



Optimizing research for impact and achieving sustainability

Pro-rector dr. Reid Hole

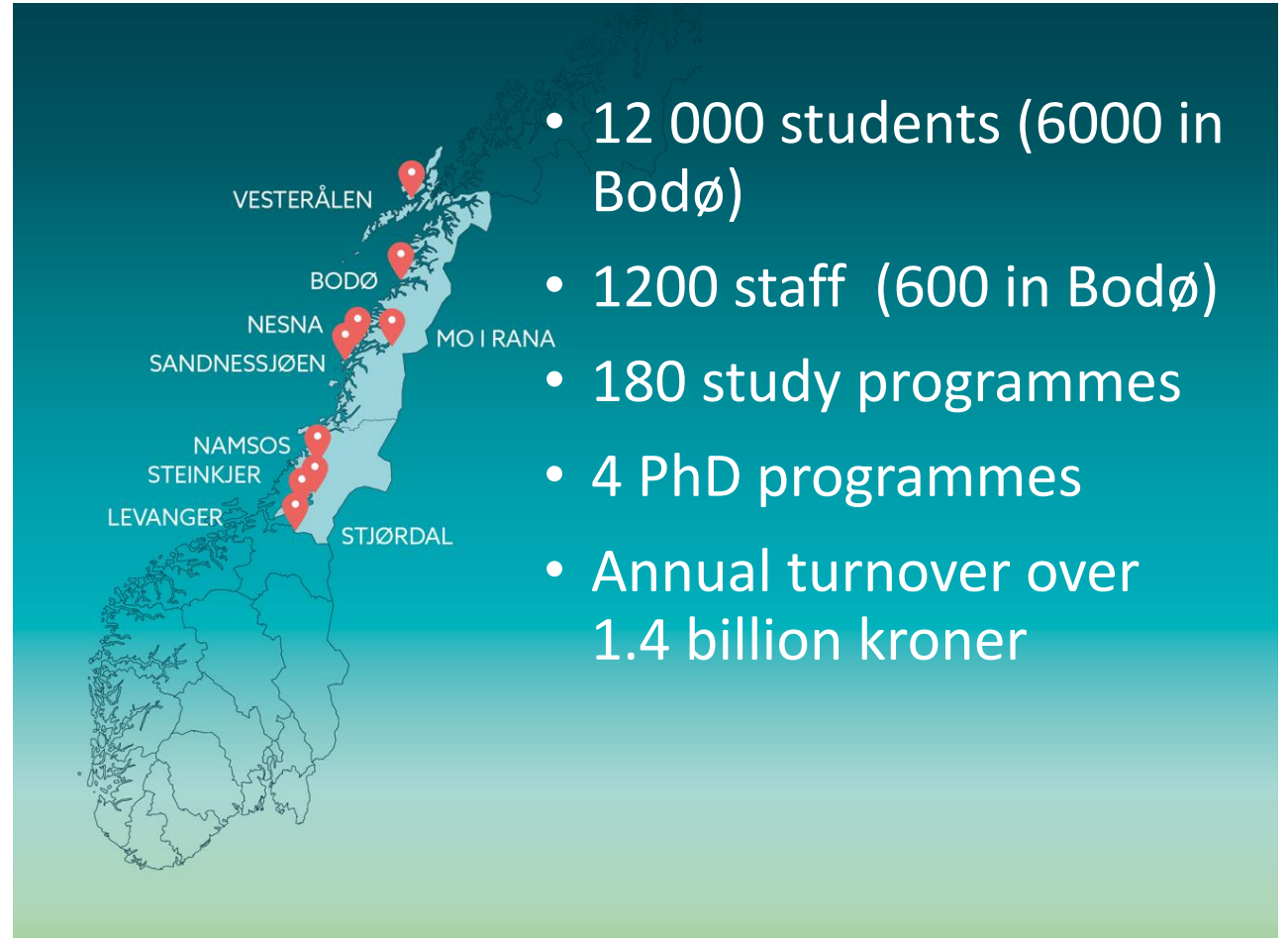
Nord University

Faculties:

