

> Public affairs and government interaction

> Examples from the Danish NREN and elsewhere...



EaP Public Affairs Workshop

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> What is DeiC ?

- > Danish e-Infrastructure Cooperation
- > Government non-profit organisation (FL§19.45.02)
- > Services: Network infrastructure, high performance computing, data management, security
- > Collaboration tools: Data sharing & storage, Video distribution, Video conferencing, Learning Management System components
- > Community: Procurement frameworks, Peer-to-peer best practices sharing groups, GDPR-community, conferences, workshops and other meetings
- > DeiC is the organizes the common IT-infrastructure for the academic sector

19.45.02. Dansk e-Infrastruktur Samarbejde (Reservationsbev.)

Dansk e-Infrastruktur Samarbejde er oprettet ved akt. 70 af 19. april 2012. Dansk e-Infrastruktur Samarbejde skal bidrage til, at dansk forskning sikres højt internationalt niveau på e-Science-området samt sørge for, at danske universiteter og forskningsinstitutioner er forbundet med indbyrdes netværksforbindelser af høj kapacitet og med tilsvarende netværksforbindelser i udlandet. Dansk e-Infrastruktur Samarbejde skal udvikle og levere e-Science- og e-Infrastruktur-tjenester med henblik på løbende at opfylde dansk forskningsbehov.

Udmøntningen af bevillingen sker under rådgivning fra en bestyrelse, som har ansvaret for, at samarbejdet opfylder sit formål. Bestyrelsen bistås af et sekretariat, som placeres ved en af de deltagende forskningsinstitutioner.

Særlige bevillingsbestemmelser:

Regel der fraviges eller suppleres	Beskrivelse
BV 2.2.11	Tilskud gives som tilsagn.
BV 2.2.13	Tilskud kan forudbetales.
BV 2.10.2	Bevillingerne i indeværende finansår kan forhøjes med de tilbagebetalinger, som finder sted i finansåret. Der kan i øvrigt oppebæres indtægter og afholdes udgifter gennem forhøjelse af bevillingerne med midler modtaget fra anden side, herunder f.eks. bidrag fra offentlige institutioner, private eller fonde.
BV 2.10.2	Bevillingen under § 19.45.02.11. Højhastighedsnet er budgetteret med balance mellem udgifter og indtægter. Udgifterne kan på bevillingsafregningen nedskrives, såfremt indtægterne ikke svarer til den budgettede indtægtsbevilling.
BV 2.10.5	Af bevillingen kan afholdes begrænsede udgifter til drift af sekretariat samt efter gældende regler udbetales godtgørelse til bestyrelsens formand og medlemmer samt formand og medlemmer af underudvalg og styreenheder inden for en samlet ramme på 4,0 mio. kr.
BV 2.11.5	Der kan af bevillingen under § 19.45.02.11. Højhastighedsnet udbetales tilskud til Danmarks Tekniske Universitet vedrørende driften af det danske forskningsnet. Udgifterne til driften af forskningsnettet forventes at udgøre 19,7 mio. kr.

Budgetspecifikation:

Mio. kr.	R 2015	R 2016	B 2017	F 2018	BO1 2019	BO2 2020	BO3 2021
Udgiftsbevilling	64,4	63,6	65,8	66,0	65,7	65,4	65,4
Indtægtsbevilling	49,6	49,1	51,5	51,5	51,5	51,5	51,5
10. Computing og e-Science							
Udgift	14,8	14,5	14,3	14,5	14,2	13,9	13,9
46. Tilskud til anden virksomhed og investeringstilskud	14,8	14,5	14,3	14,5	14,2	13,9	13,9
11. Højhastighedsnet							
Udgift	49,6	49,1	51,5	51,5	51,5	51,5	51,5
22. Andre ordinære driftsomkostninger	-	-	19,7	19,7	19,7	19,7	19,7
46. Tilskud til anden virksomhed og investeringstilskud	49,6	49,1	31,8	31,8	31,8	31,8	31,8
Indtægt	49,6	49,1	51,5	51,5	51,5	51,5	51,5
11. Salg af varer	49,6	49,1	51,5	51,5	51,5	51,5	51,5



Forsknings- og
Innovationsstyrelsen
Ministeriet for Videnskabelig
Teknologi og Udvikling

