

Building a Science Shop/Research Shop: Refining your model

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About us

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Living Knowledge Network, Bonn Science Shop
www.livingknowledge.org

A Science Shop (is a unit that) provides

**independent
research
support
&
participatory**

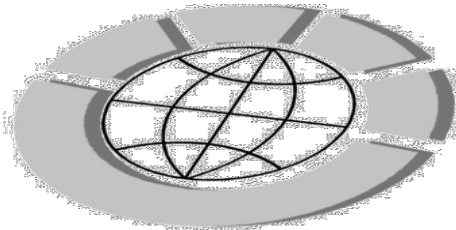
**in response
to**

**concerns expressed
by civil society.**





*Science Shop - Wetenschapswinkel - Boutique de Science - Epylion
 Videnskabsbutikken – Wissenschaftsladen – BioSense - IntHum
 Bazar de las Ciencias – InterMediu – Interchange - CUPP HelpDesk
 Community Knowledge Exchange - Research Shop - Echop a Sciences
 Forskningstorg - Knowledge Co-Op - Community Based Research Center
 Students Learning With Communities - Teadusturg – CURL
 ShopFront - Office of Community Based Research - 上海大学生科学商店*



Living Knowledge
 The International Science Shop Network

- 1970's** Netherlands (+ USA, Canada, CBR/PAR)
- 1980's** Australia, Denmark, England, Northern Ireland, Germany, Austria, France, Belgium
- 1990's** Canada, Spain, Romania, New Zealand, Malaysia, Czech Rep, South Korea, South Africa
- 2000's** Belgium, France, South Korea, Portugal, Latvia, Japan, Wales, Ireland, Turkey, Hungary, China, Italy, South Africa
- 2010s** Cyprus, Estonia, Greece, Israel, Norway,



Workshop Goals

- a. Identify multiple models for operating a science/research shop
- b. Address practical needs in the mediation process (needs articulation, links with curricula)
- c. Address strategic issues around institutional commitment and funding
- d. Provide networking opportunities

Exercise 1 : Your Current model

1. What do you already have? (what is it you do; who is your primary “audience” – students, researchers or in CS?)
2. How does it work (Where are the question from? Results go to?)
3. Strengths/Challenges? (What are your resources now?)



Science Shop Criteria

- 1. Scientific/research element.**
- 2. Public results.**
- 3. Relevant to number of people.**
- 4. Client is able to use results.**
- 5 . Question is not commercial.**

**→ Then no financial
blockade**



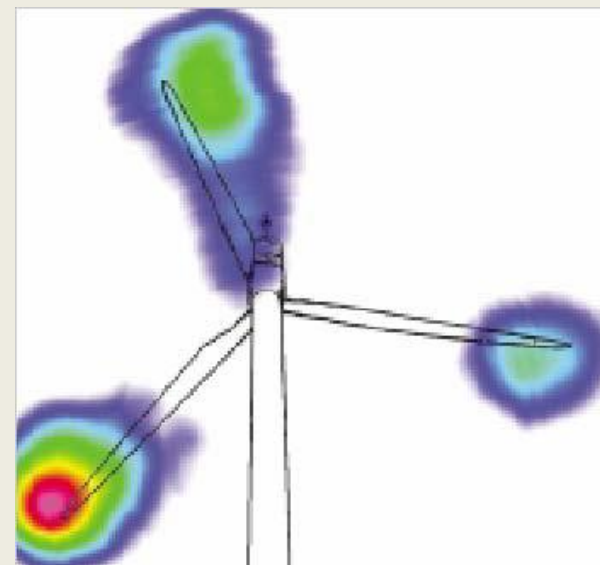
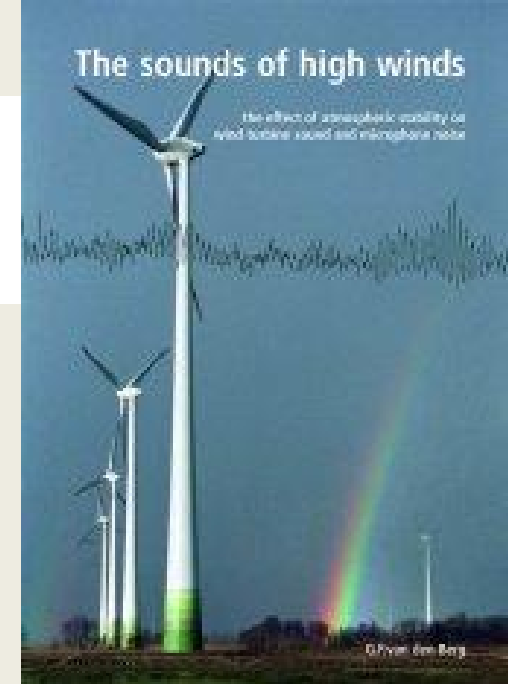
Examples Groningen

