UiO : Life Science
University of Oslo

Dialog meeting – Convergence Environment 2018-2019

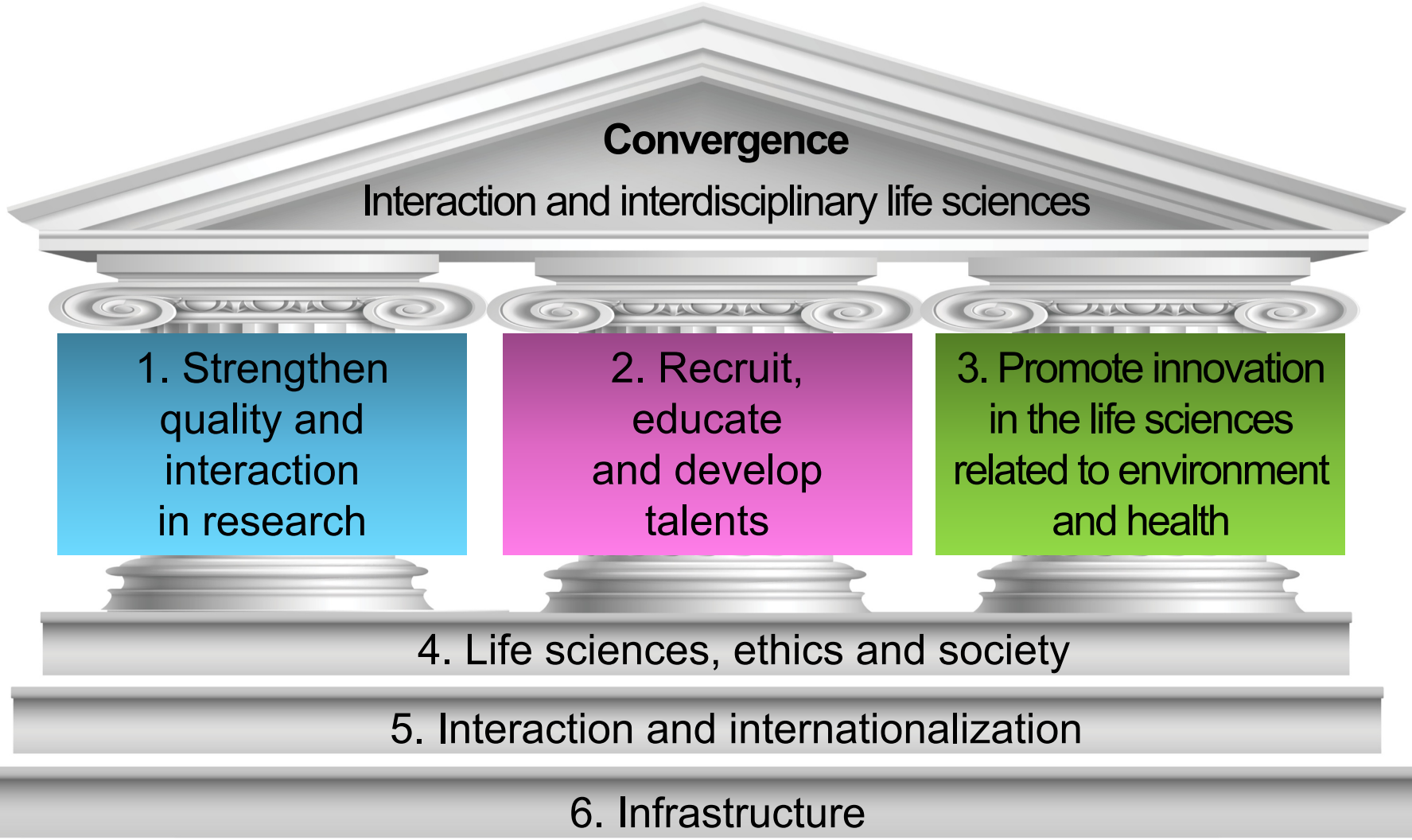
Finn-Eirik Johansen,
Chair of the board, UiO:Life Science

What are life sciences?

