

UNIVERSITEIT TWENTE.

FACULTEIT BMS

REFERENCE: BMS2016.80

DATE: SEPTEMBER 16TH, 2016

Annual plan 2017

Faculty BMS

UNIVERSITEIT TWENTE.

FACULTEIT BMS

REFERENCE: BMS2016.80

DATE: SEPTEMBER 16TH, 2016

Content

1. Introduction	page 1
2. Education	page 1
3. Research	page 3
4. Knowledge transfer	page 4
5. Organization	page 5
6. Finance	page 6

Att. 1. Policy Brief BMS under Steam

Att. 2. KPI's

Att. 3. Budget plan 2017

1. Introduction

The year 2016 is marked by the process of developing a long-term strategy for the Faculty BMS. This extensive process resulted this summer in the Policy Brief BMS under Steam (see attachment 1). The Policy Brief BMS under Steam entails a vision of the longer-term strategy of the Faculty as an academically rather than merely administratively integrated whole. It primarily concentrates on the mission and future academic structure of and within the faculty. Taking the situation in year 2015/16 as point of departure, the time horizon of the Policy Brief is the year 2021. The message is clear and simple: be excellent in your academic core business, AND strong in innovative connections: *Interdisciplinarity is the future for BMS.*

This annual plan 2017 highlights the challenges and activities for 2017 in education, research, organizational aspects but also BMS financial challenges. Furthermore BMS will have to dovetail the internal process of clustering the scientific departments with the process of UT2020.

2. Education

There are three main challenges for BMS with respect to education: sharpening of the profile of the programmes, improving synergy between programmes and further development of international master programmes.

With regard to the sharpening of the profile education, the main focus of BMS in 2017 will be to improve a distinguishing profile of the bachelor programmes. In 2017, the re-positioning of the BSc of Communication Studies (CS) with a stronger focus on technology will be expanded to the second year of the programme. With regard to BSc European Public Administration (EPA), in 2016 a repositioning process has been started which is planned to enable the start in September 2017 of the first year of a newly developed programme in governance science with a stronger focus on the role of technology in governance with a suitable programme name. The focus of the programme will be on educating for the public sector of the future. To promote enrolment in the newly developed programme, focused marketing efforts will be made in 2017 to promote awareness of the new program amongst possible students. With regards to the BSc programmes of Psychology (PSY) and International Business Administration (IBA), it will be explored in 2017 how stronger connection with technology can be realized by paying attention to the social role of technology, by improving the social embedding of technology or by making technology explicitly part of the social science research methodology.

We believe that a distinguishing technology enhanced profile of the bachelor programmes will make the programmes more unique on an international level and hence promote awareness and attractiveness to both Dutch and international students that are interested in these types of programmes. In line with this international repositioning, BMS will also invest in 2017 in international recruitment and international student support capabilities and in the promotion of the English language skills of both teaching and support staff.

To improve synergy and cooperation between bachelor programmes, in the first half of 2017 a plan will be made that would enable joint offer of courses, projects or even TOM modules between educational programmes. As the plan is inspired by Roskilde University, a first step will be an orientation on the organization of the bachelor programmes at Roskilde University, which has a very similar educational profile (project education, oriented towards combining social sciences and technology). In relation to the joint profiling ambition of the programmes, we will explore possibilities for common courses and projects, as elements of modules within the TOM system. Basic introductions into social science might be shared among programmes (in courses), as well as their common orientation towards technology. A further step in creating synergy between programmes would be the development of joint modules. Given the common profiling of our bachelor programmes, there will be more room for common modules, possibly with a programme-specific project. The most integrated version of synergy between all programmes would be a model in which the programmes share a common basis in, say, the first year, and start to differentiate in the course of the programmes. Especially if the number of students in some bachelor programmes stays below 100-120, this might be both an efficient and profiling way to keep offering our bachelor programmes in relation to our research profiles. This perspective will be explored and developed further in the course of the fall-winter semesters 2016/17. This will not only further profile our programmes as 'Twente' programmes,

but it will also make it possible to offer good and attractive programmes with less faculty. This ambition for cooperation also stretches out to other faculties in the university. BMS will invest in entrepreneurship education for their programmes and invest in more shared modules and courses. Part of the focus on cooperation will be the development of strategic cooperation with 'think-alike universities' in the international arena to offer more options for mobility. These are aimed at offering our masters students options to make our programmes more competing.

