

# **REPORT FOR MINDSHIFT**

## **The relationship dynamics of supervision in science: a social research case study from MINDSHIFT-ITN**

**Full report version  
September 11, 2025**



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## **Executive Summary**

### **Overview**

The MINDSHIFT Innovative Training Network (ITN) was an ambitious and transformative programme under the EU Horizon 2020 Marie Skłodowska-Curie initiative. Running from 2021 to 2024, it united six universities and seven industry partners to train 15 Early-Stage Researchers (ESRs) in multi-disciplinary approaches to hypertension research.

The Recess College is a social enterprise promoting personal, role and organisation change and development. The (RC) authors of this report and review were invited to join the consortium as partners to deliver a development track alongside the science research. Their remit in the grant proposal application was to facilitate new organisational learning on three crucial aspects:

1. The mentor-mentee relationship and its developmental stages towards self-motivation and initiative
2. The inter-dependent relationship between academia and industry
3. Building a sustainable research network.

Central to the overall mission was this invitation to The RC in order to pioneer the innovative involvement of a personal-professional development track. This played a pivotal role within MINDSHIFT of jointly fostering mentorship dynamics and amplifying the developmental and relational aspects of the ITN. The programme's focus extended beyond research outcomes, aiming to establish a sustainable network, bridge academia- industry divides, and refine the mentor-mentee relationship.

### **Key Findings**

#### *1. Mentor-Mentee Dynamics*

MINDSHIFT's initial mentorship framework was structured around seven critical phases of engagement—from recruitment and induction to thesis writing and career planning. The development track brought fresh perspectives to the mentor- mentee relationship, emphasising the emotional and social labour inherent in research. Supervisors often grappled with the dual responsibility of guiding ESRs through the rigorous demands of scientific work while supporting the demands of their own roles and responsibilities. Key themes included the negotiation of roles, the balance of dependency and independence, and managing mismatching expectations.

#### *2. Emotional Resilience and Social Support*

The programme underscored the emotional challenges of conducting high-stake research within a diverse international setting. The importance of 'emotional labour' was highlighted in the development track - the often unseen psychological effort

required from both supervisors and ESRs to navigate setbacks, failures, and cultural adjustments. Many ESRs benefitted from the strong peer network that emerged at the start of the ITN. This dynamic was facilitated both through workshops and action learning groups, which encouraged open dialogue, mutual support, and practical problem-solving among the ESRs.

### *3. Apprenticeship and Work Ethic*

Seeing traditions of supervision in part as an ‘apprenticeship model’ was a cornerstone to understanding the ESR experience in academia. Our observations revealed both its strengths and limitations. Supervisors played a critical role in skill transfer and setting the foundation for ESRs’ professional growth, and with the cultural and personal differences, these led to both matching and mismatching in expectations.

The fundamental experience for ESRs of “letting go, unlearning, and learning” was a process that required resilience, adaptability, and an openness to constructive feedback. The development track grappled with the dilemmas of supervisors and students of making the supervisory process explicit, and through the activities and events was able to create a collaborative and more inclusive and transparent environment for ESRs to thrive.

### *4. Industry-Integrated Secondments*

Secondments—a uniquely positive feature of ITNs—were pivotal in broadening ESRs’ perspectives and exposing them to real-world applications of their research. However, the findings highlighted disparities in the success of these valuable placements. Some secondments provided key learning opportunities and enhanced interdisciplinary thinking, others however, suffered from misalignment of expectations or arrangements amongst academic supervisors, industry mentors, and ESRs. A future step would be to advocate for a structured, triadic negotiation process to ensure clarity and mutual benefit in these experiences.

### *5. Multidisciplinary Collaboration*

MINDSHIFT embodied its name by fostering true shifts in thinking, particularly in the interdisciplinary merging of vascular and endocrine sciences. Achieving effective collaboration across disciplines requires intellectual humility, trust, and an openness to messy, exploratory discussions. Some ESRs found themselves at the forefront of integrating these diverse perspectives, plus the levels of support and interaction needed, together with their supervisors. The development track activities and workshops played an important role in equipping ESRs with the relational and professional skills needed to navigate these complexities.

## **Challenges and Insights**

*1. Administrative Hurdles:* Being an international ESR cohort, bureaucratic complexities such as visa delays and inconsistent university regulations, created significant obstacles for ESRs and supervisors alike. These challenges consumed valuable time and energy, highlighting the need for streamlined processes.

2. *Emotional Strain*: The emphasis on emotional labour revealed the substantial psychological toll of the ITN's high expectations and demanding environment. ESRs frequently reported feeling overwhelmed during the initial phases of the programme.
3. *Secondment Misalignments*: Some secondments worked well others with the level of expectation negotiated between the stakeholders. Others lacked clear objectives and adequate preparation, leading to less-than-ideal opportunities for ESRs and frustrations for both academic and industry mentors.
4. *Supervisor Preparedness*: Supervisors' readiness to navigate the depth of cultural and disciplinary diversity varied underscoring the need for targeted training and shared learning opportunities among supervisory teams.

## **Conclusion**

MINDSHIFT's integration of a development track brought an innovative focus on the human dynamics of research, enhancing the developmental and emotional aspects of the ITN experience. By bridging academia and industry, promoting interdisciplinary thinking, and fostering resilient mentorship relationships, the programme not only advanced hypertension research but also set a precedent for future ITNs.

The contribution of the development track illuminated the importance of addressing both the technical and human relational facets of research training, ensuring a holistic and impactful experience for all participants, now and for the future.

# **PART 1 - MINDSHIFT REPORT**

## **The Mentor-Mentee relationship Focus on Supervision**

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## **PART 2 - MINDSHIFT REPORT**

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# **The Aim of The Mindshift Programme <sup>1</sup>**

The MINDSHIFT-ITN facilitated new organisational learning on three crucial aspects:

- the mentor-mentee relationship and its developmental stages towards self-motivation and initiative
- the inter-dependent relationship between academia and industry
- building a sustainable research network.

MINDSHIFT focuses on bringing together the vascular field with the endocrine field to further the understanding of hypertension as a system, multi-factor disease. The network consists of six universities and seven industry partners. This Innovative Training Network' aim is to train and develop 15 PhD as independent researchers skilled and able to do research in the multidisciplinary field of Hypertension and will get awarded a dual PhD degree in three years. This EU Horizon 2020 Marie Skłodowska-Curie Innovative Training Network programme had a duration from December 2021 until December 2024.

## **Aim of this Report**

This is both a report and thought piece. Our focus predominantly will be on the interaction between the human aspects of learning and the impact of the structure, objectives and dynamics within Mindshift. Our recommendations are meant as policy inputs for the EU to increase the effectiveness and efficiency of future ITNs.

## **The content of Parts 1, 2 & 3 of this report - we review**

- In Part 1- The report of what happened – successes – areas of difficulties or glitches - the mentor-mentee relationship as described in their own terms during the Mindshift programme. This includes the aims and shifts of conceptual mindsets: the student experience of inter-dependence between academia and industry in secondments and multi-disciplinary thinking
- In Part 2- The activities and contribution of The Recess College (The RC) as a partner in Mindshift

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<sup>1</sup> Deliverable 3.6: “Conclusive summaries on the ITN’s learning on mentor-mentee relationship, academia- industry relationship, sustainable network building”. p57 – deadline - October 2024 = presentation to consortium at final symposium

- In Part 3- What this tells us about future opportunities for ITNs - learnings about what could happen based on this experiment in Mindshift as a developmental and sustainable research network.

### **The Coordinator initiated the drive to innovate in the supervision and collaboration in the MINDSHIFT ITN**

The specific intentions round innovation in Mindshift ITN in research and in the development track stem from the central vision of the Coordinator.

Members of the Consortium accepted the ideas on paper plus the funding implications for themselves without first-hand knowledge of the proposed system of developing supervision and collaboration, nor necessarily quite knowing what was entailed. In simple terms, whilst the Coordinator influenced the Mindshift specification, many had still to sign up to following the ideas up to it in practice, namely the aim:

For supervisors of

- Creating a community of supervisors committed to learning from each other - reciprocal system of learning & development
- Enriching research expertise through multi-disciplinary, inter-disciplinary research collaboration
- Broadening the ESR experience through intensive exchange between academic/industry supervisors using multiple secondments
- Exploring the investment needed for such conversations and collaborations to combine discipline boundaries – and how it is done
- Integrating the thrust of research portfolio within the network as a whole, (plus dedicating a PhD project to identify) research gaps and alignments in the field to date

For the ESRs

- Amplifying the development impact in Mindshift for ESRs through using The Recess College as a partner dedicated to developing the mentor/mentee process in the whole system
- With the aim of supporting ESRs learning to



- manage their side of the research relationship
- bond as a group
- provide a network for the future

## **Sensitivities**

In making suggestions and sharing some of the data from individuals and supervisory teams' confidentiality is important and the need to be careful over exposure. At the same time, actual descriptions, comments and quotes illuminate the themes/issues in ways no amount of generalisation can achieve. Therefore, we aim to cluster key themes and comments so that all those party to the supervision arrangements can identify the issues – those that pertain to them - yet third parties will not.

The findings and comments are followed by specific suggestions of how to take forward individual, group and network for new opportunities as a learning system. This includes handling hassle in terms of response to the limitations of resources, national entry arrangements for students & varied university regulations.

In this last part we explore supervisor norms and the potential of a supervisor-led shared system for learning. In this we draw on resistances as well as positive intentions and achievements to identify what was missing and gaps to indicate what could be further supported. This is based both on what we all in Mindshift were able – and not able – to achieve.

## **How to read this report ... [for EU & MINDSHIFT members, future ITNs]**

There are three main parts to this Report:

Part I. The starter phases of PhD projects followed by thematic analysis of  
     The student experience  
     The supervisor perspective  
     Discussion of interaction: how the relationship works

Part II. RC Developmental Activities

Part III. Recommendations for policy

# Chapter 1 - Design of the social research

## Our Approach

Seeing the ITN as a living system of human interactions and shared aims

### Relevant Perspectives

The different ‘modus operandi’ within which an ITN can act, is what makes it rich but complicated. In this report we will try to develop ways of seeing the intentions of an ITN in terms of where its priorities lie – as an

#### **‘Innovative’ approach to research**

Expertise, multi-disciplinary and inter-disciplinary

#### **Innovative-Training’ for ESRs**

Provision for skills and knowledge acquisition through the inputs of supervisors; a platform of scheduled secondments; the RC approach to skills for personal and professional development in the doctoral journey

#### **‘Innovative-Network’ (training)**

More than an organisation for the promotion of learning, a learning organisation in its own right, as a whole system for all involved\*

All these elements intertwine and emerge in aspects of the report data.

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\*“PETER SENGE – The Fifth Discipline” (2005)

A manager's guide to leadership: an **action learning** approach. Mike **Pedler** (Mike John), 1944-  
John **Burgoyne** (John G.); Tom **Boydell** (2010)

In this description, when discussing supervision and the impact of RC-generated activities alongside, it is important to say that this was ‘the first time for all of us’ in Mindshift as an ITN. It was an experiment in real-time in an ITN to be involved as partners for the coordinator, supervisors and for The Recess College.

It was a rich, harrowing and stimulating learning curve for us. We are grateful to the European Commission and the Mindshift supervisors for all their engagement.

### **Hypothesis of the “Research-on-the-Research” social study**

Before describing the methodology for gathering interview data in Part 1, it is important to be transparent about the basic assumptions / expectations with which we started as key to the work of the ITN. We approached what became familiarly called ‘the Research-on-the-Research’ with the following assumption that would need to be explored - the belief that the

**Supervisory relationship is by definition fundamental as well as foundational in achieving a PhD.**

In other words that the supervisor is essential and an indispensable part for the ESR in achieving their PhD, providing the basis from which everything else develops.

## **Methodology & Approach to the research findings**

*Inherent approaches*

*Deductive - the truth of a premise ensures the truth of conclusions*

*Inductive – the inference of general laws is derived from particular data*

### **Methodologies**

Scientific methodology tends towards the deductive. Social science research and review is different, and tends towards using data to build theory through a body of observations, making sense of the whole, through seeing how one-part builds on another. This includes calibrating how we, the viewers, contribute to the field of study with our involvement and participation,.

Social science is inductive and emergent, and the methodology used here is qualitative. The Recess College adapted the ***Thematic Analysis Approach***.<sup>2</sup> In this approach, the interview data is clustered under key themes as these emerge. These were used to elucidate the patterns and progress in the joint supervision relationship.

Description of Mindshift activities and our partnership follows the passage of how our understanding emerged over the three years.

For this reason, rather than starting with any kind of literature review on key concepts here, we introduce these in the body of the report for discussion -

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<sup>2</sup> Using Thematic Analysis in psychology - Virginia Braun & Victoria Clarke 2006 in Qualitative Psychology 3:2, 77-101 <https://doi.org/10.1191/148088706qp0630a>

showing the point when these emerged and when The Recess College reached new understanding.

The aim was to identify the elements in an ITN underpinning effective – mutative - developmental growth and advancement as PhDs and future impact. The term **mutative**<sup>3</sup> used here is a way of drawing attention to the purposive quality in the work of transformation of inexperienced researchers into ones able to carry future research and academic responsibility.

The word signals the hard work for supervisor and student of changing essential or basic ways the student relates and engages. It seems to us a massive step and one in which a significant level of discipline and rigour is required.

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<sup>3</sup> Strachey's Shadow: A Re-examination of the Use of the Mutative Interpretation March 2021. [British Journal of Psychotherapy](#) 37(1). DOI:[10.1111/bjp.12632](#)

## Overview of the methodology used

### Part 1

#### On the supervisor/ESR developmental relationship

1. Round One: individual interviews of both ESRs and supervisors after 12 – 15 months of Project; with initial comments and suggestions from Prof. Will Mandy, Clinical Educational and Health Psychology, UCL; further, the notes on 6 pairs were read and modelled independent of the team by two researchers to check the evaluations (achievements, reactions and triggers, obvious feelings); make notes; get together: discuss notes - share. Time box: 1h to read and 30 minutes to discuss.
2. Round Two after 22 – 28 months (approximately two-thirds through the Mindshift programme) now well into function of task: firstly individual interviews with ESRs, then with supervisors, followed by joint meetings held between both to try to understand  
the progress of the relationship  
matching or mismatching perceptions & ideas of research  
compare views – between ESR and supervisor(s) – of work ethic
3. Use findings to draw out phenomena, archetypes and meaning
4. Return to connections of data: movement, similarities / differences between Rounds One to Two; impact of RC researchers' presence-sometimes seen as facilitation - at joint meetings.

## Overview of methodology continued...

**Part 2:** On Recess College activities and interventions as intended to amplify and accompany the Network resources for the personal and professional development of ESRs; using logs; feedback; reviewing & analysing

**Part 3:** Forward thinking, an analysis based on the experience of Mindshift. Taking even further forwards the conditions and commitments for building future ITNs by the supervisors building a purposeful systemic approach to learning and development and sustainable future network (SWOT-style)

## THE RESEARCH QUESTIONS

The following questions were asked of ESR students & their supervisors. The questions asked are in bold and the others were noted so the interviewer would stay alert to issues mentioned that might be significant.

