



# Open Access to Research Infrastructure

## Principals and Policy Development

# DAY 2: CREATING AN OPEN ACCESS POLICY



# Welcome



- Sinisa Marcic
- Expert on Human Capital Development
- ***Regional Cooperation Council***

# Day 2: Overview of the sessions



- Creating an Open Access policy
  - Definitions
  - Users
  - Access
  - Contractual and IP aspect
  - Costing and pricing
  - ‘Drafting’ in groups
  - Feedback, Discussion and Q&A
- Next steps (Technical Assistance)

# Structure of sessions



15 min

Introduction into a specific topic with guiding questions



15 min

Working on your own draft Policy



15 min

Discussion

**Questions are welcome throughout**

# Use of Zoom



- Muting
- Questions
- Breakout rooms
  - Before breaking out: note down the question
  - Be patient!
  - Introduce each other
  - Choose your rep
  - Discuss guiding questions
  - Present key points back or raise discussion points



Creating Open Access policy

# DEFINING OBJECTIVES



# Rational for and Benefits of Open Access



## Retrospective perspective

- We have already invested in to equipment (Ministries and Governments)
- We do not wish to invest more.
- We want users to share it

## Future strategic perspective

- Competitiveness and innovation (Economic development)
- Open Science
- Grand Societal Challenges/ Mission Led Science
- Research mobility (brain circulation)
- RoI (National Government)
- Diversified funding streams (PROs)

# Objectives for the Policy



To start with:

## Q1. What is your rational for adoption ‘Open Access’?

- Why might your institution adopt an Open Access Policy? What are the objectives? What are their relative priorities? What do you want to achieve? What is the timeframe for meeting your objectives? (short, medium and long term?)

This is to prepare an Introduction to your Open Access Policy:

### Introduction

*[HEIs and PROs introduce **Open Access Research Infrastructure Policies** for a variety of different reasons. Start by outlining the rational for the policy at this organisation. Indicate any higher national, regional or EU strategy or legislation that the policy reflects or responds to. Link the **Open Access Research Infrastructure** initiative to the strategy and mission of the organisation. Indicate the overall aims and objectives as well as the hoped for impact from implementation. You may find it helpful to consult Section 1 of the Principals and Guidelines: **The movement towards Open Access.**]*



**Work  
in  
groups**



## **Q1. What is your rationale for adoption 'Open Access'?**

- Why might your institution adopt an Open Access Policy? What are the objectives? What are their relative priorities? What do you want to achieve? What is the timeframe for meeting your objectives? (short, medium and long term?)

## **Q2. Drivers and Barriers**

- What might help you to achieve the OA objective (drivers?)
- What might prevent your realising this objective (barriers?)



