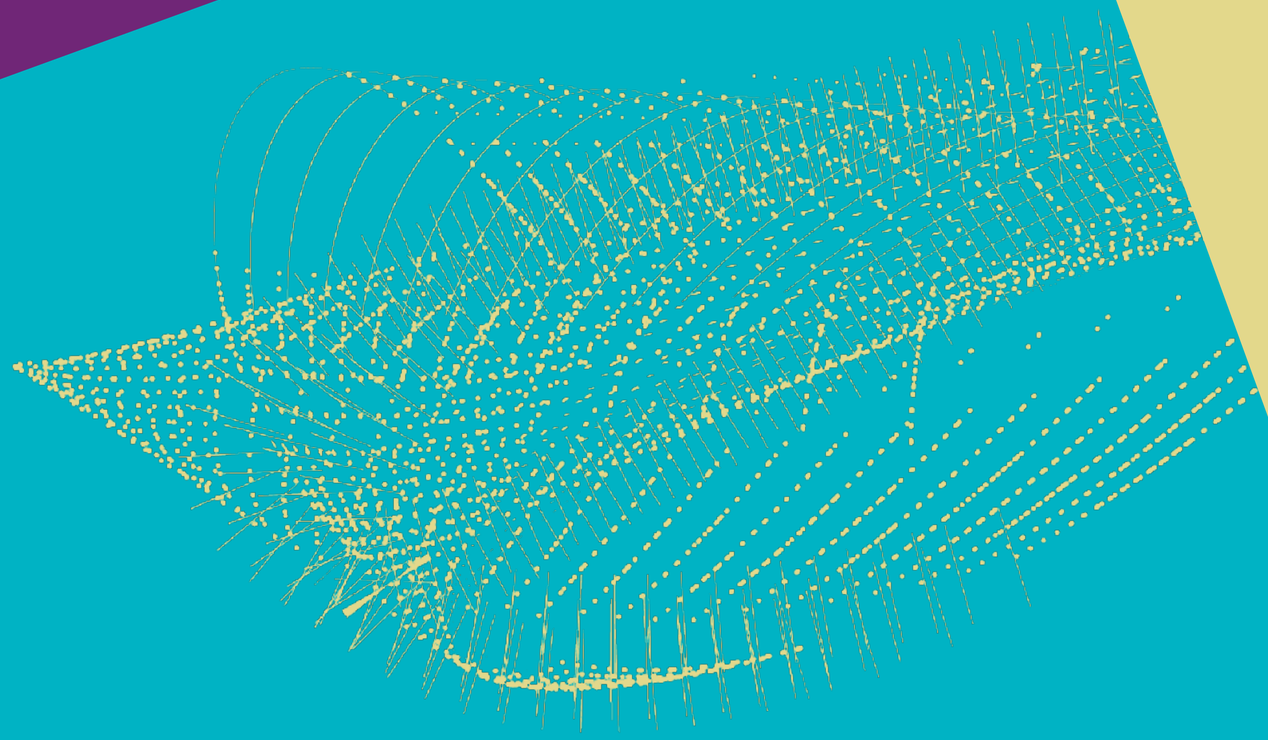
Nikhef



SUBTITEL

STAFF MEETING

ESPPU-NL - SUMMARY OF PAMELA

Nikhef strategy is a good starting point

- Proven approaches
  - HL-LHC experiments at run-2 and run-2 (after LS3)
  - R&D and instrumentation toward HL-LHC
  - Theory development in high precision LHC and future colliders
- New opportunities
  - Pivotal role of CERN in the post-LHC period with e+e- (& pp) machines
    - ILC (Japan will provide a statement of support toward end 2018), CLIC, FCCee/pp
  - Diversification of the CERN program
  - Multi-messenger physics part of the CERN Program
- Beyond scientific goals
  - CERN is the world leading laboratory for fundamental science
  - Recognitions of individuals in large collaborations
  - New analysis tools toward the future, computing challenges of the next decade

WORKING GROUPS - PRESENTED BY PAMELA

Organisation of the working groups:

- Reflect on short statement as input for the ESPPU-NL

- CERN world leading laboratory of fundamental research:
  - HL-LHC, R&D, Theory, data processing
- Energy Frontier:
  - Fcc-pp, HE-LHC, SppC, muon collider
- Precision Frontier:
  - Fcc-ee, CEPC, ILC, CLIC, EDM, g-2
- Quark and lepton flavor and plasma:
  - LHCb II upgrade, Belle II, MEG II, MU2e, NA62, KOTO, Heavy Ion, Dune, SHIP
- Multi-messenger universe:
  - KM3Net, VIRGO, LIGO, EINSTEN TELESCOPE, AugerPrime upgrade, Xenon1T/nT, DARWIN

Volunteers to lead these discussions?