Forskningsnettet



+

Data management and services

+

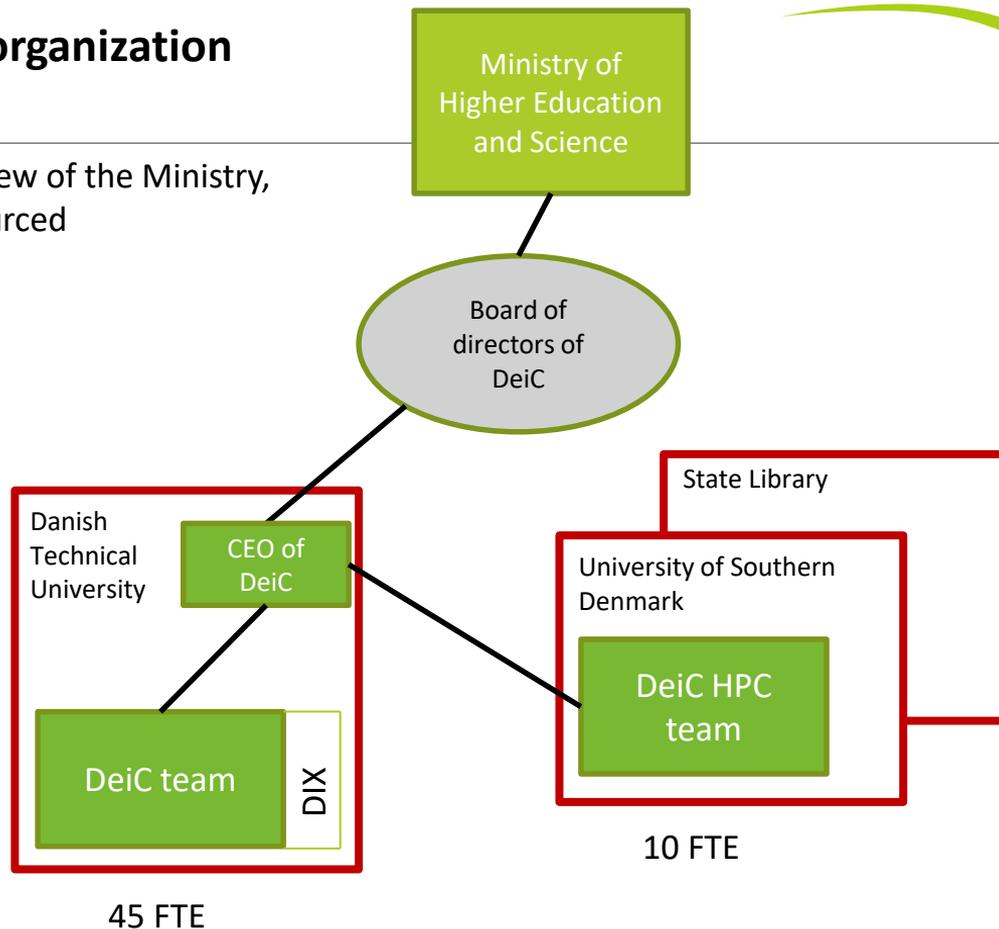
An e-Science competency centre

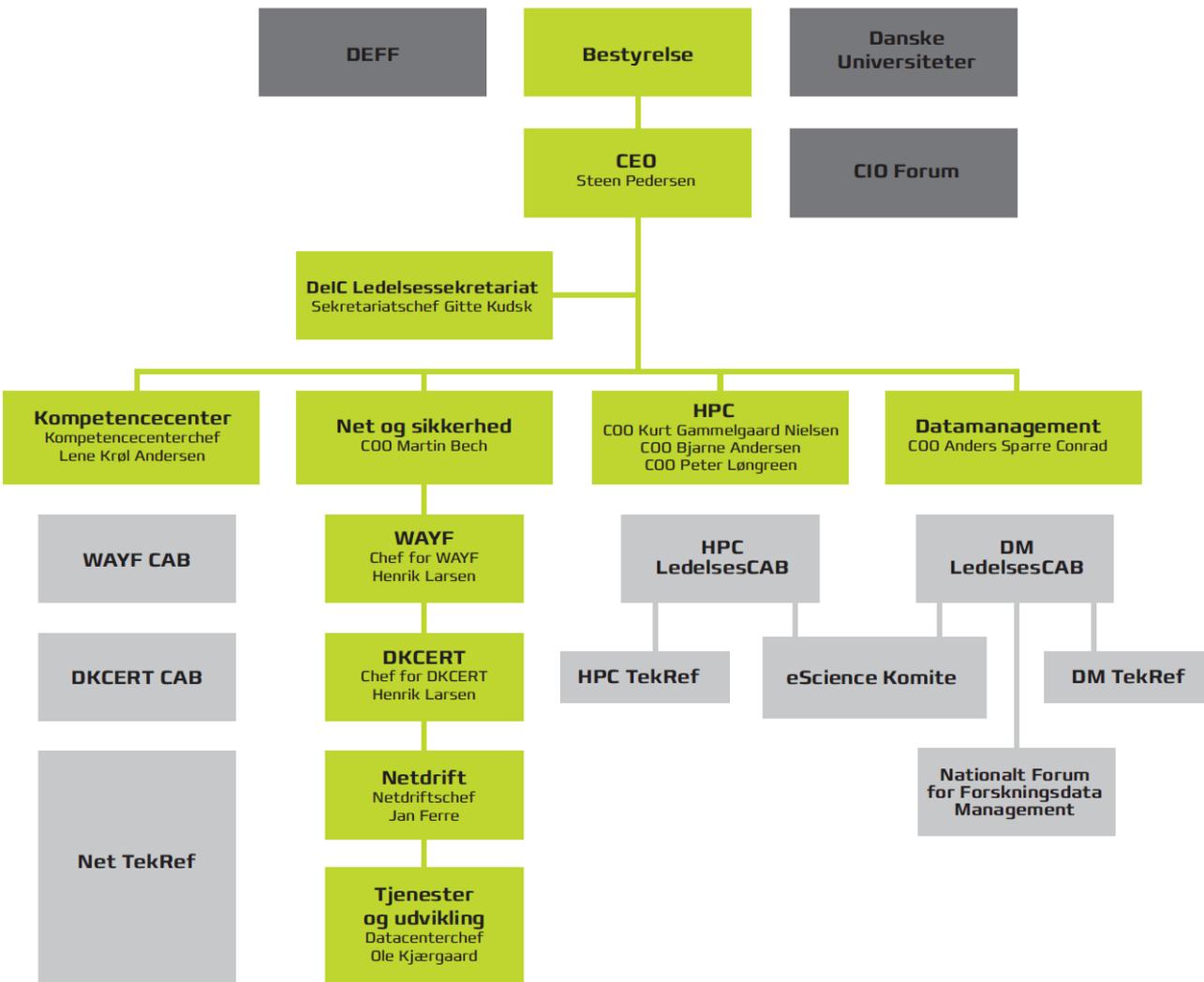
> Created in 2012, following a roadmap process in 2010-11 about research infrastructure, where it was concluded that Denmark needs a joint organization for e-Infrastructure



> A virtual organization

From the point of view of the Ministry, everything is outsourced





> The organization



> The roles of DeiC

- > The research network and related services
- > High performance computing (National initiatives)
- > Data management (including cloud services)
- > International Relations



Extra services, commercialised under the brand “i2”

- > DIX – the Danish Internet Exchange point
- > Anti-spam service, web- and mail-hosting
- > Housing of equipment and related services



> Financial situation

Activity	Annual budget	One-time funds
NREN (Network, CERT, AAI, collaboration services etc)	7.0 M€ – paid 100% by the connected institutions	
HPC	2 M€ – paid by the ministry	6.7 M€ for investments 2013-16 + 2.2 M€ 2017-19
Data management and cloud services		

> NREN cost recovery model

Connected institutions pay according to a cost sharing model:

- > 1,54‰ of the turnover of the institution
- > Independent of the actual connection speed
- > Adjustment for multiple connections
- > Including most of the services:

[Forskningsnet net & tjenester](#)
[Fysiske transmissionsforbindelser \(fibre til alle lokationerne\)](#)
[Forskningsnet-trafik](#)
[Kommerciel internet trafik](#)
[Punkt-til-punkt forbindelser](#)
[Dedikerede forbindelser ud af landet \(BoD+MDVPN\)](#)
[Navneservice](#)
[Tidsservice](#)
[Serviceinfo](#)
[Eduroam](#)
[Adobe Connect](#)
[Zoom videokonferencer](#)
[Scopia videokonferencer](#)
[DK-CERT Information og awareness](#)
[DK-CERT Incident response](#)
[DK-CERT scannerer](#)
[WAYF](#)
[FileSender](#)