- All scientific disciplines studying the composition, structure and functions of living organisms.
  - medicine and biology constitute the core, backed by chemistry, physics and mathematical subjects
  - application of knowledge is a focus for UiO:Life Science
- The UiO life sciences initiative also includes **social sciences** and **humanities** when researchers:
  - examine the relationship between human behaviour or awareness and its biological component
  - analyse challenges arising in the encounter between life-science innovations and social values and priorities

The UiO life science strategy

Vision: International competitiveness in the life sciences



The UiO life science strategy

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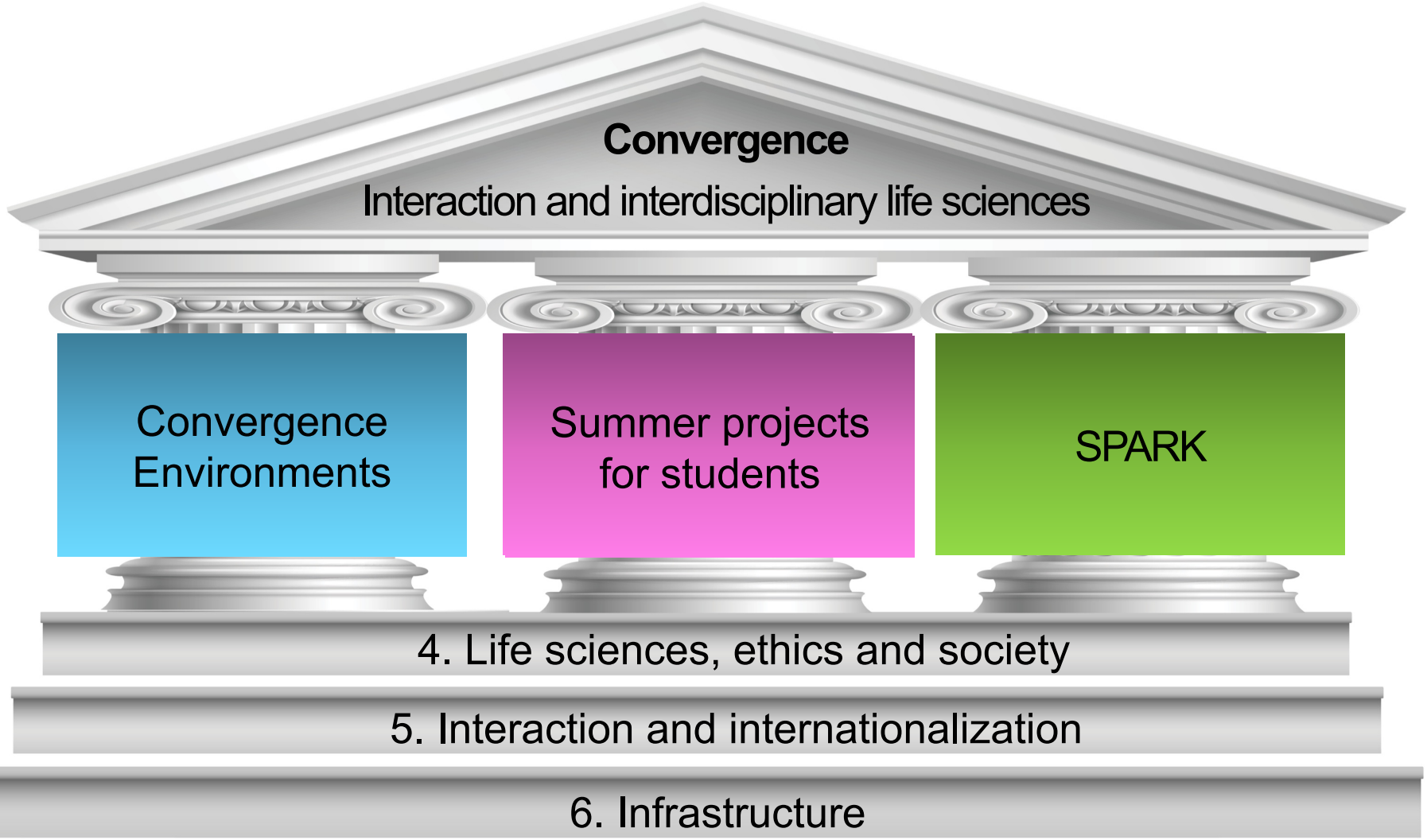