RECFA MEETING TO THE NETHERLANDS

Country visit of ‘Restricted European Committee for Future Colliders

- Part of ECFA - user community of CERN
- RECFA composed of CERN directorate and 1 representative/member state
  - Chair: Jorgen d’Hondt
- RECFA produces letter of recommendations to our ministry
  - Important reflection on the ‘good use’ of membership CERN

Visit on Friday October 19th, 2018

- Everybody welcome, in Z011 starting at 09:00
  - Opening by Marcelis Boerenboom (DG OCW) and Niek Lopez Cardozo (NWO)
- Last visit was in 2012
- Detailed program available soon

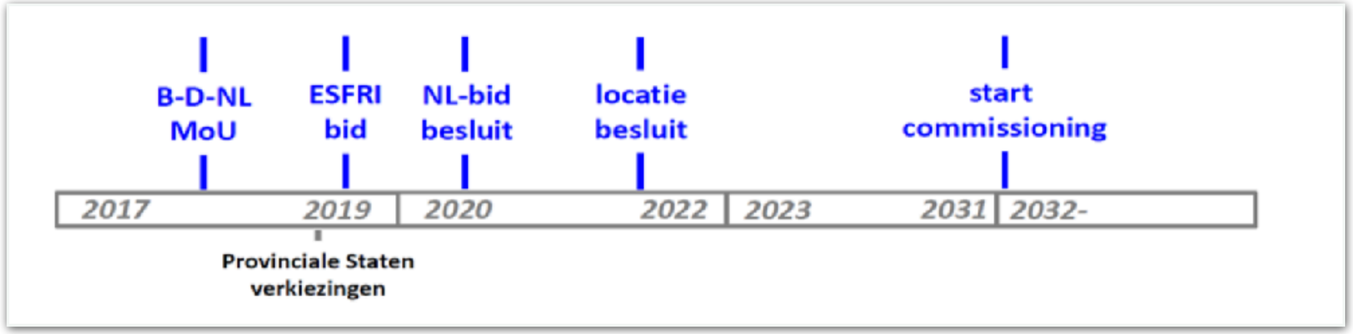
FEASIBILITY STUDY ET-NL

Border region around ‘Rhine Meuse’ excellent candidate

- Infrastructure ~50 jaar. Costs order 1 G€; Host country plm 30%.

Project organization ET-NL

- Instructions:
  - Paul Baeten (Limburg) en SB
- Project group
  - Frank Linde, Job de Kleuver, Jos Rokx, Martijn Rumpen, (Martine Oudenhoven)
- Sound board
  - Christa Hooijer (vz), OCW, EZK, NWO, RU, UM, TNO, Astro



Mission:

- Feasibility study for placing a bid for ET-NL

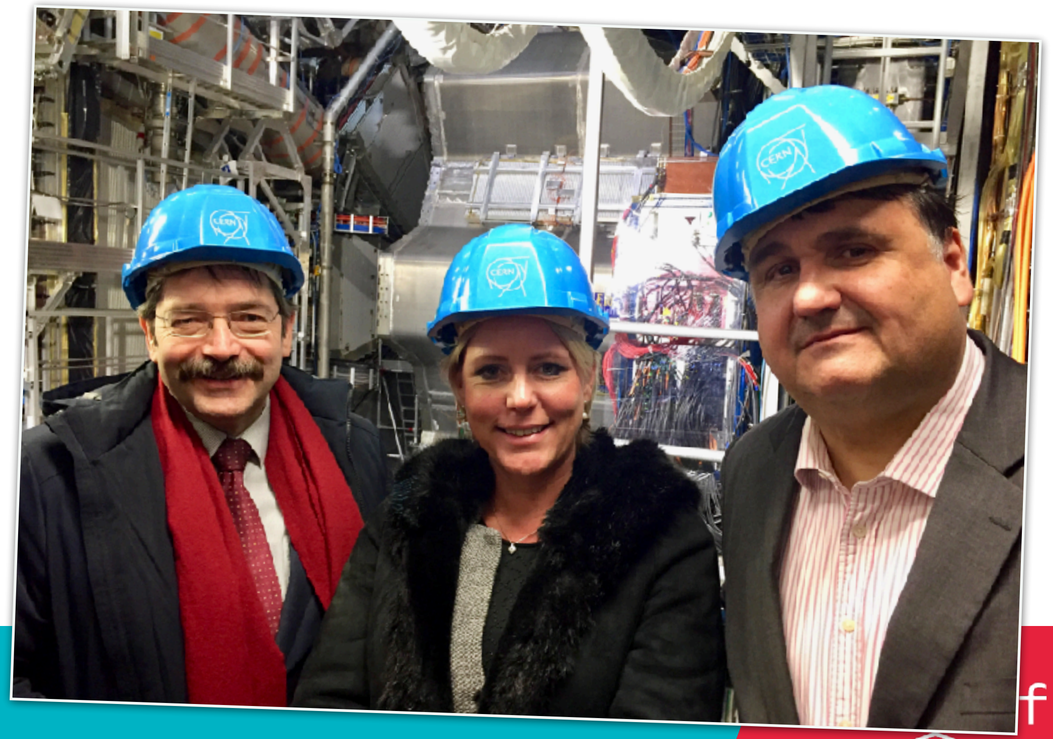
Mogelijke toekomst

SUPPORT DUTCH SCIENCE

Expertise in region Rhine-Meuse: role for University Maastricht

- UM will become member of Nikhef partnership (November 23, 2018)
  - Only if UM has installed a GW group
  - Partner universities will welcome UM at Nikhef, and also welcome research at UM
- Added value UM
  - **ET-pathfinder**
    - R&D expertise centre (14 M€)
  - New research group GW
    - High profile professorship

Interest and and actions of all individual partner Universities



FUNDING PROPOSALS SUBMITTED - IN COMPETITION

NWO ‘free programs’ - PhD and postdoc requests

- The Hidden Universe of Weakly Interacting Particles
- GW: a new road to fundamental physics, astrophysics, and cosmology

NWO-G - Investment

- Searching for Ultra-High-Energy Cosmic-Ray Sources using a new Detector Concept in the Pierre Auger Observatory
- GW: new cosmic messengers

Interreg

- **ET pathfinder**, a competence and innovation centre for Gravitational Waves

Zwaartekracht

- University (UvA) will submit ‘*multi-messenger physics from the Universe*’

DEVELOPMENTS EINSTEIN TELESCOPE

ET-pathfinder is gaining momentum

- Interreg funding passed first round, now chance for success is ~1
  - 4ME investment
- Co-funding by province of Limburg
  - 4ME in total - part for University Maastricht

Collaboration building NL-B-G

- MoU agreement signed by Leuven
- Next week expected signatures
  - Antwerpen, Gent, Hasselt, Aachen, Liege, Eindhoven, …


Memorandum of Understanding (MoU) Agreement

on the cooperation on research and development and preparatory actions toward a case for a bid for hosting Einstein Telescope in EUregion Meuse-Rhine, hereafter also referred to as "Cooperation Agreement"