### Round One - ESRs' first round of interviews (12 to 15 months)

- 1 Where do you see yourself in your stage of development as a researcher?  
**How does being a researcher align with your personality/personal interests?** (The doctoral student as a person & their stage of development)  
As a researcher & as a supervisee. Why did you apply for this particular job?
- 2 How do you feel about your research (**Attitude to their research**)  
Interest/engagement/personal drive (centre of their world or just a job?) Job satisfaction: What are the ups and downs?
- 3 How do you see the **relationship with your Supervisor**  
What goes well? What are the struggles? How do you deal with the work to be done between the two/three of you?
- 4 How do you experience the **relationship with your Mindshift ESR Peers** – including co-operation with & feedback from each other; how much does the support of peers help you? To what extent is the support from each other taking over from the support you get from your supervisor? What is the balance?
- 5 How do you **experience your Environment** – Mindshift as a network & relationships in the Lab. What is different about being supervised in an ITN from just s a PhD student? How do you work with non-Mindshift people in your lab?
- 6 How do you see your **Self Leadership** – resilience & drive; taking responsibility, negotiating, take up the right conversations? In what way does Mindshift empower you? Did you make changes in getting what you need, in getting acces to resources? What can you influence and (how) have you seen that change over time? Why are you in Mindshift? Give examples!
- 7 Is **being away from home impacting on your daily life** and the way you work? What is it like to be away from home, in a different culture? What helped and and not helped? – away from home, from country, on secondments, changes of culture
- 8 **Comments and any red flags?**  
Themes that are preoccupying them?  
What has impacted on you over the last year?  
What is around that is not brought up by these questions?

## **In parallel, the daily Supervisors were additionally asked in Round One**

### **1. How is the research going in your view?**

Development of Supervisor / ESR research task - overall view on the science and research - how has it matured – or not? Has the interdisciplinary nature of this network affected the nature of your research? What have you done differently? Value of secondments and advanced courses.

### **2. Pressure and emotional impact of the supervisor role?**

Subjective awareness and responsiveness as well as cognitive  
Are they flooded by their university /academic role in and beyond MINDSHIFT?

### **3. What is MINDSHIFT doing for - you - as supervisors?**

In Mindshift there are some innovations around support.  
Transferring behaviours and attitudes learnt in the MINDSHIFT to your wider role.  
Authority and resilience in the role.  
Relationship with other supervisors?

## **Round Two**

- **ESRs – second individual interviews (22 - 28 months into programme)**
- **Daily supervisor - second individual interview**
- **First joint team meeting – with both student and supervisor(s)**

The three questions asked of ESRs & supervisors separately:

1. How is the research progressing?
2. How are you feeling looking ahead?
3. Have you shared your expectations?

The same three questions were asked again in the joint team interview with supervisor(s) and student. These questions were deliberately open-ended, leaving student and supervisor free to discuss and make comparisons on the position that they had arrived at this stage in the research & relationship.

## Chapter 2 – Structure of the Report in Presentation of the Social data

### How the Report Data is organised

Two frameworks used as organising principles to identify and present the social data

#### 1. Framework of Formal Engagement – using a structure of recognised sequence of phases for ESRs to fulfil PhD requirements

This framework of stages and objectives provides a way of evaluating the sequential structure of events within the PhD journey. It provides a basis for analysis of the milestones and will be used to explore how much it was adhered to in supervision, implicitly or explicitly, with the impact and consequences.

#### *On the PhD task*

The Framework of Formal Engagement enables us to structure the mass of data through the phases. Firstly, we look at the phases in an ITN for PhDs, going from *Recruitment to Induction (phases 1-3)* and cover the later stages of *Discovery and beyond (phases 4 – 7)* in the data from the two rounds of interviews.

### SEVEN CRITICAL PHASES

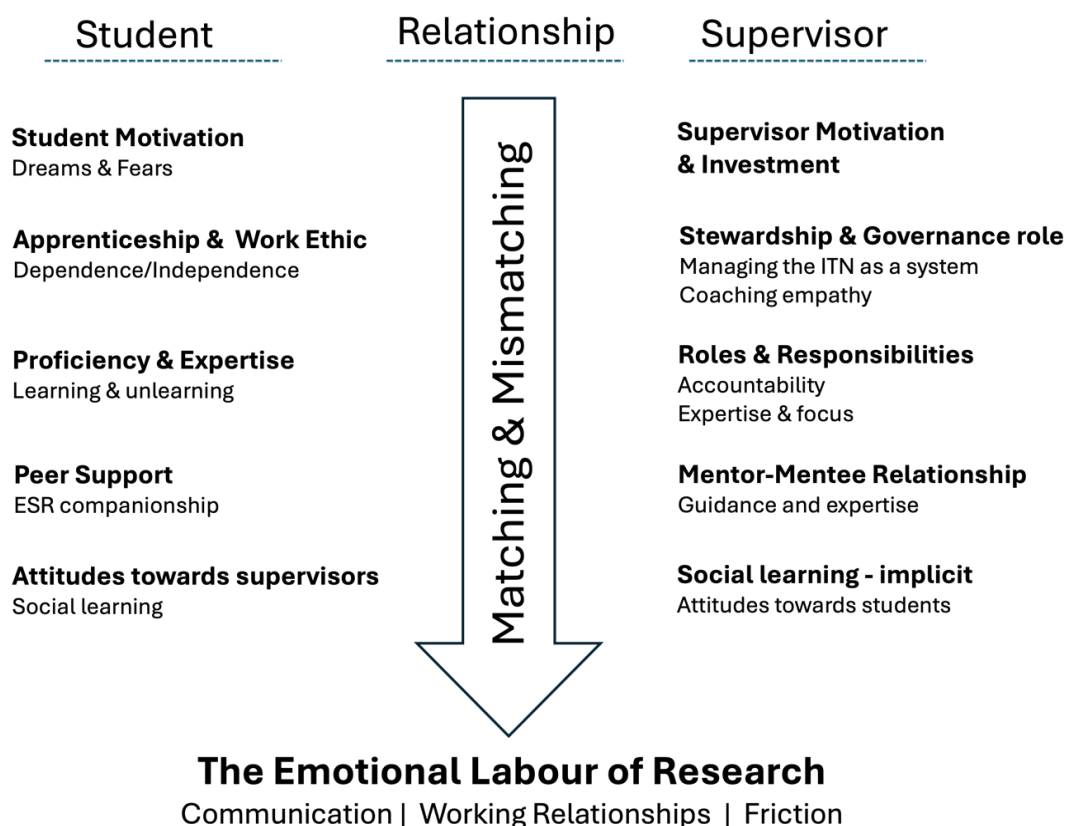
1. Recruitment – the research specification
2. Induction – creating the working relationship
  - a. Contracting the relationship (expectations, on both sides)
3. Go / No Go decision after one year (by ESR, supervisor and HR & Institution)
4. Discovery phase of acquiring skills (supervisor in the lead; ESR learning: how to use the lab; pilot the experiments; personal self-leadership, discovery)
5. Proficiency phase - stage of taking initiative, self-motivation / leading the research – ESR leads, developing more authority over projects (usually four). Focus on how to communicate with supervisor(s) and to self-manage.
6. Thesis writing (last 4 months). Developing capacity to communicate with outside world / the research done; meeting specific University requirements using published papers / still under review; assessing quality standard of publications required in Academia.
  - a. Pressure: ‘publish or perish’.
7. Career choice



The Framework of Formal Engagement is based on an interview with the Coordinator and verified with ESRs & with a selection of supervisors at June 2022 Glasgow Course event.

## 2. Framework of Interaction - the Mentor-Mentee Relationship

This framework was developed for Mindshift from the interview data, with a qualitative research approach using thematic analysis (see below on page 21) in order to understand the student supervisor relationship.



This framework acts as a skeleton structure for investigating the data on development that emerged. Using interview data, we looked at the ‘imponderables’ of how the quality of supervision relationships grow and work in practice. Quotes, vignettes and comments were used to understand patterns underpinning an ITN overall, its strengths, weaknesses, opportunities and constraints - rather than as examples of individual behaviour in order to explore what makes for a reliable ‘click’ in this working relationship and be able to transfer this learning.

There is an overlap between the two frameworks when the process of the research connected with the development track. The phases of *Proficiency: Mastery & Communicating (Phase 5)*. *Thesis-writing (Phase 6)* are discussed

from the point of view of the student experience of learning. Obviously *Career choice (Phase 7)* whilst students prepared for this, is left out as not yet completed at the point of writing.

Using this Framework of Formal Engagement, we explore firstly:

#### **The student experience section in Chapter 4**

This comprises a full discussion of the data on how the phases led by supervisors worked in practice from the student perspective, matching and mismatching expectations on both sides, sometimes aligned and sometimes in counterpoint to supervisor leadership. This section includes secondments and the focus on multi-disciplinary research as experienced by students. Discussion will focus on the lived experience of students and supervisors in Mindshift alongside the assumptions that were brought to the task. This then leads to reflections on the partnership role of The Recess College and out activities.

#### **The supervisor perspective section follows in Chapter 5**

This is discussed from the standpoint of supervisor's perspective and practice, identifying the variety and impact of supervisor's *motivation/investment* in supervision within the ITN alongside the *governance roles & responsibilities* of supervisors - also the umbrella of university and departmental objectives / challenges that academics carry.

## **Chapter 3 - The Framework of Formal Engagement - presenting the social data**

### **Preparation Phase beforehand - leading to the EU application**

*Creating the proposal – embodying the future Mindshift style with an eye to understanding the potential*

#### **Even before the ITN began, Mindshift started a new approach –**

Key supervisors invited to a two-day brainstorming event in Brussels to build on the feedback given to the second grant application. At this point bringing people together in person, forming bonds and connections, sharing research dreams, valuing meeting and taking the risk whether or not it would be worthwhile. This event was detached in time – necessarily - from the research programme being selected plus allocation of funds. Neither at this point nor later did we hear the network collectively address the detail of the research dreams being translated into reality.

Arrangements & the tricky questions round ensuring sources of expertise required for the student's project, resources consideration of the challenges of travel, the university requirements and regulations may not be nailed down. And it is not clear when this happened except at the individual granular level of different universities.

To what extent is it an almost built-in problem for supervisors and promoters that at the point where the ITN is not yet functioning in reality and only potentially exists, there does not appear to be an impetus to focus on asking the question: 'what commitments and sorts of people (quality/capacity) as students and supervisors do we need for multi- and interdisciplinary research?

### **Data from Interviews - First Round at 12-15 months**

*For Supervisors and students*

**1. Recruitment and entry phase**– *reasons for the choice on both sides; hopes and expectations; outlining the project to the student.* Some students for example, at joining a Dutch University were hugely impressed that at these interviews '*they asked about me*' and about personal ways of operating even more than former fields of study. This experience was motivating and involving, and linked to how the project proposal was described as probing new ground.

For some students the entry phase was the opposite: *demotivating*. After recruitment, having prepared thoroughly before the start, they arrived to find that their project had been diverted to other students for logistical reasons, at a departmental level, right above their heads, due to the needs of other students or lab requirements, significantly without their prior knowledge or involvement.

Other difficulties included-

- *Preparation for managing the hassle of start-up*  
Formal arrangements with own Universities, national institutions, EU requirements differing from local university arrangements; planning secondments, with the requirement in Spain of six month secondments changing the secondment pattern for the whole scheme.
- *Responding to and influencing institutional arrangements an ad hoc process.* Some but not all supervisors are very experienced in engaging with different bodies: some negotiations handled by the work of the ITN committees. Overall, however, this seemed to remain a highly individual process for supervisors in their own setting, taking up tracts of energy in engaging their own bureaucracy, attempting to install more relevance and fairness in some administration hoops to be jumped through.
- *The extent to which academic administration supports or drains and / or contributes to the sense of over-work and frustration.* Later, in Action Learning sets, the way bureaucracy, regulations and following the rules saps energy and time was discussed with first -hand experience of how heavy this dimension is, how ground down some supervisors become in their bureaucratic setting.

## **2. Induction / Contracting the relationship of supervision –**

*how both sides relate, share hopes & expectations to make these real and workable*

Only one supervisor mentioned doing an Induction Interview. The term gave it status as an opportunity that went beyond setting out the research specification /expectations, into making agreements about the unique working style, commitment and the role supervisor and student play; how they meet and talk to each other if things go wrong. Seeing it as a named step offered a setting for discussing the nature of their collaboration on the

research, between them as people in their partnership, in their respective roles, over the three years.

Some supervisors did this more informally, but some never covered this ground.

Professors as senior people were almost exclusively responsible only to themselves and/or the norms of their own department/university for student graduation but not to the ITN.

The depth in sharing over supervision on concepts, research skills and project objectives in the Course Weeks of the Network was not mirrored by similar shared discussion on the supervisors' role and responsibility for coaching and development, and review of how to handle and relate to particular students.

Benefit of making supervision arrangements explicit:

The best experiences described by students were when the supervision process was made explicit, resulting in realism on both sides about trusting the process. In those cases, commitment to collaboration built up agreed pointers. These pointers could then be referred to when something went wrong – lessening the likelihood that feedback was experienced as a surprise, shock or downer, but more as indicating the needs to create more focus.

- 3. *The decision whether to Go / No Go after one year – with the ESR, supervisors and HR and Institution. Under-used for the critical engagement nor put in place 3 months ahead as a point of evaluation and recontracting. Not spoken about as a tool for the ITN as a whole – more seen as a university decision***

*The RC was left wondering:*

*To what extent does a project end if a student flunks – is it a structural problem for ITN – reputation management – with consequences both financial and leaving the ITN at stake for supervisors*

This decision-point could be seen as an important tool for effective appraisal, a moment in which truths can be told and redirection undertaken if needed. Is it too early to be an early warning moment to evaluate whether the outcome with a student will culminate in a PhD and what is needed to make this a possibility? We saw there were – a few - situations that looked unpromising where early review might have cleared the air.

#### **4. Discovery phase and acquisition of skills / focus brought to the project by supervisors**

*Learning the detail of experimentation in lab or digitally - supervisors leading; ESRs learning; use of lab; pilot experiments. Gaining skills of research experiments & gathering data; supervisors shaping the project for the ESR to learn, so it has a good chance of completion*

All supervisors described the functionality of creating **focus** in the mind of the student, influencing the student to shape their thinking towards a workable PhD, knowing how to

- craft sound & original research
- limit and shape its scope so the PhD had focus
- learn to deliver for success

Focusing and shaping the scope and data was one aspect of the project that all supervisors agreed on in a way that described this as necessary – and therefore foundational. This was in terms of the student learning to reach goals - to structure research boundaries, showcase findings, value limitations to crystallise these and learn what they can do in a project in the time

#### **Obstacles in getting started and dilemmas to overcome:**

*Visa delays/ project changes/ lab issues/ unforeseen constraints*

- A few ESRs started ~6 to 8 months late
  - because of redirection and changes in lab/ project and
  - during the first 8 months on another student's work - not explained clearly at interview and only at end saw relevance to own research
- Visa paperwork for two ESRs caused a 2-month delay and hassle, including stamping from multiple authorities
- administrator failure in the lab led to a six month delay. Both of them worked on a back-up project. With very different reactions and adaptability.
- One faced a delay in procuring lab materials which reduced experiment time down to ~2 months
- Others in some form had different pressures - of a new language, insecurity due to a self-judging perception of how others saw them ('asking stupid questions/being new to the field'), lack of confidence, being dependent, and real-time pressure by the Mindshift research programme turning out to be three, not four, years as they had understood earlier.

## **Responses to Obstacles & Downers**

For several students these distractions & obstacles in getting on with research for up to a quarter of the project duration in the ITN programme were major and created significant stress. It is not clear from the first round of interviews how they experienced it as many appeared to hold back their reactions and were very factual at the time. In later interviews some retrospectively shared a span of painful and long-lasting emotions and reactions.

There were differences in how the students assimilated these dilemmas. Some saw it as simply part of the way academia operates. For some, an underlying strand of resentment continued in the relation with the supervisor and the whole organisation even when later arrangements were better. Others, in exactly the same circumstances, 'got on with it' developing a close relationship with the supervisor.