Bachelor programmes

BMS has adjusted its enrolment targets. We expect to be able to reach the following numbers:

	Academic year	IBA	PSY	CW	EPA	TBK	TOTAL
Historical	2010/2011	206	312	72	200	54	844
	2011/2012	283	210	72	160	54	779
	2012/2013	298	190	64	115	46	713
	2013/2014	195	197	63	88	105	648
	2014/2015	156	183	40	126	90	595
	2015/2016	164	107	33	71	89	464
Targets	2016/2017	145	325	60	50	80	660
	2017/2018	150	300	65	50	85	650
	2018/2019	155	275	70	55	90	645
	2019/2020	160	250	75	55	95	635
	2020/2021	160	250	80	60	100	650

To achieve the targeted enrolments, for the BSc programme IBA intensified marketing efforts will be made possibly by stressing the technology enhanced character of the programme. For PSY, an obligatory study choice check will be introduced in 2017 to promote the recruitment of students with a stronger interest in a technology flavoured programme. The enrolment in the CS programme is expected to rise by more explicit marketing efforts based on the experiences of students and factual development of the programme. Marketing at the right early time of the redesigned EPA is expected to lead to the projected target enrolment in September 2017. A crucial element is more intensive marketing communication from the start of 2017. For TBK, the usual marketing strategy will be used with to date has resulted in a steady increase of the enrolment.

Master programmes

The BMS ambition is to establish Master programmes that may count on a regular enrolment of at least 60-80 students. Within BMS, the UT strategy to internationalise Master education, will expanded in 2017, with a focus on the following elements.

- The MSc programme Public Administration (PA) will be redesigned into a program with a focus on substantive problem domains focusing on domain specific challenges with a strong component in technology. The substantive focus enables stronger cooperation UT wide. The re-development will include the development of flipped classrooms. In addition, in September 2017 an additional Master track will be introduced focusing on decentral governance and management in regional administrative networks. This Dutch language version of Bestuurskunde will focus on the governance and management of grand societal challenges from a decentralized perspective and is aimed to be an attractive programme for professionals in the field of governance from a regional perspective. This track as part of the MSc programme PA, may potentially develop in a Netherlands School of Local Governance (with a connection with engineering and technology) including themes such as Technologies that Decentralize the World, Smart Cities, The Metro(politan)Revolution, Mayors that rule the world, The Transformation of (local and regional) Health Care, Distributed Service Delivery and Circular Economy, Smart Grids, Self-organization and Self-governance, Resilience and the City.
- In 2017, the two-year Master programme Philosophy of Science, Technology and Society (PSTS) will work on the development of a broader programme to become more attractive for a diversity of students. This is envisioned to be achieved by offering theme-based specializations focusing on either Technology for wellbeing, Emerging Technology and the Future of Humanity, The philosophy of Big Data and Smart Territories. These theme-based programmes are called PSTS Link and will

be offered in addition to the existing programme PSTS Core. This re-profiling of PSTS in 2017 will make it possible to offer programmes that are attractive for a more diverse populations of students.

- For the Master programme Business Administration (BA), the focus in 2017 will be on the further development of five new specializations that are focused on High Tech Human Touch Business Administration. The five specialisations are: Entrepreneurship, innovation and strategy, Strategic marketing and business administration, Human resource management, Purchasing & supply management and Financial management. In 2017, special attention will be given to the establishment of joint degree or double degree programmes for each of the five specialisations.
- The internationalization strategy of Industrial Engineering and Management (IEM) focuses in 2017 on the further development of HTHT study paths with the introduction on 2017 of study paths in Engineering in sustainability and Engineering in Health. These study paths are electives within the master specialisation and will be rewarded on the diploma supplement. These study path enable (international) students to achieve their personal ambitions outside the existing boundaries of the programme. These study substantive paths will strengthen visibility internationally and promote cooperation within the UT with other master programmes.
- With regard to the MSc programmes Communication Studies (CS) and Psychology (PSY) in 2017 the focus will be on investigating the possible redevelopment of the MSc programmes, given the current changes in the accompanying bachelor programmes. The focus and aims of the changes will become more apparent in 2017 with the further implementation of the (redesigned) English bachelor programs.

