NuPECC LRP2024
People and Society

Open Meeting 17/04

Sub-working groups:

Education and outreach

Training, careers and diversity

Interactive feedback via https://forms.gle/QbR9FLY6Wo1yzd9y6

Competence building

- **Competence** = knowledge, skills and attitude

- **Competence building**: important to secure society with sufficient adequate (quantity and quality) competences in nuclear physics now and in the future

Sustainable system for competence building

Aim	Attract talents	Develop competences	Apply competences
Focus groups	Pupils, teachers, public	Students, Professionals	Professionals
Measures	Outreach	Education / Training	Career management

Political support for enabling such a sustainable system needs to be ensured

Which actions to be taken?

Action	Motivation (why?)	Focus group (for whom?)	Provider (by whom?)
Action 1.	…	…	…

Examples for outreach activities

- Organize **career events**
  - To show pupils, students and the public (parents) the **possible job opportunities** in research but also industry, healthcare and policy organizations, after studying nuclear physics
  - To give companies the opportunity to
    - Find/recruit high potentials
    - Explain their mission, contribution to society

- **Science exhibitions**, science fairs
  - **Inform** about the basics of nuclear physics and its exciting applications (in a popular way)
  - Increase **scientific literacy**

- **Media presence** (TV, youtube, social media)
  - education of the public
  - justify the taxpayer money being well spent
  - relate science to society
    - benefits from the science

Support of Public Engagement in Nuclear Science

Example from the UK (STFC)

- **Funding** that is available to **all career stages**
  - Small (£1-15k) and large awards (£15-125k) for developing and delivering outreach and public engagement projects lasting up to 3 years
  - Fellowship in leadership of engaging with the public (0.5 FTE) for 3 years
- **Public engagement early career researcher** forum
  - Support for early career researchers to develop their public engagement and outreach goals
  - Travel expenses are covered to participate at in-person meetings
- Lots more, and **further information** at:
  - https://www.ukri.org/what-we-offer/public-engagement/public-engagement-stfc/our-support-for-public-engagement-stfc/

Support of Public Engagement in Nuclear Science

- Do you know what **support** is available to you in your institute / what is provided by your **funding council**?

- Are there any **limitations to funding**?
  - For example, is the award amount/support period sufficient? Can early career researchers be the PI of these grants? etc

- What can NuPECC do to encourage its **researchers to access public engagement funding**?
  - For example, would it be useful if NuPECC maintain a webpage with funding opportunities across its member countries? etc

School education

What **activities** can we develop to engage secondary school students?

- Good practice examples: Binding Blocks, Warsaw, many others.

Should we **coordinate** these at the **European level** (in line with CERN's Particle Physics Masterclass)?

How do we engage with **Teachers**?

- CERN activities for teachers (one-week training)
- Through Career Progression and Development?

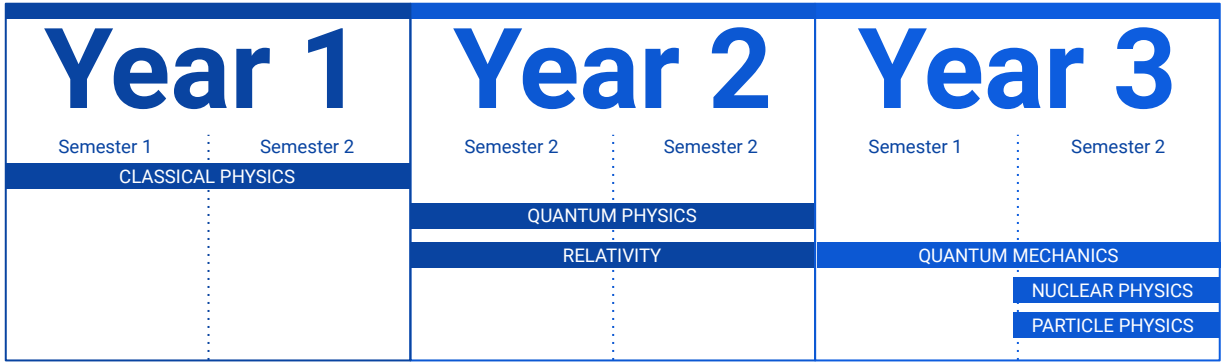
It is **here** we should address **gender imbalance**!