Science Shop Physics

- *Wind Turbines –
Noise at night (Residents)*
→ [PhD](#)



$$L_W = L_{eq} - 6 + 10 \cdot \log(4\pi \cdot R^2 / A_0)$$



Science Shop Groningen

- City of Assen: Street Lighting in Natural Area:
 - Social Safety
 - Energy saving
 - Does not disturb nature
- Ecology Department
- NGO “Bats Working Group”
- Green coloured LED lights
- GREEN LIGHT FOR BATS!



Mediation Tasks



- 1 Receive/solicit clients and (new) questions
- 2 Map the problem (articulation)
- 3 Preliminary research: Refer, Refuse, Advice or Formulate (scientific) research question (Incl. funds if required)
- 4 Find a (co-) supervisor
- 5 Find a student or researcher
- 6 Maintain communication and process
- 7 Facilitate useable presentation/publication of results
- 8 Help client implement results and formulate follow up actions
- 9 Make inventory of follow-up research/themes
- 10 Evaluation



1. Receive/solicit clients and (new) questions

❖ **Active Public** → comes by itself

❖ **Conscious Public** → through other organisations

❖ **Latent Public** → targeted acquisition / needs survey

❖ **Passive Public** → help organise?

Type of questions:

- research
- encyclopedic



5. Find a student or researcher

Choice:

❖ Advertisements, web, teacher, contacts, thesis-market, speed date

❖ Science Shop Advisory Board

❖ Student: credit-points; “out-of-the-box” thinking, eye openers

❖ Researcher: finance

❖ Criteria: Funds, quality, time-pressure

❖ Client: participation



Projects in curriculum

- ❖ In existing (or new) courses / practical periods
 - ❖ First year physics practical (Gron.)
 - ❖ “Communication & Presentation” (Gron.)
 - ❖ “Science & Society” (Bacau)
- ❖ Novel optional “course”
 - ❖ “Science shop project” (Gron.)
- ❖ As BSc / MSc thesis (General)
- ❖ As PhD thesis (eg Tilburg)



Make project fit

❖ Split

❖ *Disciplines (Chemistry, Medicine, Communication; Economics)*

❖ *Multi-disciplinary teams*

❖ Enlarge

❖ *Case + theory (thesis)*

❖ Timing

❖ *Fit client's scheme & students availability*



Examples from within one university

- Computer Science
- Landscape architecture
- Centre for Business and Social Entrepreneurship
- Research Shop