Supplementary payment for extra connections (DKK per year)	2018
OADM placement (POP price)	100.000
1G transponder set	Free
10G transponder set	25.000
100G transponder set	100.000
WAN connection (dark fibre)	50.000

Forskningsnettets betalingsmodel 2017

	Opkrævet 2016	Betaling 2017 før korrektion for flere forbindelser	Betaling 2017 efter korrektion for flere forbindelser	POPs	Trans- pon- der-sæt Linier	
Capnova A/S	58.668	59.842	59.842			
Carlsberg Research Center	227.515	232.065	232.065			
CBS Copenhagen Business School	2.061.149	2.008.801	2.085.824	0,5	1,5	1,5
Danmarks Medie og Journalist Højskole	274.890	288.288	288.288			
Danmarks Tekniske Universitet	7.924.027	7.422.974	7.874.024	2,5	4	6,5
Dansk Dekommissionering	119.196	119.966	119.966			
Delta	105.440	89.624	89.624			
Det Nationale Forskningscenter for Arbejds	37.268	39.131	39.131			
Det Jyske Musikkonservatorium	170.410	138.129	172.796			1
Det Kongelige Bibliotek	616.493	822.514	956.215		2	2,5
Det Kongelige Musikkonservatorium	121.194	111.872	111.872			
DFM Dansk Fundamental Metrologi A/S	32.499	27.349	27.349			
DMI Danmarks Meteorologiske Institut	466.928	432.432	432.432			
IKAS, inst.for kvalitet og akkreditering i sun	104.841	60.241	103.555			1
IT-afdelingen Hørsholm	76.906	78.444	78.444			
IT-Universitetet	367.447	387.667	394.636		1	
Kunstakademiets Billedskoler	83.885	84.067	84.067			
Københavns Maskinmesterskole	98.528	105.895	105.895			
Københavns Universitet	12.380.038	12.909.620	12.301.652	1,5	4	3,5
Medical Prognosis Institute	25.497	24.668	24.668			
Miljøministeriet Kort- og Matrikelstyrelsen(192.266	196.111	196.111			
Nota	99.293	100.405	100.405			
OUH Odense Universitetshospital	147.567	150.519	150.519			
Region Hovedstaden, Koncern IT - (Rigsh	1.117.563	1.139.914	1.139.914			
Roskilde Universitet	1.450.733	1.164.540	1.410.276	1	1	0,5
Statens Arkiver (Rigsarkivet)	291.639	287.826	355.877			2
Statens Museum for kunst	133.992	100.331	139.194			1
Syddansk Universitet	5.192.399	4.507.783	5.232.419	2	3	9,5
SyddanskeForskerparker	32.438	39.372	39.372			
UC Sjælland	809.899	703.583	825.485		1	3
USG (Universitetes Studenter-Gymnastik)	11.250	-				
VIA UC	934.915	809.464	919.613		3	1
Aalborg Universitet	4.624.703	4.212.890	4.645.259	2	3	3
Aarhus Maskinmesterskole	133.201	136.419	136.419			
Aarhus Universitet	10.106.256	9.569.822	10.132.572	3	8	6,5
Århus Universitetshospitaler	295.135	301.038	301.038			
Total	51.288.516	48.863.608	51.306.822	12,5	31,5	42,5

DeiCs virkefelt

Infrastruktur

Hovedområder

Net

Humaniora

HPC

Samfundsvidenskab

Storage/Datamanagement

DeiC

Naturvidenskab

Applikationer/Services

Sundhedsvidenskab

Teknisk videnskab

eScience
kompetencecenter

Lokalt – på campus

Nationalt

Internationalt

Geografi

DeiC

> Areas of interaction with the political level



Mostly, NRENs operate without political involvement. However, there are some areas where interaction with the political level at some point may be needed:

- > Basic mission – are we allowed to exist?
- > Funding – where do the money come from, and what limitations does that impose on us?
- > Organizational structure – are we free to decide this ourselves?
- > Compulsory memberships: Which institutions are forced to be members?
- > Who may the NREN not serve?
- > What services may we not offer?

> Is the political level interested in the NREN?

National infrastructure is indeed a political subject, very interesting for the media and for the voters. Is it subject for many political discussions:

- > Railways
- > Roads and bridges
- > Airports
- > Power plants and power grids
- > Gas and oil extraction, distribution and transmission
- > Sometimes even internet provisioning for the general public (ie. Fiber To The Home)

But what about network infrastructure for research and education?