Other education related projects

- Digital learning
As mentioned before, one field where BMS is investing is in joint skills and methodology training for bachelors programmes. This is done through developing a library of online elements that can be used to build tailor made training in specific modules. Other digital learning initiatives are related to evaluating the current MOOC's and developing new ones.
- Honours
BMS is well on track with the number of programmes and the number of students participating. Increasing quality and institutionalizing a system of quality control will be the main goal for 2017.
- Quality Control
BMS has made a start with redesigning its system of quality control for education by making the steps in the PDCA-cycles more explicit and clearly attributing responsibilities. The main focus is currently on Programme Management and Examination Board. The next step will be the process of annual revision of the TER and the possible new role of the Education Committee's in this process.
- Teaching load
Teaching load is often reported by faculty as too high. To attack this problem, we first want to get a firm grip on it. BMS is currently designing a capacity allocation model for teaching, research and valorisation. This model will form the basis for a planning model that will be implemented in 2017. The goal is to better distribute the teaching load and to identify inefficiencies in the design, delivery and support of education.

3. Research

Reorientation & repositioning research programs

As follows from the Policy Brief BMS under STEdM (see attachment 1), the faculty BMS aims to build an efficient and flexible organization, by targeting four large clusters acting as capacity groups. This is in line with the UT future ambition to introduce capacity groups and capacity budgeting in the form of larger clusters, consisting of several – at least 4-6 – full-professorships and PI's. The BMS cluster framework is meant as a platform for inducing and facilitating collaboration. From the end of 2017 and onward BMS will have an organizational structure with the following four clusters (of about 35-45 fte permanent staff in size):

- The Technology, Policy and Society cluster (TPS)
- The Technology, Human and Institutional Behaviour cluster (HIB)
- The Technology, Data-analytics and Decision-support Systems cluster (DDS)
- The High-tech Business and Entrepreneurship cluster (HBE)

These four clusters are strongly aligned with the spearheads from IGS (see the Policy Brief) and also other institutes have spearheads that BMS researchers contribute and orient to. The following 5 BMS research lines emerge as the starting point for further planning and research program development:

- Health: Health Technology, Health care systems and the Transformation of Healthcare;
- Learning: 21st Century Skills, Educational Technology and The future of Learning;
- Resilience: Smart Cities, Sustainable Communities and Safe Societies;
- Industry: Smart Manufacturing and Business models for the Circular economy in the 4rd Industrial Revolution;
- Emerging Technologies and Life in the Digital Society (overarching).

A guided, organic approach is chosen for the introduction and organizational development of these clusters. This to provide some continuity in the face of all turbulent changes in the past, and to be able to follow an adaptive strategy capable of dealing with changing external developments. The final decisions on the organization structure will be at the end of 2017, with the introduction of the new UT steering model at the level of the faculty and institutes.

Further development of the BMS Tech4People Lab

BMS is strongly connected with the Design Lab. Our vice-dean, Peter-Paul Verbeek is part of the MT of Design Lab and recently our new BMS Tech4People Lab has found a new physical location within the Design Lab. As part of the T4P programme and its projects (with IGS and BMS researchers in the lead) in which social and technical sciences are linked, a broad collection of new technology tools to collect, analyse and visualize data have been purchased (such as: eye tracker glasses, VR equipment, interaction room, Xsense motion capture suits, and Wi-Fi sniffers). Having the T4P Lab situated at the Design Lab provides strong collaboration opportunities and connectedness with Design Lab, which in the future will only be further enhanced. Furthermore, and in close cooperation with IGS, we are currently building up a dedicated support staff to aid our researchers with modern data collection and management.