To some it felt like blight, and led to frustration, disappointment and ongoing resentment. Some students experienced themselves as left in a void, without plans to start their project and at the start were genuinely depressed, others in anger and blaming.

*Engaging with the ability of the student to overcome their reactions to such dilemmas.*

Some supervisors engaged with students' feelings, anxieties and anger; others glossed over the impact pragmatically, saying this is academic life or an issue particular to local circumstances. Several students seemed to have to weather the setbacks on their own.

We wondered – as non-academics - to what extent the supervisor reactions to these obstacles reflected having had repeated and similar experiences themselves... leading to a degree of resignation and 'putting up with hassle' as part of university life.

For students some greater clarity or concern shown over the arrangements, an idea of when they would be allowed to start or given the next project - or even why that could not happen - would have made a significant difference to their experience - and their confidence.

## **Chapter 4 - Framework of Interaction - presenting the social data**

### **Introduction**

#### **In this chapter, the report moves now to the student experience**

At this point we switch from reviewing the milestones of required or expected, standard phases in the PhD process - and move to the personalised data collected from the two rounds of interviews with students and supervisors as shown in the model below. The aim is to understand the subjective experience linked to actual behaviour in the PhD track.

The next section follows the experience of students from the early days to the midpoint of the ITN and then again, to the way they engaged with the programme at a later period after considerable lab and research immersion. This section will be based on data and the insights gained from the two round of interviews.

### **Thematic analysis**

The structure of this review follows the framework developed along the lines of 'Thematic Analysis' in order to address the 'imponderables' of the not-so-easy-to-define thoughts and feelings as well as actions and deliverables of those involved in such a complex living organism as an ITN over the three years.

### **Reading the model**

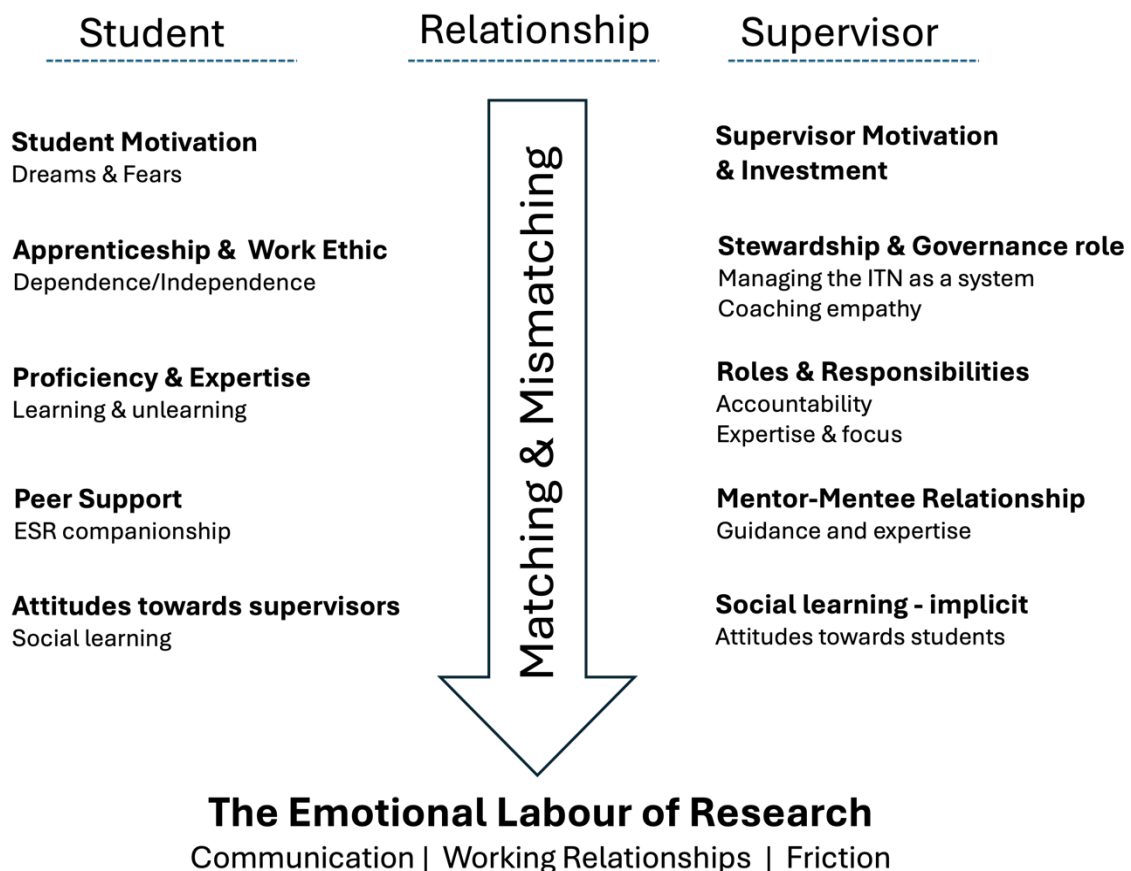
The model below uses a qualitative research approach for understanding the structure of the mentor-mentee relationship as it worked in practice and later The RC role in development activities. The focus will be on the experience of the PhD journey, the nature of research relationships and Mindshift as an ITN. Firstly, we look at the data from the perspective of the student and then, that of the supervisor. The next two sections therefore are the experience in their respective roles of the process from the student, and then the supervisor points of view.



# Using a Thematic Analysis Framework: The Mentor-Mentee relationship

Clustering patterns to identify  
the individual and collective learning system

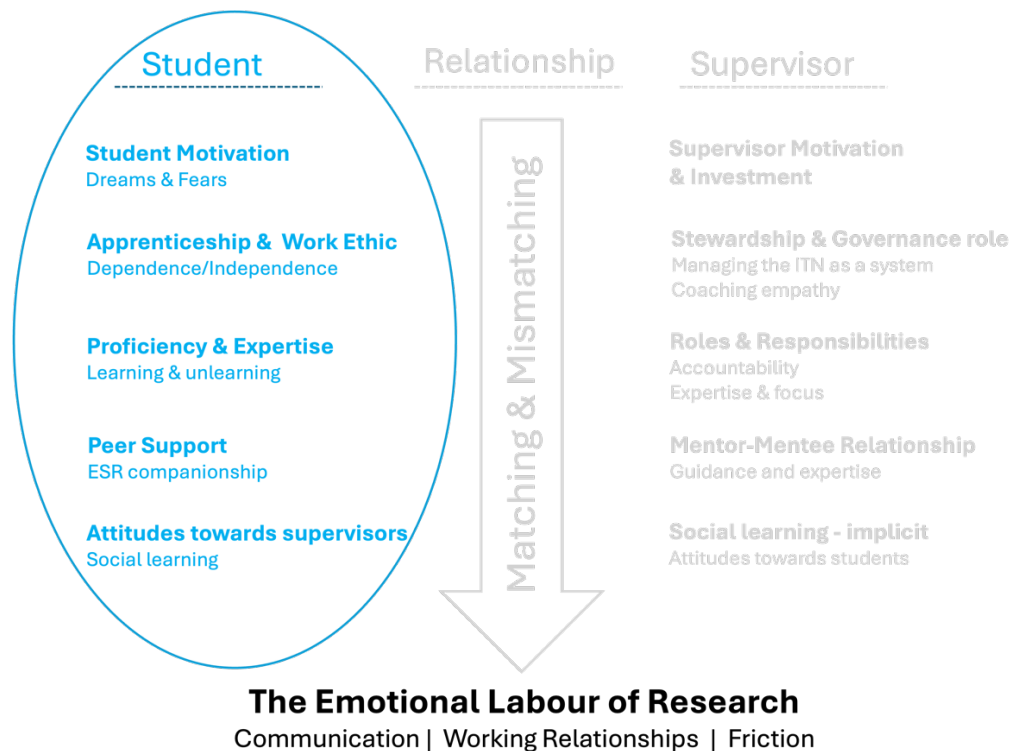
## MODEL 1: The Framework



It is important to stress again that the included quotes and comments are employed in order to develop an understanding of an ITN and its initiatives and ambitions as a whole system. All quotes and comments are therefore directed towards that end, rather than individual performance. Individual pictures are made regarded as expressions of aspects of the group as a whole - with the intention to show the momentum in the life of the Mindshift as an ITN; in this case how it developed and made progress.

# The Student Experience

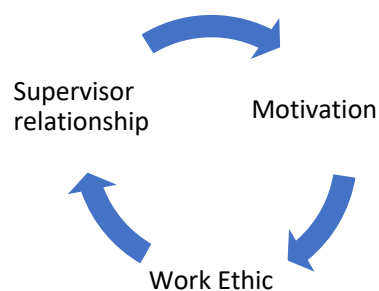
## Model 2: Students' experience in an ITN



## *‘The Beginning’*

### Theme I. ESR Motivation

**During the induction phase:** Overview of the first fifteen months  
It was clear that the ESR motivations influenced the way they were able to assimilate, relate to their supervisor and particular work ethic as they mobilised themselves in the initial phase.



## Student Motivation

ESRs came to Mindshift with a span of reactions / motivations

- Relief - at being accepted
- Escaping pressures of limited opportunities in home country
- Extremely high hopes for their own future
- A life-changing process – joy & alignment
- Coming of age in being able to put their ideas into action
- Furthering careers through developing core skills validated by the PhD
- Fundamentally a career progression; focus on next move after this; current obstacles not to get in the way of ambition; instrumental view
- Validating own worth and personal identity

### Motivation in the students' words

#### A dream come true...

This was what many dream of...exactly what I was looking for  
Offered me the chance to thrive and be myself  
The content of the PhD a perfect match  
Completes what I was already doing as a medic

#### Thriving & taking charge personally

Start of being independent  
Thrives while not being overly supervised and being more independent  
Understands how to play the game ... how to be a PhD...found more solid ground  
Knows what she wants & is not an easy one to give up despite the project change

#### Stepping out of comfort zone & lack of options

Starting with data is out of my comfort zone that's why it's worth it for me  
Extra pressure to succeed because of the lack of other offers  
Applied at two more PhD positions next to Mindshift  
Means learning lots of things out of my comfort zone, not always easy but it's worth it

#### Life changing –literally – getting away from difficult circumstances

Being accepted has been life changing...gone through the ringer – from a waiter outside Europe to a PhD on an EU Marie Curie programme.

#### Novelty of industry and multi-disciplinary approach

The project is totally new which I like  
Joint doctorate is new...I do not know any other PhD where industry plays a role  
Drawn to the multi-disciplinary and generalist approach  
Not just a traditional academic path but other options such as industry...see where that takes me

#### Potential impact on the field of hypertension and science in general

My love for science drives me...wanting to become an independent scientist  
The potential impact and the practicality both were important to me.  
Wanted to dive deeper into a medical related topic...my curiosity and wanting to help others with the hypertension research is totally me

## **Theme II. Apprenticeship & Work Ethic**

### **Work ethic during the discovery phase**

ESRs begin the research with high ambitions, then rapidly were immersed in learning & in confronting the scenario of what they ‘don’t yet know - or know how to do.’

It seemed to be a period of possible disorientation, of ‘letting go, unlearning and learning’. In this phase, the aspirations of ESRs were narrowed down or funnelled into learning how to conduct the research, the ‘devil-is-in-the-detail’ skills of setting up and running experiments, the minutiae of doing science, and fine-tuning skills whether in the lab or digitally.

For all it was a challenge. Some embraced the challenge - finding personal and professional achievement in the craft of research and a new approach to mastery. However, this was experienced by others as a personally ‘lessening’ or diminishing process.

### **Attitudes to research in the early phases**

How is it some students were easily able to learn from their supervisor, taking up opportunities offered of wider expertise (in the lab) and how to operate in the research process? Others the opposite. What makes for the difference?

ESRs either actively loved the research right away or reactively hated it, recovering after initial setbacks because of their grit & determination but also because of the prestige of a double PhD and the EU programme, the network, future opportunities and a real shot at changing the field.

Some of them were driven by the new areas of research, the quality of science, working with ‘super talented’ people whom they looked up to and even wanting to change the image of what a PhD is where they come from.

Several of them faced challenges in being able to choose their final topics, failed experiments, delayed lab materials and having to collaborate in general (and even with other PhDs outside Mindshift) but bounced back with the determination of wanting to be a researcher.

## **Attitude to Research in ESRs' own words – early interview findings**

### **LOVE IT**

Goal to make change happen drives me...quality of being a scientist

PhD is so much more than the image I had in Vietnam – nerdy, technical and all male...being smart and cool and I can go for it!

Exciting to work on something novel. From literature research found that this approach is not done anywhere else

Forced to come out of the research bubble... the social aspect in life as a PhD is important...relaxed about working under pressure 'nothing goes as planned'

I'm still feeling new to this area of research. But I'm very involved... interviewing all the ESRs to gather & build on their data...I love the variety

Enjoy the intellectual part of the research---need to work on the "pragmatics" the skills, "business" and organisational side of the research.

Gives me a repertoire of skills that I think will give me a good future. the therapeutic potential for future treatments & pathways

### **HATE IT - BUT BOUNCED BACK**

PhD not going well. Might have quit. In hindsight should have advanced own research earlier. Lost 4 months! Ordered all the materials to do the test. If I can do the tests, 50% of PhD done

Happy to do a new, new project finally and not a continuation of an existing research line

Did not know how to do (lab) research. June to Nov made mistakes. Failed experiments... Hit rock bottom– no home / no family / no results / less English /ready to quit. December started working again...renewed pledge that she wants to become a researcher

Started one year ago on a different project...meant embarking on an already in detail planned rat study of another PhD student. After this study/experiment had been finalised, started to enjoy making own plans and going for collaborations... not an easy plan to give up when invested already substantially in it

### **TOLERATE SETBACKS BECAUSE OF**

#### **.... THE NETWORK**

you need other people to do things...stresses...mostly data analyses manually but feels she is at the right place at the right prestigious department and university and working with 'super talented people' that she looks up to

## **TOLERATE SETBACKS BECAUSE OF...**

### **...THE PRESTIGE**

Now in Vienna at a Mindshift related company to do analyses that benefit him, the university and the company. He also feels very good about the fact that there is a lot of attention for him and his research due to the Mindshift program

### **...THE LOVE OF RESEARCH**

The research is at the centre ---no matter how I want to finish it. Biggest ups & downs are how challenging the relationships (labs/supervisors) can be given how much you have to collaborate & make things work

### **IN THE MIDDLE**

On a scale of 10, I'm a 6 as an independent researcher... acquired programming skills, basics are in place

## **Academia as an Apprenticeship Structure**

### **Impact on students**

It was hard to escape the conclusion that ESR research is modelled on an apprentice mode of training, learning, success and failure. Apprenticeship means that the supervisor as a person is, by definition, central to student progress, opening or closing doors for the student in every significant way. The supervisor provides the foundation for professionalism and competency, the wider learning environment; as the person in the role, supervisors are fundamental to the growth of the student. They provide the setting for learning and the research direction. Where more or different expertise is needed they have a role in providing for it to be found elsewhere.

Apprenticeship clearly was a key advance in skills and professional development and central to traditional learning mode in medieval Guilds. At that time it provided a strong structure for disciplined learning and now may be seen as a container, in the best sense, of the student struggle to develop the professional craft of experiment and thesis writing. However, it does create complex reactions as well as helping achievement of results.

### **Emotional responses**

Some reactions were easy to spot but others apparently, sometimes, out of sight, though still influencing behaviour. Some were alluded to in interviews directly,

others appeared as patterns of behaviour acted on in ways that only later made meaning or sense.

For example, interviews revealed that several students, men and women in different ways said they were fine but found the beginning of the PhD overwhelming. This anxiety appeared to be hidden through presenting oneself as coping through a process of denial.