- > The answer is NO – the political level is generally NOT interested in the NRENs.
- > Politicians have bigger problems to deal with
- > We are too small and too cheap to run
- > Therefore, we often have to work with government administration: Civil servants at all levels in relevant ministries and agencies



> Are we allowed to exist?

Your NREN exists today. Your NREN is allowed to exist as is. So far, so good.

- > But all this can change very fast,
- > and you need to get yourselves involved those processes, from the beginning

Examples:

- > From one day to the next, one ministry tried to close our NREN !
- > Government decision to create a new network (or IT-organization) for all public entities, including the universities (EE+PT)
- > Creation of a joint public procurement agency which is mandatory for all institutions (DK)

What can we do to mitigate this threat:

- > Continuous PR activities – including articles in leading media about your NREN
- > Regular interaction with people at all levels in the relevant ministries



Notat

22. maj 2007
IS, SHK
J.nr. 131-7

Referat af møde med UNI-C og Undervisningsministeriet vedrørende udbud af datakommunikationstjenester

Finansministeriet havde indkaldt Undervisningsministeriets Departement og UNI-C til møde i den 22. maj 2007 for at drøfte inddragelse af Sektornet i udbud af datakommunikationstjenester under kategorien Telefoni og Datakommunikation.

Deltagere på mødet:

Henrik Bang, kontorchef Datakontoret
Martin Bech, divisionsdirektør Uni-C
Kurt Bøge, supportchef Uni-C
Stine Hegelund Kristoffersen, Indkøbssekretariatet Finansministeriet

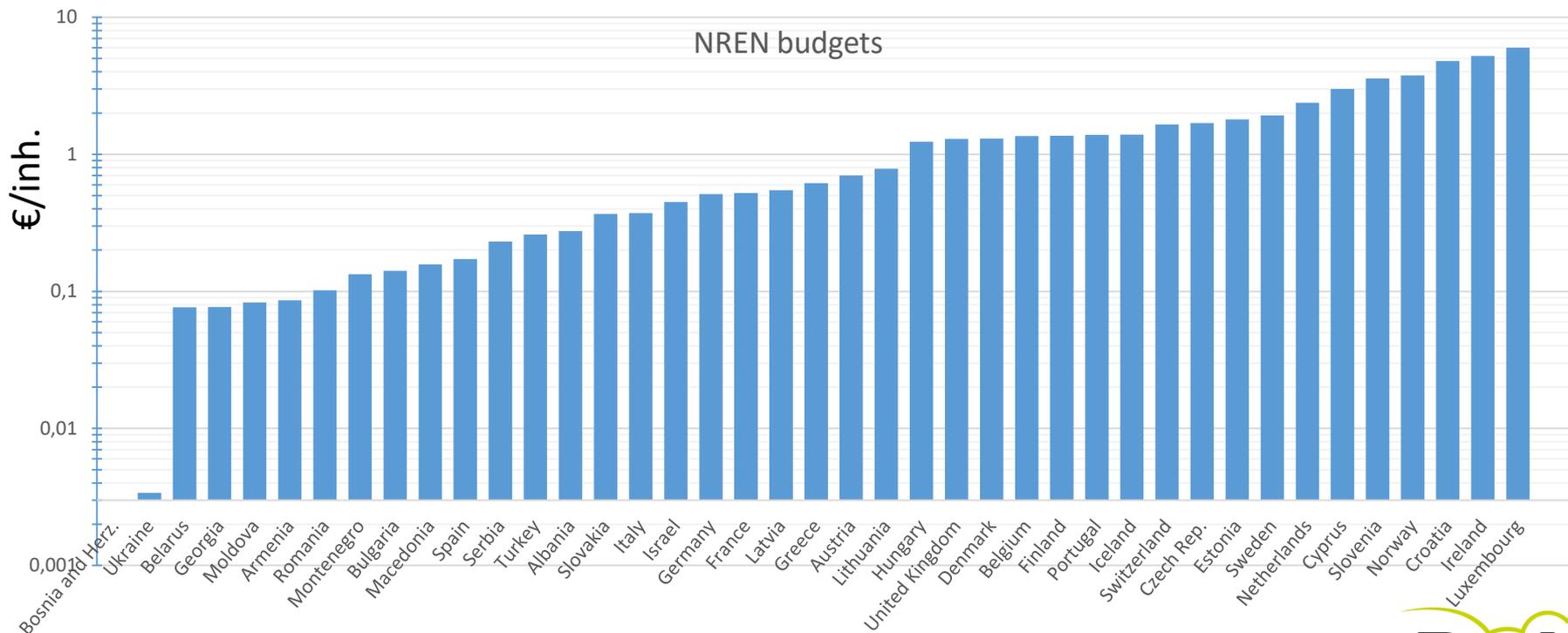
På mødet var der enighed om, at Sektornet forpligtes af en kommende central koordineret indkøbsaftale om datakommunikationstjenester. Det betyder, at "rå dataliner" til Sektornet fremover skal indkøbes på den centralt koordinerede aftale. Nuværende tilsluttede brugere til Sektornet eksempelvis kommuner, kommunale folkeskoler, gymnasier, erhvervsskoler mv. skal således købe dataliner til Sektornet på den centralt koordinerede aftale.