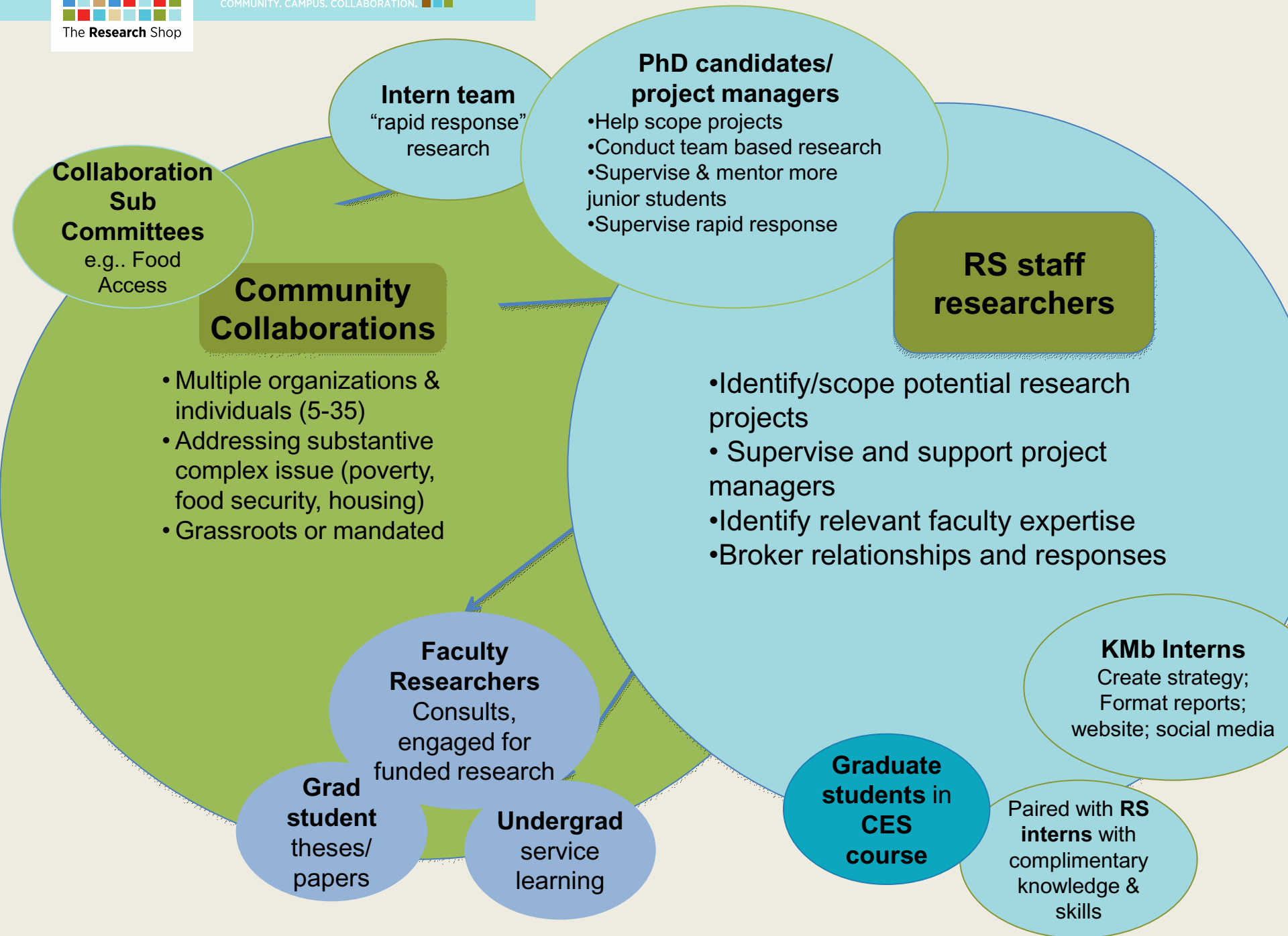




The **Research** Shop

COMMUNITY. CAMPUS. COLLABORATION. 