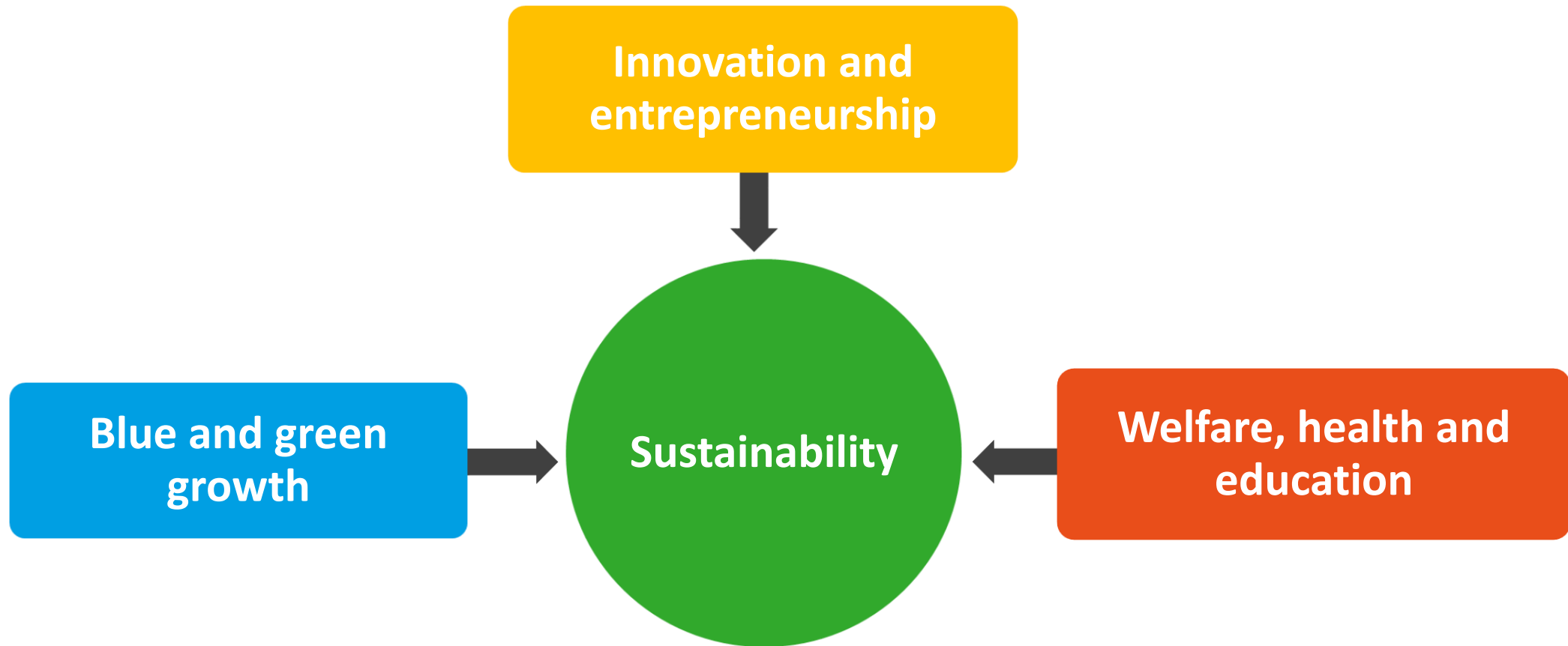
- Nord Business School
- Bioscience and Aquaculture
- Education and Arts
- Nursing and Health Sciences
- Social Sciences

Encompasses:

- 40% of Norway's coastline
- Large industrial region
- Dominating seafood region
- Large public sector



Nord University: Strategic Profile



Humanity is facing some urgent challenges



Energy
demand:
+100 - 153%



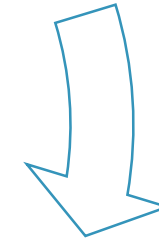
Population:
**+26% from
2016 to 9.31
billion**