Development of the Computational Social Sciences Lab

While the present equipment of the T4P lab now focuses on individual and small groups we are currently working on a plan to expand our equipment to process large databases. For this we are seeking collaboration with ITC (e.g. Geo-data) and parts of BMS that are involved in e.g. agent-based modelling. This lab, that will be closely linked to T4P lab, will also have a stronger emphasis on data visualization.

Strengthening basis (research support organization)

Within BMS, being a result of the integration of two separate organizational and administrative entities, in the past two years a lot of effort has been put in the integration of these entities into one, consolidated administrative and managerial organization. This had to be done in order to function as one entity. Also new infrastructural developments (i.e. support of T4P Lab) has required strengthening of the internal support organization. Also from within LISA staff members were appointed (seconded) to support the implementation and design of new data infrastructure and setup of servers. In accordance with future plans and developments, in line with the BMS under STEaM Policy Brief, further strengthening of the internal (research) support organization will be an ongoing process.

New round of Tech4People

With the current obligations of the Tech4People program (running projects), Tech4People investment means are modest in 2017 and will be dedicated towards targeted support for developing an overarching vision for the 5 research lines. Particularly, we seek to consolidate our new route particularly in relation to large grant proposals (e.g. EU/Horizon). We have been quite successful in acquiring these grants in the recent past, but this mostly concerned smaller grants.

4. Knowledge transfer

In a faculty that aims to combine social science and technology in various ways, valorisation is natural and intrinsic element of the work done in all departments. The design approach, that plays a central role in much of our research, as well as the explicit engagement with technological developments and practices form a fruitful basis for this. BMS takes the notion of valorisation in a broad sense: we create social value with academic work. This includes economic value (like fostering entrepreneurship), but

also societal value (like contributing to public discussions, and to practices of healthcare and technology design) and political value (contributing, for instance, to technology assessment and policy-making). Starting Fall 2016, a valorisation plan will be made by a 'taskforce valorisation' that will be formed by the dean. This plan will further elaborate the various forms of valorisation within BMS, set targets, and outline a process to arrive at these targets in 2017 and further.

5. Organization

Support Services

It is important for the support services within BMS to be adapted to the changing organization, as well as to changing demand within the primary process. The transition from relatively small departments to larger clusters has resulted in a growing requirement for clear management information and for transparent processes to facilitate the management of larger clusters. It also requires support staff who are fully fledged sparring partners for the academic staff. These are professional individuals who have up-to-date knowledge of their own field and of the primary process they support. In short, they are professional business partners. Our priority over the next few years will be the professionalization of the service process and of the support staff.

All support service teams have the following action lines for the next years, starting Fall 2016 and further on in 2017.

- Establishing a solid job structure model that includes details of duties, powers of authority, responsibilities and roles. Two important elements here are flexible deployment and interoperability within the team.
- Clear processes, systems and information (including management information).
- Team process, centred around professional business partnership.
- Individual professional development (both in terms of subject matter and of personal development).

P&C Cycle

In 2017 BMS will re-design the P&C cycle, following the UT P&C cycle. A good P&C process should support the administrative processes in such a way that the management team can make the relevant choices timely and well-informed. On operational level it is important that all the administrative processes within the faculty are aligned and are written down in the P&C cycle. It is key that data are readily accessible and easily adaptable when necessary. With the re-designed P&C cycle implemented BMS can improve the manageability and the turnaround time. On tactical level the management team will set (long-term) objectives with the head of departments. These objectives will be evaluated and on the basis of this evaluation the objectives will be adjusted or plans will be made to improve the performance of departments and also on faculty level.

At the same time BMS started in 2016 with creating uniformity within the administrative processes. Two different methods are still used in many places within the BMS organization. BMS is choosing for the best practices within and outside of the faculty or in some cases a new design is more fitting.

Both the P&C cycle and standardization of the processes requires a lot of dedication from the people involved, because a large time investment is needed with little short-term benefits. On the long term however both improvements will reap great benefits.

HR management

- Performance and Talent Management
Initially, introduction of a new performance management instrument was planned, about early 2016. Due to unsatisfying development this has been abolished and instead BMS used the current FJUT instrument. This time however, the annual talks were organised on basis of a 'six-eyes-principal': this implies not only the presence of the supervisor and employee but also a third member. First impression of this new method is that both the quality of the annual talk plus the transparency about the agreement made has risen. Next to this, the outcome and conclusions of the annual talks have been discussed quite extensive between all (department) chairs and the dean, by means of an 'employee-plan' for the forthcoming years. These plans will be evaluated and put together, later this year, and will be the basis for 2017.

