

Developmental goals 2011/2012 for Department of Plant Biology and Biotechnology

The Department's profile

The Department's research is characterized by original, basic research carried out at a very high international level. The Department of Plant Biology and Biotechnology is driven by academically competent enthusiasts. The Department focuses on basic research projects where the generation of new knowledge has a clear relevance, either in the industrialized world or in developing countries. The Department enjoys a very close cooperation with industrial enterprises, ensuring the application of results from basic research for the benefit of Danish society, in terms of growth, development and a better environment. This will be done through intensive research and development activities within the Department's research groups, in order to attain a profound understanding of plant life functions as well as interactions with micro organisms and the surrounding environment.

The Department's teaching is focused primarily on Biology-Biotechnology as well as Natural Resource training. Tuition takes place at all levels, in close cooperation with, for example LIFE's other departments.

Organization

The size of the Department has increased from 100-160 employees within the last five years, and therefore the organization of the Department has been changed considerably within the recent year. New sections have been established, and it is anticipated that the new structure will ensure and support the academic development and result in new synergies. Furthermore, a new Department Coordination Group has been established – an advisory committee consisting of 14 people, where all sections, the study leader for the biology-biotechnology bachelor education, head of teaching committee, PhD school leader, the head of department and head of secretariat are represented. The purpose is, for example, to ensure coordination of teaching, education, applications and investments in/sharing equipment and to ensure optimal exploitation.

The Department consists of 4 new Research Groups:

- Section for Plant Biochemistry,
- Section for Molecular Plant Biology,
- Section for Transport Biology,
- Section for Plant Glycobiology.

In addition, the Department hosts centres and take part in the following activities:

- Centre for ProActive Plants, financed by the Villum Kann Rasmussen Foundation,
- A major part of the UNIK programme in Synthetic Biology financed by the Ministry of Science,
- A major part of the Centre for Membrane Pumps in Cells and Disease, PUMPKIN, funded by the Danish National Research Foundation,
- Hosts the LIFE Bioimaging Centre (CAB),
- Part of Applied Centre for Bioinformatics at LIFE,
- Houses the secretariat of the Research School for Biotechnology (FOBI),
- Houses the secretariat of the Plant Biotech Denmark (PBD) consortium,
- The Study leader for the Biology-Biotechnology bachelor-education is a staff member of the Department.

The Department currently employs approximately 160 employees, of whom approximately 45 are PhD students. More than half of the employees are funded by external funding (70 % of the ViP, excl. PhD-students) and approximately 30 % of the employees are non-Danish (speaking). The many temporary appointments financed by external funding and the high proportion of English-speaking employees, gives the Department great challenges when it comes to ensuring continuity and distribution of responsibilities and tasks, such as lack of teachers for the Danish language courses and dissemination activities.

Mission and vision

The Department of Plant Biology and Biotechnology's mission and vision is to be a world class environment for plant sciences, characterized by:

- Research at the highest international level in the Department's core areas
- Application and development of advanced technology platforms to solve complex scientific problems
- Teaching and education, characterized by quality and the latest research-based knowledge
- High national and international profile
- Close cooperation with industry to ensure the application of research

Development objectives 2011-2012

The Department's local collaboration committee (LSU) has, together with the leader group, expressed the desire to involve the Department's staff actively in the formulation of development objectives for the next 2-year period. We see the formulation of goals as part of a process where employees are stakeholders and thus feel ownership and responsibility for development goals. The process was started with a kick-off day, which included brainstorming about the good and less good aspects of the Department. Through focus on the Department's strengths and consideration of weaknesses, we formulated and developed our goals. Besides the developmental goals, the leader group at the Department would like to decide on and describe a strategy, which should be formulated before January 1, 2011.