### **Disturbances & defences influencing work ethic**

Some emotional reactions were alluded to in interviews directly, others appeared as patterns of behaviour acted out in ways that later made meaningful sense.

- *Several students* said they found beginning the PhD overwhelming. This was due to a tendency amongst the most conscientious students to put pressure on themselves to present themselves personally as coping. Their internal but unthought premise was that their anxiety was a solo problem of their own or even their own fault. They attempted to cope by apparently normalising, absorbing or denying the worry in public to the supervisor - whilst their anxiety was actually off the scale. In interviews, some revealed their strategy of concealing the disabling amounts of fear and anxiety in the early days in an attempt of “getting it right for the supervisor.”
- *Experience of the tension* between dependency and self-sufficiency played a significant part in this tiny group and appears to have been compounded by reactions to being in an apprenticeship role at this stage. In the Twenty-first century, the focus of young-adult period of life, twenties and thirties, tends to highlight personal objectives round ‘coming of age’, adult autonomy, identity as an adult (man or woman). This may have added to the sensitivity some felt round
  - feeling put down
  - over-interpreting ‘not-yet being competent’ in terms of personal weakness, failure or not being fully adult
  - resourcefulness - being able to ‘get on with it’ when there were difficulties.

### Subtle effects on work ethic

#### 1) Gender experience in response to change, risk and persevering -

Often under the surface, implicit and not necessarily accessible to for discussion, but definitely influencing work style, work ethic and behaviour on both sides.

Several women tended to put their whole personality on the line as though being judged and found wanting - as people, not just as researchers: seeing feedback as an indicator of their whole identity and value, not merely a transient measure of success or failure; responding by self-blame, self-sabotage and emotional self-annihilation. All of which temporarily distracts from the real question of ability. They go down a hole for a while.

### Subtle effects on work ethic ...continued

Men are more likely to bounce back after knock-backs in different ways, with their eye more on the long-term strategy:

‘a bad moment but there will always be another time’  
perceiving differently and absorbing neglect without complaint,  
wait it out patiently or project blame outwards rather than inwards.

#### 2) Culture clashes

Culturally, there are likely to be inadvertent clashes of students and supervisors in combinations of different nations & continents, if they take for granted the values of their own culture as ‘normal’. What appeared to happen was seeing these not as cultural but interpreting them variously as personality-driven or psychological (rude, wrong, bad or controlling). This is significant in a diverse cultural Network promoting opportunity for academic collaboration and networks across Europe.

##### *Vignette*

*Student coming from a strong culture of rights and self-reliance is immersed in a culture of deference, vocation, sensitivity and self-sacrifice in another part of Europe. Valuing strong self-sufficiency and negotiation skills the student acts in a way that was congruent to the student's own culture but completely out of line in a different European culture, with more of a premium placed on values of deference, compliance, observing a different set of sensitivities round finance and permissions. Neither appreciated the normative culture of the other, so projections of control and unfairness – attributed to personality and being stubborn - appear to have rattled backwards and forwards. This took a long time to resolve; with the dialogue being on behaviour rather than with help to discriminate and the values to which each were loyal.*



## Strategies to overcome the fear of what could not be talked about

- *Proving oneself to make a good impression* – managing feelings of insecurity through concealing stress and fear through impression management. For at least some time, several individuals created a ‘*cover work ethic*’ of coping well whilst feeling the opposite. They did this ‘strategically’ by
  - concealing stress/keeping up a façade and not sharing it
  - making the problem ‘small’ / by internalizing and blaming self as though stress was their own fault
  - expending huge investments of time & energy / by working all hours whether this was asked for or not
  - responding ineptly, by acquiescing to supervisor suggestions too readily / without fully understanding; neither asking questions to make sure they understood nor speaking up about concerns.
  
- *Defensive counter-dependence & cynicism* where a student
  - is intolerant of apprenticeship role,
  - has an attitude of entitlement,
  - qualification seen only as means to an end / more a priority than apprenticeship relating to supervisor for learning.

This can lead to oppositional relationships by the student, sides taken with other disgruntled students against the supervisor, diminishing the value of the supervisor in the student’s eyes. However clever, this meant a student negates the full benefit of the supervisors’ depth of experience in research and experimentation.

- *Genuine disappointment/disillusionment* over
  - Lack of perceived calibre in a supervisor or relevance of the research environment
  - Supervisor neglect /failure to ensure student is connected to sources of expertise in a timely way/ being left waiting to start over months
  
- *Beliefs about proper behaviour, approach to authority and deference* clash with the need to discuss work frankly / influencing work ethic. This was evident for several students. Some from Middle East and Asia-Pacific struggled in the research culture whenever their culture emphasised the opposite value of showing deference.

This translated into behaviours that initially inhibited them questioning or clarifying pressures and expectations from their own side. Instead, they tried to “read” what the supervisor wanted.

This was sometimes very difficult and confusing for supervisors who thought they were having a straightforward conversation with their student in which their guidance was clarifying direction - when it might be translated/ interpreted by the student as a message indicating their inadequacy and a need to please better.

These mismatches of perception can be bewildering and disturbing to both student and supervisor. Misunderstandings were likely to become stubborn and magnify and the idea of a kind of shared platform for supporting supervisors to talk about the meaning / interpret the situations and share experiences was never envisaged. Discussion of ‘ins and outs’, the minutiae of supervising a particular student with other professors could bring fresh insights. The pity was that we never saw supervisors take an opportunity with their colleagues to talk about and interpret situations with a particular student – except once on an Awayday set up by their own university – which did lead to worry and waste energy in locked-in positions.

### **Enabling their work ethic**

Right from the beginning, some students had a mature approach to risk and challenge based on other life as well as academic experiences. Others were contained emotionally as well as coached practically by their supervisor. Time was taken to clarify their expectations, identify what could be expected of them at key points. This led gradually to the development of a more relaxed collaborative contact of a “partnering” relationship. This involved relating together with the supervisor in incremental steps to explore how to learn the craft of engaging in and setting up research. This supported their sense of self-worth through becoming realistic about competence.

However right to the last interviews even some of the most able and best aligned to their work with their supervisors were still trying to find out if they were good enough.

## Theme III. Peer Support

### The value of their ESR peer group

The Peer Group was seen as an enormous benefit, a network within the network

- Counterpoint to the learning and supervision process
- Highly knowing - of each other - and supportive, not collusive.

The bonding of their peer group took place in Renesse (the first RC partner workshop with Mindshift). It was enormously important and right from the beginning they turned to each other as their own network. It also alerted them to the value handling difficult conversations as one of highly important social and relational skills needed.

They turned to and created it, bonded and developed the ESR group as unconditionally ‘on their side’ as a support, validation, place of comradeship and understanding of each other.

It is always inclusive yet ‘very knowing’ of each other as a community. They appear to understand each other very well and work to include each other even when some were having difficulties with each other, so the bond which is not at all flabby or sentimental is always inclusive.

Additionally, as the research progressed, it became a support network on skills, access to people, problem-solving on where to live and how to find resources. It comes across as a highly vital mini-community and a network that could last the rest of their professional and personal lives.

It appears that the ESR group had a parallel function to the role of their supervisor. Their supervisor was extraordinarily significant – as the person training and developing them, preparing them to be adjudicated at the right time. So therefore, the supervisor role was challenging and conditional but for them and, by definition, *not* always on their side. The ESR peer group was always unconditional and on their side. If we see the relation with the supervisors as that of *apprentice to professional*, the relationship with peers was *collegial*.

Some supervisors valued this group allegiance, others did not know it even existed.

## **THE VALUE OF THE ESR PEER GROUP – in their own words**

The group holds a place symbolically - and literally because they are all international- as

‘a family’

‘real support’

‘friendship more than colleagues’

‘sharing stories’

‘creating better connections’ ‘dropping personas’

With the secondments there was an opportunity to ‘dive into the big database’ at another University or sharing specific technical knowledge “the group helped on variables to use in large datasets”

Meeting at Renesse was a turning point for the ESR Development Track in getting to know each other.

Action Learning has been really important in how we ask for feedback, how we talk things through all the time

The Action Learning Groups meeting online every 3 to 4 months catalysed the ESRs motivations to build trust and allies in their host universities and across other locations too.

ESRs are actively creating a “sense of community” – “a collective experience” despite the differences. They are sharing what each other is going through, boosting confidence and giving each other ‘permission’ to be seen.

it’s given me confidence I can ask for help whether with the work or normal life

Never had this before with people I don’t know. Felt safe and we’re all helping each other

It says something that I don’t dislike anyone despite how different we are

## **THE VALUE OF THE ESR PEER GROUP continued...**

Given the pressures on the ESRs, community building is also a task - making time for peer networking, Action Learning meetings is all extra – they acknowledge the struggle with “the extra work but that the dot on the horizon and the learning element makes up for it”

The pressure of the programme, extent of placements and how we need to interconnect and work together makes it different from how I understand other ITNs, but the way we’ve done it with The Recess College feels unique

ESR group is as family. If I have a problem, they will help me... I feel real support.

It feels like family

we have built strong bonds

Our friendship is more than being work colleagues

discovered that she does not think someone is weak when they share – she only gets more admiration for them and create better connections

At the beginning I thought it would be just 15 people with 15 different projects from different countries

Doing a PhD can be lonely work. The network helps.

# **‘Middles’ - gaining capacity**

**16 – 24 months into the Mindshift programme**

## **Theme IV. Proficiency & Expertise**

### **Greater autonomy and leadership by the ESRs**

*Leading the research – The moments of transferring the initiative - ESRs leading; taking own authority over projects. Increase in communicating with supervisor and self-managing. Working more independently – experiments without hands-on help of others in the protocol*

### **Development as a researcher through intensive practice**

What enables proficiency?

What stops proficiency?

### **Snapshots in the students’ own words**

Looking at the critical moments of engagement in the development of expertise and proficiency from the student point of view, these snapshots of the process (in note form) describe vividly the development of mastery; and developmental pleasure at reaching this point of valuing the fruits of the struggle. They illustrate the ‘double learning’ involved namely:

- bringing the research task to a conclusion
- by having learnt through experience the needed skills and interpersonal know-how of how to make this happen / being able to grapple with the issues.

Below are a couple of descriptive comments which seem to reflect the experiences of the group as a whole showing the differences between lab experimentation and computer modelling.

## Example of the common process of skill learning

### *1. My Lab learning halfway through*

Learnt Lab skills — transfer to me basic knowledge of how to set up experiments in the lab - by technician

Interpretation of data – by supervisors

Setting-up experiments, steered by supervisor / executed in the lab in supervision with experts (Postdocs, lab technicians)

“Navigating the complexity of relationship in academic environment

Importance of relationships in professional world – need to engage with busy people who are not obliged to help

How to give and take, get favours

You start as a ‘Nobody’.

Many grey areas. Unwritten rules.

Many things dependent on nonexplicit relations and agreements.

ESR earns more than a technician = be aware of tensions.

Comment

How can ESRs be sensitive to these tensions whilst being needy / totally dependent without (yet) knowing how to get what they need

Can the supervisor be explicit about this (or only watch the sink/swim approach)?

## ***2. My Learning on Computer Modelling***

Different journey of learning to do lab work but which also includes overcoming obstacles and dilemmas.

Student was required to gain domain knowledge (algorithm or model for certain body part) then be able to work with it... Supervisors fed into this journey differently - key supervisor created the research question but had no knowledge of the domain – not in a position to guide the student on the original research question; did not know how to execute (new field of computer management – this use of computer). For student, “it was all new programming language”.

Company sponsoring the secondment gave supervision to student in this, their area of expertise, and re-orientated ESR’s direction and timeline. Lucky accident based on a gamble: an algorithm from another field could be translated one-on-one to the subject of her research.

Did this on her own. Handled by herself. Gaining confidence and creativity. Earlier was completely stuck

### ***Comment***

Student did not know how to have conversation with supervisor / in situation where the supervisor did not know. Now pleasure in the achievement and it working out

## **Proficiency, Expertise and Work Ethic**

*Gaining realistic research skills / Learning & unlearning/ Setting up arrangements*

- *A time of transfer of skills and developing competencies*
- *Renewed energy in bringing the first phases of research to fruition*
- *Understanding the skills and identifying their own development as ESRs*
- *Developing a more confident work ethic alongside freater sense of focus in own project*

## **Theme V. Place of Secondments & Approach to Multi-disciplinary thinking - extending their grasp of academic thinking**

### **More new experiences and shifting mind-sets**

As well as the central and key role of student / supervisor relationship and definition of the research focus, the ITN introduces two additional academic experiences via secondments. Because these tend to be shorter, coming at a time when the student already has had experience of negotiating the help they need, this is a second (or more) chance to be active in forming effective and purposeful working relationships. The student often is no longer at the most vulnerable point of their ESR journey, clearer though open about the research focus and more likely to be clear about what they need to learn or experiment.

Some students found secondments difficult and became a source of disappointment. Overall, we noticed, students were more ‘equal’ in their approach to secondment supervisors in negotiating and setting up learning objectives, creating a professional working.

It was as though being asked to be more autonomous, with a body of research know-how under their belts they were less caught up in early apprenticeship behaviours and themselves take more partnering behaviour. This may perhaps be because the secondment relationship is not so important or significant for their future career as their core supervisor – but also because at the middle phase of the ESR track a more partnering role has been established there

### **1. Secondments**

*The number and mix of secondments form a central plank of the Mindshift ITN.* Secondments are seen by Marie Curie, EU, as part of developing integrative thinking through exposure to different ways of looking at same phenomena within academia, using varied techniques/approaches in industry and the ability in both to integrate diversity of thinking across the research spectrum. It is intrinsic to the innovative aspect of the ITN.

Some supervisors were dubious at the start that ‘secondments impinged on the work of a PhD’



- Obstructing the needed time, attention and focus required for substantive research
- Distracting the student learning concentration
- Three-year degree too short for so many extras
- Worry at student overload in meeting multiple demands

They also saw benefits:

Secondments encourage resilience and resourcefulness, students dealing successfully with the disruption of moving about, negotiating a new environment and forming new work relationships, as well as opening up to the perspectives of new techniques, slants on research and resources

Whilst some of the concerns seemed to be valid, apparently secondments were seen as huge attraction of this ITN by students, giving them

- rapid access to multiple perspectives
- exposure on how to integrate differing research fields and disciplines
- insight into value of collaboration between industry and academia & a more porous relationship between the two
- ways of being located in one and working with the other
- fresh connections

A further and probably unintended benefit was that where some students felt stuck at certain points in the interaction with their key supervisor, when rotating, they met others who were less central to their development and who, on occasion gave them access to exactly the expertise they needed and coached them to know how to approach/renegeotiate direction with their substantive supervisors.

There appeared to be quite a lot of good intentions and/or happy accidents of this nature with secondments. The ESR network came into its own. Movement across universities and industry meant that the ESR Peer group was a major resource and support-line for many. Meet-ups between students in different combinations happened so the ESR network functioned offering a lot of peer facilitation – where to live, who already there to socialise with, specific hints on how to handle resources, working in labs, hints about experiments, the style of labs or industry research institutes.

### *Using secondments well*

Where the student's key supervisor backed the secondment, they may well have dedicated months preparing a programme of experiments. Where the secondment period short it might be more like three weeks of fun playing with a technique as information for a later date. Critical to the value of long or short secondment in industry, was whether the student was open to the experience, had a good contact, was backed by their supervisor and best, when there was a skill learning commensurate with the demands of their research.

