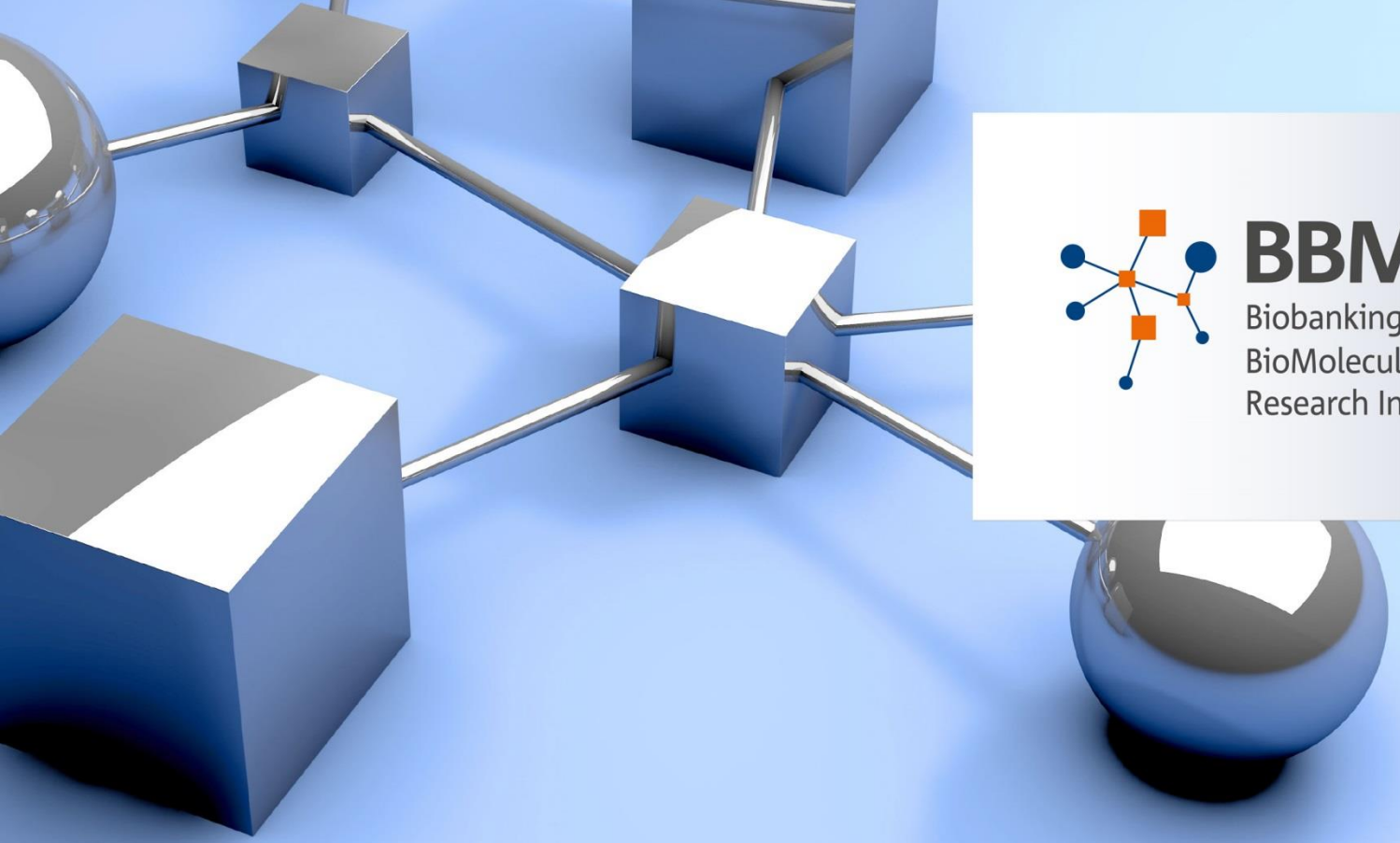

BBMRI-ERIC
Biobanking and
BioMolecular resources
Research Infrastructure

How European BMS RI boost Innovation by Open Access

www.bbmri-eric.eu

Aims

Explore how the 11 BMS RIs participating in CORBEL can **stimulate innovation** in Europe through **open access to their key assets**, such as **resources**, **technologies**, **data** and **knowledge**.