Overall focus areas

The Department's overall goals and priorities for the period 2011-2012 are as follows:

- To implement the Copenhagen Plant Science Cluster in order to support Plant Biotechnology and exploit the expertise gathered in this elite environment
- To continue to carry out excellent plant science at a high international level that results in good publications and funding opportunities
- To fully exploit the opportunities, given by the UNIK program, Synthetic Biology, and take the lead in the faculty's research on biofuel and biorefinery
- To integrate our focus areas, Synthetic Biology and Systems Biology, in all research programmes at the Department
- To strengthen and expand the Department's profile within the food science area based on our key research projects and cross departmental projects within the field of food science
- To fill the position of professor for Plant Microbe Interactions in order to close the gap in the interaction and signalling between plants and microbes and to integrate IPB's scientists working with pathogens
- To support and utilize the new elite environments and infrastructure platforms, in particular Bioimaging, Metabolomics and Bioactive Compounds, and Environmental Chemistry and Ecotoxicology
- To improve our infrastructure and working facilities further in order to be able to recruit international top researchers, for instance by getting funding for a plant phenomics platform ("plant stables")
- To preserve our good work place, be better at sharing responsibility and ensure the new organization consolidates into a strong, elite environment.
- To optimize our teaching portfolio so we utilize synergy with PHARMA and SCIENCE to make better courses and optimize our time used in teaching
- To support the Biology-Biotechnology education by actively participating in accreditation and to support the master education to become a COME education (Copenhagen Master of Excellence)

Sammendrag: Institut for Plantebiologi og Bioteknologis udviklingsmål for 2011-2012

I alt 1 side – laves i 2nd draft/til sidst

Reference (I mio. kr. eller antal)	Mål	Måloversigt	Op- fyldt	Del- vist op- fyldt	Ikke op- fyldt	Bemærkninger til målopfyldelse
1. Mål for Københavns Universitet						
Forskningsproduktion. Mål nr. 1 i KU's udviklingskontrakt.						
	KU vil fastholde et højt niveau i forskningsproduktionen pr. VIP-årsværk i form af artikler i peer- og ikke peer-reviewede tidsskrifter, bøger og antologier.	<p>Instituttets mål for antal peer-reviewed artikler i 2011 og 2012 er?</p> <p>The research at the Department is of high quality, as manifested by consistent output of publications in high impact factor journals and a high number of citations.</p> <p>To maintain this strength, we want to involve the young researchers more and train them in the discipline of scientific writing.</p> <p>In light of the reorganization and the physical moving, the adoption of two new research groups (William Willats' and AU's Biotech group), and the moving of DSHC to IJØ, the new sections will need some time to consolidate. In short term, this can result in a decrease in output, but in the longer term it is anticipated that the new organisation will result in new synergies and output.</p>				
	Milepæl ultimo 2011 and 2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • That 30% of the peer reviewed articles will be class II-publications • That the average IF and number of citations will be maintained at a level higher than the LIFE average. • That all PhD-students and post docs are offered a course in academic writing, for example through the PhD-school, PUMA or other providers. 				
Tiltrækning af eksterne forskningsmidler. Mål nr. 3 i KU's udviklingskontrakt						
	KU vil ud fra gennemsnittet af 2005-2006 øge de samlede eksterne forskningsindtægter med 10 % inden udgangen af 2010.	<p>Instituttets mål for tiltrækning af eksterne forskningsmidler i 2011 og 2012 er?</p> <p>The Department already has an excellent track record when it comes to attracting external money so therefore it is not a goal for the Department to increase the number of grants.</p> <p>The goal is to carry out excellent plant science and for that</p>				