OsloLifeScience – investing in health and environment 12–15 February 2018

UiO : University of Oslo

MON 12th February	TUE 13th February	WED 14th February		THU 15th February
	UiO pre-event UiO : Life Science University of Oslo		**Partnership for life** LMI LEGEMIDDELINDUSTRIEN	**Sustainable food** UiO : Life Science University of Oslo Norwegian University of Life Sciences
Darwin Day CEES Centre for Ecological and Evolutionary Synthesis	**Main event University Aula** UiO : Life Science University of Oslo	**Young talents** UiO : Life Science Norwegian University of Life Sciences		**Future of medicine** UiO : Life Science University of Oslo Oslo University Hospital
Darwin Dinner CEES Centre for Ecological and Evolutionary Synthesis	**Reception**	**Bioteknologidagen** Bioteknologirådet The Norwegian Biotechnology Advisory Board		**Academic after-party** All

Other meeting places

UiO festivalen

LIVSVITENSKAP LIFE SCIENCE

Life Science Lunch

ARENDALSUKA

NLS DAYS 2017
nordic life science days
12–14 september
malmö–copenhagen
malmömässan

os!o innovation week

NATIONAL THEATRET

Nobelmedia

Forskningsdagene

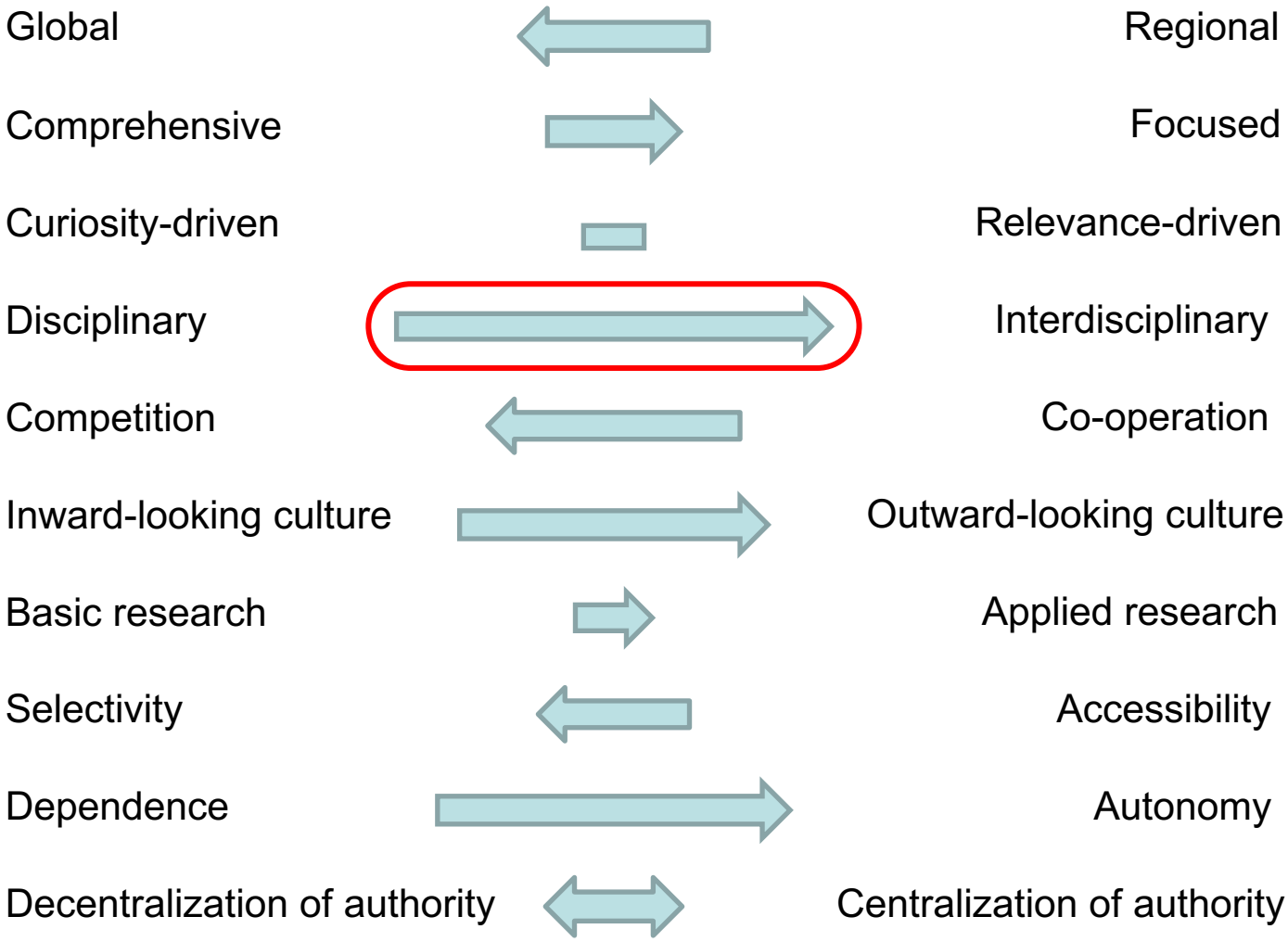
On interdisciplinarity

> Most scientists are aware of the term, and many will have used it. But how many are truly engaged in it? Done correctly, it is not mere multidisciplinary work — a collection of people tackling a problem using their specific skills — but a synthesis of different approaches into something unique. **= convergence**

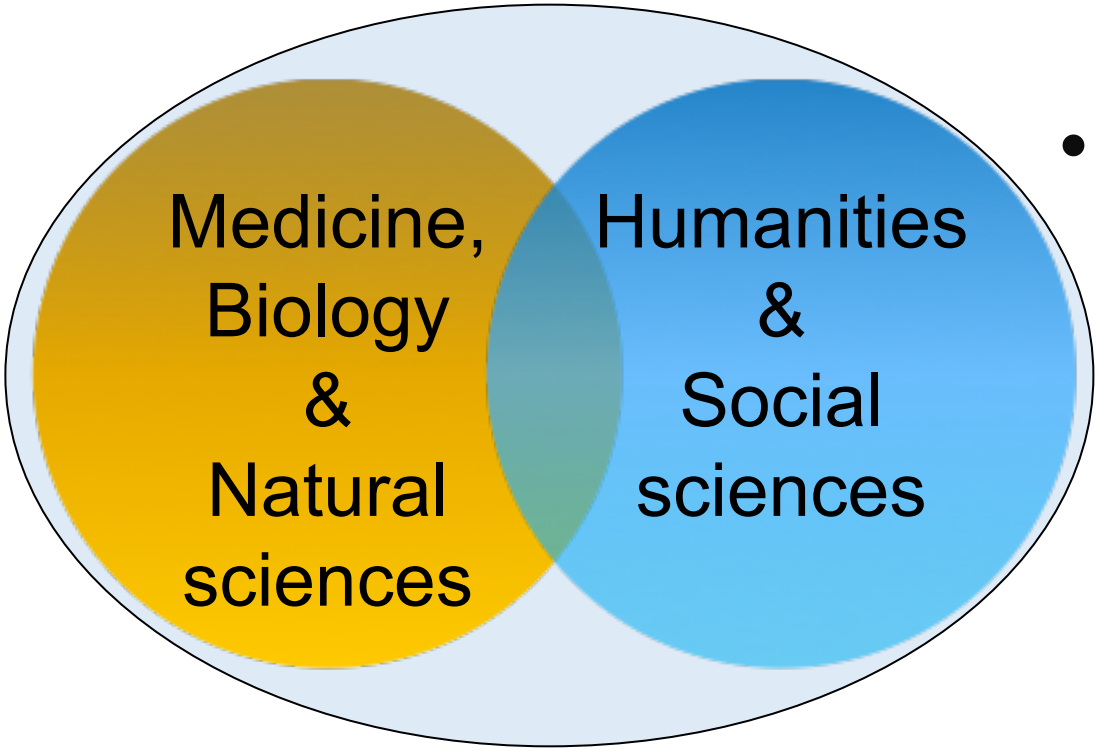
Mind meld: editorial, Nature 16 September 2015


nature
THE INTERNATIONAL WEEKLY JOURNAL OF SCIENCE
SKYWATCHER
MIND MARVEL
INVISIBLE HAND
DOC QUANTUM
CAPTAIN MEDICA
CONTROL-X
BIOLOGENE
INTERDISCIPLINARITY
Why scientists must work together to save the world PAGE 305

UiO profile dimension analysis performed by our SAB



Launch strategic research initiatives – convergence environments



UiO has all the disciplines

- Cluster funding
  - 3–4 PhD positions
  - Expenditures (max 250 KNOK/ year/experimental position)
  - Own funding