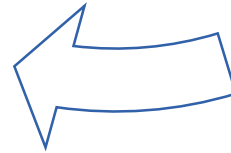
Global Challenges by 2050



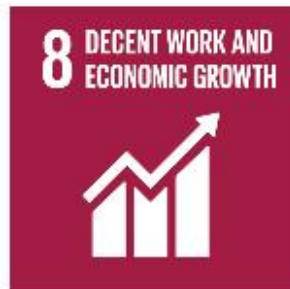
Temperature
change:
+ 0.8 - 2.6°C



Food
production:
+70%



UN SDGs to transform our world



UN SDGs urge for collaboration and new partnerships

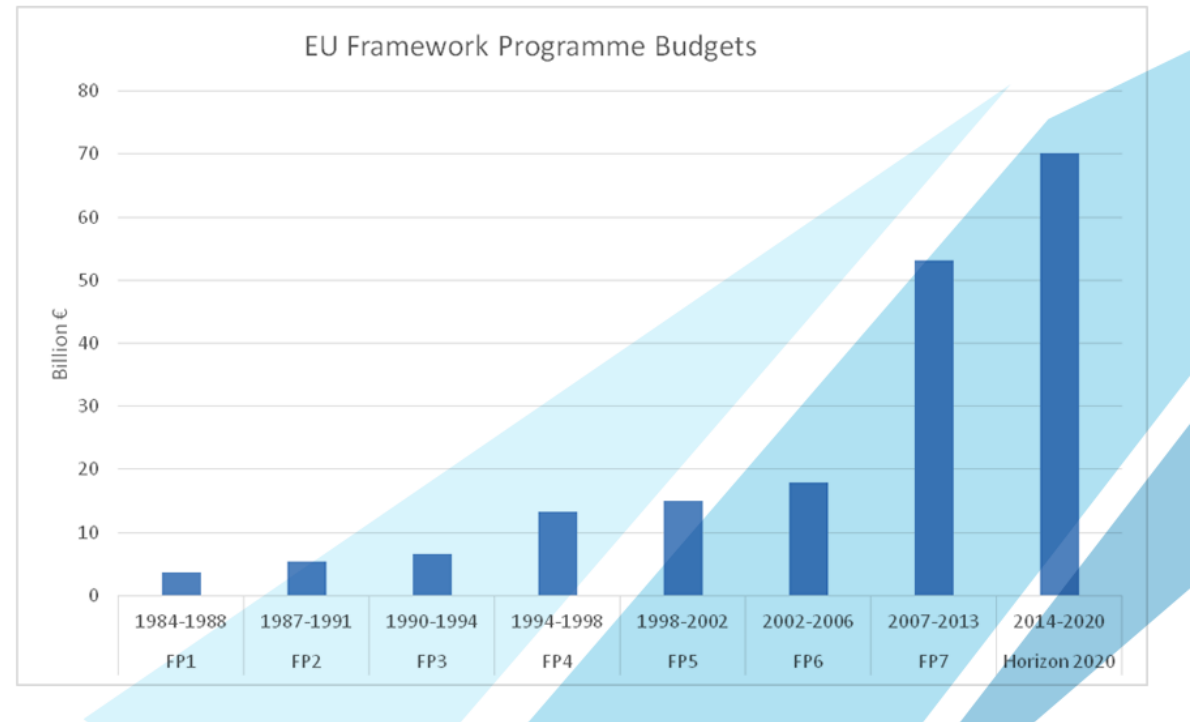


Why pay attention to impact?