		<p>we need substantial funding. It is an aim of the Department to attract larger and longer lasting grants which will make it much easier to redistribute money and navigate. One way to obtain this goal will be to increase the interaction and coordination between our new sections and to maintain a focus on activities, where people get to know each other and the competencies – both at our Department and others.</p> <p>We feel an obligation to dress up our international and young researchers to apply for money as it is difficult for them to understand the Danish grant system. Therefore it will be a goal for the Department to launch different initiatives so we give international staff proper access to LIFE's or KU's research office – for example through English information on national and international grants and actual deadlines.</p> <p>It is also a target for the Department to obtain resources to ensure more professional project management. This can be someone who is employed to coordinate the larger applications and larger grants (e.g. from EU) while the person understands and shares information regarding notices about grants, influence on future calls etc.</p>				
	Milepæl ultimo 2011-2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • To maintain the level of external grants • To continue FRIMS seminar • To improve interactions between research groups and coordinate applications • To make initiatives for international and young researchers to learn about the grant systems • To ensure information about grants from LIFE is in English • That employees read and provide constructive criticism about their colleagues' applications • The Department will arrange a speed dating-session regarding ideas for projects/applications, for example with other departments • That the Department gets a centre financed by Grundforskningsfonden • That the Department gets a larger project from the High Technology Foundation or another large grant/centre • The Department has allocated resources for 				

		administrative help for coordinating applications and administration of larger projects in 2012				
Optag. Mål nr. 5 i KU's udviklingskontrakt.						
	Med udgangspunkt i at fastholde et optagelsestal, der svarer til den procentvise andel af en ungdomsårgang, er det forventningen, at KU i 2010 vil øge sit optag på bacheloruddannelserne med ca. 400 studerende.	<p>Instituttet planlægger at bidrage med følgende aktiviteter i 2011 og 2012 for at fastholde optagelsestallet:</p> <p>Attracting excellent students: To attract the best students, the Department must be recognized for excellent research, teaching and novel science. The Department therefore wishes to continue our participation in the public debate and in arrangements for the public, for example Culture night and Danish Science Festival (see separate goals for public debate).</p> <p>The Department will review all our outreach activities towards high school students (and their teachers) to optimize it for the new biotech-classes. We will also continue our effort with "studieretningsprojekter". The Department will consider our commitment and if the number of high school students does not increase, then LIFE's ambition must be that all teams are full (3 *18 students).</p> <p>In 2011 we plan to participate in a session on the Plantekongres targeted specifically at high school teachers. We have also plans for making continuing education for high school teachers on the new biotech-line.</p> <p>Student motivation/keeping the students: The Department wants to keep students and ensure that they maintain their motivation.</p> <p>One challenge is to keep the students interested in plants. We must focus on the good stories, research driven teaching, and problem based learning so the young people can relate their study to "real life" and see themselves as graduates at the other end. This must be done by not only telling them about what earlier students have obtained, but also by showing them which problems and dilemmas they can solve afterwards in society and industry.</p> <p>The Department also consider using Facebook to get in contact with prospective and new students, as well as to</p>				

	<p>keep contact with graduates and international students. The Facebook group could be used for information about new good stories, job notices from the Department etc. and it (or “Sladderspalten”) could be used to advertise meetings for young students – a kind of journal club. The students could also be invited for other arrangements at the Department, for example our conferences.</p> <p>Quality in the teaching and conversion of courses: The quality of teaching must remain excellent even though there has been an increase in the number of students. This is also vital for maintaining the interest of the students. Quality will essentially require updating of course content, highlighting the relevance of the education and improvement of facilities (equipment and premises).</p> <p>We also want to make an effort to define what the Natural Resource students and Agronomy/Hortonomy students need in order to create a better course platform for them.</p> <p>To ensure the quality within plant biology teaching, it is the Department’s objective to work towards an appropriate academic structure in the biological field, so students can take advantage of synergies arising between KU's different studies, including SCIENCE and PHARMA.</p> <p>The courses in Molecular Plant-Microbe Interactions; Advances in Plant Biology; Plant Polysaccharides: Biology, Structure and Applications; and the course within bioenergy/biorefinery are courses which will replace existing courses and represents a visionary rethinking of these courses.</p> <p>Two new courses Bioactive compounds in food and health innovation; and Plant polysaccharides, will promote inter- and intra-faculty teaching synergies (particularly with the Department of Food Sciences; Human Nutrition and SCIENCE). We will also be active in the specialisation of the food science education with wine and beer, by being a part of one or two wine and beer courses.</p> <p>The Department will participate in the establishment of coursework in synthetic biology, which is a new key area of research.</p>				
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		<p>To streamline the teaching, the Department will be reluctant to establish new courses without taking into account the number of participants at the existing courses.</p> <p>Collaboration with industry: The Department wishes to increase the collaboration with industry regarding teaching, for example, by being responsible in communicating how basic scientific plant biology is a key element in the optimization of future crop production and industrial use of plant biomass.</p> <p>The Department wants to make sure that our teaching provides relevant and proper competences for students to be employed in industry. One way to do this will be to ensure that representatives from the industry participate in relevant committees and courses.</p> <p>To better fulfill the students' wishes for more emphasis on practical issues (from industry, organizations or ministry) the Department wants to work on multiple MSc-theses written in collaboration with industry. We will ask the industry for ideas for future grant applications instead of asking them for collaboration when we have defined our project, so we also meet their wishes. It is our hope that in this way we can also obtain more industrial PhDs and external grants. The Department wishes to exploit already established contacts in the industry, our advisory board and by arranging workshops for industry.</p>				
	Milepæl ultimo 2011:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • That "studieretningsprojekt" is run with 3*18 students, and if not we will use this time for other high school activities • To go through our portfolio for high school students and teachers to check whether we are offering the required activities within biotechnology, in collaboration with high school teachers • To host a session on Plantekongres 2011 specifically for high school teachers. • Keep a high level of cooperation with other LIFE departments on our courses 				