### **How secondments worked**

#### **Academic secondment medical student:**

The original project as defined in the original grant proposal involved the study of human subjects. The project methodology shifted whilst still being at the host university. The secondment at the partner university involved animal studies which was new to the ESR. The student went there to acquire new lab methods. The outcome of doing experiments with animal models turned out to be far more than learning a new skill/method to continue the existing project. This new potential (being at the cutting edge) involved a change of project direction / focus in which the student benefited from supervision and could show his creativity leading to great scientific enthusiasm by both the partner supervisor and the student. *(To what extent can change of research focus be accepted by EU or universities for the topic of a PhD?)*

### **Secondment at technology consultancy firm**

This is a good example of a secondment sabotaged by mismatch of expectations. Student went to gain new and relevant skills - but arrangement lacked full prior exploration/ negotiation by those involved – over what would be important for student should learn.

The objective of this secondment failed.

### **From student point of view**

Student proposed three ideas to CEO, university & company supervisor; the one on clustering projects was taken with no further discussion on ‘who does what’; the machine learning coding option came with only 5 days to do this. In the end student and academic supervisor thought it might not be viable having relied company supervisor view this was feasible. More wanting exposure to something relevant for her project through work experience at a company.

### ***A sad story lacking (emotional labour) for three-way negotiation.***

It appears as if two good people missed out on each other and the benefits of non-academic secondment.

### **The company supervisor view**

Was this student looked down on his approach. She did not put in the work - to achieve - so he did not want to work with her’. ‘Gave her a Bachelor tech course... maybe she saw this as below her / too good for it?’. Net result: the secondment floundered on both sides, ‘Can’t do original plan.... a case of you don’t want me / I don’t want you’. They walked away

- *No-one negotiated in this example, all just reacted; no happy coincidence to save it. No responsibility taken - terrible waste of time (for supervisors too). Takes effort to negotiate*
- *Months of research can get skewed. With no negotiation beforehand, all is seen as down to personal leadership of ESR.*
- *When that fails, it is apparently the ‘ESR at fault...’*

*Problem is the secondment appears to have been set up as a series of twosomes, not one successful triangular negotiation all together – with say the main academic supervisor mediating purpose in clear way with both student and secondment/*

### **Comment**

*The caveat here is that while supervisors may feel concern, discussion of the problem tends to identify the problem traits and inability as belonging to the ESR - rather than as a relationship problem between a triangle, with people of very different status, roles and responsibilities - ESR and supervisors - in which triggers get mobilised in all of them.*

### **Secondment administration - making the arrangements**

Science system really tough on junior researchers to make decision and plan arrangements. A number of supervisors turned the administration over to the student entirely, leaving the student to make key contacts, sort out practical arrangements on their own, without guidance. Handling the hassle of finding key contacts was fine but sometimes seemed a bit of an alibi for no empathy - under the guise of reinterpreting this as though it's part of the student's learning in handling hassle – as if designed as a learning experience in the world of academia. *Many secondments were set up ad hoc, some clearly happy and others unhappy accidents.*

## **2. Multi-disciplinary thinking**

The ITN name 'Mindshift' was not created with deep intentions of developing different mind-sets, but in fact is highly apposite. The underlying drive of this ITN has been to promote such shifts of 'mind-sets'. This is apparent in the substantive research, pattern of secondments, invitation to The RC as development partners as well as, significantly, the multi-disciplinary aspect as a sub-set of certain pilot research projects. These show an underlying aim to promote and review (the value of) shifts of mind-set.

One of the brave and interesting initiatives in the context of Hypertension and Strokes being spoken of as a network disease, has been two interesting experiments. This brought together multi-disciplinary perspectives from scientific and medical approaches in a couple of research projects. The initiative worked on how to address multi-disciplinary research. The learning on *how to do this* has been immense and definitely not for the faint-hearted. At the start the senior supervisors appeared to try to make it happen perhaps by short-cuts of known methods / insights from the storehouse of their expert knowledge built up over time. (See inset box of student experience).

The senior supervisors then fully grasped hold of this initiative, realising that the melting pot of multi-disciplinary thinking takes real dedication of time, is a messy business: involves willingness to trust the views of others outside your own expertise. This appears to mean letting the views of other disciplines impinge on your own, seeing how your joint approaches illuminate gaps or overlaps in thinking and approach – and by doing this, how to supervise ESRs.

The description of a student's initial experience illustrates the collective energy and commitment required.

### **Matching and mismatching - student experience in the practice of multi-disciplinary thinking**

The two domains coming together – one supervisor from bio-mechanical engineering, the lab; another medical, the hospital – the integration left to happen via the student.

The issue, here at the core, was conceptual, around the tension of diversity in academic discipline, namely: of uncertainty of how to translate insight from the engineering model (mathematical, predictive, mapping the physiology), and relate that to the biological model (variation, life material, indirect outcomes) in order to gain value of the total iteration.

This is highly sophisticated, there are no rules of how to do it, it involves exploration of a full 360° range of perspectives to be applied to one condition, to understand how these connect, where when combined they shed light and where the gaps, contradictions or unexplored dimensions lie. It probably needs swathes of dedicated time and trust between colleagues. Through this, possibility of new insights or practice can open up. It is a complex task (fundamentally engaging the ‘why bother?’ question).

In practice if supervisors do not do the thinking, it is left to the PhD.

Student, given no guidance on how to integrate multi-disciplinary research; was beyond frustrated - needed to get both supervisors into one room with her. In her view it was left to the student to initiate / manage the integration. At the meeting she was the one who was concerned to say what this issue was – at that point supervisors ‘did not get it’. The student’s need was to mobilise the supervisors as stakeholders to agree to take charge.

It started with a (fascinating) idea that put down in the grant application. When the ESR started work, the problem was that it remained an idea. They did not however, make it into a detailed, realistic and feasible workplan. Or scan what was needed from them in terms of new approaches or style of commitment to a new development of the research process.

This type of innovative thinking follows a pattern of **Double Loop Learning** in which the objective and the process of how to achieve it are combined. In this the loop reviewing the means used to achieve the objective, is part of the research. Specifically, this means that the shifts of mindset whereby new thinking can be achieved is equally as important and likely to be as innovative as the desired end-result.

Initial findings on ways to mix and meld mindsets were attitudes of:

- *Intellectual humility – not ‘my know-how better than your know-how’*
- *Ability to tolerate the mess of discussion appearing to go nowhere at first*
- *Trust in colleagues knowing what they are talking about, when you do not*
- *Toleration of feelings & reactions*
  - *Being open to initial brainstorming, messy thinking*
  - *Learning and unlearning,*
  - *Questioning the ‘obvious’ when already expert in your field*

The Approach - an informal use of Trio Methodology in supervisor discussion: a discipline of slow-cooking new thoughts, through focused telling, listening and then shared sense-making. In this there are three roles within a structured discussion (however many people are involved in each role).

*A supervising professor experimented with the following methodology with colleagues for sparking new thoughts in exploratory conversations of cross-disciplinary research:*

- *The first presenter role shares fully their thinking about their (normal) approach to the phenomena.*
- *Those taking the second role listen, then question and debate, exploring own reactions, shared and counter view*
- *Then they exchange roles and the second shares their thinking about their (normal) approach to the phenomena.*
- *Those in the third role listen, keeping quiet while the others talk, reflecting while listening, noticing own reactions, then share thoughts that came up and being honest about own responses, reactions & formulations.*
- *At the end the three roles are switched about, giving each airtime to identify the learning and progress they have made whilst listening*

### **The findings on Multi-disciplinary research**

- Requires high level thinking - work from experts as well as ESRs to go into an issue to make the exploration viable
- Takes time & dedication
- Is complex to handle in student supervision
- Student benefits from involvement and leadership on the part of the senior people.

The fact that it is hard work and potentially so worthwhile does suggest it cannot be left to the most junior, those just at the beginning of developing their craft. Multi- and interdisciplinary exploration does require resources of commitment and dedication of time in-and-amongst all the other competing demands in the lives of busy senior people. It is a question whether EU funding programmes and the supervisors themselves are willing to acknowledge and support time spent on this type of research initiative.

### **Theme VI. ESR Attitudes to Supervisors – in their own words**

The themes and patterns of the different types of relationships broadly cluster as

- great from the start
- struggling first, feeling the support and then working like a team
- learning from supervisors how they can operate and work with each other
- struggling then, somewhat better now but still not smooth

#### **Great from the start**

It feels like a team. And that the secondments have become a proper collaboration... The two-university Collaboration brings multiple benefits

It was difficult in Asia... my style of being direct... made me feel unrecognised, not supported. My supervisor is the best I could have. a caring 'father' ...not distant but open, shares his story...available with a working style we share, of being quick, giving clear advice & encouraging

She knows a lot about mice experiments – she is open. Like her.

From the beginning she has been available, proactive & supportive

Supervisor gives real emotional support

## **Struggling first, now feeling the support, ...working like a team**

*View at ROUND 1 - 12 months in* - Building my confidence and experience in how I communicate; being clear what I need from them, as well as what they expect from me. It was challenging to work out how I should keep all of them in the loop whilst also defining the project. I've become more confident with my communication & getting to know what each of them needs & how they work. All very different & that takes effort.

*Update at ROUND 2 - 24 months in* - The initial struggle to attend all the separate meetings in the three groups weekly was resolved, as he could join the others once a month when needed while attending the meeting of the principal supervisor. Even though there were not many joint meetings with supervisors, he communicated with all the supervisors. He manages this because he knows what to ask each of them now, as they each have their specific expertise. The principal supervisor oversees everything, taking responsibility for the overall project.

Things really changed at Glasgow Course week. after 15 months..felt since then I was able to share my practical struggles – when before I didn't know how to get her attention. planned time with me one-to-one ...before I was holding back, being proud & being polite.

I was very stressed due to the delays in sourcing for my experiments. I was afraid that my PhD would fail. I did not share my worries. I was shy. In October (after Action Learning), my supervisor noticed my stress, approached me and we then talked about it ....

It helps when supervisors are friends - they keep each other up to date.

Supervisors are 'very responsive' and they create solutions together at difficult moments. At Glasgow course week I gave the worst presentation of my life; my supervisor wrote me a really supportive email

My supervisor helps interpret results. The other supervisor helps with how to manage stress. She is sympathetic and helps to prioritise work. Principal Supervisor is smart, gives good insights but busy.

When things were not OK between supervisors, the Principal Supervisor put them all in a room to talk out the issues

Supervisor is available and patient with me. I went slow at the start and that was stressful. She helps me with the focus apart from the key engineering. Another person in the lab explains things - sometimes feels like a co-supervisor



### **Noticing supervisors work with them to help**

They helped so much during the difficult & frustrating period of not being able to get my passport ... shares his views & feedback and it's working really well. Despite the different fields, they give me different ideas & fresh perspectives. I don't experience competition between them, no power struggles yet

Started with expectation of them having all the answers between them... one-to-one working & relationships are great, but when they are together tensions are obvious. supervisors they don't talk but it's not my role to get into what's going on between 'men of science'. Very clear that each wants something different, but they don't get into that. I am wanting to be more neutral as I think it's better for the research

They are not micromanaging me... When I get two different sets of advice (contradictory), I can adopt the "best approach method". accepted by all supervisors – even when they are lower or higher in the hierarchy

### **The Struggles continue**

At Round 1- Jan 2023

I struggle with the holiday arrangements in which my supervisor seems to be not flexible. I feel that she wants to constantly keep an eye on me and is controlling.

At Round 2 – Dec 2023

He is feeling good and looking forward with optimism. The supervisor is more understanding that "I am away from home and that when parents, friends, or family visits I may need to take a weekend or day off".

Very good working relationship and sees her as a good supervisor. Was scary at start – felt she was always watching me. Demanding. On top of things. Helps, shapes and directs. Is knowledgeable; strict and reasonable - helps me focus on what is next. Now sense of earned achievement.

*RC interviewer: Top-down relationship. It-is-a-hard-world-out-there view by supervisor. Practical / executional vs. relational difference between Supervisor and PhD student. Positiveness comes from the PhD student.*

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ESR At Round 1 – Dec 2022

I always have to remind him of what was discussed the meeting before, because he forgets.

In meetings he can suddenly say, "stop this and this plan or experiment now, it is not working". This comes out of the blue, student unhappy, mostly disagrees. Wants to be involved in discussing rather than being told the outcome. Had not addressed this with supervisor directly, but shows dissatisfaction in behaviour. This causes the supervisor to notice and give space to do what student prefers. The supervisory team works well. The projects together form a nice coherent picture for her PhD thesis

At Round 2 – Individual and joint Dec 2023 -

Now can share; the relationship with supervisor is very good. Originally, I didn't know what was going on & felt he tried to protect me to not burden me with things out of my control, but now he tells me more which is really helpful. No subject I couldn't raise with him.

ESR shared she's distracted, finding it hard not knowing where the project ends. Working through together with supervisor...also made it clear he's happy to share ideas, but now is looking for independent thinking. Jointly - we have been avoiding conflict, holding back more than we need on getting into pressures, worries and uncertainty.

*RC Interviewer - both less inhibited in expressing concerns, ideas & challenges.*

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At Round 1- Dec 2022. Supervisor willing to be helpful but cannot always help content wise. I need then to figure it out on my own. Can be frustrating. Ask around in the lab – get answers, but some have turned out to be wrong. I need to doublecheck.

At Round 2- Dec 2023

Same story a year later. ESR is very independent ('I do everything myself') and does not expect support on this project (content wise) from supervisor. 'I can do my last year without'.

Supervisor seems to have a bad memory, continuously wanting me to do experiments with an approach that I already said will not work'. 'Supervisor good at getting money and never says no to additional experiments if I want to do them'. 'I feel angry when I or others are pushed to do things that do not make sense to us'. Never says that I did a good job or anything, Oh yes – once, after I presented at a congress'

*RC Interviewer unsure whether the supervisor quite knows how to build a working relationship with the ESR. Supervisor comment 'all I want is student to be happy' and 'I don't have quantitative expectations of student'. Clearly there are difficulties with student attitude about which supervisor was deprecating, describing it as disrespectful.*

The Second Round of Interviews came at the point as students were more or less bringing their experimentation to a close, pursuing writing, papers and publishing/ communicating their work.

The RC met as a threesome with student and supervisor.