# Discussion and Q&A



Creating Open Access policy

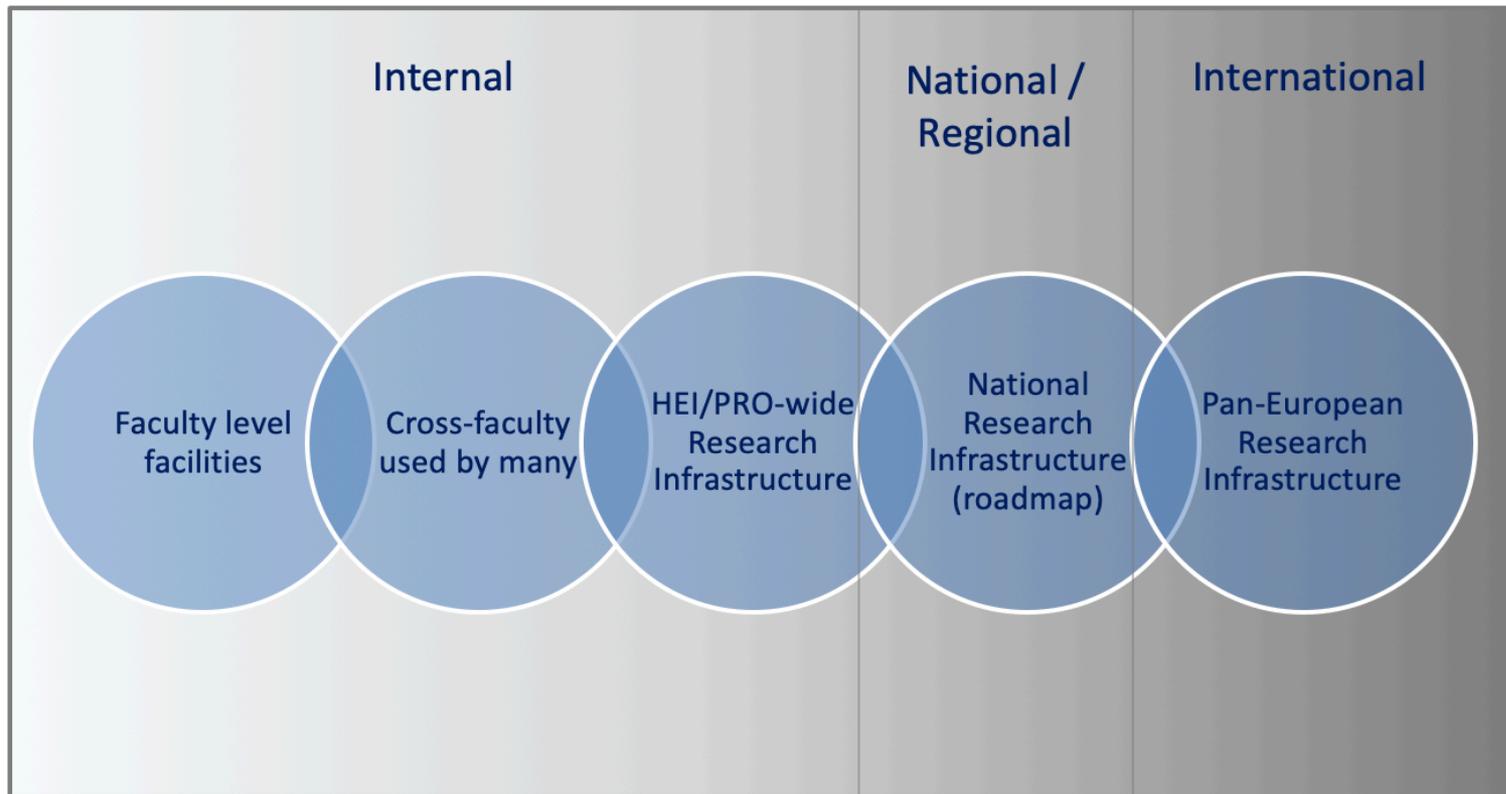
# **SESSION 1: DEFINING RESEARCH INFRASTRUCTURE AND ACCESS**





# Defining “Research Infrastructure”

- Different definitions presented during Day 1
- For you to choose and create the one most suitable to your Research Infrastructure(s) for which this Policy is being created



# Simple definitions



- **Facilities** that provide resources and services for research communities to conduct research and foster innovation.
- Can be used beyond research e.g. for education or public services.
- May be ‘single-sited’, ‘distributed’, or ‘virtual’.
- Include:
  - major scientific equipment or sets of instruments
  - collections, archives or scientific data
  - computing systems and communication networks
  - any other research and innovation infrastructure of a ‘unique’ nature which is **open** to external users



### Q3. Your research infrastructure and its current management

- What type of research infrastructures (RI) do you have within your organisation or in your network?
- Do you have an inventory of RI within your organisation?
- What unit manages this research infrastructure (i.e. university itself, faculty, individual laboratory)?
- Who has overall responsibility?





## Q4. Spectrum of access (Position of your organisation on the 2 axis of access)

- Where does your facility sit along these two axes? What RI do you offer?
- What benefits of 'open access' to research infrastructures do you see for your organisation / country?

Creating Open Access policy

# SESSION 2: USERS



# Internal users



- Employees of a university / research institution that owns/manages that Research Infrastructure
  - These could be scientists of different level of seniority, post-doctoral researchers, technicians etc.
- In case a RI is part of a distributed network of research infrastructures, members of these network institutions are also defined as internal users
- Students (PhD, Master programme level or even at Bachelor programme level) can be considered as internal users
  - However, it is important to decide if the same RI will be used for teaching, research and private orders
  - Possible theoretically, but practically needs to be carefully considered and discussed as private sector(or other external users) might decline using parts of RIs used by/for students

# External users



- All other users who wish to use a given RI but are not part of the university / research institution (or their network) that manages this research infrastructure
  - scientists and researchers from other universities / research organisations (outside the network in case a university / research organisations is part of a network), industrial users, NGOs, users from government organisations and individual citizens (e.g. when access to social sciences databases is needed for work)
  - in short, all users who are not considered internal users will be external.
- Both national and international

# Internal and external users



- Internal users: a big question about students (master's programme, PhD)
- Is the same equipment used both for teaching, research and private orders
- Availability of staff: engineer / technician as part of the “access fee”



# Open Access Regulation, Lithuania



- **Internal user** – a user from the Open Access Centre managing institution (in case of a network infrastructure – users from institutions belonging to this network)
- **External user** – a user who wishes to use Open Access Centre resources but who doesn't belong to the OAC management institution or one of the network of institutions in the case of distributed RI. External users may be either from the public or private sector.