		<ul style="list-style-type: none"> • That the courses in Molecular Plant-Microbe Interactions ; Advances in Plant Biology; Bioactive compounds for food and health innovation; Plant polysaccharides; and the course within Bioenergy/Biorefinery have been established • To analyze our role for the Agronomy/Hortonomy students – for example courses. • That grant holders with industrial/potential employer collaboration involve master students in the work • That a Facebook-strategy, involving our young competencies, has been considered 				
	Milepæl ultimo 2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • To participate in at least one arrangement for high school teachers • To discuss how we use problem-based learning in the teaching • To arrange two meetings/journal clubs for the BSc-students • Keep a high level of cooperation with other LIFE departments on our courses • That the Department participates in two courses in collaboration with PHARMA and SCIENCE. 				
Iværksætter. Mål nr. 9 i KU's udviklingskontrakt.						
	KU vil øge antallet af ECTS-givende iværksætterkurser til 16 i 2010.	<p>Instituttet planlægger at bidrage med følgende aktiviteter i 2011 og 2012 for at øge iværksættertiltag:</p> <p>The Department's focus on innovation has, throughout the years, resulted in a great number of notifications of inventions, patents and two spin off companies and the employment of Peter Olesen and Peter Ulvskov.</p> <p>In order to continue and enhance entrepreneurship the Department continues the goal that scientific staff, including. PhD students, follow the course in "Advanced Biotechnology and Intellectual Property Rights" (MSc), or the PhD-course "Patents and Innovation in Biotechnology", offered by the Department/FOBI together with "Øresundsakademiet".</p>				
	Milepæl ultimo	The Department's objective is:				