Politically ET gets more attention -

PHD CAMPAIGNS

Only 4 deadlines for PhD applications

- September 15, 2018
- Januari 15, 2019
- April 15, 2019
- June 15, 2019

Introduce campaigns to get attention

- Social media
- Dedicated to universities

Organisation with communication

- Martine van Oudenhoven

LHCb
ALICE
Cosmic rays
EDM
Neutrino physics

ECFA

European Committee for Future Accelerators

Recognition of individual achievements in our large scientific collaborations

Jorgen D'Hondt *(Jorgen.DHondt@cern.ch)*

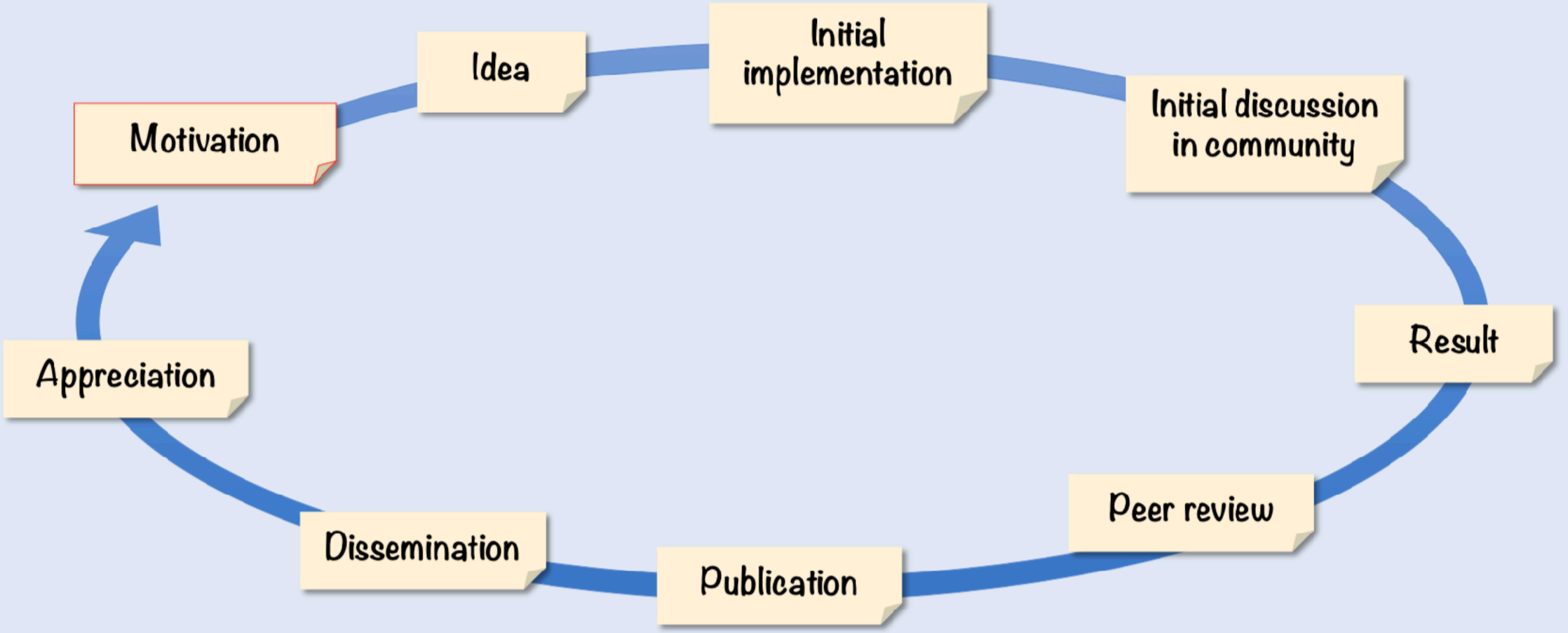
On behalf of the Working Group on the topic (Stan Bentvelsen, Roger Forty, David Milstedt, Peter Schleper, Antonio Zoccoli, + ECFA Chairperson and Secretary, current and incoming)

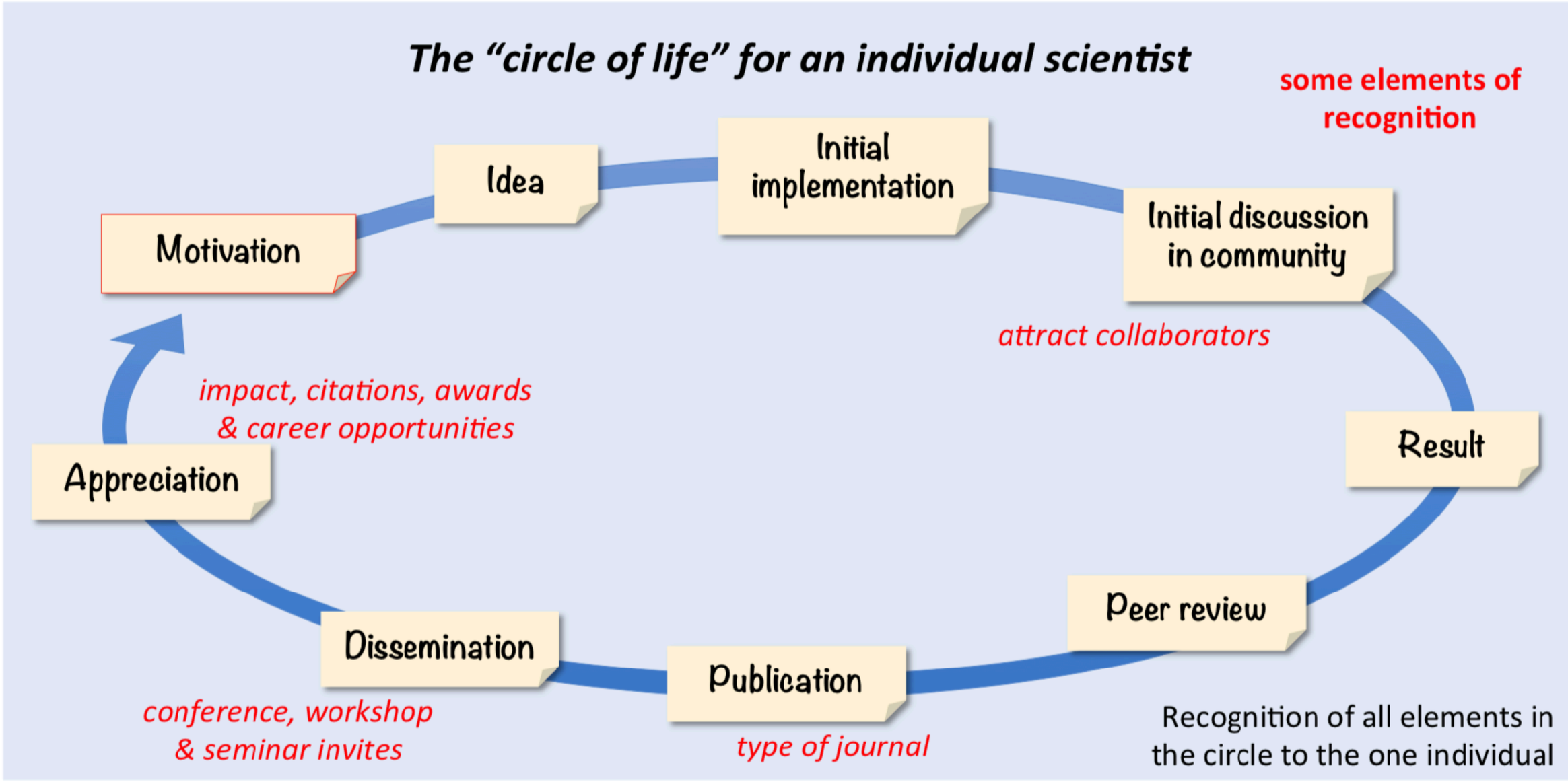
PECFA meeting, July 20th, 2018, ALBA, Spain