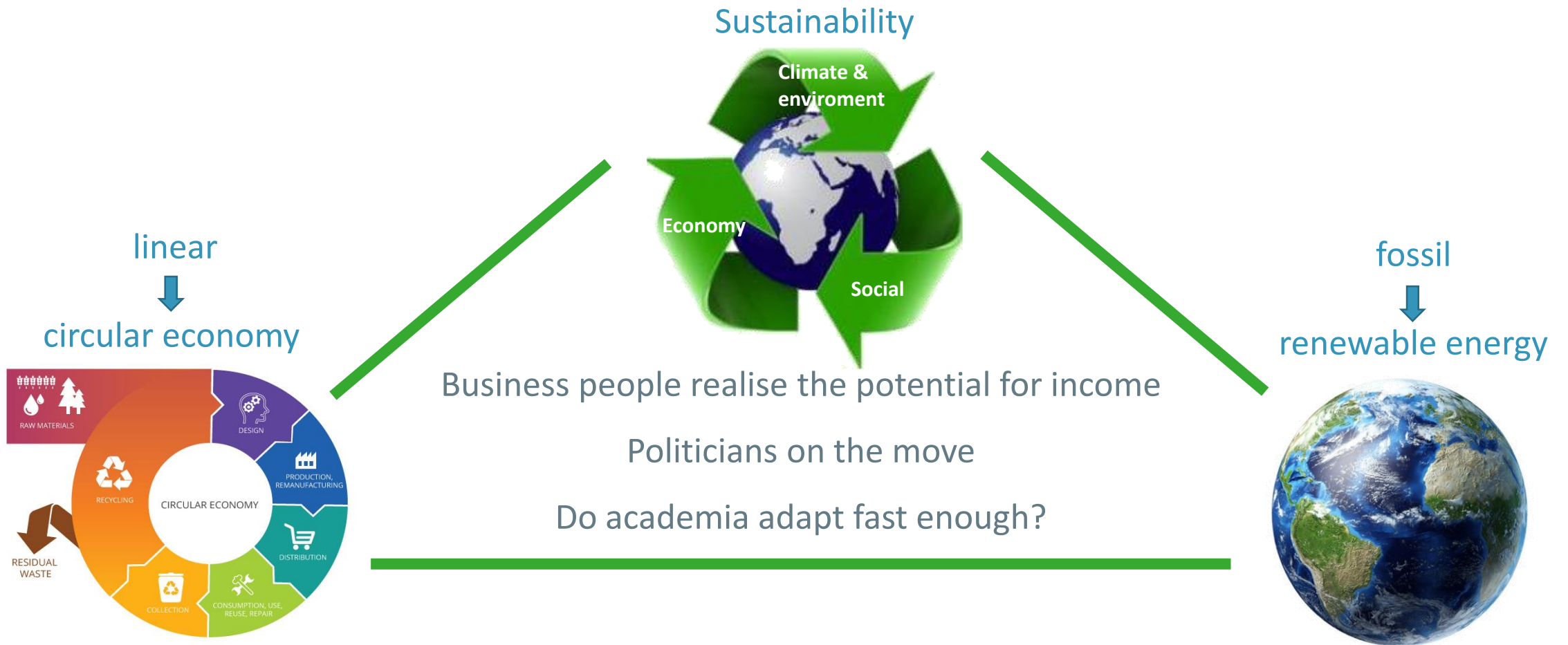
The fourth industrial revolution is based on research

