



H2020-MSCA ITN
Grant n. 956099



*Nan*ED



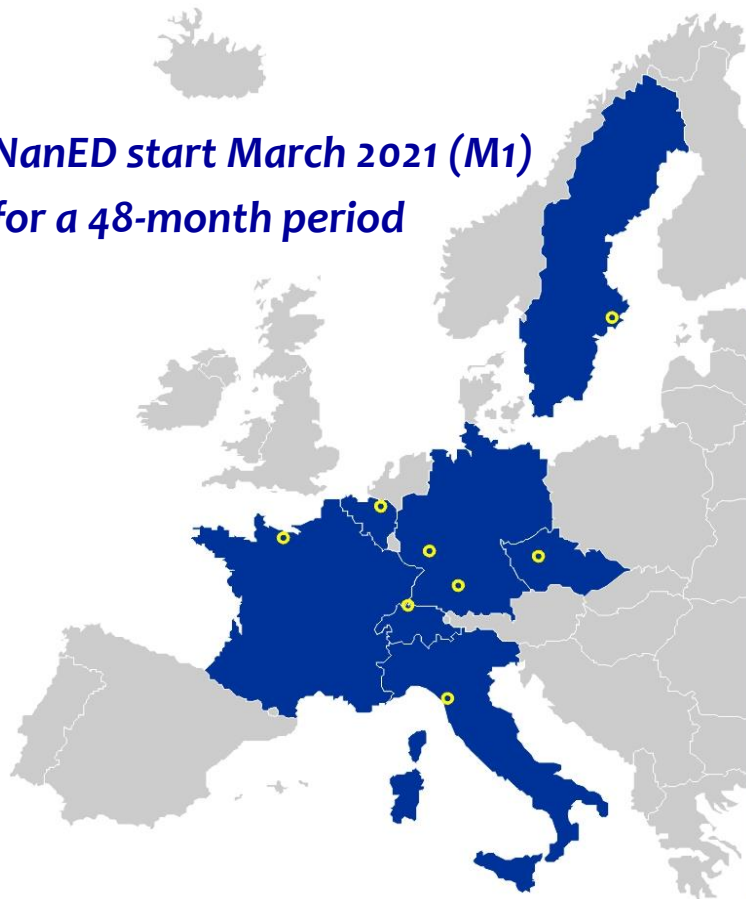
WP5 - Training Activities

Philippe BOULLAY - Normandie Univ, ENSICAEN, UNICAEN, CNRS, CRISMAT, Caen, France

Work Package 5 – Training activities



*NanED start March 2021 (M1)
for a 48-month period*



NanED aims to train a new generation of researchers by developing their potential for entrepreneurship and innovation.

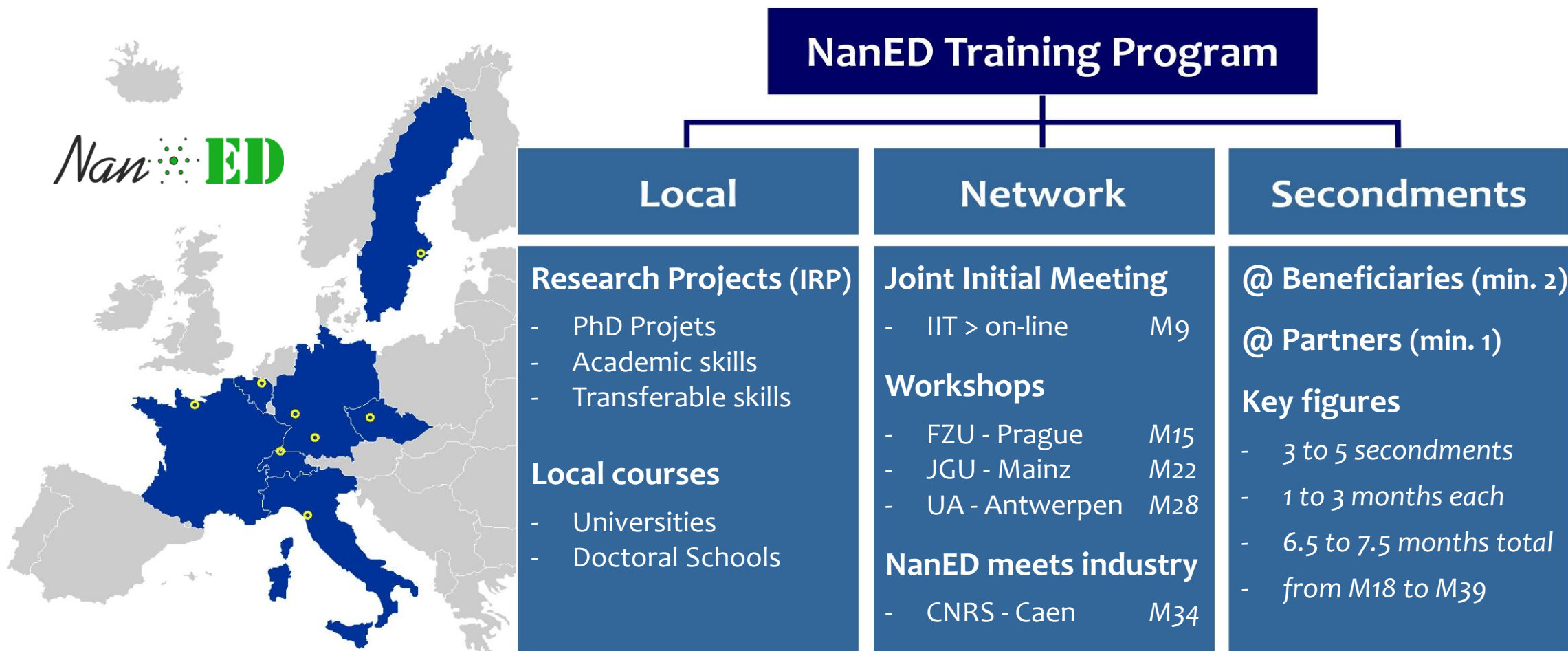
NanED offers 3 levels of training activities for the Early-Stage Researchers (ESRs) : Local, Network-wide and Secondments. WP5 is organising and monitoring ESRs training at all levels.