	2011-2012:	<ul style="list-style-type: none"> To continue the goal that 20 % of the scientific staff have followed an innovation course 				
Efter- og videreuddannelse. Mål nr. 13 i KU's udviklingskontrakt.						
	<p>KU vil øge antallet af betalende studerende på deltids- og heltidsuddannelserne i 2010 med 10 % til ca. 4.200 studerende.</p> <p>KU vil øge deltagerbetalingen på heltids- og deltidsuddannelserne i 2010 med 20 % til i alt 30,8 mio. kr.</p>	<p>Instituttet planlægger at bidrage med følgende aktiviteter i 2011 og 2012 for at øge antallet af betalende studerende på heltids- og deltidsuddannelserne:</p> <p>The Department will continue to offer the popular course "GMO license" when there are enough people registered. The Department has established collaboration with The Danish Council of Ethics where they refer to Check on Biotech. This could mean more students.</p> <p>The Department has developed a very popular course for the lab technicians, making sure they know about all our up-to-date technologies. A new course is being planned in spring 2011.</p> <p>It is the Department's objective that LIFE employees from other Departments make greater use of the internal course in patenting "Patents and Innovation in Biotechnology", as part of their further training. LIFE's office for Business Affairs and HR can help advertise the course.</p> <p>Besides this, the Department will, in collaboration with high school teachers, investigate their needs for courses in connection with the upstart of the biotechnology line. This could for example be a course in bioinformatics.</p>				
	Milepæl ultimo 2011-2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> Training course for laboratory technicians has run every second year. "GMO license" has been made available and is completed if more than 10 participants have enrolled. That 6 employees from other departments or the administration have followed the course "Innovation and Intellectual Property Rights in Biotechnology" in 2011-2012 <p>To encourage high school teachers on the new biotechnology line to attend the relevant courses</p>				
Deltagelse i den offentlige debat. Mål nr. 14 i KU's udviklingskontrakt.						

	<p>KU vil ud fra det nuværende udgangspunkt øge antallet af omtaler i den skrevne presse registreret i Infomedia og Lexis Nexis samt registreringer i CURIS med 5 % i 2010.</p>	<p>Instituttet planlægger at bidrage med følgende aktiviteter i 2011 og 2012 for at øge antallet af omtaler i den skrevne presse:</p> <p>The Department will sway policymakers with scientific facts within the Department's disciplines to prevent unprofessional and inappropriate policy decisions.</p> <p>Also the Department wishes that its own employees, both ViP and TAP, have a good insight in the Department's portfolio so they can be ambassadors for us.</p> <p>The Department wishes to continue the goal of planning a Scientific Day where the LIFE administration is invited to participate, so they get a better understanding of activities at the Department, and can help to disseminate this understanding.</p>				
	<p>Milepæl ultimo 2011:</p>	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • The Department has organized a yearly Scientific Day for the Department's administrative and technical staff • LIFE's administration has been invited to the Scientific Days at PLBIO • All permanent staff have a profile including photos on the Department's website • At least 6 press releases have been written • 5 major newspaper/feature articles have been prepared • The Department has participated in Culture Night and three other arrangements 				
Samarbejde med erhvervslivet. Udviklingsmål nr. 15 i KU's udviklingskontrakt						
	<p>KU vil fra udgangspunktet i 2008 øge antallet af samarbejdsaftaler med 10 % i aftaleperioden. Endvidere at øge antallet af solgte licenser samt indtjeningen ved salg af licenser</p>	<p>Instituttet planlægger at bidrage med følgende aktiviteter i 2011 og 2012 for at øge antallet af samarbejdsaftaler:</p> <p>As mentioned under education, the Department plans to collaborate more intensely with the private sector, organisations and ministries when it comes to students conducting their master theses in a private company. Besides attracting students, it is our belief that this could be a front runner for more industrial PhDs.</p>				

	med 10 % i aftaleperioden	<p>We also plan to host a work shop for the industry to further strengthen our contacts and their knowledge of us.</p> <p>In the coming years, we plan to make a strategy for intensifying our collaboration and contact with the industry, where our industrial professors and advisory board will contribute.</p> <p>Der fastsættes ikke milepæle for de enkelte år.</p>				
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Forskningbaseret myndighedsbetjening. Udviklingsmål nr. 16 i KU's udviklingskontrakt

	<p>Det er KU's mål, at kontrakterne med hhv. Fødevaremin. Familie- og Forbrugermin. og Miljømin., fornyes som 4-årige rullende aftaler med årlig justering efter nærmere aftalte resultatkrav.</p>	<p>S&L, FØI, instituttet har som mål at forny/forlænge/opfylde kontraktmål vedr. følgende kontrakter i 2011 og 2012:</p> <p>Since the Danish Seed Health Centre is moving to Department of Ecology and Agricultural Sciences the 1st of January 2011, the Department does not have any specific goals regarding research-based authority processing.</p> <p>The Department will of course be open towards upcoming initiatives within our research fields. One can expect need of expertise within areas such as GMO and toxic compounds/ingredients.</p>				
	Milepæl ultimo 2011-2012:	None				

2. LIFE-mål

Den faglige enheds mål på HR-området.