On several occasions we were asked to facilitate, helping them both to focus agreements with strategic conversations on

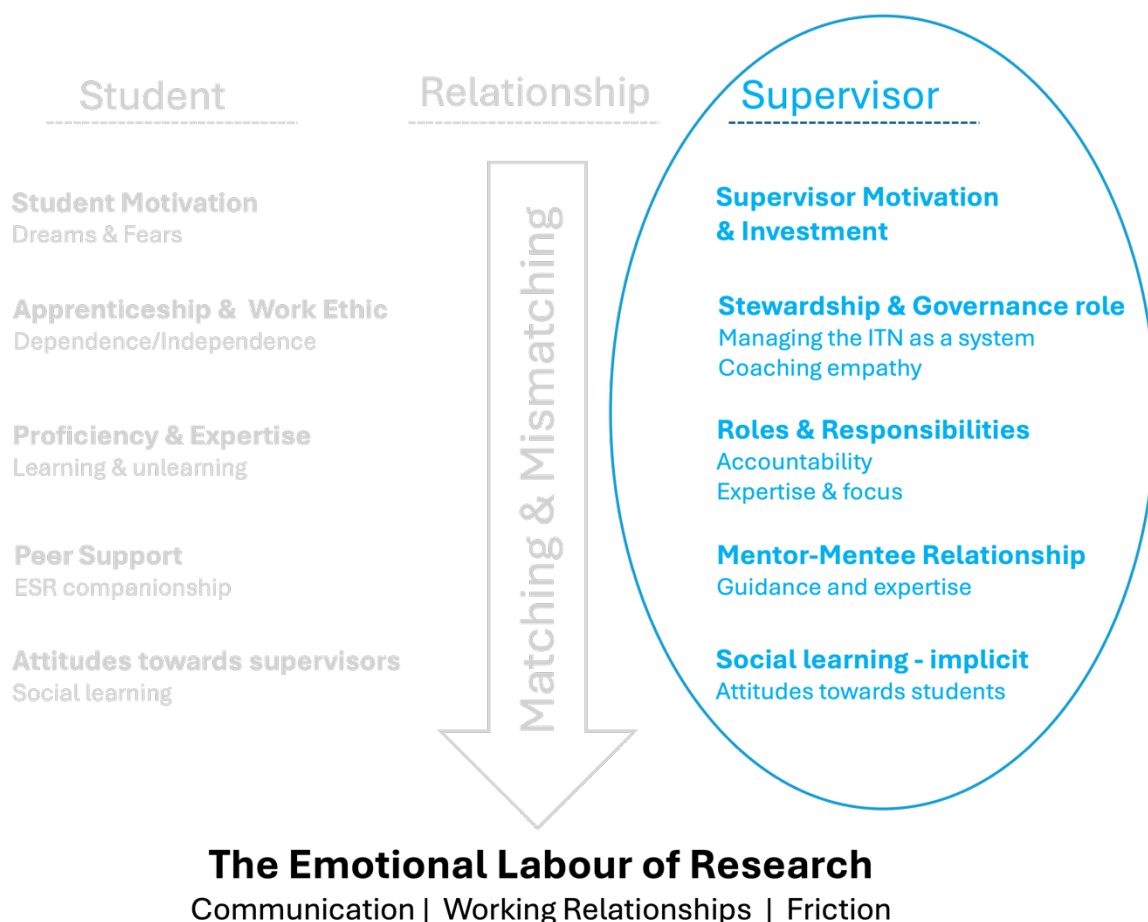
- Timelines
- Expectations
- Identifying the pattern of work to be addressed
- Thinking forwards to the endpoint and career options including the basis for extensions of the current contract

We enjoyed these frank and purposeful conversations and the sense of being widely trusted by students to help and support their anxieties and reactions in the last phases of the research process.

## Chapter 5 - The Supervisor Perspective

In this next section we look at the mentor-mentee relationship, what is smooth-running or less so, from the perspective of supervisors.

### Model 3: Supervisors' view

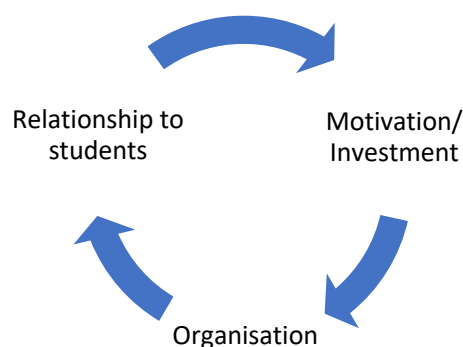


### Perspectives from the supervisor view

For all supervisors, the pleasure of Mindshift seemed to lie in the ease of making academic contact and having relevant collaboration facilitated in a flexible, collegial manner. By definition, all have huge research experience and an array of research, lab and funding arrangements: smaller departments, large complex ones, resource rich, cash poor, supervisors on their own whether in

small departments, on their own within large ones or part of extensive networks and collaborations. All these environments influence the PhD.

There appeared to be considerable variance, however, even divergence in supervisors' motivation and the investment in PhD students, models of coaching practice and views of student development – and whether they instinctively appreciate the dynamics of an essentially apprenticeship structure. The differences expressed in Mindshift are clearly not specific to the programme but widely shared and mirrored across academia.



The models of supervision were not researched explicitly which may lead to more discussion. However, supervisors' views on coaching gave us pictures of supervisors' motivation, investment and own objectives for student development. It provided a unique opportunity to explore the range of supervision.

### **Supervision lies at the heart of training the students in MINDSHIFT**

It has been impossible to talk about the student experience from their point of view without at the same time talking about the supervisor interventions.

However, in order to understand the mentor-mentee relationship of supervision we isolate the supervisor contribution and what they bring to the relationship in terms of supervisor attitudes and perspectives in their:

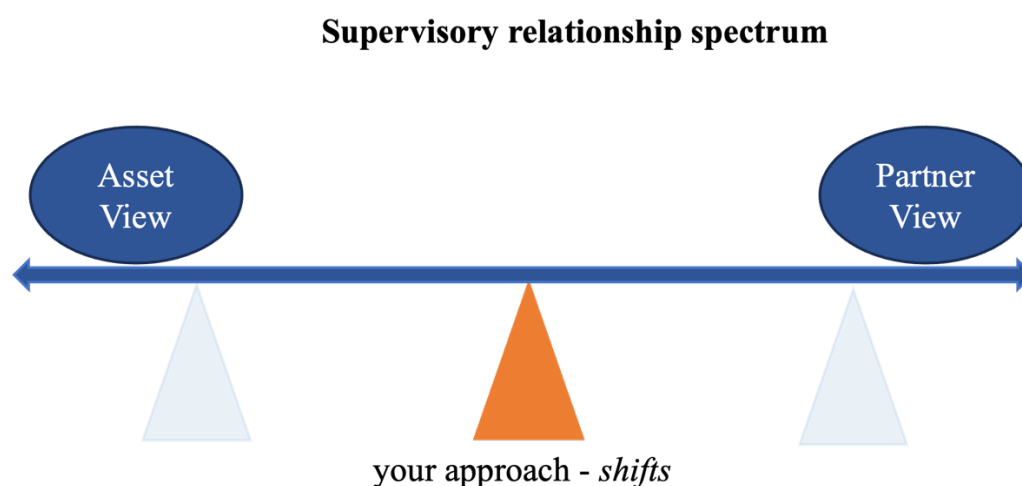
- Motivation & investment
- Governance & stewardship  
Roles and responsibilities
- Curating the student experience of learning as a mix of guidance, direction and providing expertise
- Managing the complexities of the underlying apprenticeship structure.

## Theme VII. Supervisor motivation & investment

A supervisor's view on the supervisory relationship can be characterised on the one side of the research spectrum by the view of an ESR as an 'asset' or object and on the other as partner or 'subject'.

Between these poles lies the full range of supervision and governance models based on a 'reciprocal relationship of difference' with its consequent implications for the students' social learning.

### Model 4: Supervisor's view of the ESR



It is also important to notice how much this orientation operated in reverse. At different moments, implicitly, students may have treated their supervisor as an 'object' rather than as a sentient / feeling person, leading to mismatching and misunderstandings within the relationship.

**Differences in Supervisor Orientation** across Mindshift shown in the vignettes and pen portraits of the research culture and organisational management, appear to move between views of students as primarily ‘subject or object’. Supervisors sometimes shifted between these stances due to the immediate pressures of the PhD task.

**Subject** – relating to people as sentient beings, whose feelings and experience make a difference to the way they think and act and therefore make progress. This leads to questions of empathy, inclusiveness in decision-making, listening to their point of view

**Object** – relating to people primarily instrumentally, in terms of their usefulness, and as students from the perspective of an institutional plan, their work evaluated in terms of benefit to others, not only themselves. This allows for alliances with those who ‘matter’, moving and relocating students without their involvement/understanding or full agreement.

## 1. The ‘Partnership’ view of supervision

‘The secret’ – in the supervisor’s own words - requires years of investment in fine-tuning the Departmental setting and its system, reflecting on and ironing out the inconsistencies to partnership ways

*Emphasis on real project management* – of working, as these emerge system was curated to manage the three-year PhD timespan through clear tick boxes – handling expectations of both sides to the work – regarded as done when joint agreement reached. A joint contract between supervisor and student – supervisor as much as student keep to the rules they worked out together – can’t put more requirements in at the end

Student is part of the team – the supervisors ask the PhD to take minutes – action points for next time - administratively taking part, learning the system. Meet twice per week – at beginning looking ahead - at the end going over the results/issues

Supervisors located close to the labs and office rooms of the ESRs. They also often pop into the lab – very visible – to make selves available, give support, encouragement rather than judgmental observation

### *Social learning for student*

The thrust of this partnership model intertwines professional and personal learning in ESR development. In his self-assessment the student talked about his ‘on-going ambition to continue to improve himself’.

### *Ethos of Empathy*

Conscious awareness of the experience of the PhD candidate.

As a supervisor remembering his own bad experience of his PhD – was put in position of doing a non-possible PhD. Awareness of responsibility ensuring making the research do-able by the ESR.

The PhD journey needs to be meaningful, enjoyable, scientifically interesting, and the project realistic and workable.

### **Critical incident**

#### ***Supervisor - treating student as a whole person***

Took charge of those things a foreign (non-European) student could not deal with – the multiple visa demands, depleting his energy. Became aware of discrimination by UK Home Office procedures over getting visa for Padua course week – postponed, delayed, treated unfairly.

Made decision to protect him from the red tape repeat-negativity and run-around bureaucracy of visa refusals; took him out of going to the Course Meeting and substituted regular on-line zoom for his secondment.

The aim was not to make a drama of this nor be co-victim. Took charge. Without the student being over-exposed. The student hasn’t yet totally digested how traumatic/nasty it all was.

### **Responsibilities linked to commitments**

- *Supervisor contract to work together* – learning partnership with student from both sides... “Not descending into superiority mode of ‘you need to deliver’ and then stop thinking about student”.

- *Unsound practice to supervise others on subjects where you have no expertise....* Critical of projects where the student is left to find techniques and/or approaches the supervisor does not understand. Only reasonable to supervise a project that the supervisor can oversee, knows techniques
- *Regular trainings of Supervisors* – real value – such Awaydays are a University requirement. Uses it for understanding his own reactions - reflecting the relationship with PhD students. Only became aware his student was discriminated during University Awayday training.

*“Yes: the research role is challenging and hard yet still has to be a pleasant experience. As supervisor I’m responsible for the shared atmosphere of enquiry and creativity – with student not getting lost in the difficulty”.*

He himself had almost been lost to science. Chose further research because he liked the supervisor – the human connection. Opened up his eyes to how abysmal the earlier experience had been. New supervisor wanted to give him better experience. His learning in this was that a scientist can be really caring.

Philosophy of department - no-one should fall through the cracks. People are allowed & left to struggle, even fail - but supervisor and student together work for student to get thesis completed. Calibrate what student needs in training and focus this so it is clear on both sides. This is the job.

## **2. The ‘Asset’ perspective of supervision**

Here the emphasis is primarily on the benefit to the organisation of the research project and PhD student. Usually a top-down version of a command-and-control system organisation. The personal influence the Departmental Head has built up ensures his ability to leverage people, connections and resources through his own and the department’s status and reputation



### *Characteristics of the system:*

The Head of department runs it top-down

- Being ultimate controller in charge
- Like a personal fiefdom – power and control devolve from him.
- Centralising influence over the department as a whole
- Management by patronage

Those in middle support positions below the Head contribute to this reputation, including professors and supervisors/other senior people can do good work themselves in academia, gain reputation for expertise – as long as they never challenge, but operate within, his span of authority

- Others, way below are – hands – delivery mechanisms
- Works best when the top professor and department is prestigious/ high reputation / genuinely a super-star and innovative/creative
- Head decides what research knowledge is worth-while – and which is not - Others who don't mirror his position are outsiders

### *Student's position:*

- If not an 'asset', becomes a 'liability' /not worth helping or investing in – seen as either 'burden or a means'
- Students evaluated as assets according to their level of their proficiency and how they profit the system
- Approved and rewarded when seen as a good investment
- Stifling when not – if your face does not fit - impossible to progress

### *Implications for Social Learning:*

- Free thinking, divergent opinions not encouraged
- Builds up dependency through desire for approval
- Implicit fault-lines of intimidation versus subordination

### **Critical Incident**

*Supervisor - student treated as an object*

Professor and key promoter of a working class northern European student stood up at the first large lunch in the Mindshift network conference. In this social setting told the whole ITN audience he had an announcement to make that the student's behaviour – naming this student - was unacceptable, not to be tolerated, his behaviour to his supervisor inadmissible. Both the daily supervisor and student looked shell-shocked. None of the rest of us knew anything of what this was about.

Public trashing of the student and implicitly his reputation had a message of intimidation not only for the student but for everyone present. No possibility of redress for the student. Just had to absorb public humiliation.

It was also a message to everyone else there of the danger of not fitting in with the Promotor or of crossing his rules. The intimidation was palpable. No-one would want to risk challenging it.

### *Social learning for student:*

A slippery and ambivalent experience either way for the student in this example

—

- be rejected or gain acceptance –
- let go own convictions or requirements and adapt publicly,
- present types of behaviour that will be appreciated;
- self-monitor to operate acceptably and gain approval
  - Keeping quiet, damp down and hold reactions inside
  - Fit into the system, accept, comply, be grateful for opportunities
  - Work to become acceptable by being an asset

### *Binary Choices*

There are questions about the long-term impact of this social learning/conditioning on a student. Such binary choice involves bad options – significant for a person of any form of social class disadvantage:

- submit *or* react in ways that will possibly do you no good.
- absorb the impact of public humiliation *or* speak up and lose out completely

The long-term consideration for the world of academia is whether students will be able to reclaim a different identity later on when in charge themselves, or do they perpetuate a way of operating that became the norm. In parallel this ‘baronial’ mode of operating holds out rewards for self-regarding choices. If a future PhD has a strong personal entitlement streak themselves and positions self to be regarded as an asset.

## **The impact of social learning<sup>4</sup>**

### **Imprinting & re-enforcing socially required relationships –**

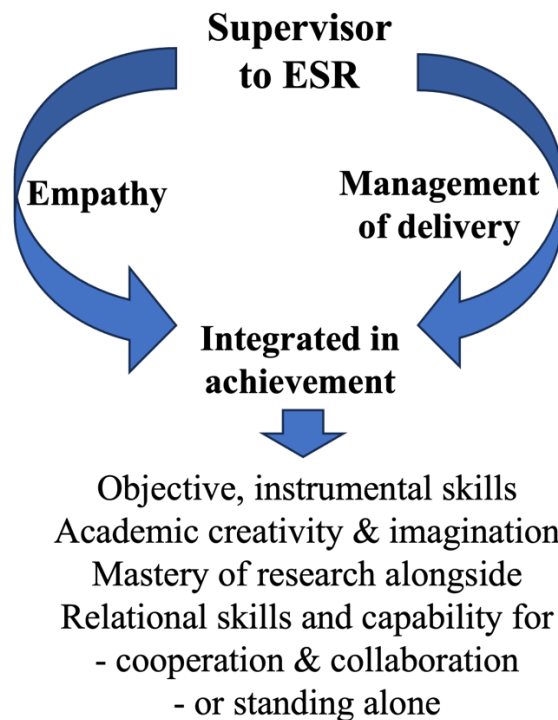
Social learning refers to the way, consciously or even unconsciously, people pick up, install and repeat styles of operating – adapting themselves to models that give shape to required responses and reactions - especially at moments of change and vulnerability - learnt through key relationships which act as a proto-type for future behaviour.

*Impact on future work relationships* – it is not clear to what extent supervisors thought about the way their relationship ‘click’ with their student may condition on-going patterns. The concept of social learning provokes consideration of whether a pattern is healthy for the individual at a particular moment.

The two models are however not a simple matter of empathy good, objectivity bad. In managing the PhD track, treating the student as subject, a feeling being and objectively as an asset, evaluating whether the student would be valuable to a department - both orientations both play a key part, and both necessarily influence decisions.

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<sup>4</sup> Albert Bandura – Social Learning Theory - <https://www.simplypsychology.org/bandura.html>



### *Contributing to the future of academia*

The one-to-one patterns affect the on-going life of the academic system as a whole, as and when they may be repeatedly (yet unthinkingly) reproduced by the student in the future.