- Project coordinator; Post-docs (2); project managers (5-7); Students (25)
- Students apply and commit to 2 semesters; meet every 3 weeks; Staff supported/peer learning
- Professional skill development (proj mgt, grant writing, negotiation)
- Contribute their own expertise
- “Rapid response”; complex projects in teams; link to other resources



- Established 1984
- About 50 members
- Non-profit-association
- non-university based
- Budget 3,0 Mio EUR
- No external funds
- Demand driven and creating own fields of work
- Partner in EU funded projects:
„SCIPAS“, „ISSNET“, „TRAMS“,
„CIPAST“, „EFSUPS“, „Soufflearning“
and „PERARES“
- Professional (paid) staff of 30 in flat,
collective structure - + 30
freelancers



Projects

- Co-operation projects
- Own projects
- Demand driven
- Calls and Tenders

Public Services

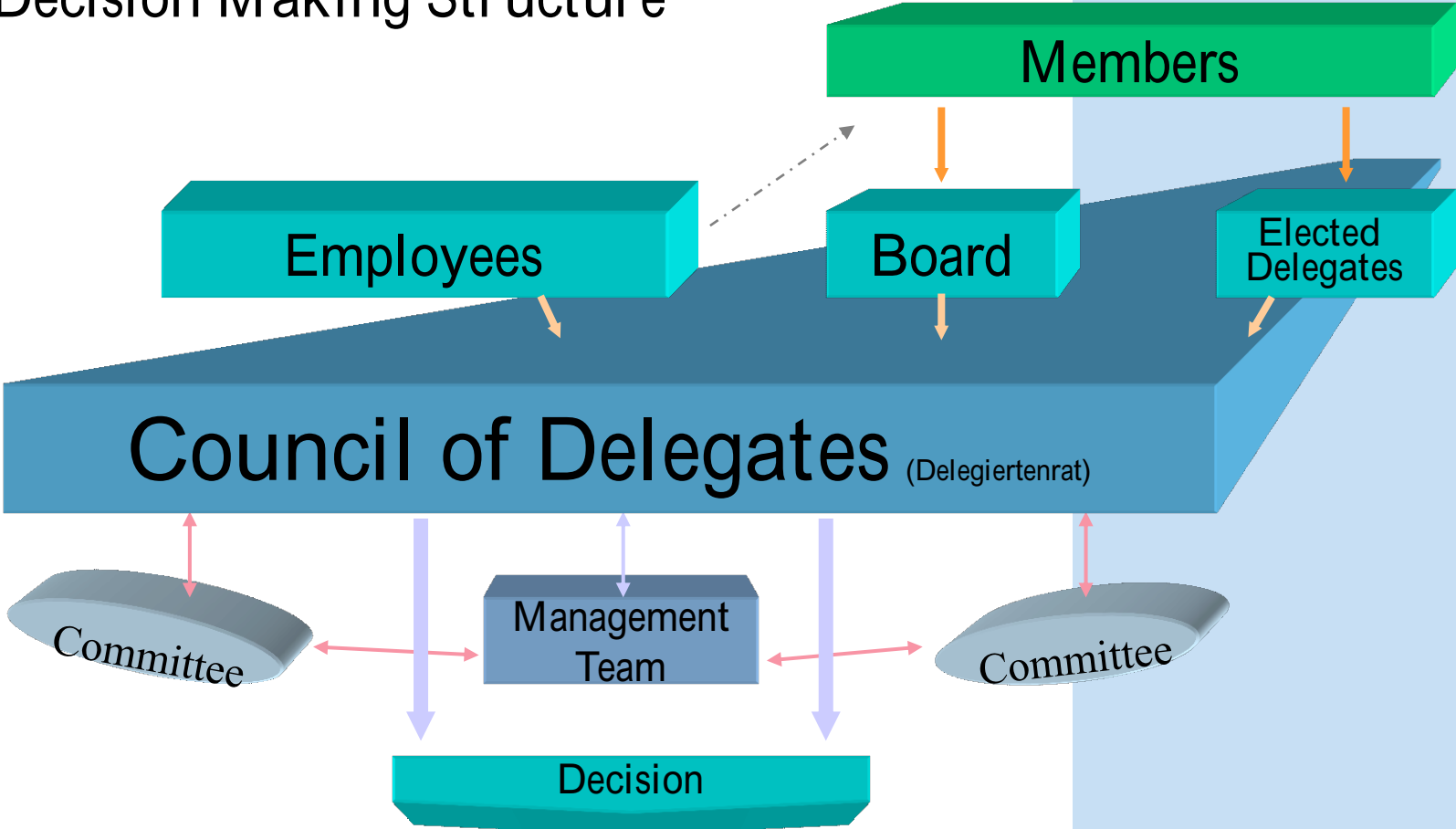
- Library
- Publications
- Consultations
- Mediation