		<p>Instituttet planlægger følgende aktiviteter på HR-området i 2011 og 2012:</p> <p>Welcoming new employees: Due to the high turnover of employees, we need to set the introduction of new staff members into system. Therefore a target area will be to address how we welcome new staff and teach them procedures and obligations. Thus the Department wishes to set up a welcoming system including:</p> <ul style="list-style-type: none"> • Welcome letter from the head of department • A mentor programme for new people – two weeks and with success criteria • Introduction meeting for new employees every second month – a permanent presentation and program where different people at the Department 				
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		<p>talk about rules, personal policies, administrative guidelines, introduce the Intranet, lab safety etc.</p> <p>Stress: The APV showed that one of the Department's challenges is still the work load. Therefore it is very important for the Department to share the responsibilities and tasks.</p> <p>To prevent stress, the Department will focus on the following:</p> <ul style="list-style-type: none"> • <i>Sharing responsibility:</i> All tasks and all equipment should have a responsible person and a back up to ensure continuity. This must be visible on our Intranet. • <i>E-mailing:</i> The Department wants to set rules regarding emails, host a demonstration of the electronic calendar and explain "good behaviour when e-mailing" • <i>Respect each other's time:</i> <ul style="list-style-type: none"> • Contact other people with your questions in good time – give them plenty of notice. • Do not misuse people's time by asking different people the same question • Check up on administrative procedures – also with LIFE – could things be done in a smarter way? And what is needed and what is nice to have? • We are not sure how we are measured and what data is needed – we need to agree on the statistics at LIFE, so we use our time to collect the right data. 				
	Milepæl ultimo 2011-2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • The Intranet will be updated and translated to English at 1st of January 2011 • All employees use the electronic calendar by May 2011. • A demonstration of the electronic calendar and good behaviour when e-mailing will be offered to Department staff twice a year. • Every second month there will be a welcoming meeting for the new employees, where they will be presented relevant information, obligations and 				

		<p>people – starting summer 2011.</p> <ul style="list-style-type: none"> To initiate a dialogue with faculty on data collection: how and what data is needed, so recording levels can be kept lower 				
Mål på økonomiområdet						
		<p>I lyset af LIFE's økonomiske situation og udfordringerne med at udarbejde valide prognoser og tilpasse løn- og driftsudgifter til modtagne indtægter, vil der være fokus på at optimere økonomiprocesser i 2011-2012.</p> <p>We want to give better information and sparring to grant holders and an overview for head of sections. The secretariat has, for a long period, worked towards a better administration of the economy, including how we manage 200 external projects in a proper way. One of the biggest challenges for the Department through the recent years has been the high turnover among the accountants and a lot of vacancies.</p>				
	Milestones for 2011-2012:	<p>The Department's objective is:</p> <p>Purchasing:</p> <ul style="list-style-type: none"> To organize the purchasing at the Department to make sure the agreements are used and that there is a proper back up function during holidays and other kinds of absences. That the purchasers can register account strings on their own invoices, which should give more time for the accountants for economy management and quicker payment of invoices. <p>Bench fee:</p> <ul style="list-style-type: none"> It is the goal that the Department's bench fee system has been well established. It has been decided how to share and finance equipment before February 2011. A homepage for the equipment, responsible persons and conditions for use has been established before end of March 2011. <p>Strengthen dialogue and management information:</p> <ul style="list-style-type: none"> It is the goal to strengthen the dialogue within the sections, e.g. regarding the bench fee, and introduce economy meetings with the sections every quarter. This should also help the accountants when filling 				