# Type of use



- You can also think about users by thinking / deciding on the use of your Research Infrastructure:
  - research vs teaching
  - research vs services (remember, axes of access?)



## Use of resources:

- On a contractual basis implementing joint projects
- For practical use by PhDs or PhD students
- For ordered/requested research and/or experiments
- For ordered/requested jobs/works/projects with the elements of the Open Access Centre resources



## Work in groups



## Q6. Current and future users

- Who, in your opinion, are the users of your research infrastructure? Now and in the future? Why? (or why not?)

In-house university users?  
Other academic entities?  
Industrial users?

*In answering  
remember the  
access axes*



# Discussion and Q&A



Creating Open Access policy

# SESSION 3: ACCESS



# Offering access



- By now you have decided or have an idea about:
  - where your RI sits along these two axes, and
  - who your potential users – both internal and external – are
- It is time to put a process in place for offering and managing access to the RI.

# Deciding what RI offers



- Your RI can have (or can offer) a standardised service/ product
- It can also adapt its services to the requirements of the users
- In deciding about these it will help to review the objectives you have chosen for your RI and where your RI sits on the axes to access
  - It can be fully focused on basic research, applied research or prioritise pure industry-focused interaction
  - In most cases it is often a combination of all three.



# Centre for NanoHealth, Wales, the UK



- An open access facility enabling SMEs to access technology platforms and expertise in the NanoHealth area. Opened in 2012.
- CNH is located within a Clinical and Biomedical research environment on a hospital site
  - access to patients and offering an integrated facility where novel devices and sensors can be designed, manufactured, functionalised, tested and evaluated.
- Over 50 academic staff
- A strong pool of expertise is essential, so that the company can access e.g. engineer/physicist + clinician + biomedical scientist in order to discuss a project therefore needs some level of teamwork and external coherence to present a service to outside.
- A non-academic business engagement team is useful. Don't frighten people away with technical speak or an approach that is too academic.

# Application process for users



- Decide on how the users apply and are selected for access to your Research Infrastructure
- A request and assessment a system should be set up
  - It can be as simple or as detailed as you choose it to be
- Important: it should be transparent and available for the management of a unit responsible for a given RI as well as the management of a university / research organisation
- Why do we need it?
  - It will allow tracking and processing of incoming requests
  - It could also be of use in scheduling the workload of the personnel (especially technicians) at a Research Infrastructure.
  - Clear and precise workload scheduling and tracking will allow for a more precise understanding of the costs.

# Selecting users



- On a **first-come/first-served** basis
- On a basis of scientific excellence (**peer-reviewed access**) or another criteria of important (e.g. “technological pertinence” or “innovation potential”)
- Offering a **fast-track access to prioritised users**, e.g. who generate the greatest revenue or those who have a long-term collaboration agreement with the owner of the RI
- Setting aside a proportion of RI time/resource for **dedicated use by users** coming from the organisation that owns this research infrastructure
- Setting aside a proportion of RI time/resource **for industrial use on a full-time basis**

# Selecting users



- **A “rapid access” mode** for quick services that can be made using existing equipment and minimal manpower
  - This mode could bypass the standard proposal and review process and, because of this, should not exploit more than a small (e.g. 5%) of the RI’s total capabilities.
- **“Discretionary equipment time”** that could be decided by the head of the RI or a specific laboratory. The use of this access must necessarily be limited, but it can be especially useful in preliminary phases of a project, to establish basic feasibility.
- In case of external users, a “sample mail-in” mode can be implemented for routine experiments / services provided by a given RI that can be easily and quickly carried out by the facilities’ staff.
- Combination of various modes presented above.



## Use of resources:

- “Open access” (for free)
- “guaranteed access” (for those entities which made in-kind or financial contribution in supporting the infrastructure)
- “commercial access” (for a fee)

# Tracking users



- Type of services/projects : long-term research projects vs short-term research projects vs one-off experiments or measurements
- types of usage per different type of user
- frequency of usage by different types of users, level and intensity of usage
- breakdown of users or types of project between different thematic areas
- type of funding used by different users in getting access to the RI (i.e. if access was for a fee) etc.
  
- Collecting such information over time will longer-term allow to assess the effectiveness of RI activity.