- Digitalisation
- Robotics
- Internet of things
- Artificial intelligence

Horizon 2020 investments:
High trust in R&D



The green shift (the common denominator) represents a belief in the future

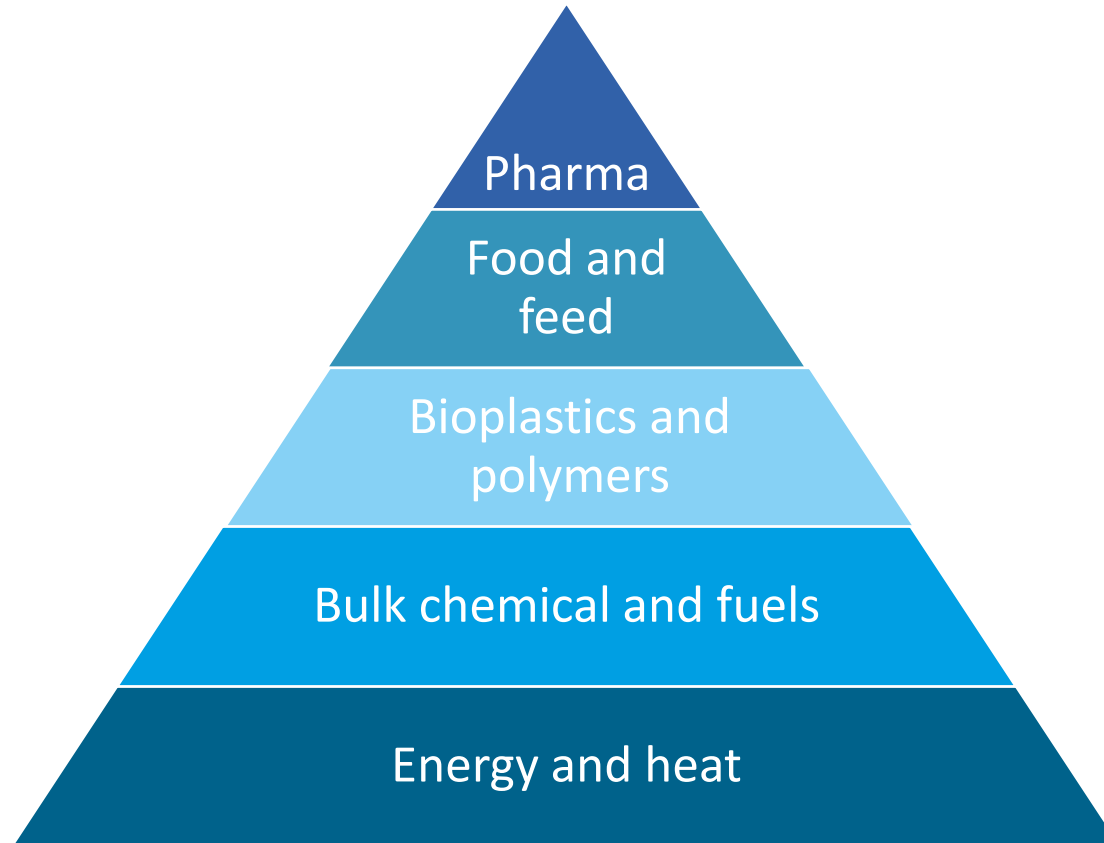


Value creation – an example from bio-economy

High value



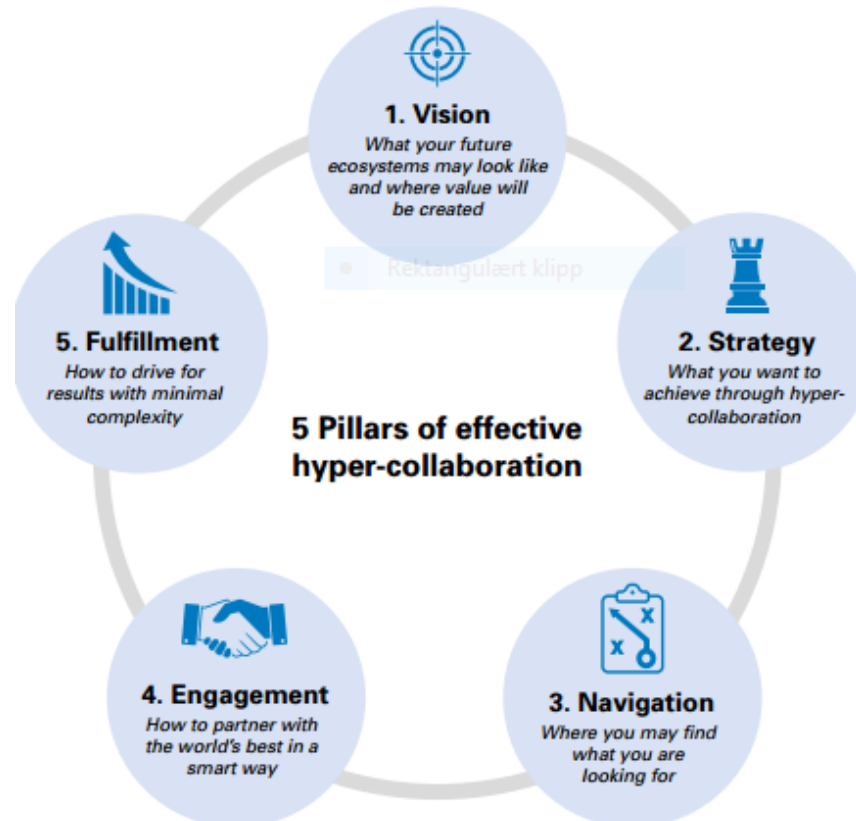
Low value



Categories of bio-based products and their ranking based on value/ unit

- Research is the base for innovation and changes
- It is an ambition to improve the present level of employment and welfare in Europa
- The potential for value creation must be analysed when relevant.

There is a need for urgency.
The private sector is prepared.



What is impact?

Impact

"making a demonstrable difference in a non-academic context" (*Guardian* columnist Wolff, 2010)

- Voices crying in the wind: research is often divorced from real impact.
- Should academics be judged not only by their star papers and their citations, but by research that has made a difference?

Why pay attention to impact?

- In recent years, "research impact" has become a major topic of debate within the academy; this is largely due to the processes for evaluating research and the allocation of funds.
- The discussion has now even taken on a political dimension: some strongly arguing "for" or "against" impact.
- The purpose of research will differ across disciplines and it is important that we don't lose sight of what we are seeking to achieve.