What is Innovation?

Several definitions shown;

For policy purposes the Oslo Manual of the OECD defines it as following:

"**Innovation goes far beyond R&D**

It goes far beyond the confines of research labs to users, suppliers and consumers everywhere – in government, business and non-profit organisations, across borders, across sectors, and across institutions; four types of innovation: **product** innovation, **process** innovation, **market ing** innovation and **organisational** innovation."

Commission Policy

Europe is facing three main challenges:

1. getting research closer to market,
2. generating the very best science, and
3. ensuring its rightful place in the international science community.

This is why Commissioner for Research, Science and Innovation, Carlos Moedas has adopted **open innovation, open science and open to the world** as strategic priorities (the **Three Os**).

Open innovation

- Foster innovation potential of RI
- Facilitate access of SMEs to research infrastructures while respecting confidentiality
- Stimulate investment towards sustainable RI

How do European RIs contribute to Innovation?

European BMS RIs work along the classic drug development pipeline;

Their primary focus is to foster/support scientific research and NOT innovation;

Differently mature in their establishment but all provide services to industry at different levels;

Published Innovation Policy have only few but open to collaboration;

Some quotations

- EU-Openscreen “increase validation of hits; promotes innovation through the discovery of novel biologically active compounds”
- Instruct “facilitates access to cutting edge technology in structural biology to the scientific community in both academia and industry and aims to increase the connectivity of structural data and metadata in the context of open science”
- Infrafrontier “open access is crucial”
- MIRRI “innovation is based on verified resources”
- ECRIN-ERIC “support innovative SMEs through H2020, e.g. data sharing and re-use of services”
- ELIXIR “support European SMEs by expand reach, build partnerships and capacity building on nodes”; Industry Advisory Commitee
- Euro-BioImaging “access to and development of”; Industry Board
- EMBRC “from onset to science park, we are an innovation platform”

Open targets, samples, open data

- Clinical failures are costly;
- Industry is partnering up in pre-competitive research to harvest knowledge and technologies from RIs;
- Standardisation and harmonization is the key: RIs need to implement them;
- Some SMEs depend on open data; innovation in what it is to be an SME

IP issues in pre-competitive research and open innovation

See tabled report;

Recommendations:

1) Drafting rules for OI projects in advance (GTCT or building blocks)
2) further support and develop BMS RIs in order to provide also services to start ups and SMEs

EMA framework for collaboration with academia

In place since march 2017;

Key elements: mapping; evolution of expertise; identify opportunities…

Methodology: inform, consult, involve, cooperate

Europe´s open STI policy and RIs

Access promotes competitive research…

ESFRI Innovation Working Group recommendations:

- Support Industrial Liaison Officers
- Data management policy
- Anticipate the foresight of large equipment
- Support pre-development of highly innovative components
- Develop co-innovation between RIs and industrial companies
- Promote development of local or regional ecosystems

Jointly designing innovation

Make us of industries interested in innovating their equipment, e.g. microscopy, in vitro assays, lab equipment;

Challenges for OI:

- Building partnership;
- avoid potential stumbling blocks (unclear communication; missing standards/policies; new regulatory/compliance requirements)

Panel discussion

IP: Within IMI well developed system; IP is necessary and who is exploiting it?

OI: in Imaging it is not so easy as in Pharma to define what is open and what not; work with regulatory early on to get new technologies validated;

SME involvement: keep low barriers;

RIs are accelerating the drug development pipelines!

Partnerships: high quality standards for equipment; regulatory standards help upskill results;

People: training of staff current and future is key; RIs could increase capacity of SME staff; cultural change is two way driven;

Home-take message

RIs start preparing themselves towards innovation;

They do it primarily through cooperative research;

Room for improvement:

- Develop special industry/innovation policies
- Increase access for industrial researcher
- Establish models for better collaboration in OI
- Prepare and implement QMS and standards as prerequisite for cooperation with Industry
- Identify SMEs in your area for stakeholder involvement and to solve their problems

This is a first step, more to follow!