# Key points to remember



Peer reviewed or first-come first-served

Balancing the distribution between studies, research and entrepreneurship

Possible to prioritise SMEs or the companies which have signed strategic cooperation agreements

In case of “guaranteed access”: Can this equipment be used by other users or whether this is entirely for the use of this user?

Quality controller (from the side of the user)



## Q7. Offering and Managing access for users

- How would you select users of your research infrastructure?
- Would you offer “guaranteed” and / or “prioritised” access?  
If yes, to which users and under which conditions?
- If RI is at full capacity, do you prioritise your own research? The highest-paying research? The most scientifically important research?
- Which elements around access to RI will you prioritise to track?  
What types of RI usage indicators would be most beneficial for your organisation?

Creating Open Access policy

# **SESSION 4: CONTRACTUAL AND IP ASPECT**



# Contracting: What is the issue?



- Avoiding misunderstandings
  - Documenting a clear, transparent and fair process and managing expectations.
  - Responsibilities, time-lines, payments, disputes etc.
- Making provision for possible ‘unforeseen circumstances’
  - Fire, flood and damage!
- Dealing with potential claim to ownership of Intellectual Property

# Approach



- Ensure clarity from the out-set
  - Address all contractual and legal formalities linked to access to research infrastructure.
  - Use an *appropriate* form of formalisation
    - Legal contract
    - Memorandum of Understanding (MoU)
    - Internal university document specifying details related to the use of a given research infrastructure (**‘terms and conditions of use’**).
- When preparing, use scenario analysis and good practice from others.



- ‘Rule of the Use’ of SOLARIS specifies ‘***terms and conditions of use***’.
- “The method and the detailed principles and procedures to be followed while submitting a proposal for the open access time shall be defined in the *terms and conditions of use* or
- each time on an individual basis in the announcement on an open call for proposals.  
See:

# 'Terms and Conditions of Use'



European Future  
Innovation System  
EFIS

<https://synchrotron.uj.edu.pl/documents/1457771/141455682/TERMS+CONDITIONS.EN.pdf/e84b9436-2341-461e-b5f0-2759c9bbb8e1>



- “The present detailed terms and conditions of use of the research infrastructure define a set of **standards and good practices** to be obligatorily followed by all Users of the National Synchrotron Radiation Centre SOLARIS”.

The screenshot shows the title page and the beginning of the 'General Provisions' section of the document. It includes logos for Jagielloński University in Kraków and the National Synchrotron Radiation Centre SOLARIS. The document title is 'TERMS AND CONDITIONS OF USE OF THE RESEARCH INFRASTRUCTURE OF THE NATIONAL SYNCHROTRON RADIATION CENTRE SOLARIS' dated 28/02/2018. Section §1 'General Provisions' contains five numbered points regarding the use of the infrastructure, including the requirement to accept terms and conditions, compliance with scientific principles, and the obligation to share comments. Section §2 'Research Infrastructure' lists the types of end-stations covered (PEEM, XAS, UARPES) and mentions that detailed manuals are available from beamline managers. At the bottom, a table provides contact information for the PEEM end-station.

PEEM end-station	Marcin Zajac, Ph.D.	+48 12 664 41 59 mar.zajac@uj.edu.pl
------------------	---------------------	---



# Type of Contract



## Legal Contracts

- May be more appropriate for
  - Commercial Open Access;
  - Service based activities;
  - ‘One off’ use where the activity varies;
  - Highly standard activities where the process is invariant.

## MoU/T&C of Use

- May be more appropriate for
  - Academic users who are not going to pay for commercial rates (grant holders or those who have secured subsidized time);
  - Strategic relationships where an external user will pay ‘in-kind’.
  - Complex interactions e.g. those requiring the external users to work on site.

# Carrying out R&D for an external user: Contract check-list



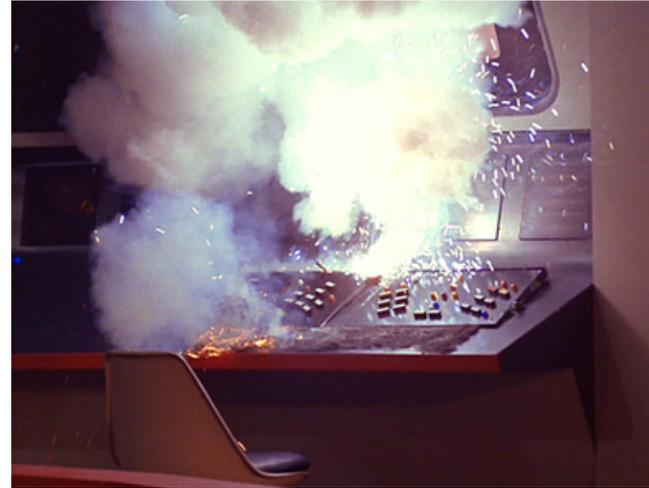
- a) are all the requirements, including the research methods to be used, adequately defined, documented and understood?
- b) does the RI have the 'capability' and resources to meet the requirements?
- c) is the contract acceptable to the research infrastructure?