Talent management is a daily, ongoing process, especially for all supervisors and HR. Actual career steps are being guarded by both BMS Tenure Track committee and BMS Career Committee (= non TT). Both committees have a strong supportive and advisory role and both committees are

organised at least twice a year, to facilitate the academic high potentials. This will be continued the forthcoming years.

- Flexibility, internal mobility and project oriented approach
BMS has a large number of employees with a temporary/non-permanent contract. BMS aspect that about half of these - young and talented staff - can stay at BMS and grow further into the academic field to become assistant professor, teacher, lecturer, etc. (or even beyond that). As mentioned in the future scenario in BMS under Steam, this can only take place if at the same time a part of the permanent senior staff is leaving the faculty. This is a process that will take several years but with the support of the central HR department and professional external organizations, the faculty expects to reach these goals.
- Transition English language
In March 2016 BMS has decided to achieve the agreed actions of the UT Language Policy (assessments, language courses) in several stages. First scientific staff teaching in English, second other scientific staff members and finally the support staff. From Spring 2016 teaching staff has been invited to join these assessments. This will continue in 2017 for other scientific staff members. All support services will start from April 2017 as well.
- Gender
BMS has always been very successful in supporting and appointing women in higher or even high-end academic positions (= associate and full professor). In the forthcoming years several women are expected to be appointed to (associate) professor.

6. Finance

Notes to the 2017 Budget and Multiannual Estimate for 2017-2020 and overall budget analysis

The underlying figures are included in the budget grid (see att. 2).

BMS 1e GS via verdeelmodel en doorsluitingen	B2015	B2016	B2017	B2018	B2019	B2020	B '17-'16	B'20-'16	B'20-'17	B'20-'16
OW via verdeelmodel										
02 Lerarenopleidingen	388	388	388	388	388	388	0	0	0	0
09 Coördinatie doorlopende leerlijnen M&T	50	0	0	0	0	0	0	0	0	0
10 Coördinatie doorlopende leerlijnen Acad.Vorming	50	50	50	50	50	50	0	0	0	0
11 Decaan OW-vernieuwing	170	170	0	0	0	0	-170	-170	0	0
12 Overgangsmaatregel BMS (vaste voet GW)	700	800	300	0	0	0	-500	-800	-300	0
20 TOM-Variabel budget	8.809	7.499	7.542	6.519	6.343	6.394	43	-1.105	-1.148	0
26 Comp vervallen EC-overgangsbekostiging naar TOM	1.200	0	0	0	0	0	0	0	0	0
27 Comp Ma-Ba schuif	309	388	369	0	0	0	-19	-388	-369	0
23 EC-premiering Ma	6.675	6.536	7.354	8.114	8.226	8.331	818	1.795	977	0
OW Totaal direct BMS	18.351	15.831	16.003	15.071	15.007	15.163	172	-668	-840	0
OW via doorsluitingen matrix TOM										
Doorverdeling budget docentinzet TOM baten	248	800	930	881	906	913	130	113	-17	0
Doorverdeling budget profilering en academische vorming TOM	1.287	1.760	2.051	1.833	1.882	1.899	291	139	-152	0
Doorverdeling budget docentinzet TOM	-346	-335	-401	-347	-343	-346	-66	-11	55	0
TOTAAL OW via doorsluitingen matrix	1.189	2.225	2.580	2.367	2.445	2.466	355	241	-114	0
TOTAAL OW	19.540	18.056	18.583	17.438	17.452	17.629	527	-427	-954	-5%
OZ via verdeelmodel										
32 OO-component Ba-graden	800	612	660	584	561	560	48	-52	-100	0
34 Premiering Promoties	185	14	0	0	0	0	-14	-14	0	0
OZ via doorsluitingen instituten										
Institutsmiddelen SIM (regulier en specifiek)	2.830	3.049	2.770	2.711	2.715	2.671	-279	-378	-99	0
Promotiepremiering	4.663	5.077	3.889	3.816	3.191	2.979	-1.188	-2.098	-910	0
O&O-component MA	1.455	1.588	1.497	1.416	1.403	1.403	-91	-185	-94	0
OZ via doorsluitingen matrix TOM										
Doorsluitingen OO-Ba van derden	160	248	310	293	300	306	62	58	-4	0
Doorverdeling budget OO TOM naar derden	-45	-39	-50	-45	-44	-43	-11	-4	7	0
TOTAAL OZ	10.048	10.549	9.076	8.775	8.126	7.876	-1.473	-2.673	-1.200	-11%
TOTAAL OW en OZ 1e gs	29.588	28.605	27.659	26.213	25.578	25.505	-946	-3.100	-2.154	-8%
Mutatie per jaar in de KADER 2017-2020			-946	-1.446	-635	-73	-3.100	-2.154		
<i>Waarvan mutaties OW</i>			527	-1.145	14	177		-427	-954	
<i>Waarvan mutaties OZ</i>			-1.473	-301	-649	-250		-2.673	-1.200	