The ITN has a unique potential as a setting for creating new thinking about the relationships these students will have in turn with their students as they climb up the ladder of seniority. In the context of the current debate in education on social safety and university vitality, this may be a significant contribution for the future of academic relationships and structures.

## **Theme VIII. Stewardship & Governance role**

### **More than craftsman or ‘master’**

If the student role has qualities of the concept of an ‘apprentice’ what is the mirror-image for the supervisor? what image exactly of the supervisor does an apprentice relate to...

Mediaeval guilds aimed to ensure the transfer of knowledge and expertise, through an **apprentice** being **indentured to a master**. If we think of the student in an apprenticeship role, the corresponding mirror image to the student role would be a master-craftsman, also director/ controller and patron with large (authoritarian & leadership) power over the apprentice's future.

Such concepts and terminology may probably not be exactly attractive to most supervisors. The concept does, however, illuminate some of the best qualities and resources that the professors have to offer – know-how and expertise, focus and project, quality control, provision of the learning environment, a network of opportunities, ownership of and responsibility for student development in the track, with the prospect at the end of graduating as a professional and becoming a colleague in their own right.

The concept may underline a truth about the nature of the learning contract in supervision that we observed. Passing on professional know-how is intrinsically personal. It needs to be calibrated in incremental steps that work for both, in a relationship between the two parties. The concept also illuminates negative reactions of some students, almost like a powerful archetype affecting behaviour.

#### *Handle the lingering apprenticeship model*

Some of the more traditional academic institutions still operate quite openly but in an unspoken way in this style.

Other supervisors appeared not to recognise how the strength of the apprenticeship model lingers on and one or two got caught in some of the dynamics. For example, some students may be triggered into responding to the supervisor as if a '*master*'. The concept can lead to binary responses by those students who attribute the authoritarian qualities to a supervisor that the concept conjures up and, on that basis, then react to the supervisor by fitting in - or responding with resentment.

Other supervisors actively combatted the stereotype to make the PhD journey more of a joint endeavour and, rather than a master role took one nearer that of stewardship, making the relationship more reciprocal, collegial, interactive though retaining the responsibilities for outcomes such as passing, failing, quality, focus.

**Stewardship:**

- careful and responsible management of things entrusted to one's care
- conducting, supervising, or managing
- actively directing affairs
- appointed to supervise provision and distribution

**Stewardship** is a practice committed to

- ethical values that embody responsible planning and management
- acceptance & responsibility to shepherd and safeguard what is valuable to others.

This concept is moving because it is so ethically respectful to others – supervisor of the student and vice versa - and the nature of the task in hand. The model is less one of ownership but of doing the right thing by someone else – commitment to the task entrusted to you, for a period of time, the outcome belonging to the student with the help of all involved.

A very simple example illuminates. A supervisor seeing her student struggling and getting behind in the lab, organises sending the student to be helped by post-doc. This is an act that one can say is obvious and to be expected of a supervisor, but actually requires qualities of attention, thoughtfulness, pairing with the right person in the lab and doing it in a way that the student is able to respond with eagerness.

**Governance for managing the everyday**

By governance we do not mean largescale formal legalistic governance structures but using much more local personalised methods for working together.

Stewardship as a form of governance is more than an attitude. It depends on creating a collective structure with agreements for the ways people go about the business of research. It includes agreeing ground rules for sorting out when things go wrong, that are specific to the people and the situation. Because it is thought through together the arrangement is one that people with different roles and responsibilities can rely on and trust.

**Mechanisms of Collaboration & Co-working**

➤ *A reciprocal relationship of difference*

In this the supervisory working contract can be seen as both equal and unequal. The notion is that the supervision relationship describes an *equal*

partnership of motivation, investment and commitment to make it work between people with very *'unequal' knowhow, time and expertise*. Both supervisor and student have very different roles in this endeavour, but each has a *voice that is essential* and contributes to the outcome of the achievement of the student's PhD.

➤ ***The value of such working agreements for supervisor and student***

It clears the mind on both sides over how each is going to relate to the other, operate differently but in reciprocal roles, manage jointly your personal styles on how both

- work at the relationship
- triangulate the process to check if its working
- clarify roles, the task and the relational elements
- commit to how & when you will talk with each other, setting a pattern of supervision sessions and ad hoc meetings that works for all

The concept of contributing equally but with awareness from a junior position may not have really been developed by students earlier in their careers at school, university and even in their Master's, until the PhD project. It emphasises the sense of responsibility that supervisors want to install in the students.

Some supervisors worked at finding mechanisms that would encourage reciprocity in their labs. Another group directly on supervision – for example, asking the student to be the one who kept the team official university records of his appraisal and development

Some supervisors were really committed to this way of operating; for others it was unknown.

## **Theme IX. Roles and Responsibilities**

Apart from the formal training issues, as far as we could tell, the roles and responsibilities of supervisors were never explicitly discussed or shared - as if everyone knew how and what to do. Yet there was huge variation in the ways that supervision was undertaken. It seemed such a pity that so much valuable know-how on the art of supervision that could potentially have been exchanged did not happen collectively. In the first half of Mindshift there were huge variations on such basics as how often to see a particular supervisee, identify

research expectations, timelines and requirements of the joint degrees. Exchange on all this would have been more than valuable.

The following list is a composite of the ways different supervisors handled the minutiae of the role at different moments of time

- Gave feedback in bite-sized pieces - in ways the student could ‘get it’ and absorb it
- Provided relevant expertise or access to it in a timely way
- Gave focus to the research and shape to the project
- Took authority for feedback that helped student awareness of how to operate in role
- Created clarity on expectations, timelines, supervision & arrangements, the decision-points that needed to be met
- Enabled the student to know how to self-manage, mobilise themselves and know when and what was expected of them
- Provided support and perspective on the ups and downs and personal stresses in the component of the student’s emotional journey
- Took an interest

### **Our findings about roles and responsibilities in supervision**

- **The practice of supervision seems to be so individually managed** apparently still on an apprenticeship model of learning the craft. A number of supervisors talked about their own supervisors a bit like a family tree or heritage legacy, that imprinted the way they operate in role thirty years later.
- **An ITN could be a melting pot for examining** what works well in supervision relationships and what might benefit from re-thinking. An ITN is such an opportunity for fresh thinking over collaboration in academia and discriminating which cycles of self-replication to let go.
- **Responsibility for provision of expertise:** some supervisors thought that the supervisor should only supervise where they have expert knowledge themselves. Others thought that the student could do multi-disciplinary research alongside senior professors facing the multi-disciplinary struggle themselves. What was agreed by all was that the supervisor must ensure access to enabling expertise.



- **The benefit of the PhD logistics process** - we found that the very system of ‘getting there’, the logistics process of achieving a PhD is an enormously powerful driver of development. You could see it acting as an accelerant to growth in the student. The way that the supervisor handles the student’s interaction with the PhD requirements is what makes for a successful outcome in the degree and the student growth into their roles as future professionals.

## **Theme X. The Mentor-Mentee Relationship**

It became very clear that this is *the* single relationship that is core to the research, that basically cannot be done through formulae or templates, nor by anyone else. It is an intimate pairing, given the student has been recruited into a research project belonging to the realm of the supervisor. It can be carried out well or badly depending on the ‘click’ between the two - which appears to be a mixture of personal chemistry, love for research and project and, probably, a satisfying and shared work ethic.

**This supervisory ‘click’ took the form of very different dyads.**

These pairings ranged widely at different times, with supervisors moving in and out of different modes at various stages during the three years, as needs and circumstances changed. These ways of operating together in pairs might include any of the following span of connections at any one time

- **Parental relationship – being a good parent** –acting as a personal friend
- **Invitation to see research as a vocation / more than a job** – for student to align themselves to join in this conviction about science and model their work ethic on this
- **Emphasis on the technical role by both sides, sometimes more formal and perfunctory** – sometimes with less spark and liveliness but getting the business of the PhD done effectively
- **Being-at-One, shared identification and co-existence on the research** - a sort of delight, like a mental joy over sharing the ideas of investigation itself, a working relationship on the subject; nothing more invigorating than co-working
- **Disengaged, or not so deeply interested** – compounded when and if the reality of the project turned out differently from the originally desired

outcome - both sides doing the necessary steps but with a confused focus  
– very similar to the next as in a....

- **Distracted, or judgmental even neglectful relationship – post-hoc**  
supervision by pointing out where the student ‘got it wrong’ *reactively*,  
rather than setting out expectations beforehand *pro-actively*.  
Circumstances where harassed supervisor is coping with other major  
personal and professional external demands - disregarding the specific  
timely needs of student
- **Just a straightforward job** - supervisor available, clear, supportive, very  
fair, emotionally quite distant but wanting to be ranked well on own job  
and reputation
- **Moving between irritation and respect** - a cycle of interacting where  
outcomes are reached but difficulties never quite resolved and the full  
value of the science relationship never quite explored

Supervisors moved between relationship styles, giving the student elements of support, challenge, skills or focus needed. However, the question of social learning described earlier is very pertinent here and raises the issue of the role of a supervisor in a number of respects

- 1) Prioritising the human. relationship may get in the way of dealing with the contractual one. The difficulty is when the social relationship may prevent the supervisor from fully mobilising the authority of the coaching role.
- 2) Falling into habits of pairing which are not reviewed. Even when these relationships have a lot to recommend them habitual forms of pairing do not make it easy to renegotiate – particularly if the style of relating was not discussed but just ‘read’ by the student. The form of the pairing may deal well with one set of concerns, but at the expense of dealing with another.

## **Theme XI. Social Learning & Attitude towards students**

Most social relationships need calibrating, namely whether things are working out as expected. Working relationships do need to keep alive. If they are imprinted into relationship habits, which then becomes blocked, it is difficult to unstick the conditioning, say what needs to be said – engage each other to find

new approaches. The following examples are of reactions and relationships getting in the way of clear communication and focus

### **Reactions getting in the way**

It is as difficult for supervisor as for the student when a student appeared to disappear into a black box of upset-ness and tears, cannot communicate nor take in the guidance given - seeming to agree to suggestions, and then nothing changes. Supervisors' collective first reaction was to try to help the student out through a variety of methods, instruction and coaching. Advice, guidance and helping did not result in change nor the student appearing to benefit from the concern. In the end, for a while some supervisors become resigned, waiting the process out until the PhD period finishes, others staying really concerned but at a loss, unclear and unsure in knowing how to proceed.

### **Relationships getting in the way**

One supervisor with two students, had a richly rewarding relationship with one, feels the other is in opposition, 'doesn't like me'. Same environment but contrasting work relationship, this second pairing left both struggling to speak directly with each other; the supervisor having the sense that the coaching and direction offered was only very partially accepted.

Feelings about this were strong and very present, but it was as though a taboo on both sides prevented them bringing the complexities of the relationship out into the open and confronting them.

### **Taboos and worries about giving personal feedback**

Whilst many supervisors seem to have no problem with giving feedback over research issues, relational feedback (about attitudes, emotions and working relations) was more complicated and even tense, supervisors experiencing

- Difficulty in feeling validated to address student reactions that seemed unrelated to work yet at the same time, interfered with here-and-now need to motivate the student to grapple more actively with their work.
- Similar reactions over conflict where there was a good relational connection - this appeared to leave them unwilling to risk upsetting the positive, by drawing attention to negative, not-so-good interactions
- Self-questioning whether there was an ethical or emotional line supervisors should not cross with their students, being unsure whether they had the 'right' to comment and / or the skills for doing so.

## Chapter 6 – The Emotional Labour of Research

### Model 5:

#### *The Student Relationship with Supervisor*



**Emotional labour**<sup>5</sup> is the effort of addressing blocks and friction in the working relationship, being clear what it is that you want, what is your responsibility and what is that of others. There are always moments of alignment and non-alignment, matching and mismatching, particularly in a relationship that aims to be purposeful, working and developmental. It goes with the territory.

Very simply emotional labour at best is a positive and helpfully designed corrective process to a deviation.

For the supervisor this means keeping the student true to the central objective of gaining their PhD and learning professionalism as a whole person. It is not

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<sup>5</sup> The phrase "emotional labor" was first coined by sociologist Arlie Hochschild in 1983 in her classic book, *The Managed Heart*.

telling someone off but shaping and nudging the ways students operate so they become strong and adept.

### **Using insight to give feedback**

Positively this involves supervisors in using qualities of emotional labour in

- Giving needed attention to note what is going on with someone
- Taking a risk that your understanding may be wrong
- Making the effort to put what needs to be discussed into words
- Listening to the answer
- Being available so the other person can go through the process of assimilating the feedback and using it

However, throughout this paper one major finding is that although the professors are highly articulate coaching in their field, there is a real hesitance and concern about feeling validated in speaking about personal emotional engagement even when this affects students in how they apply themselves to their research work. The labour referred to here is the need to do just that.

By emotional labour we are clearly not talking about feelings only, but the full range of handling relevant intentions and concerns. Emotional labour describes the need and drive to get relationships onto a sound footing. This includes the ability to enjoy success as well as resilience, handle difficult conversations with difficult people, the hassle and friction of university life, knowing when to persevere and when to give up.

### **Three development frameworks**

Here we would like to draw on three development frameworks we used implicitly when working in Mindshift to better understand the

- task of training students
- phases of their development
- demands of self-leadership

Alongside The Emotional Labour of Work developed by The Recess College to describe agency and self-leadership involved in the act of receiving and communicating new learning we turn to and incorporate the following:

The Matching and Mismatching Hypothesis, MMH – developed by Tony Robbins to describe how, when presented with new information, people tend to adjust their communication style through employing matching or mismatching responses.

The Conscious Competence Model of Learning - developed by Noel Burch in the 1970s which describes four stages of integration in competency and awareness when learning new skills.

## **Integrating the student experience with the supervisor perspective**

The qualities of effective emotional labour combine the drives of emotion with intellectual intelligence and lead to self-leadership in terms of personal acumen and sound judgment when taking action.

The arrow of ‘matching and mismatching’, down the centre of the model from top to bottom, indicates even in the best supervisory pairing how elements may go well, or go wrong in research, relationships may be aligned or unaligned unhelpfully for a period, on one or either side of the research/mentor-pairing - and even criss-cross between the two. Difficulties may be accidental and not the fault of anyone involved but either way unintended consequences and reactions need attention.

Even good relationships present challenges and unexpected frictions as the demands of work mount up. Mismatches: things going wrong or being misinterpreted are part of research, just as much as in everyday life. So are competing demands, misunderstandings or differences of expectation.