# Responsibility in case of equipment damage

- Important element of the contract especially with external users
- Common practice:
  - external user designates a person responsible for ensuring that the RI is used correctly and with due care required in the given circumstances.
- Conditions on what happens in the event of equipment damage should be clearly specified.



# IP Ownership (foreground)



- A particular issue when working with the private sector.
- 'Claim to ownership' can be based on the 'contribution' of the R&D team OR use of equipment.
- Fully commercial contracts usually give ownership to the party paying.
- Free access (uncharged) may make new IP the property of the Open Access centre.
- Address this in the contract.
- Ensure it this is in agreement with institutional IP Policy and national law.
- Either stake the preferred approach up-front or state that it will be dealt with one case by case basis
- May depend on the type of RI and the 'axis of access'.



# Confidentially and acknowledgments



## Confidentially

- Confidentiality vs. Publication.
- (Patent vs. Publish)
- Widely understood.
- Consult all parties.
- Consider time-lines.

## Acknowledgments

- Still much discussed and debated.
- How is the use of RI described and acknowledged?
- Paper: equipment explicitly stated.
- Role of individual RI personnel (incl. technical staff)?

## Address in the contract



- 7. Every publication must contain the following sentence:
- a. In Polish "Niniejsze badania zostały wykonane na linii ....., w Narodowym Centrum Promieniowania Synchrotronowego SOLARIS. Eksperyment został wykonany dzięki współpracy z Zespołem SOLARIS."
- b. In English: "These research took place at the National Synchrotron Radiation Centre SOLARIS, at the ..... beamline. The experiment was performed thanks to collaboration of the SOLARIS Team."



Work  
in  
groups

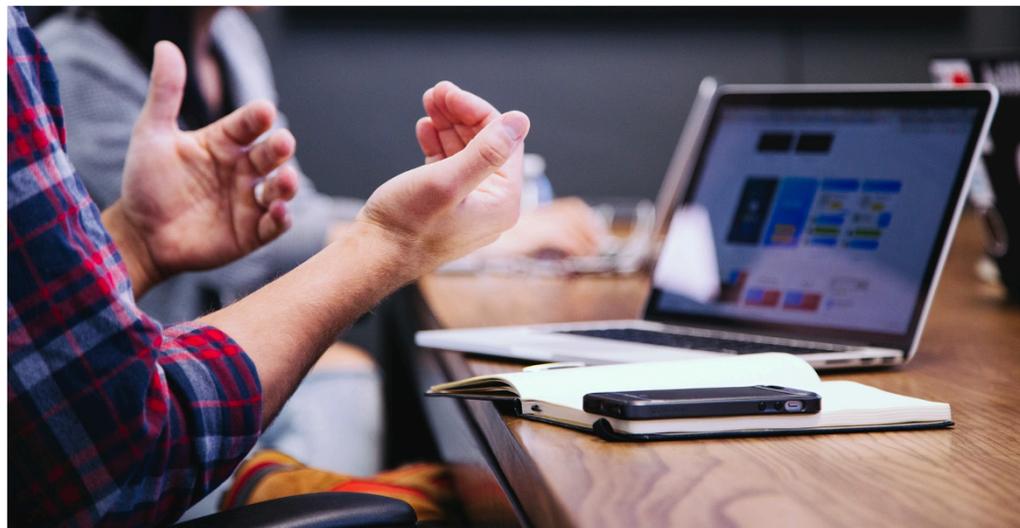


## Q8. Contractual and intellectual property aspects

- What type of contract would your organisation need to sign with a user of your RI.
- Can your organisation's typical contracts be used for that purpose or should more specific contract be prepared?
- Could your organisation's 'typical' IP management contract be used for research infrastructure use?
- What rules do you have at your organisation for acknowledging the use of various facilities and support staff in contractual research?



# Discussion and Q&A



Creating Open Access policy

# SESSION 5: COSTING AND PRICING



# What are the issues?



## Questions

- How much do we charge?
- How do we calculate this?
- Do we charge different amounts to different users?
- Are there any restrictions on how much (or how little) we can charge?
- How do we use the money?