During the 2017-2020 planning period, first-stream education and research income falls by a total of M€3,1 (- 8%) compared to 2016.

In contrast to 2016, the operating account in 2017 will no longer be in balance. The sharp decline (M€ 0,9) in first-stream compared to 2016 income will cause a budget deficit (-M€ 0,5) in 2017. BMS will continue to receive a transitional measure of M€ 0,3 (= vaste voet OW) in 2017 and still have access to TOM development funds amounting to M€ 0,6. Without this transitional arrangement and TOM development funds, which are available to cover core formation, the deficit in 2017 would actually have been even greater. In 2018 this transitional measure will decline by M€ 0,3 to zero and the TOM development funds will decrease to M€ 0,3. In addition, in the multiannual estimate the income from

promotion bonuses falls further as a result of a Ministry of Education, Culture and Science price reduction by M€1. In total, together with some other changes, this amounts to a further decline of first money stream. Only as a result of increasing of the bachelor enrolment and the drastic non-renewal of temporary appointments and subsequent years and non-replacement of retiring personnel in the departments, where these falls in income are felt most, will BMS be in a position to reach breakeven in the "normale bedrijfsvoering" in 2020. The loss of M€ 0,6 in the "bijzondere bedrijfsvoering" in 2020 is a result of investments in the Vision 2020 strategy of BMS. Additional to this (not shown in the budget grid) BMS will have a withdrawal from the reserves up to a total of M€ 1,6 in the years 2017 and 2018 for mobility and outplacement.

The multiannual estimate and UT framework memorandum to some extent take account of declining education income as a result of fewer students in the Bachelor programmes. In the Master programmes education income declines even further because calculations for the whole planning period are now made with the output of 2015 (t-2). In the BSc PSY programme, the September 2016 intake shows a positive turnaround. BMS is aiming for a further larger enrolment in the other bachelor programmes per 2018-2019. A prudent increase in revenues TOM is calculated per 2019, based on a targeted enrolment of 650 bachelor students.

As a result of this higher 2016 intake, a number of appointments in the departments providing the PSY programme, which were initially earmarked for termination, can after all be renewed. However, the multiannual budget still lacks in some years the income to cover these budgeted appointments as a result of pre-financing.

Other income and expenses:

The major changes lie in the Education and Research income and in the Personnel expenses, which have already been commented on. Work carried out for Third Parties decreases, due to different reasons per group, with still the need to achieve a substantial amount of Contribution Margin (= Dekkingbijdrage) to cover the costs of core staff. With regard to the Master Renewal plan in 2017 and 2018, €0.5 million has been included in anticipated strategic budgets. The expenditure has been budgeted in the respective cost types.

BMS reserves:

The BMS reserves are expected to decline during the planning period by a total of M€5,7 (4,1 plus 1,6 not yet budgeted investments) to M€ 9,1 at 31 December 2020. This is on the assumption that the 2016 operating year will be close with a surplus of M€ 0,9 (including M€0,6 surplus Tech Your Future).