		<p>out reports for KU management</p> <ul style="list-style-type: none"> • The leader group gets up-to-date-info every month regarding section money and Department economy • That LSU gets information regarding economy every quarter. • That all project owners get access to their own data: both budget and consumption. <p>To reach the goals we must:</p> <ul style="list-style-type: none"> • Optimize processes and procedures, e.g. through networks across departments at LIFE • To build up and further develop tools, which will make it easier to make a more precise prognosis. • Make sure there is enough money for the projects; the accountants must check all application budgets before they are sent in. • Provide data that supports the economy reporting, e.g. overviews on PhDs etc. • Continue to work for an increased dialogue with Nørregade, LIFE and other departments when possible. 				
Mål på uddannelsesområdet. Kontakt med det omgivende samfund/aftagere.						
		<p>Instituttet planlægger følgende aktiviteter på uddannelsesområdet vedr. kontakt med det omgivende samfund/aftagere i 2011 og 2012:</p> <p>This has been described in relation to KU goal no. 5, 14 and 15. The earlier described Facebook-strategy should also address how we can use Facebook for contact with alumnis, which are now working in industry, international work places or other institutions. The more formal contact will be through the Department's Advisory Board.</p>				
	Milepæl ultimo 2011-2012:	<p>Besides the goals mentioned in relation to KU-goal nr. 5, 14 and 15, it is the Department's objective to:</p> <ul style="list-style-type: none"> • Have at least one yearly meeting with the Advisory Board and use their expertise in central matters 				
Mål på uddannelsesområdet. Internationalt orienterede uddannelser.						
		<p>Institutter planlægger følgende aktiviteter i 2011 og 2012 vedr. internationalt orienterede uddannelser:</p> <p>The Department wants to participate in an investigation on the need for BSc-programmes or courses taught only in</p>				

		<p>English. This could make it easier to recruit the best international students and the Department could also consider the use of e-learning in the establishment of new BSc-courses. The use of e-learning could make it easier for people staying in Denmark for shorter or longer stays, to follow an education and continue it at “home”.</p> <p>This could also be a very good way to involve our international staff.</p> <p>The Department will support a high quality of English as a teaching language by the certification of language skills.</p>				
	Milepæl ultimo 2011-2012:	<p>The Department’s objective is:</p> <ul style="list-style-type: none"> • To explore how we can attract international students • To make BSc courses in English, for example as e-learning, if the need is there • That 14 of our teachers have been CIP-certified before the end of 2011. 				
Mål på uddannelsesområdet. Pædagogik og e-læring.						
		<p>Instituttet planlægger følgende aktiviteter vedr. pædagogik og e-læring i 2011 og 2012:</p> <p>The Department already uses e-learning when appropriate, for example as an integrated part of Cell Biology, and we are open for more use of e-learning but at the moment we do not have explicit plans. Much of the teaching at the Department is based on practical exercises and for the students to get the right skills and hands-on-experience; they need to be here physically.</p> <p>As mentioned above, the Department will think of using e-learning to establish new BSc-programs conducted in English, and the Department will consider the use of e-learning whenever we build up new courses.</p> <p>The Department will increase the use of options for more effective use of Absalon for course development and what other IT facilities permit, including the students self-evaluation.</p>				
	Milepæl ultimo 2011-2012:	Nothing specific				

Den faglige enheds mål for investeringer i 2011/2012					
	Mål for infrastruktur investeringer (>100 t.kr.) i eksempelvis apparatur i 2011/2012.	<p>Instituttet planlægger følgende investeringer i 2011 og 2012:</p> <p>To be able to support research at a very high level, it is important to have up-to-date equipment. The researchers work hard on obtaining external grants for research equipment.</p> <p>There is an urgent need for equipment to build up a high throughput metabolomics unit with permanent staff attached (AC-TAP). This is partly applied for in Advanced Plant Science Infrastructure (APSYS).</p> <p>In addition we need new growth facilities “stables” for our plants, cyanobacteria, algae, yeast and fungi. This is also partly applied for in APSIS.</p> <p>A professorship within Molecular plant-microbe interactions. See professor plan</p> <p>A professorship within Bio refinery related to Synthetic Biology. See professor plan</p> <p>Help with administration of EU and other big grants.</p> <p>As more students enrol at both BSc- and MSc program, the need for room and equipment for teaching is increasing – both quantitatively and qualitatively – including modern facilities for experimental and project based activities like GMO classified teaching labs. In an educational program like Biology-Biotechnology, it is very important that there is very good and up-to-date equipment for all. We need the following equipment: Incubators, ELISA reader, gel doc, centrifuges, PCR machines, Real Time machines, freezers and fridges. In total there is a need for further investment of 600-800.000 kr. for the student labs. We anticipate help from FIK to apply for sponsorship in order to purchase some of the equipment.</p>			