> Funding – how to get it (continuously)?



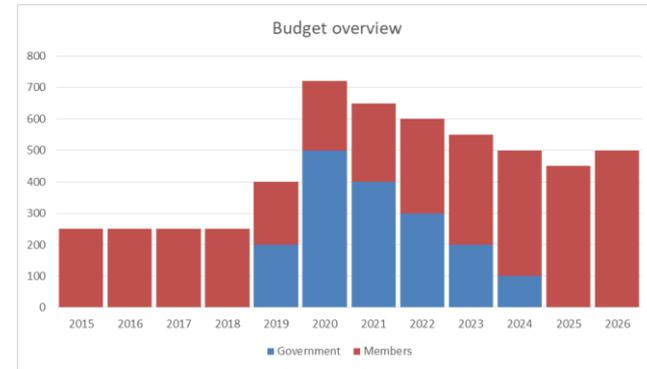
- > From a political point of view, the most stable situation for an NREN is when it gets most of the funding from member institutions
- > However, if you need continuous public funding for your annual budget, you can usually NOT go to your politicians as they simply ask for it, and you therefore need to address relevant levels in government administration
- > A basic level of infrastructure is needed for research: Use the GÉANT compendium to make the case that (nearly) all other countries are using more than you on NREN infrastructure and this is bad for research
- > Need to support the already existing research infrastructure: All the accelerators, radio telescopes, genome sequencing machines etc are worthless unless they are connected with a high-speed resilient network
- > Your country is maybe not getting as much funding from international projects as it could. If you get just a little more funding for project participation in GÉANT, other EU projects, structural funds and even private donations, you can multiply this many times and also help get funding for your universities
- > Find out what is important at the moment for the people in your ministry and work with them...

> Ranking your country...



> Funding – how to get it (investments) ?

- > From time to time, you need to make bigger investments or start new services.
- > One option is, of course, to save up money, but this is often not possible
- > Therefore, grants from government and other sources are needed from time to time, and this can be pursued on a number of ways:
- > Upgrade to maintain state-of-the-art infrastructure
- > Seed money for a self-sustaining operation
- > A positive PR opportunity for politicians



> Funding – how to avoid the unwanted side effects?



- > Government grants often come with a number of preconditions
- > You get the funding, but it gives you a number of other problems

Examples:

- > We get government funding for our AAI federation (WAYF.dk), but as the funding was only for the institutions under our ministry, and therefore, from one day to the next, we had to go from a free-of-charge service to full price for all other institutions, causing a lot of them to leave
- > Services supported by public money may not be offered to private research institutions or student homes because this will constitute unfair competition towards private service providers

How to deal with this:

- > Before you apply for money or as early as possible, think the whole scenario through and make sure that the government knows what the problems are, so the grant preconditions can be adjusted accordingly.

> Organizational structure

There are a range of different organizational structures used by NRENs:

- > Government agency (Norway)
 - > Part of government IT (Belgium, Portugal)
 - > Limited company (Holland)
 - > Charity (or not for profit company) (France)
 - > Shareholders' company (Finland)
 - > Association (Germany)
 - > Simply one member institution doing the whole thing for everyone (Austria, Iceland)
 - > ...or even a mixture of all these
-
- > They each have pro and cons
 - > Often, you, the current NREN people are not really involved when government wants to change this
 - > Insist on being involved! Influence all stakeholders!