Collaborations contacted (typically the Chairperson of the Collaboration Board)

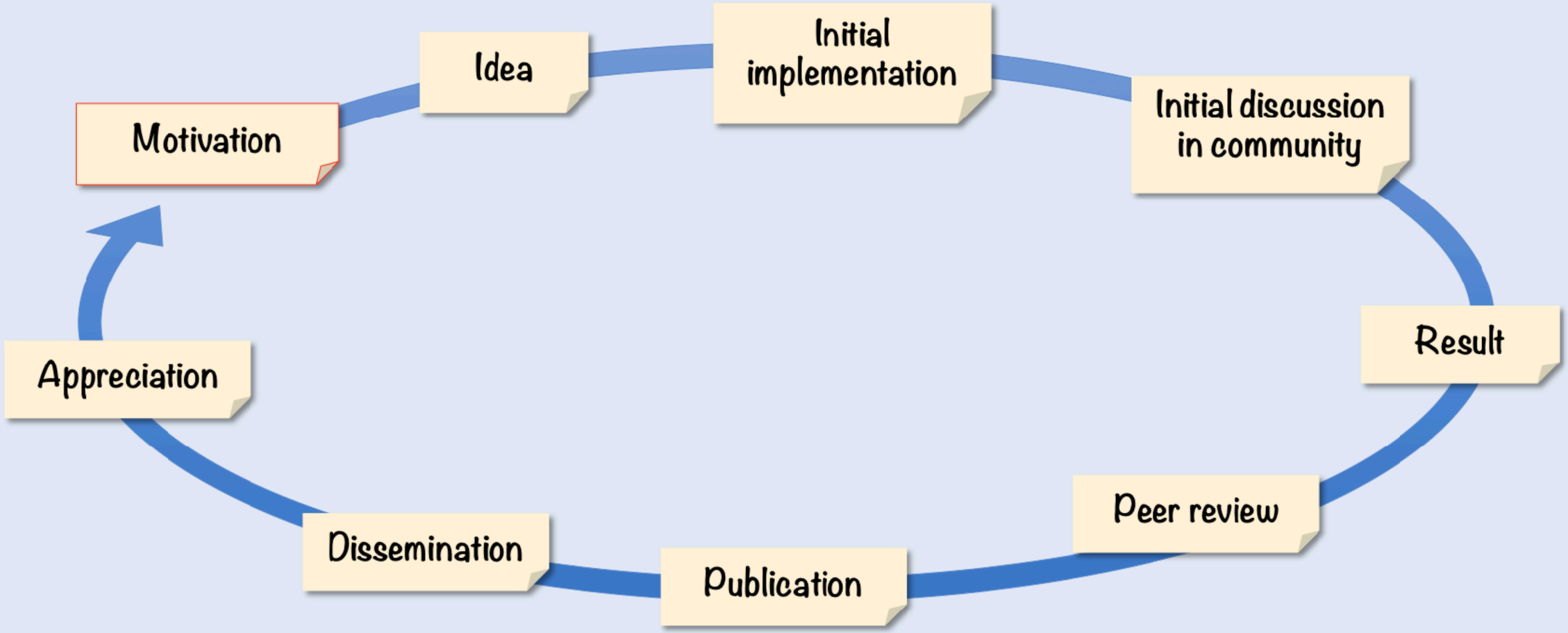
ALICE, AMS, ANTARES, ATLAS, Auger, AWAKE, BELLE II, Borexino, CLOUD, CMS, COMPASS, CTA, EDELWEISS, EUCLID, IceCube, ISOLDE, JUNO, Katrin, KM3NET, LHCb, LIGO, NA61/SHINE, NA62, NEXT, nTOF, PANDA, SNO+, T2K, VIRGO