Paid Services

- Journals
- Analysis
- Expert reports
- Trainings
- Lectures
- Publications



The Bonn Science Shop Decision Making Structure





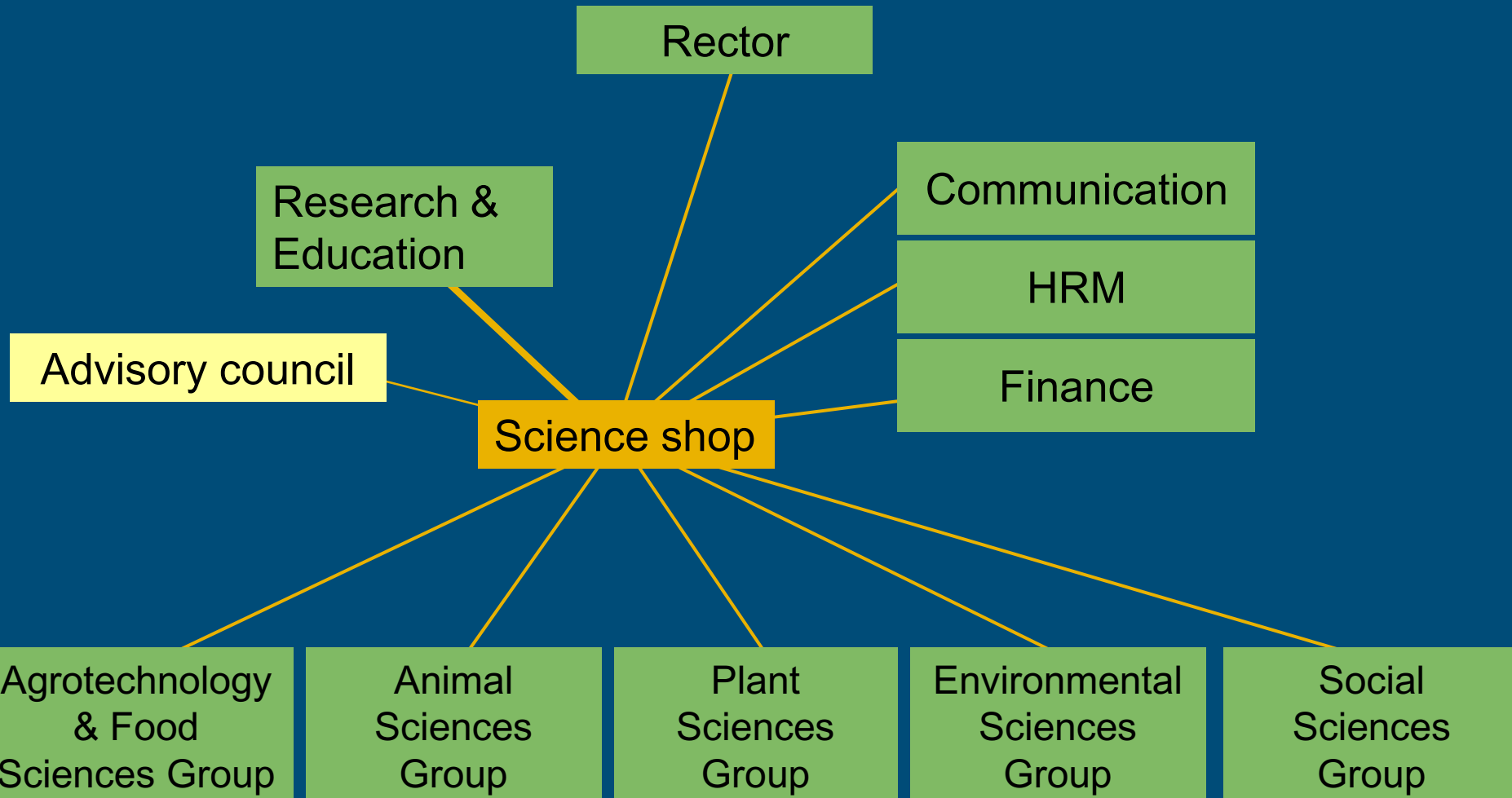
University of Groningen

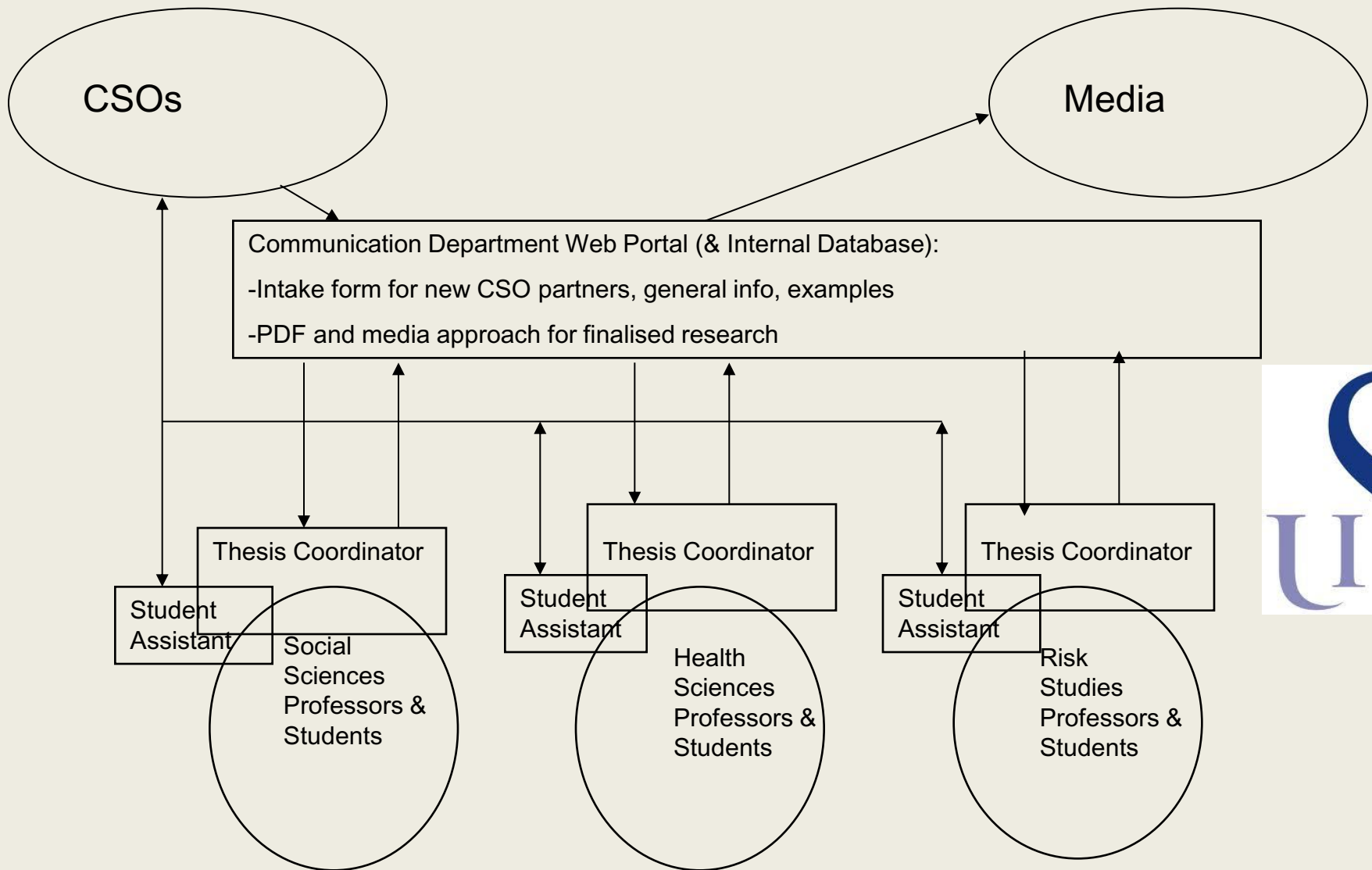
Since 1614
 Classical University
 27,000 Students
 5,000 Staff