WP5 leader chairs the Research & Training Committee (R&T). R&T supports the definition and monitoring of the Career Development Plans (CDPs). R&T supports, monitors and disseminates the information related to each training events.

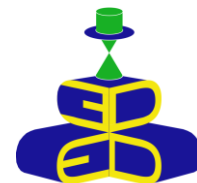
Research & Training Committee (R&T)
WP1-5 leaders + 1 PO and 1 ESR representatives



NanED Training for Early-Stage Researchers (ESRs)



D 5.2 to D 5.6
Reports on events



NanED Training for Early-Stage Researchers (ESRs)

Local Training

Research in the labs and local courses at universities

NanED ESRs will be enrolled in a PhD program and get their diploma from the local university.

- ESRs will learn and practice **research skills** directly in the host institution (training via IRP).
- ESRs will follow the **PhD program and courses** from the local university.
- ESRs will receive training in scientific writing, presentation skills, open science, cyber security and all the necessary training in laboratory security and hazards.
- ESRs will receive training to deliver **at least 2 scientific papers** published in relevant journals (collaborative papers among several ESRs will be encouraged).
- ESRs will be supported to **give research seminar at their host institution** and be involved in **research activities like projects or supervision of MSc thesis**.
- ESRs will develop their scientific dissemination skills attending to **at least 2 scientific conferences** (International, European and/or National) to be held in 2022-2024.

Transferable skills ?

Teamwork

Writing

Problem solving

Communication

Data analysis

Adaptability

...



NanED Training for Early-Stage Researchers (ESRs)

Network-wide Training

Favor complementarity between local and network training

Workshop I – FZU Prague

- Advanced courses in 3D ED methods: from data collection to structure solution and refinement.
- Skill training I: scientific writing skills and presentation skills.

Workshop II – JGU Mainz

- 3D ED methods on imperfect crystals and complementarity with powder x-ray diffraction.
- Research advances presentations.
- Skill training II: intellectual properties and patent in Science.

Workshop III – UA Antwerpen

- TEM Imaging and Spectroscopy.
- Research advances presentations.
- Skill training III: project writing skills.

NanED meets industry – CNRS Caen

- Skill training IV: introduction to R&D in industry, preparation for job search, Job application training and career counseling.

Reminder about NanED Workshops

Open events + Recorded (NanED website)

Final NanED Conference – SU Stockholm

Dissemination and outreach (with WP6)

When ?

every 6 months
starting
mid-2022

Duration ?

1 week



NanED Training for Early-Stage Researchers (ESRs)

Secondments

Favor intersectorial, interdisciplinary and transferable skills

What is a secondment ?