## Thinking points

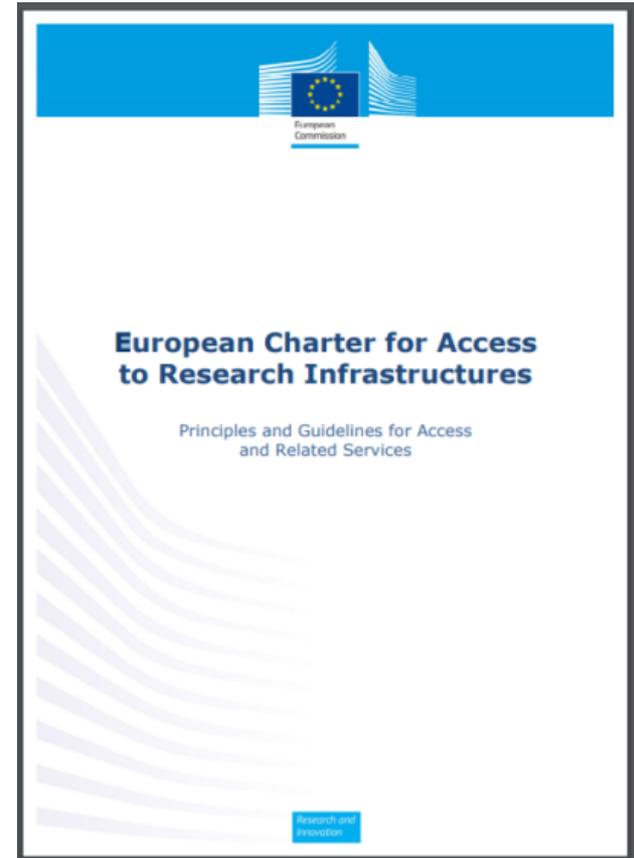
- Why is our HEI/PRO moving to Open Access? (Rational)
- Do we have any way of calculating real costs for OA? (What data is practically available to us?)
- Will we have to report and justify costs (financial audit?)

# Costs and fees



## EU Charter

- Acknowledging a variety of financing models, costs need to be covered and fees for Access, to the extent found necessary, should contribute to the financial sustainability of the Research Infrastructure.



# Main Issues in pricing



- Costing
- % of known costs?
  - Resources consumed (utilities, personnel, maintenance, depreciation)
- Pricing ('market rates' to avoid market distortion)
  - If this is a 'unique resource' how can we know the market rate?
- 'Units' of cost
  - 24\*7 hours? 8\*5 hours?
- Source of original funds (restrictions)
  - Purchased for teaching?
  - Purchased for non commercial research?
- State Aid Rules and exemptions
  - '20% ancillary use'

# Costing and Pricing



## Costing

- current operating costs
- directly incurred costs
- research staff;
- technical and clerical staff costs;
- non-staff costs such as consumables, equipment purchase, etc.)
- directly allocated costs (e.g. principal and co-investigators' time and costs, estates costs, charges for laboratory technicians and major research facilities); and
- indirect costs, e.g. cost of capital employed.
- future reinvestment



## Pricing

- 'Market rates'
- 'FEC+ margin'

### Competitor Price Comparison Calls only November 2008

Great Call, Line Rental and Broadband Plans,  
It's as easy as A B C!

Page 1 of 4

	UK Evenings & Weekends	UK Anytime	International Evenings & Weekends	International Anytime	Notes
	n/a	n/a	n/a	n/a	No calls only packages offered. BT customers must also take line rental.
	£37.00 (Day Talk Freebase)	£22.00 (Day Talk Unlimited)	n/a	£22.00 (Day Talk Unlimited)	12 month contract. Sky Talk Unlimited includes free calls to UK landlines + landlines in 25 international destinations. Prices include £20 for Sky TV. Also includes 100 Free Broadband for free but only when in a Sky L12 area. Free wireless router. Broadband activation fee applies if Broadband is not activated at same time as TV. £40 dish rental fee may also apply. Sky net top box charges apply (£6 - £105). Line rental payable to BT or Sky.
	£3.39 (Day UK Evenings & Weekend)	£7.49 (UK UK Anytime)	n/a	n/a	Line rental payable to BT.
	n/a	n/a	n/a	n/a	No calls only packages offered.
	n/a	n/a	n/a	n/a	No calls only packages offered.
	n/a	n/a	n/a	n/a	No calls only packages offered.
	FREE (noCALL)	£3.99 (noCALL Anytime)	£2.25 (noCALL with Int. Evenings & Weekends both-ways)	£6.60 (noCALL Anytime with Int. Anytime both-ways)	Line rental payable to BT. noCALL Evenings and Weekends has a minimum 3 month term. All other plans 12 month minimum term. International both ways 30 day term. Free transfers.