The "circle of life" for an individual scientist




The "circle of life" for an individual scientist
some elements of recognition
Idea
Initial implementation
Initial discussion in community
attract collaborators
Result
Peer review
Publication
type of journal
Dissemination
conference, workshop & seminar invites
Appreciation
impact, citations, awards & career opportunities
Motivation
Recognition of all elements in the circle to the one individual

The "circle of life" for an individual scientist in a large collaboration



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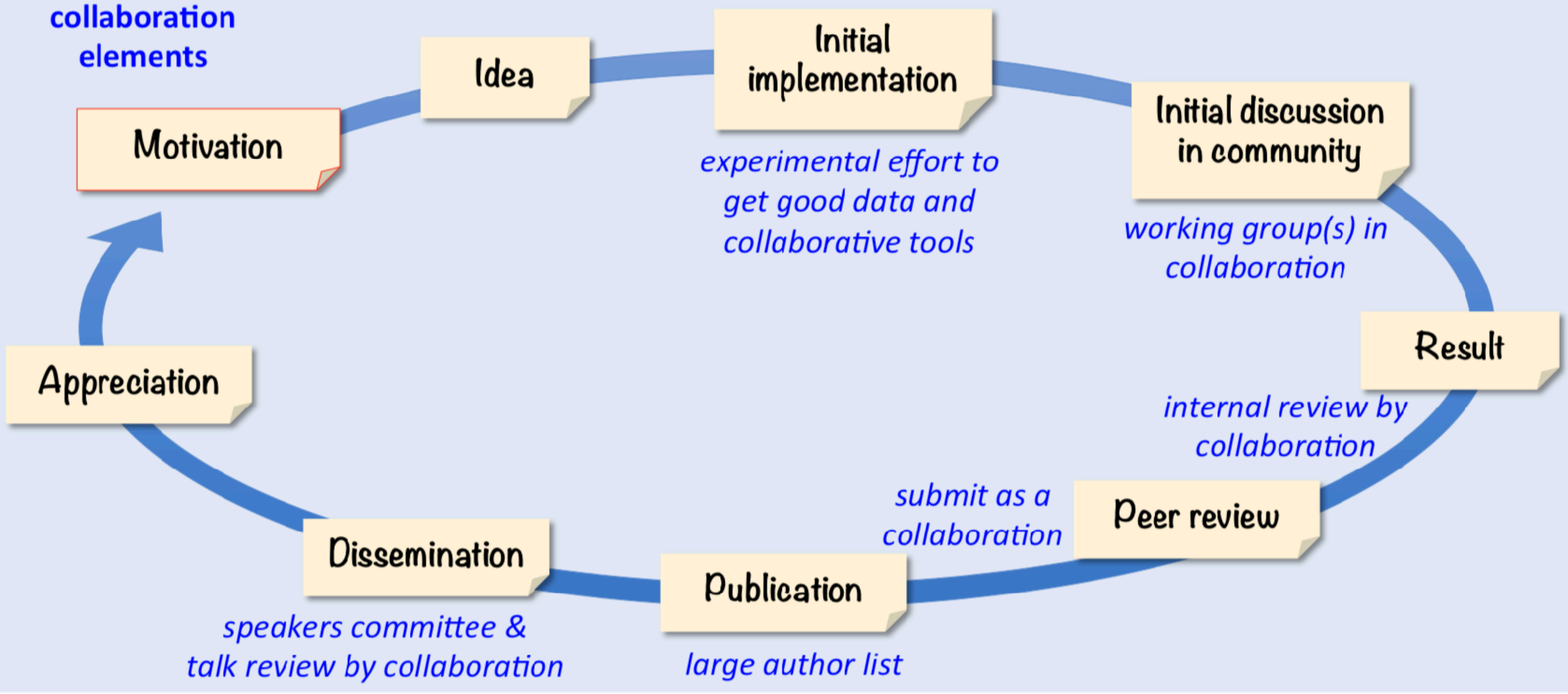