A secondment is a **training period spent by a fellow at the premises of a different beneficiary or partner organisation**. The premises of the beneficiaries or partner organisations must be independent from each other and therefore the secondment **must involve physical mobility of the fellow**. During their secondment, researchers receive supervision and training at the premises of the receiving beneficiary or partner organisation. Secondments can only take place to institutions located in countries which are either EU member states or which are associated to Horizon 2020.

A short visit is not a "secondment", and therefore the country where a short visit takes place can be anywhere in the world. Short visits can only represent a small part of the project.

Note that if a secondment period is indicated in the grant agreement, this is considered a **contractual obligation** and any change must be agreed beforehand through the formal notification procedure.

When ?

from M18
to M39

Duration ?

1 to 3
months
each



NanED Training for Early-Stage Researchers (ESRs)

Secondments

Favor intersectorial, interdisciplinary and transferable skills

At least two secondments with others beneficiaries (academics)

- ESRs will acquire new technical and scientific skills not available in the hosting institution.
- ESRs will experience different research cultures.
- ESRs will build up a professional network.

Secondments @ academics could be related to ESRs research project

At least one secondment with NanED partners (1 in industry + eventually 1 additional)

- ESRs will work in a different environment (outside academia) and acquire on-field, transferable skills.
- ESRs will face challenges of managing, creating and working in a company.

Secondments @ partners should not be related to academic works and to ESRs research project

NanED meets industry (WP5 + partners)

The consortium as a whole will benefit from the secondments via intensive knowledge exchange

Number ?

3 to 5

In Total ?

6.5 to 7.5 months



NanED Training for Early-Stage Researchers (ESRs)

Secondments

Favor intersectorial, interdisciplinary and transferable skills

NanED Partners



NanED Training for Early-Stage Researchers (ESRs)

Secondments

Favor intersectorial, interdisciplinary and transferable skills

Host	Subject	ESR															M
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
IIT	3D ED on beam sensitive samples					3		3				3				2	11
SU	Cryoplunging / automatic 3D ED data collection		3					2							1	1	7
CNRS	3D ED on thin film and nanoparticles			1	3		3			1							8
UA	In situ 3D ED	1			1				3					2			7
FZU	Dynamical refinement	3								3	2		2				10
UBA	3D ED protein crystallography		1				2		2		2						7
ULM	ePDF data analysis / 3D ED on low dimensional materials					1								1	2		4
JGU	3D ED on partially ordered materials			3								1	3				7
NMG	Application notes on the application of 3D ED on beam sensitive samples	2															2
ASI	Single electron detectors						2								2		4
EST	Synchrotron radiation powder diffraction				2									2			4
RCH	Synthesis and characterization of pharmaceuticals		2													2	4
ELD	Designing a new 3D ED instrument						2			2							4
BASF	3D ED on solid state synthesis				1.5				1.5								3
CDX	Marketing and commercial skills in R&D lab													2			2
TSC	Crystallographic application of FIB and SEM					1.5							1.5				3
DENS	In situ TEM sample holder applications			3													3
IUCr	Standardization of cif files for 3D ED		1			1				1							3
AZ	Protein crystallization / solid-state chemistry in pharmaceutical										2	2					4
STFC	Software for ED data analysis											1				2	3
THF	Advanced transmission electron microscopy	0.5									0.5						1
eBIC	Single particle cryoEM										1				2		3
TOT.		6.5	7	7	7.5	6.5	7	7	6.5	7	7.5	7	6.5	7	7	7	104