3. Egne udviklingsmål

Udviklingsmål, som udmønter den faglige enheds strategi og udviklingsplaner

Det er instituttets mål at.....Local infrastructure etc. : Equipment, facilities and moving

		<p>The number of employees at the Department has increased rapidly without getting more space. This makes the logistics nearly impossible and causes a lot of frustration. Therefore the Department is very positive about a new Plant Science Centre being built on Campus, and we want to continue our work and collaboration in regards to the building. We do not think the plant area is sufficiently recognized in the new Copenhagen Plant Science Centre, even though our research performance argues strongly for a significant presence in the building.</p> <p>Following the restructuring of the Department moving has been planned, so all groups will be situated together. This is a very laborious process, especially because of the lack of space, which makes the need for rebuilding bigger and more complicated.</p> <p>A focus will also be upgrading our plant growth facilities - climate chambers and cabinets, which are now in serious need of an upgrade. Applied partial application for funding of this infrastructure through the "infrastructure pool" (APSYS-application) has been submitted but to ensure the upgrade, the Faculty should be involved further in this matter. To be an elite environment and attract top researchers, it is important that all basic functions, including equipment and facilities, are state-of-the-art.</p>				
	Milepæl ultimo 2011-2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • The Department plays a central role in the new building and is a major part of it • All employees involved, have moved to their new offices/labs by January 2011. • The new lunch room has been established by January 2011. • The new Bioimaging Centre is up and running by February 2011. • There are new plant stables or a plan for new plant stables, incl. financing, before the end of 2011. 				
Det er instituttets mål at Post Graduate (PhD) training						
		<p>The Department aims to focus on admitting as many PhD students as possible, while maintaining the current high level of quality facilities and training. The Department intends to maintain the ratio of 2 PhD students per employed VIP on basic funding.</p>				

		<p>In the recent year there have been less well qualified applicants for our PhD-positions. The Department wants to closely follow this development and analyze what is the reason for this.</p> <p>To spread the interest and awareness of the Department among potential PhDs (and post docs), the Department will have a brochure produced, aimed specifically at this target group.</p> <p>As mentioned in relation to education and teaching, it is the hope that the Department's planned effort in creating MSc-theses in collaboration with industry will result in industrial PhDs.</p>				
	Milepæl ultimo 2011-2012:	<p>The Department's objective is:</p> <ul style="list-style-type: none"> • To maintain the high number of PhD-students (2:1) • To analyze if and why the number of applicants for PhD-positions has fallen and what we can do about it. • To make a brochure for potential PhDs • To have admitted 4 further Industrial PhD-students or 1/3-stipendiates, in collaboration with industry before 2012. 				
Det er instituttets mål at.... Elite environments						
		<p>The department participates in the following elite environments:</p> <ul style="list-style-type: none"> • Plant biotechnology • Bioimaging • Metabolomics and bioactive substances • Environmental Chemistry and Ecotoxicology <p>The goal for the Department in the coming years will be to further support and utilize the elite environments, especially the elite environment within Plant Biotechnology, where our Department forms the nucleus. Our goal will be to fully participate in the implementation of a Copenhagen Plant Science Cluster to emphasize our strength as an elite environment nationally and internationally.</p> <p>We refer to further descriptions, milestones etc. in the developing plans for elite environments.</p>				