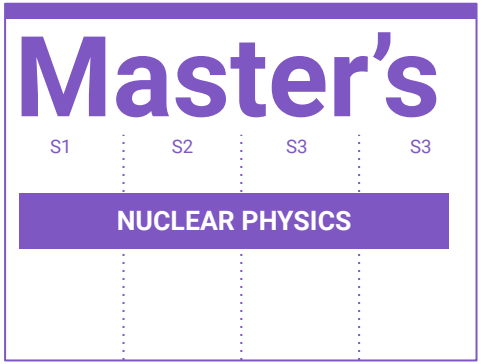
University education

Should we aim to introduce Nuclear Physics at **early undergraduate** stages (as opposed to final year or Master-level courses)?

What are **good recommendations** to support Nuclear Physics at Universities?

How can we **influence** education and accreditation **bodies** of the importance of our discipline?





Professional Bodies

How **popular** are “Nuclear Physics” groups in **Professional Bodies**?

How do they **interact** and **influence** the **education bodies** in different countries?

What is their **gender** balance?

IOP Institute of Physics

R.S.E.F. Real Sociedad Española de Física

Société Française de Physique | 150 ANS D'ENGAGEMENT POUR LA PHYSIQUE

Further outreach activities

What is the **most impactful way** to engage with a larger audience via the **media** (self-production of content vs providing information to media producers)

What r**eal/digital media channels** are worth engaging with?

The following slides contain “raw” materials and should not be shown!

Google-Forms for interactive feedback/input collection

Some first slides: https://forms.gle/yJnrW7YTg38w2DTc6

Possible aims of outreach

- linking outreach into early careers (does it help for the promotion? currently not really appreciated enough)
- education of the public
- justify the taxpayer money being well spent
- attract people to the field (pupils, students)
    - inform about career options in nuclear science (outlooks for possible for career)
    - and allow people to develop their skills in the field
- related science to society
    - benefits from the science

Activities

- reach out to undergraduates early
- public engagement
- school engagement
- media engagement (TV, youtube, …)
- competitions
- laboratory for kids
- summer universities
- “general questions” to researchers
- lobby on funding councils
    - funding for outreach measures for early career researchers (PhD, PostDoc) -> helps to enhance funding records
- Netzwerk Teilchenwelt
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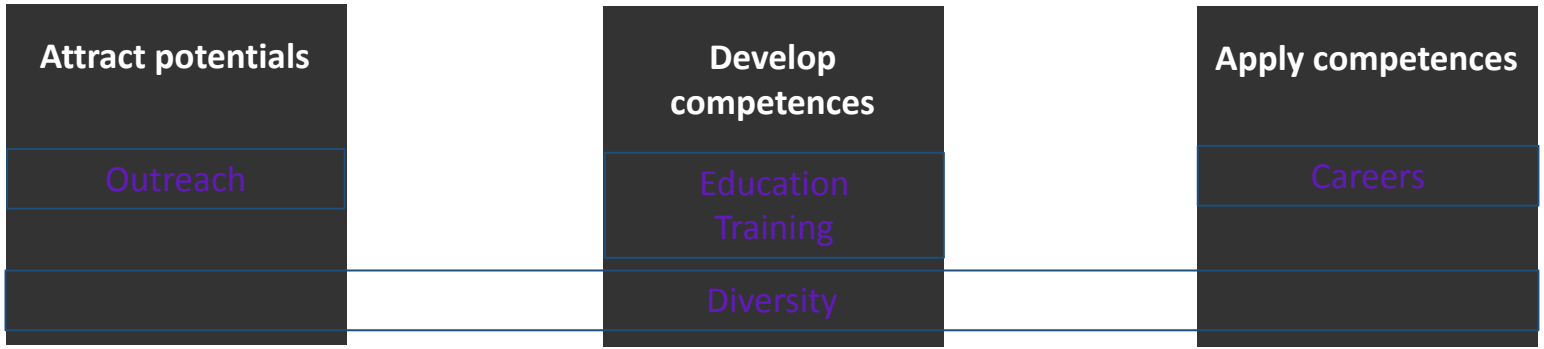
Further ideas

ask questions to participating community members: collect more (important) aims; activities

-collect ideas on activities for outreach / public engagament on a central NuPECC platform

Sustainable system for competence building



Political support for enabling such a sustainable system

STFC experience from UK

ukri.org → Public engagement -> our support for public engagement

grants for different engagement levels (spark, nucleus award, …)

Different approaches in other European states. → can we encourage other researchers to access the “public engagement” funds.