Academics



Partners

► Table to update

*ESR 7 shift from UULM to SU
new partner > Rigaku*

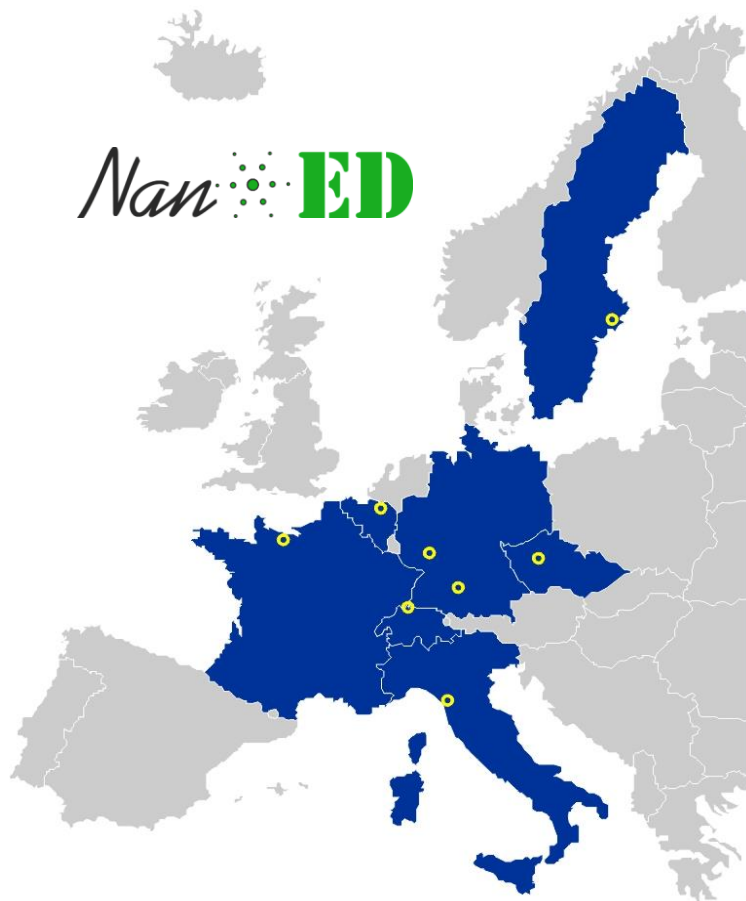
► Informations to collect by WP5

*Secondments should be foreseen
and prepared in advance !*



WP5 – Career Development Plan (CDP)

D5.1



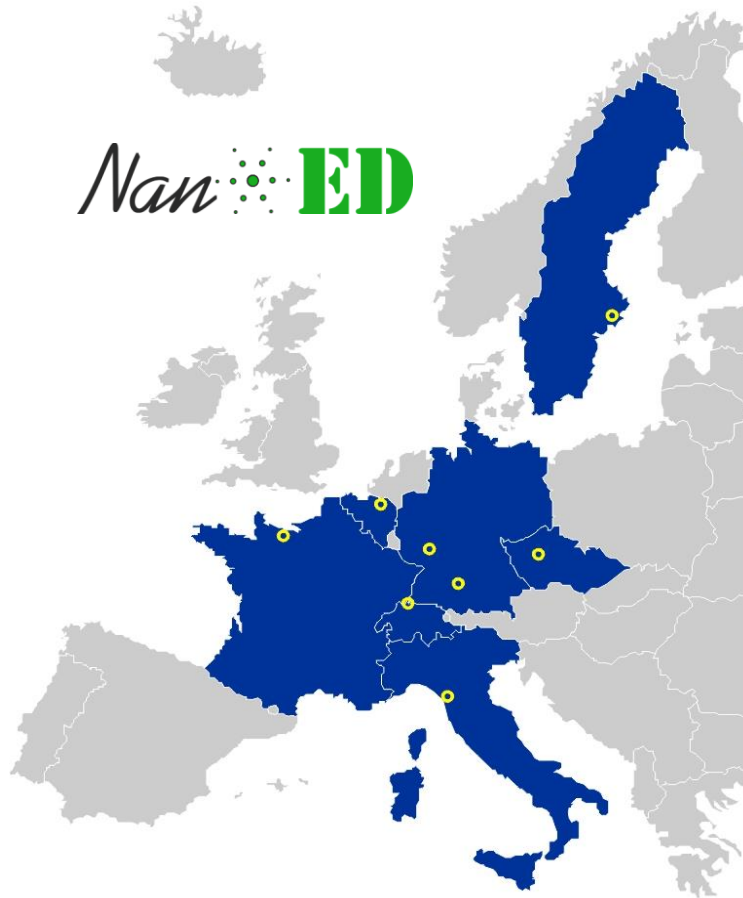
Each ESRs will follow an individual training itinerary related to their research project (IRP) that will be reflected in a **Career Development Plan (CDP)**:

- CDP follows **a model agreed by ESRs and supervisors**, and signed right at the beginning of their fellowship.
- **CDP is a living document**. Each CDP is discussed, updated and revised, if necessary, twice a year among each ESR and their supervisors.
- CDP works as an e-tool that records all the decisions taken. It includes:
 - **a self-audit skill section**.
 - **a career and employability review** at the enrolment, after the first and second years and at the end of the project.
- CDP aims to promote individual career development. A comprehensive document of the activities undertaken by each ESR will be generated to demonstrate what skills and abilities they have acquired and how.

WP5 will collect all CDPs



Work Package 5 – Training activities



Questions
And
Open Discussion