Process for selection of convergence environments

Q1 2016

Define goals

Q2 2016

Information and feedback from UiO scientists

28–29/9 2016

Workshop with speed-dates

28/10 2016

Submission of proposals (sketches)

November 2016

31 sketches evaluated by expert panel

December 2016

Feedback on sketches and call for full-length applications

March 1st 2017

Deadline for applications March 1st

April 2017

Evaluation of 22 applications by expert panel

May 2017

Final decision by UiO:Life Science board

October 2017

Start convergence environments

Launch strategic research initiatives – convergence environments

Assessment of Convergence Environment applications 2016–2017

Criteria for assessment:

1. Research (50% of total score)
2. Project leader and team and convergence environment organization (33% of total score)
3. Responsible research and innovation (RRI) (17% of total score)

1. Research

a) To what extent is the proposed research **ambitious with the potential to achieve ground-breaking results**?

b) To what extent does the proposed research address **important research challenges**?

c) To what extent are the **objectives beyond the state-of-the-art** (e.g. novel concepts and approaches, development of novel methodology or development across disciplines)?

d) To what extent does the proposed research **fit with UiO's strategy for convergence in life sciences**?

e) To what extent are the outlined scientific **approaches feasible**?

f) To what extent are the proposed research **methodologies appropriate** to achieve the goals of the convergence environment?

g) To what extent are the proposed **timescales and resources necessary and properly justified**?

2. Project leader and team and convergence environment organization

a) To what extent is the **track record of the project leader** and principal investigators characterized by the ability to propose and conduct groundbreaking research that goes beyond the state-of-the art?

b) To what extent has the project leader *demonstrated good leadership of research groups*, including training of early career researchers?

c) To what extent do the principal investigators have **expertise of essential importance** to conduct the proposed research?

d) To what extent is successful accomplishment of the main research **objectives dependent on the described research collaboration** in the proposed convergence environment?

e) To what extent is the described research **team and expertise optimal** for the proposed research?

f) To what extent are the **structure, organization and size** of the convergence environment optimal for the proposed research?

g) To what extent is the proposed convergence environment **appropriately supported by host and participating UiO departments/institutes**?

3. Responsible research and innovation (RRI)

a) To what extent do planned RRI activities address probable societal concerns, legal issue and support stakeholder's engagement?

b) To what extent may results from the project generate a foundation for new innovations?

c) To what extent do plans for dissemination address key users of the research results?

d) If the scientific field is characterized by a gender imbalance, are the plans to support development of research talents of the under-represented gender appropriate?

Convergence environments awarded May 2017

- **AnthroTOX**: Faculty of Social Sciences (SAI, TIK center), Faculty of Mathematics and Natural Sciences (KI, IBV), Faculty of Medicine (Helsam)
- **COMPARE**: Faculty of Mathematics and Natural Sciences (IBV, IFI), Faculty of Medicine (Klinmed), Faculty of Social Sciences (TIK)

Basis:
Excellence in science

- **The genetic history of Eastern Eurasia (ARCH-GEN)**: Faculty of Mathematics and Natural Sciences (CEES/IBV), Museum of Cultural History
- **Personalised cancer therapies (PERCATHE)**: Faculty of Medicine (IMB, NCMM, Klinmed)

Words from the panel

"This is a really exciting initiative. I have been telling my own institution about the way that you are innovating to create these cross disciplinary projects - as a model of how to do things!"

Professor Nicola Dibben, University of Sheffield, UK

"It was an extremely interesting and useful experience."

Professor Jari Koistinaho, University of Eastern Finland

"*As an assessor, I found the whole process fascinating - I am still talking about the project on the comparative immunity of fish! It will be so interesting to see what kind of novel insights emerge from the convergence environments being created. Next time around, I think it would be good to foster even more anthropological and sociological engagement with the natural sciences. Truly integrated biosocial approaches are surely the way forward!*"

Professor Melissa Parker, London School of Hygiene & Tropical Medicine, UK

Process for selection

1. Define goals: International competitiveness
   - Strengthen quality and interaction in research
   - Recruit, educate and develop talents
   - Promote innovation in the life sciences related to environment and health