DORA – The San Francisco Declaration on Research Assessment

General Recommendation

1. Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

For institutions

4. Be explicit about the criteria used to reach hiring, tenure, and promotion decisions, clearly highlighting, especially for early-stage investigators, that the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it was published.

5. For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

Where does research have its major impact?

Knowledge (further research)

- Research will contribute to the body of knowledge.
- Assessed through citation and usage impact factors, as well as implications for research identified in the research conclusions.

Practice

- Industry and business leaders, practitioners and consultants in both public and private sector organisations are all affected by the outcomes of research.
- Assessed through implications for practice identified in the research conclusions. Evidence that research has been applied successfully in industry and business practice can demonstrate usefulness.



Teaching and learning

- Students and faculty in a classroom setting are direct consumers of research.
- Assessed through the clarity of the conclusions to aid learning, and the provision of case studies and examples.

Public policy

- Civil servants, politicians, decision makers in public bodies, institutions, and charities draw on research to shape their policies and practice.
- Implications for policymaking and society can be identified in the research conclusions. Evidence that research has influenced public policy successfully can demonstrate usefulness.

Society and environment

- Cultural norms and accepted ways of thinking can and should be challenged by the outputs of research. This will include the impact on the environment (at micro and macro levels), ability to influence social responsibility in industry, business, and public policy, and the incorporation of social values as well as financial values in research outputs.
- Assessed through implications for society in the research conclusions.

Planning for new research projects

1.

Impact

Start with the call –
followed by an in-depth
analyses of the impact

Identify and involve the
target end user?

Check whether *target
user* is motivated to
involve the *end user*?



2.

Implementation

To be done in
close
collaboration
with the *target
user*



3.

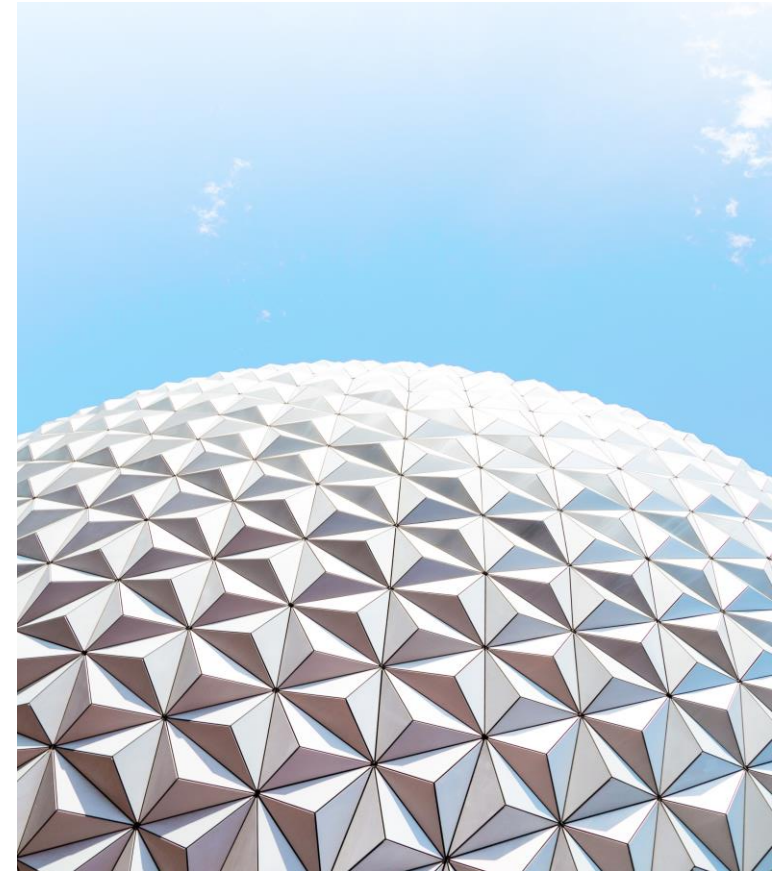
Excellence in research

National and
international
collaboration
and
partnerships
is crucial

Summary

- The global challenges call for changes
- UN SDGs have set the direction
- The green shift will be an ongoing process over the coming 50 years
- With climate change in mind, there is a sense of urgency, implying that we have an obligation to focus much more on the impact of our actions, including in research and education

Impactful research will set standards for these new developments



The world of marine biosciences in the High North



Thank you
www.nord.no