had the ERP course you offered at the bachelor level but this was not enough at all and also i think it is important to use a more widley used program as SAP instead of Axapta.
- More in-depth technical knowledge and maybe more focus on quality management. Automation and
 the appliance of this could have been useful too. A course in the use of Microsoft Excel, not only for
 basic use but how to use excel for real by programming and macroes and so on would have been
 useful.
- More ERP knowledge
- Basic and Advanced MS EXCEL skills.
- More economic studies, German language classes
- Leadership and general management. Cultureclash understanding.
- When I first joined the GMM programme, it was with the intend to study cand. merc. after finishing the GMM-programme, and the programme was advertised with the possibility of this. After being accepted to the cand. merc. profile of my choice (International Business and Marketing) I have felt that the GMM-programme has given me a lot of general knowledge and skills that I bring forward. But

- the shift from practical and book-oriented teaching versus a very academic teaching form, has been tough, and it could have been nice to have been prepared for this.
- Even though I have a job that I like, I think it would be neccesary to teach skills in how to sell yourself at a job interview, since the education is not that well known in the industry. Therefore I think it is tough to get a job based only on the GMM education, even though a GMM education provides the skills to fulfill a job. Therefore most GMM students would probably build on their study, mainly to have a well known title to search jobs with.

6. Kommentarer vedr. anbefaling af uddannelsen

- The GMM study programme is OK but I think it was too general. It gives a very good basic knowledge but I would definitely recommend everybody to take a masters degree afterwards and specialise in specific areas. I specialised in transport and logistics, which I found was an ideal combination. After only finishing GMM I had no idea of what kind of jobs I could take. It was not made clear to me. But after finishing my masters degree from DTU everything came together and I had a job 4 months before finishing my thesis!
- Got a strong eduction where the practical work is the most important
- See previous the knowledge is not deep enough. With GMM kindergarden anyone can become an engineer
- Trust the engineers :)
- Despite the need for a few adjustments to the curriculum, and the, unfortunately, quite varying level of English language proficiency among the teachers, I find GMM as an interesting and very practice oriented education. After my internship in the firm, and writing my bachelor project for another firm, I could feel that my GMM degree enabled me to be an equivalent partner to the managers not only within the SCM departments, but within other parts of a business organization. I believe it is due to the holistic value chain based problem solving approach we've been thought during the GMM.
- I have experienced that it is very useful education, you can use it every where and it gives you a broad knowledge about everything, which will enable you to search broad in terms of job searching
- The study programme is good and educational, but was too wide in terms of the qualifications obtained during the study
- -the person i recommended the GMM program just started this semester
- The GMM program provided a solid foundation in terms of Supply Chain Management and international qualifications on which to build. Furthermore, it was nice to have every single course taught in English as it significantly improves one ability to read and write in English and expands the vocabulary.
- GMM var aaaalt for nyt der var for megen forvirring omkring hvad vi skulle lære
- I liked the broad knowledge about many things, but miss more specific knowledge within a more narrow and specific area.
- the program allowed me to study abroad and strengthen my CV by doing so. The international experience is very valuable when getting a job in a larger organization
- I believe my study program is well received within companies, even though it's still rather new. It is very "future proof".
- Great job opportunities the recession taken into consideration and fine possibilities to study Master somewhere. Valuable that you are allowed to study abroad for almost 1,5 year.
- I think the program provides an overall understanding what logistics and production planning and one can gain an overall knowledge about international relations. However, I think the program could be improved by strenghtening the engineering and business parts by introducing a more quantitative approach. For example, 1 1.5 year, more emphase could be placed on material sciences, statistics, microeconomics and engineering (systems used in logistics). In the second part of the education, after having a good foundation, project groups could be formed, and the lesser 'harder' or more analitical subjects like IQ and Law, PRO could be introduced etc.
- I will recommend it to people who just wants an easy bachelor els same answer as before: missing QM, and need WAY better economics. Hard to say what skills i'm missing, but GMM feels like a waste of time the first 3 semesters. 4 semester is very good. 5 semester abroad 6 semester intern 7 semester theses thats leaves GMM with only 1 good semester... I really hope that you will improve, cause i cant recommend GMM to anyone how it was when i started in 08.

- I think that the GMM programe is a very good study, we get a lot of insight in how both single companies but also their entire supply chains work. We also get the possibility to talk both to the marketing guys and the more hardcore tec guys because of the wide range of courses.
- To a large degree. As a diploma, it serves the purpose of generating a large overview of the operating firms and environment = General knowledge. For those who want more theoritical approach, the a master program is the choise after graduation.
- Too many of the courses had a too low academic level. I would have chosen another study programme if I had known that in advance.
- I think that the skills acquired at the GMM education is very relevant to the needs in the market. The only thing I would say it needs is a more clear description or even more co-relation to the industry in order to brand the education towards companies and thereby improve the posibilities to get a job based only on the GMM title.