# Access Unit



- The 'Access Unit' is a measure specifying the Access offered to the Users.
- RI are responsible for the definition of Access Unit. Examples:
  - hours
  - 'sessions 'of beam time
  - gigabytes transmitted for the conduction of complex experiments
  - quotations based on an inventory of Users' needs.



# Charge out rates for major research facilities in the UK



- TRAC (Transparent Approach to Costing) rules
- cost of equipment, including major research facilities, should be directly allocated to research projects.
- This means that it should not appear in the indirect cost rate.
- A research facility can be a single piece of equipment, or a group of equipment.
- Major research facilities include specialist animal facilities, greenhouses, and specialist IT research facilities.
- The TRAC rules suggest an approach to calculating the charge-out rate for a research facility.
- <https://www.trac.ac.uk/tracguidance/>

# Access policies and costs



- Other HEI/ PRO users are only charged ‘marginal costs’.
  - = “the cost of accommodating one additional user at the facility”
  - = avoidable costs related to the extra user, such as consumables and any additional support staff
- Definitions vary.



# UK Nuclear Magnetic Resonance facility

## Academic and Non-profit users



- Access to each spectrometer is charged based on hourly login time to cover essential running costs.
- A low academic fee is charged since academic uses are largely cost driven, and represents approximately 5% of the total direct costs of an average NMR-based academic research grant.
- Academic user fees are kept as low as possible to stimulate initial demand.
- Equal fees are charged to all academic users to provide equitable access. However, there is a rational system of user prioritisation which is based upon the source of funding.
- Free access is offered to UK-based academic users for as long as operating costs covered by the grant. When this support is insufficient, users will be charged the lowest possible fee to cover cryogen and repair costs. When this support is over, fee waivers for newly established investigators at UK universities are available upon application to gain access to some instruments. This is to allow them to generate preliminary NMR data to apply for grants.
- Subsidised access is offered for non-profit users by external funds and University support.