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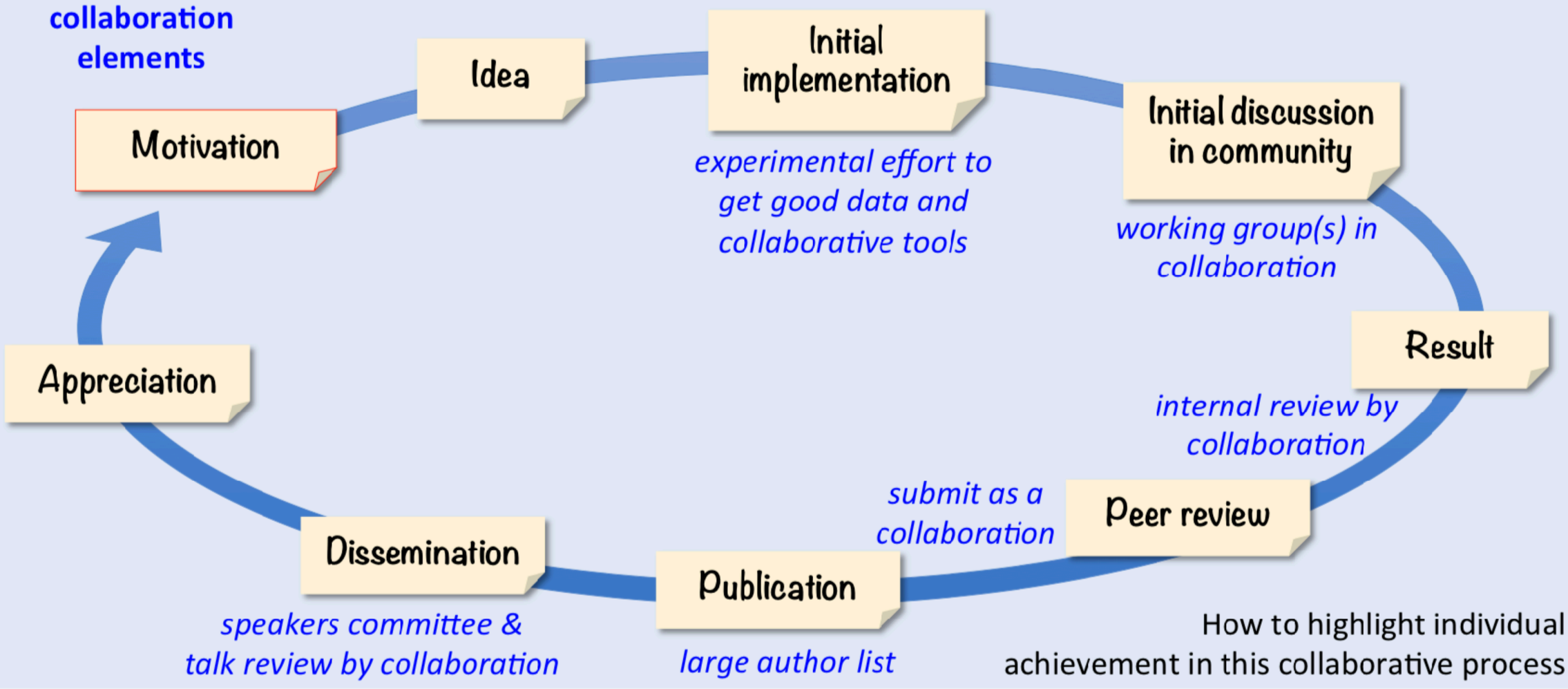
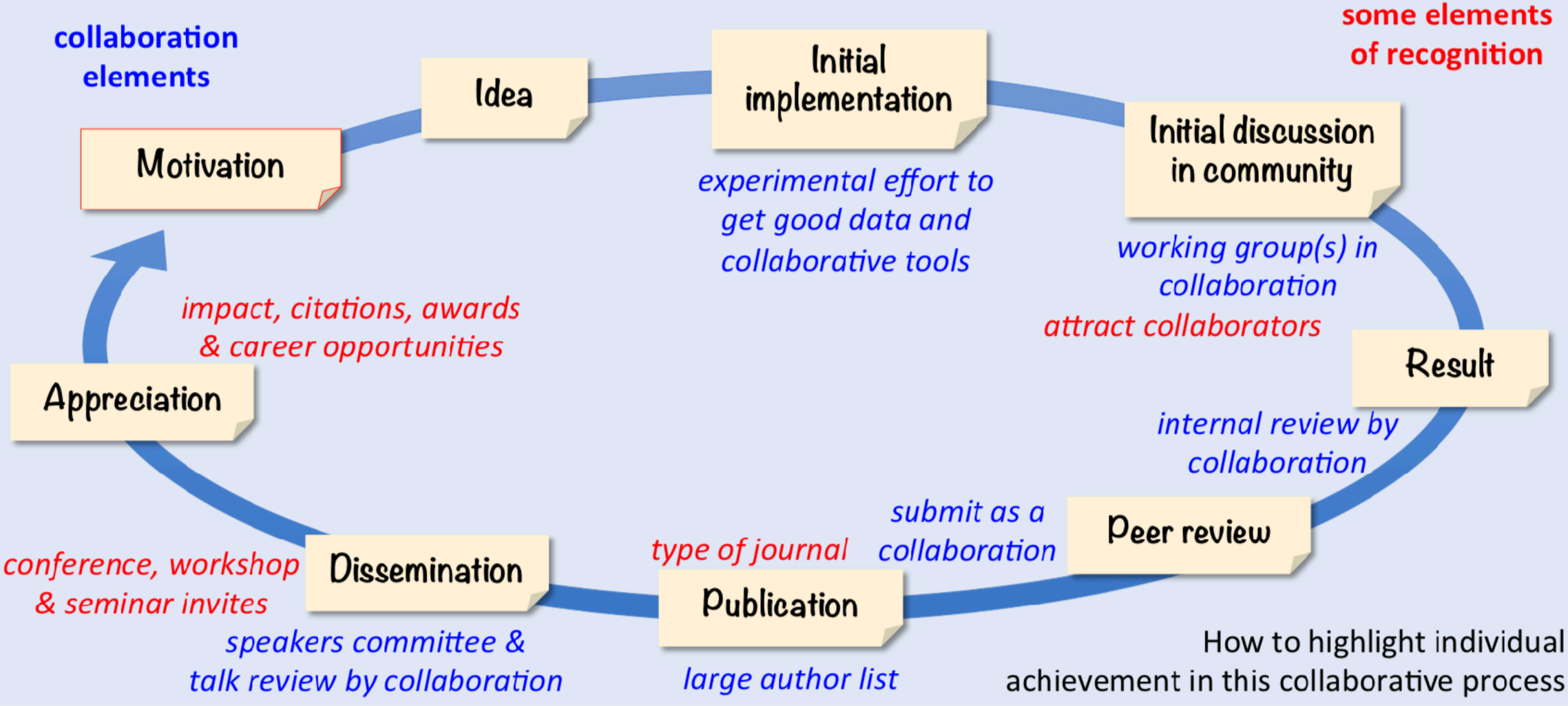