- 5 Science Shops (since 1979)
- Business Management and Economics
 - Medical Faculty
 - Languages, Culture, Communication
 - Didactic and Educational Studies
 - Mathematics and Natural Sciences

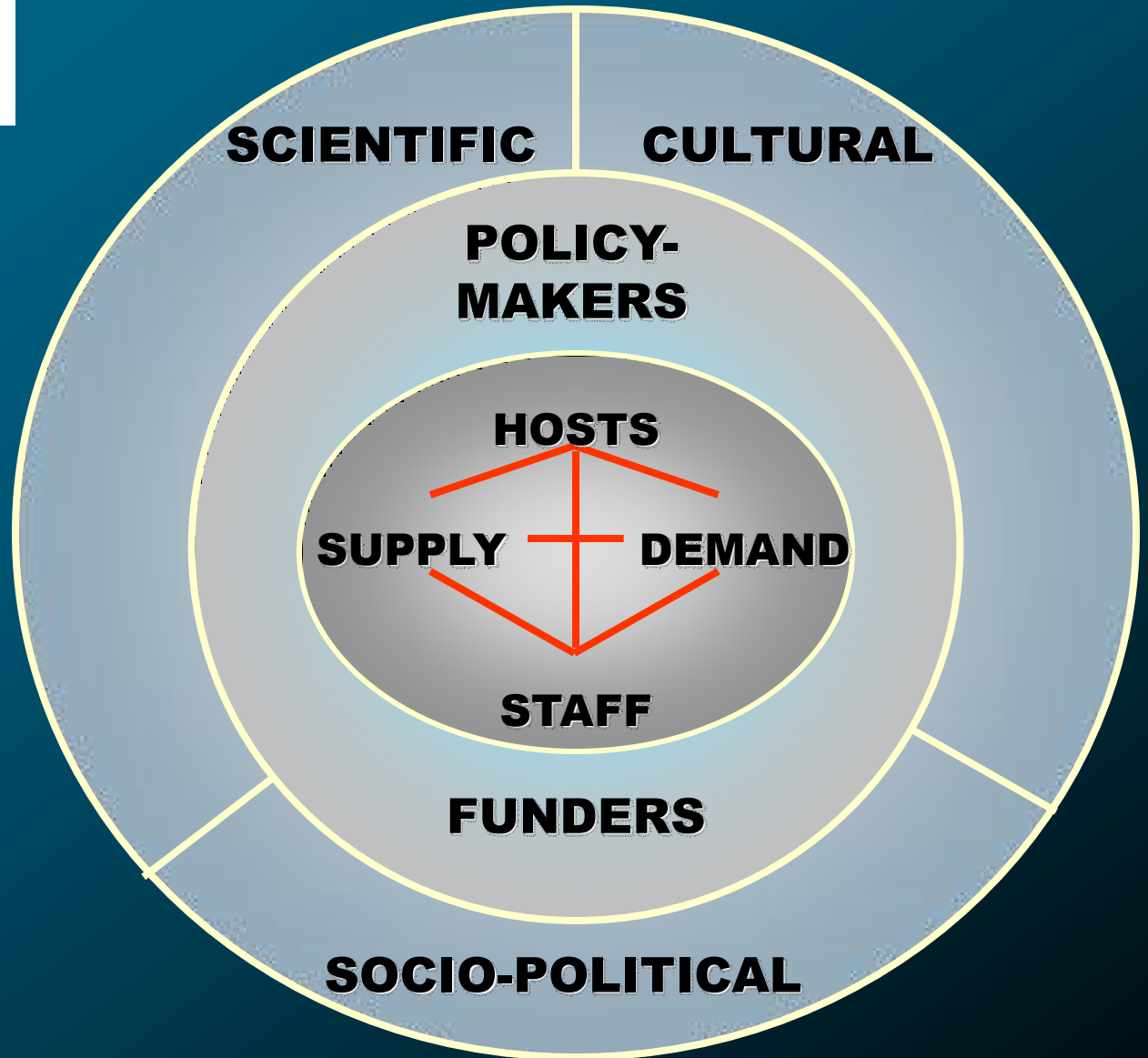
Internal network Science Shop Wageningen