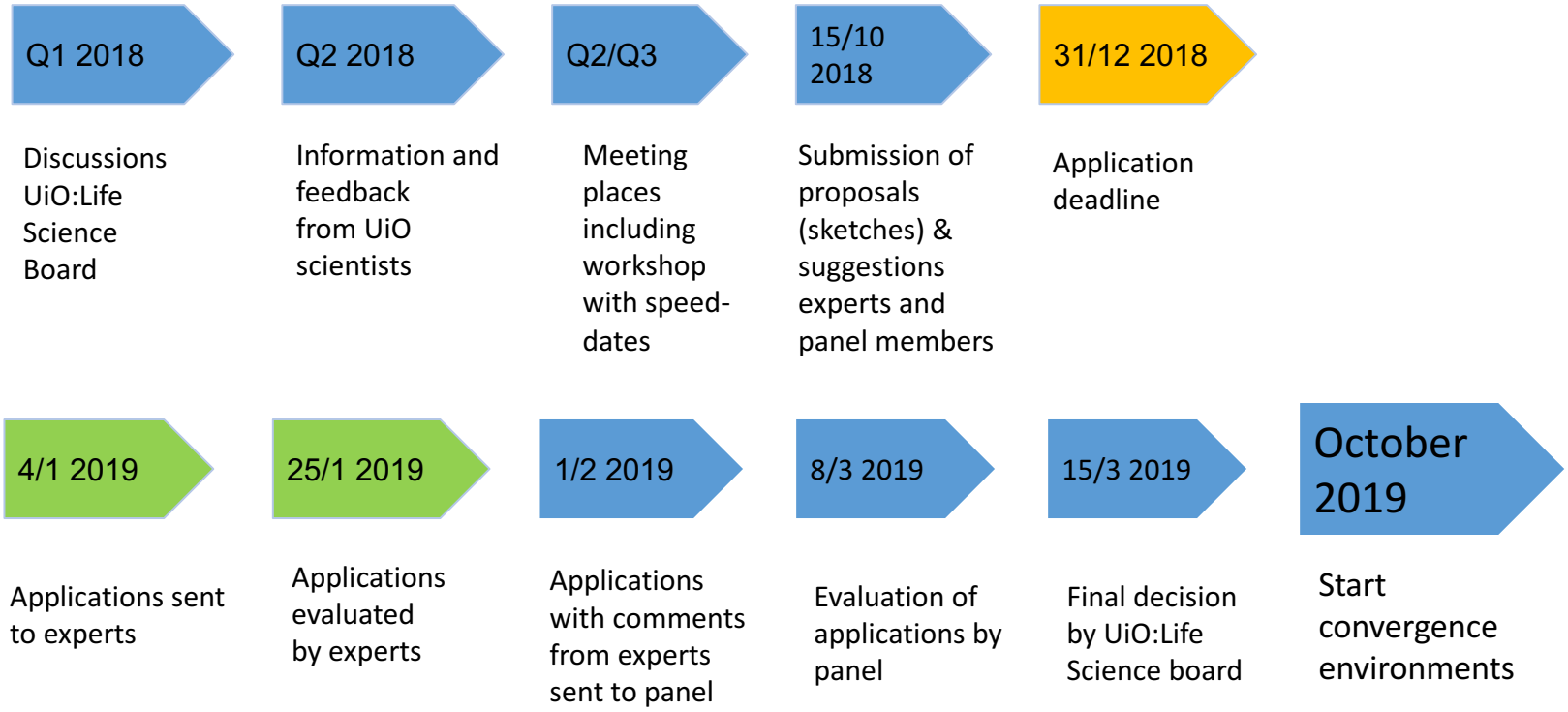
Process for selection

2. Information/dialog meetings with UiO (spring 2018)
3. Set criteria and write call (early fall)
4. Application (fall 2018)
   - Sketch (to inform UiO:Life Science about intended application)
   - Proposal

Process for selection

4. Evaluation
   - Part I: Experts
   - Part II: Panel
5. Decision by UiO:Life Science board
6. Start convergence environment by October 2019!

Process for selection of convergence environments II



Some of the issues the Board has discussed (but not concluded)

- How do we get stronger participation from the humanities and social sciences in the convergence environment?
- How much innovation should count for in applications?
- Should we also have convergence environments in education?

Should we have separate «tracks» (categories) of convergence environments?

Other issues:

- How do we ensure a good gender balance?
- Should we demand a stronger support from departments and faculties (own contribution)? If so how?

And last but not least, **what meeting places do we need** to facilitate for researchers to meet each other across disciplines in order to establish new collaborations?