The "circle of life" for an individual scientist in a large collaboration



Quotes from leaders of the contacted collaborations

"Indeed, this is a crucial topic in large collaborations, and I will say that the [NN] Collaboration is struggling to find adequate means to adequately maintain recognition of those not involved in the most visible scientific products, and we would very much like to learn from other collaborations on how to dynamically pursue best practice on this front."

"This looks like a valuable ECFA effort that you are undertaking. Thanks."

"We fully agree on the importance of the recognition of individuals in scientific collaborations. Your initiative on this topic is extremely welcome and we will look forward to the outcome."

"We appreciate a lot this initiative, since by no doubt recognition of individuals in a field like ours, in which the work is more and more organized as large Collaborations, is becoming a very pressing topic."

Questions asked to the collaboration leaders

1. What procedures exist within your collaboration to recognise the achievements of individuals?
2. What measures are taken to make the recognition as transparent as possible for the community outside the collaboration?
3. Are potential new actions being considered to further strengthen the system of recognising individual achievements in your collaboration?
4. What measures are taken to continue to recruit the most talented young researchers in the collaboration, and how is the efficiency of the recruitment evolving?
5. To the best of your knowledge, what is on the minds of the (young) researchers in your collaboration concerning the current system to recognise individual achievements? What is perceived positively or negatively, and what are the challenges? In case you have some form of "young researchers panel" in your collaboration, we would certainly welcome their opinion, if available.

It was agreed that inputs and opinions are integrated in this presentation without naming the source.

HOW TO PROCEED

Digest the reactions of the collaborations

- Generally there is support for the ECFA initiative, and the willingness to improve

Start a ‘bottom-up’ process

- We are preparing a survey, to be send to the large community
  - How much of an issue is this for an individual
  - How dependent is this to the collaboration
  - Collect ideas
  - Create a mandate from the ‘users’ to the collaborations

We like to improve the recognition of individuals

- Attract talent, motivate a career path, efficiency in large collaborations, …