# UK Nuclear Magnetic Resonance facility

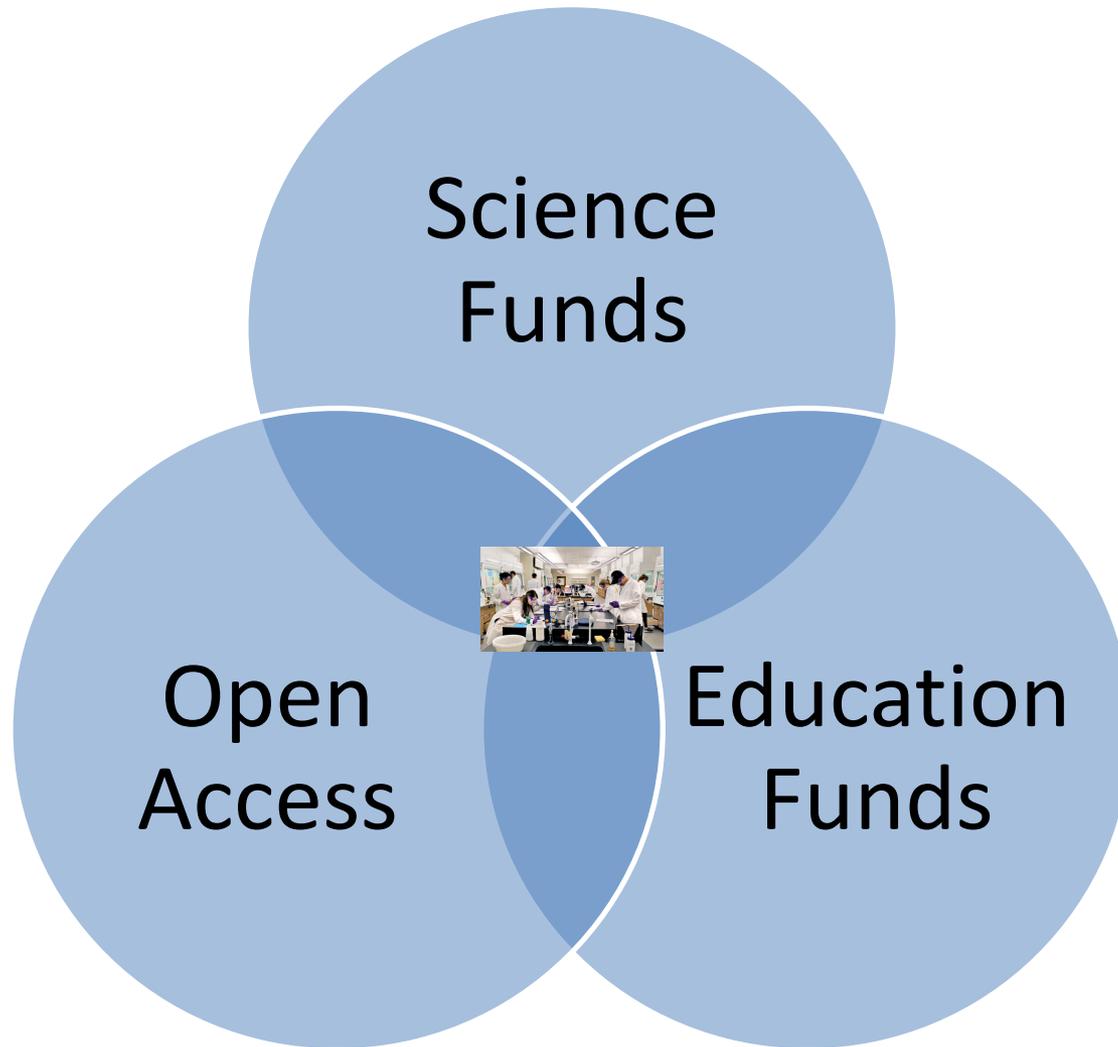
## Academic and Non-profit users



- Industrial users are technology and service driven, and are generally willing to pay for the real and reasonable costs **if quality, turnaround, data security and IP issues** are satisfactorily addressed. Industrial users have access to a maximum of 10% of time and charged internationally competitive rates that are calculated to cover unsubsidised running costs.
- Lower introductory rates offered to entice new and collaborative users during the initial period of operation in order to build user demand and optimise services.
- A fee for a dedicated operator assistance for training, NMR experiment set-up, optimisation, remote access & data processing is charged.
- The NRM facility is also offered for rent by external groups for small scientific meetings, computer workshops, etc.



# Other considerations: National Restitutions on use



# Other considerations: EU Structural Funds (national use)



## Regulations and accounting

- Specific cost eligibility rules set by the national authorities, in line with the ERDF regulation.
- If the RI also secures awards from other European programmes (e.g. Horizon 2020) there will be a need to ensure strict cost-accounting to ensure that both sources of funding can be separately accounted for and that, currently, different rules on eligible costs and financial report are respected.



**European Union**

European Regional  
Development Fund



# Depreciation and replacement



- RI need to ensure their level of annual investment in asset maintenance, renewal and replacement meets generally accepted 'norms'.
- **'National 'norms'**
- UK university sector: buildings renewal and replacement = 4-5% of current replacement cost.
- Flanders (Belgium): fixed 5 yr depreciation period
- 3 years for ICT equipment (hardware and software)

# Costing and pricing



- Don't worry too much at this stage.
- Look towards **principals** not **price**.



## Q9. Costing and pricing (questions to be considered)

- What is the cost structure at your RI?
  - Do you know yet?
- What are the real costs of running your research infrastructure?
  - Can you capture them?
- What might be an appropriate access unit?
  - How do you measure this (e.g. cost incurred for one hour of access)?
- How will you charge (or calculate) your RI 'usage'? (For example, in hours based on 8-hour cycle, 24-hour cycle, capacity usage or other?)

Creating Open Access policy

# TECHNICAL ASSISTANCE



# Next Steps: TA to help draft your Policy of OA to RIs



## Send Expressions of Interest (Eoi)

- [L.Cowey@t3i.co.uk](mailto:L.Cowey@t3i.co.uk)
- Cc: Sinisa Marcic  
[Sinisa.Marcic@rcc.int]

## State

Your name

Organisations name

(City)

Economy

Level at which Policy might

operate e.g. Group,  
Department, faculty,  
University, Institute, Centre  
etc.

Contact details (email and phone  
number)

# Thank you!



The Regional Cooperation Council  
is establishing a  
Network of Open Research  
Infrastructures in the Western Balkans

**Unique Opportunity for all Public  
Research Organisations**

**GET INVOLVED**  
in shaping the  
Network

**DRIVE FORWARD**  
regional  
Open Science  
agenda

Dr Lisa Cowey

[L.Cowey@t3i.co.uk](mailto:L.Cowey@t3i.co.uk)

Dr Jelena Angelis

[angelis@efiscentre.eu](mailto:angelis@efiscentre.eu)