University of Stavanger: New CSOs come through Communications Departments
 Student-assistants follow-up on the forms received and contact the CSOs
 Reports go to the CSO first and then CSO and Communications Department
 decide on PR.

Science shop and similar



Exercise 2a :

Your context to build from *(as individuals)*

- 1. What is your intention?** (what is it you want to do; who is your primary “audience” – students, researchers or CS?)
- 2. What are your resources** (tapped and untapped)? (people, money, relationships, attitudes, offices)

Exercise 2b:

Dream your Science/Research Shop Model

1. Name your sciences shop *(or call it science/Research shop!)*
2. What is your process to build it? How participatory is process (or not)? Who/how/when will you engage them?
3. What are your biggest concerns in starting this new model?
4. Imagine you have full funding –how will it look and work in 5 years– draw it if possible!



Benefits “Science Shops”

- › Empowered CSOs
- › Enhanced learning for students, including social and political awareness, employability!
- › Case materials/networking for researchers
- › PR and social responsibility for institute
- › Policy: Informed decisions

- › Lobby & motivate with these arguments
- › Start from pilots, find allies

Resources and Support (1)

- Institute for Community Engaged Scholarship
www.theresearchshop.ca
 - Research reports by interns
 - P&T documents; presentations
 - Definitions (CES, KM, CE)
- Living Knowledge Network
www.livingknowledge.org
 - Tool box, magazines, newsletters, listserv (open for project development, advice, info, etc.); discussion
 - Checklists; drafts of agreements/contracts; advice on charging fees

Thank you!

- Pasted after this slide are the Flipcharts from the session



— ACTION RESEARCH CONSULTS TO COMMUNITY ORG
— COMMUNITY ARTS STUDIO; GARDEN; OPEN / IN COMMUNITY
STUDENT FUNDED (STOREFRONT)

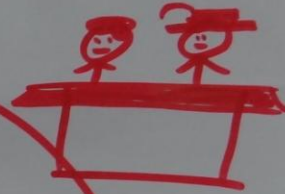
FUNDING, NEBULOUS, HANDSHAKES

UNDERGRAD LERIES; LINKS TO OTHERS

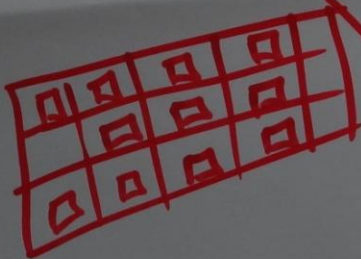
COURSES for Community Counts

Neighbourhood way

PARTNER SHOP



OPPORTUNITIES
SUPPORT COMMUNITY
SUPPORT STUDENTS
+ FACULTY
SERVICE LEARNING



The way things should be

Community Outcome Goal

action needed

Knowledge needed

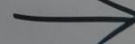
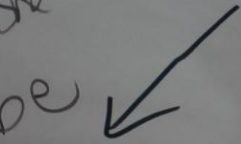
from community

from outside

popular education

Science Shop

researcher/tech assistance



Ext. Remedy?

FURAN

Imps on Exp (TAXES)

MATERIALS

PLACE

BASED

5
5
5
5
5
5
5
5
5
5

Who's
Shop

Intends