> Compulsory memberships

- > If institutions leave the NREN, it can create a "tsunami" effect
- > Therefore, there are various ways of forcing the institutions to remain members
- > Often, it is a requirement for government funding
- > Work with your government people to get rules if you have none today

Examples:

- > Our universities are forced to be members by law, but they all have a seat at the board of directors
- > If the universities were not all forced to pay, some of them would leave

- > The actual mechanism for keeping a core number of institutions as members may vary depending on the organizational context, but you need to think this through

> Who may the NREN not serve?

It is often regulated by government (possibly as a funding condition) who may be served by the NREN:

- > Private universities?
- > Private research units?
- > Student dormitories?
- > Other parts of public administration?
- > Libraries?
- > Hospitals?
- > Primary schools?
- > Tenants and service providers inside university campuses?
- > Startup and innovation hubs? University spin-out companies?
- > Cloud providers? Data exchange partners?
- > May the NREN generate extra income from serving private companies (domain registries, Internet exchange points etc)

- > You need to make sure you understand where all the limitations of this kind come from, and possibly work systematically to get rid of the most inconvenient ones.

> What services may we not offer?

- > Are you allowed to offer the services you want?
- > Government procurement regulations may dictate that universities must buy some services from someone other than the NREN
- > Due to rules regarding unfair competition from public sector in commercial markets, you may not be allowed to offer some services to some members

- > This just be regarded as a fact of life...
- > ...but in a number of cases, you can work with the political level to change this

Example:

- > We offer housing to commercial companies as part of the Danish Internet Exchange operation. Years ago, some companies complained to the ministry that this was unfair competition. Before the ministry got nervous and would possibly ask us to close this, we made one of the companies do a formal complaint to the competition & anti-trust authority. They subsequently rejected the complaint, and therefore our own ministry has no reason to ask us to close this service.



> Public affairs



Just like you need to set aside resources for network operations, for public relations, for personnel training and many other things, you also need to

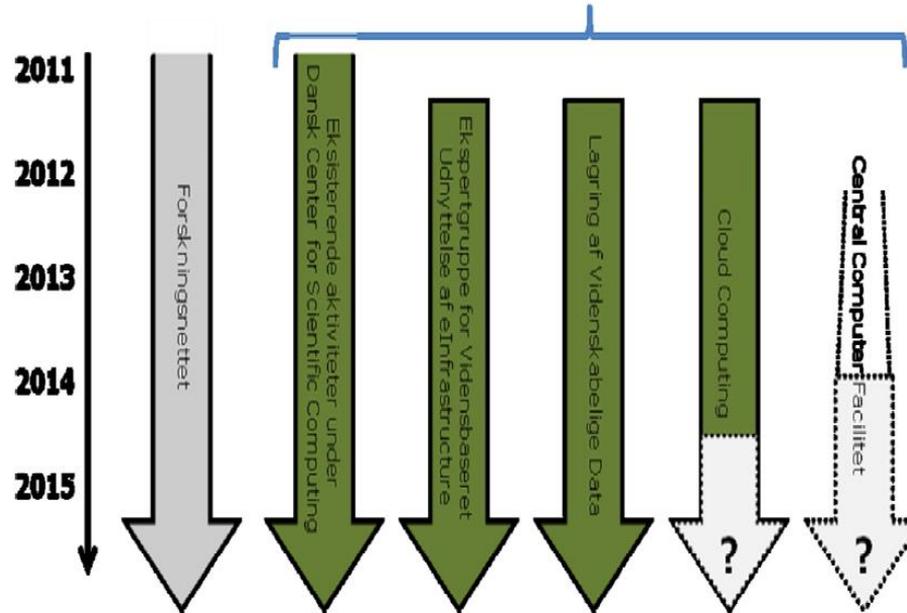
- > Work with all levels of the government
- > Track what is important targets and issues currently at the different levels of government
- > Proactively provide ideas, proposals and solutions to these issues
- > Follow the public debate in your society

This can be just as important as the classical NREN activities

Example: The creation of DeiC. From total rejection to actual policy.



Aktiviteter under en ny samlende bestyrelse



> Think about your top three problems

- > Your top three problems are maybe not the same as my examples here.
- > What are your problems?
- > How could changes/initiatives from the political level help you solve these problems?
- > How can you make this happen?

- > If you don't use resources on this, policy changes will probably never happen
- > As we say: You can only win the lottery if you spend money for a lottery ticket

Thank you! Debate and questions...



DeiC