**Matching and mismatching describes  
two different personal and intellectual energies:**

Being in alignment or alternatively mis-aligned,  
Positions of being 'for' or 'against'

**Matching:** fitting into the expected required style of relationships, actively complying, creating peace and harmony, avoiding conflict and disagreement

**Mismatching:** standing out against, ability to take the devil's advocate point of view (even when not welcomed), taking an opposing point of view, risking conflict, holding an autonomous independent position, avoiding at all cost submissiveness, obedience or conformity

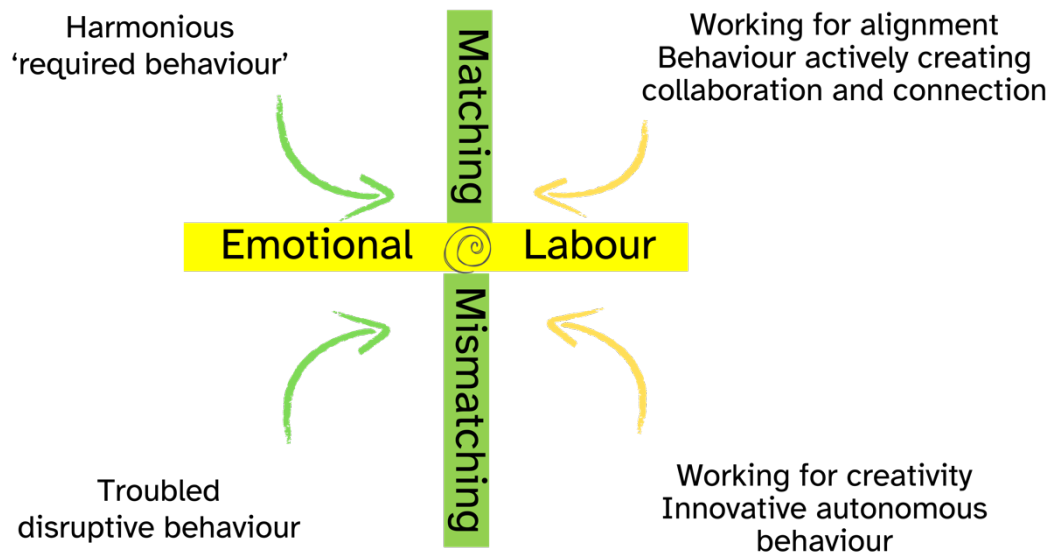
*Whether matching or mismatching are helpful positions or not is not a moral question but completely situational. The value differs according to circumstance in terms of what is needed to give direction and life to the situation.*

**The Dilemma**

The Mentor-mentee relationship and the whole process of going through a hugely mutative process is characterised over and over again by phases of alignment and misalignment as challenges are met in the process of the student development – and by the supervisor in the parallel path of working with this.

Linking the concept of Emotional Labour with that of Matching/Mismatching leads to new insights about how we interpret behaviour.

## Model 6: Intersection of Emotional labour with Matching/ Mismatching



In this model: on the purely emotional side, matching or mismatching behaviour *without focused labour*, is an expression of unthought-out and highly repetitive behavioural patterns. It is often simply reactive,

When the labour of matching/mismatching is linked *with focused emotion* this can result in an active drive towards creating direction and to facilitating what may be needed. It is active and directional, with self-leadership and agency in play.

However, in this first model, matching and mismatching behaviours, emotions and emotional labour are seen from an 'outsider' point of view – simply in how the behaviour comes across to others. This can lead to stereo-typing and premature judgements. The danger is that person is judged and equated with their current behaviour. If the position is taken by either participant in a relationship that the perceived behaviour is identical to a person and their whole personality, both sides get stuck with reacting to a possible stereotype.

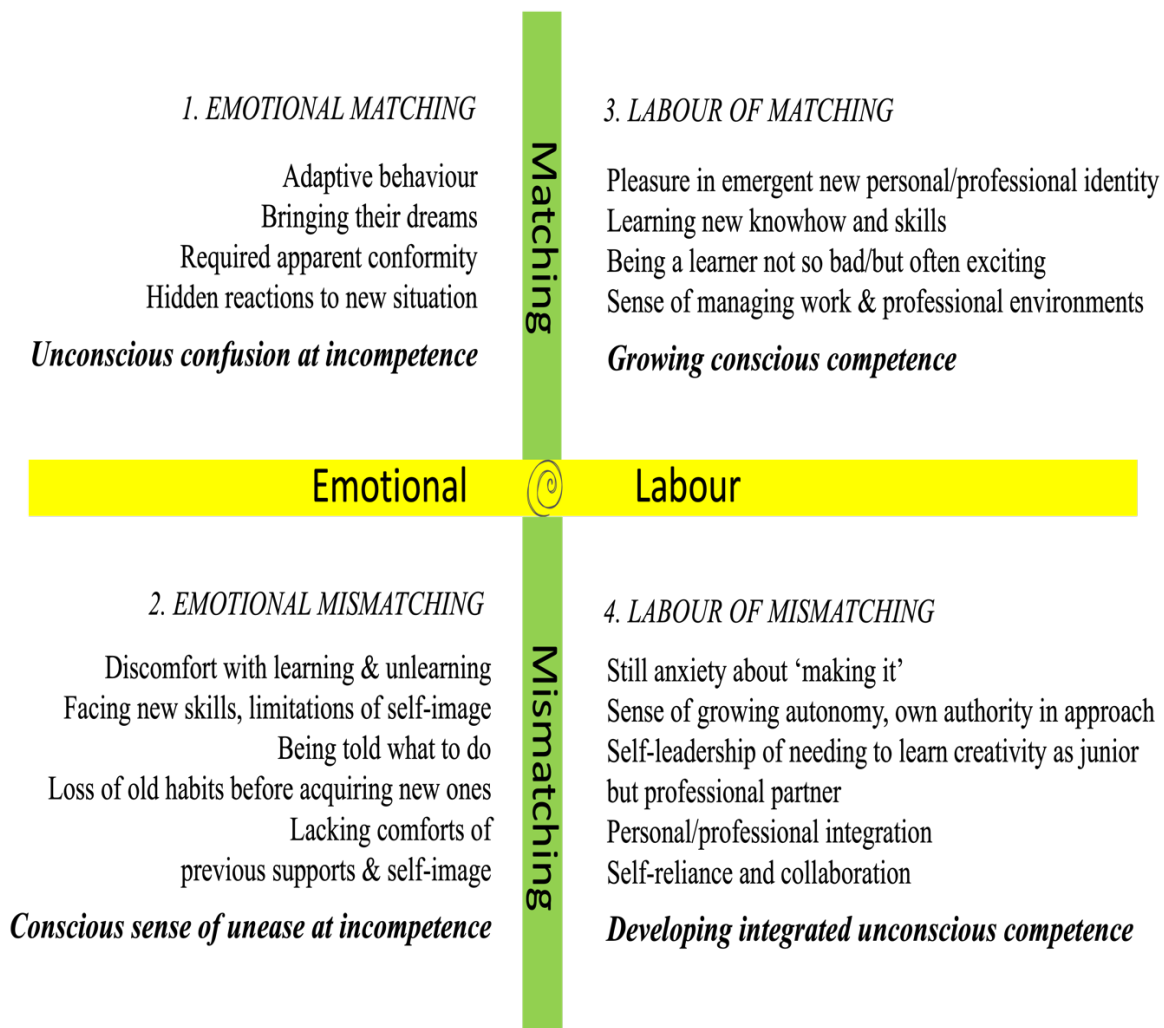
In this model: the four aspects shown here represent an external perspective of how others see a person's behaviour. The danger of such stereo-typing is that this-only reflects a superficial or temporary phase of how that person is operating at a given moment of time, rather than the whole person fully.



Premature judgement may obscure a deeper meaning of what is happening – sometimes preventing effective mentoring.

The same model (below) combines the perspective on behaviour with a more subjective experience of the student in the struggle of gaining competency in research. The second version of this model integrates emotional labour, matching/ mismatching with the experience of gaining *competency*. If we describe these states from the ‘inside’ – from the internal state of mind of a student - something more emerges.

### Model 7: The Emotional labour model - with a focus on the participants’ experience



## Use of the model

Describes something very like the changing phases of development for a student during the PhD process. How the student moves round these positions or becomes stuck in one is very individual.

The intersection of *matching/mismatching*, *emotional labour* coupled with the task of *gaining competency* in this second diagramme, illustrates the varied states of mind behind the behaviour/positions students may take whilst on the journey of building competence during their PhD. It allows us to see that the learning process is not continuous but may be jumping through a series of thresholds that are quite discontinuous until they consolidate and integrate the learning cycle. Their reactions are linked to their struggle of developing capability around competence.

Phases of engaging and keeping out of trouble, then learning and unlearning, then making effort and agency. Managing all this requires flexibility and discernment in the task of mentoring and coaching by the supervisor. The model pinpoints this flexibility in the changing responses a supervisor may have to make as the student goes through a variety of phases.

This model also does highlight complexities of behaviour and therefore, the right supervisors have to speak up and give feedback in the different phases, namely when

- student behaviours or attitudes interfere (badly) in the research task or the student's growth as a professional
- there is a difference about values and expectations that either student or supervisor needs to understand
- there is something to encourage, reinforce or reward and celebrate.

## The context

It is important to put the idea of emotional labour in context, in relation to development, disentangling it from the idea that it is just about feelings clarifies how development activity caused initial controversial reactions.

Emotional labour takes two forms that are intertwined in practice:

- **The first is personal**
- **The second is organisational**

### ***Personal development***

Personal emotional labour frees individuals up to be clear about what they think, and to think originally. The honesty of this process allows them to count the cost of getting down to the basics of the work involved, doing it and aiming for successful and clean outcomes.

This leads to the issue of speaking out and giving feedback upwards and sideways not being easy without a *good safety net*. Personal change and development depend on the quality of the environment.

### ***An organisational culture of social safety***

Frank individual conversations, such as difficult or open conversations, depend on a work culture that accepts their validity - and actively trains people how to conduct these in a way that is not rude, but dedicated to clearing up differences of intentions and behaviour. Such conversations, intended to clarify mismatching views and standpoints, need to be both permitted and supported within the group /organisation as part of the way ‘things are done here’.

This involves a *work-ethos of agreements within the system*, to make it possible to have such – important – conversations. This is not a legalistic way of operating. Far from it. The ambition is to operate as a larger team willing to address the shadow side and clear up inevitable mismatches involved in co-working.

Putting wrong things ‘right’ generates important insights, lightens the atmosphere and increases trust exponentially. It does alleviate the tendency for people to sometimes fear being judged, shamed or found lacking. In contrast, it helps people to feel more free with willingness to take risks and correct mistakes in an open way.

For the ITN, the implications of such social/organisational development drew attention to the role and the activities that The Recess College was invited to offer Mindshift - these we will take up later in Part Two.

# Chapter 7 - Endings

In this chapter we wish to concentrate on the outcomes achieved by students in the ITN as a result of the work of supervisors, in combination with the support of The Recess College. We link these results and achievements and measure them against the principles and objectives of the Marie Skłodowska-Curie Funding Programme.

## Results & Achievements

### **In the light of EU objectives**

The aim of Marie Skłodowska-Curie Actions (MSCA), EU's flagship funding programme for doctoral education, is:

*“developing talents, advancing research”*

In this MSCA's underlying principles include<sup>6</sup>

- Excellence & Mobility
- Research both bottom-up & open to the world
- Excellent recruitment, working conditions and inclusiveness
- Effective supervision & career guidance (with a stronger emphasis on supervision)
- Open science, responsible research and innovation

### **The Objectives /Articles include:**

*The aim of the Innovative Training Network (ITN) is to train ‘a new academic generation to become creative, critical and autonomous intellectual risk takers, pushing the boundaries of frontier research’<sup>7</sup>.*

*Doctoral candidates in an ITN to become independent researchers taking responsibility at an early stage for the scope, direction and progress of their project.*

*A consortium needs to make clear upfront that*

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<sup>6</sup> <https://marie-skłodowska-curie-actions.ec.europa.eu/about-msca>

<sup>7</sup> [https://euraxess.ec.europa.eu/sites/default/files/policy\\_library/principles\\_for\\_innovative\\_doctoral\\_training.pdf](https://euraxess.ec.europa.eu/sites/default/files/policy_library/principles_for_innovative_doctoral_training.pdf)

*the new training efforts will generate appropriate opportunities for cross-fertilisation between disciplines in a (new) field that is currently underserved in academia in terms of training.*

### **On the objectives**

On the aims of delivering on the objective of the formation of young leaders ready to take their place in academia and industry, we would like the results within Mindshift to speak for themselves in terms of the partnership of research with a development track.

Here, in order to give a picture of the way the Marie Curie objectives were met by Mindshift as a whole, we give three illustrative events as vivid exemplars of the developmental achievement by Mindshift as a network.

### **Exemplar events illustrating ESR development & achievement**

1. **The Concluding Conference on Research- *working as a whole system – with ESRs and supervisors***
2. **The Self-Led Career Event - *ESR capability for initiative and leadership***
3. **The Self-assessment Event –*ESR capacity for self-reflection, managing their own behavioural communication.***

#### **Example 1**

##### **The Concluding Conference on Research - working as a whole system**

*Marie Curie Objective: Innovative Training Network to train a new academic generation to become: creative, critical and autonomous intellectual risk takers, pushing the boundaries of frontier research.*

##### **Changing the format towards open presentations, debate and enquiry**

An initiative to do a ‘forum’ for presenting the research came from the students to supervisors and coordinator which was then developed and agreed by all, instead of the usual format of a plenary Q&A with a poster presentation. The

students interacted with the coordinator to come to a format where the new science in group format can be discussed.

During the conference, after listening to a short presentation in plenary, students and supervisors moved in and out of rooms based on their interest. This made the atmosphere more relaxed and open for collaboration - not sitting in a large plenary room being judged for asking “less intelligent questions”. As one ESR said: “at conferences I present results as statements; here I could share what I was not yet sure about, allowing others to join me.”

The Concluding Conference provided a framework with a total focus on the science, and yet with real innovation in the way participants worked together. In a way, all the separate elements from the development track came together creating an event with a new purpose on science presentation and collaboration.

New interactions took place between ESRs, between ESR and Supervisors, but also between Supervisors – both from academia and industry. Everybody had more time to go into the actual research. This is a key example of transfer where what was learned from the development track was experienced, internalised and adapted for new use – a true ‘*masterpiece*’ of approach by the whole network.

### **Key learnings in relation to Marie Curie objectives**

They learnt as individual members and as a group:

#### **New event format leads to deep interaction**

- New way of showcasing – to take something out before it is packaged with clear boundaries / ok half / unfinished / with openings
- Avoid formulaic ritualistic methods – in favour of an event that is not finished and defensive but allows for curiosity, enquiry, fresh insight
- Design research events that give the most potential for building good research

#### **Debate and real enquiry – even in a large group**

- Discussion can be enjoyable *as well as* rigorous in an ITN
- Research discussion can be invitational rather than defensive
- Delving penetrating research questions
- Counter to sharp oppositional questions / duels based on intelligence (more than Socratic model)
- Allows for linkages between individual research to collective - shows the connection between different individual research

### **Collaboration & partnership**

- Came together – exploration and connection at same level where equal, not only senior professor has ideas with most weight
- Build on each other ideas instead of promoting one's own research of the most important idea
- Spark insight from their own and other supervisors – allowed supervisors from other parts to join the exchange
- Joint sense of movement – working together

### **Risk-taking on process**

- Aim for process of review to be innovative / more effective than the Socratic method (drilling down / question and answer)
- willingness to unite and suit whole network,
- differences in role kept clear whilst working together collaboratively
- open discussion & planning between all / rather than controlling formula
- On the cusp of what is current, where new ideas, behaviours and approaches need to emerge
- Avoided unnecessary humiliation
- Encouragement to do better
- Recognition of achievement
- Chose to develop a public forum based on attitudes of recognition

### **b. Students Ownership of the Linkages between their Research**

***Marie Curie Objective: cross-fertilisation between disciplines in a (new) field that is currently underserved in academia in terms of training.***

At the end of the conference, a network exchange took place to link projects. Supervisors asked the ESRs to lead in describing how different research projects connected and indicate which were the most significant clusters.

The students each spoke up with complete assurance about whom they could work with amongst the ESRs, whose project linked to their own, showing clusters of overlapping themes which could lead to further research investigation and network collaboration. More, the students described how they had helped each other and knew each other's work. This illustrated the pure benefit as a factor of the strong active peer bonding between students leading to the quality of their knowledge of and ways they worked with each other. The research conclusions illustrated the human/personal development

and the research focus meshed into a shared ‘thrust’ in a way of working that sparked and benefitted both. The students were clear about this.

The ESRs took ownership of their science.

They knew each other’s work and spoke with clarity and curiosity about the links that had promise. The supervisors had not seen joint exploration with such intent and almost effortless drive before.

They knew each other’s work, were able to cluster it, taking ownership and authority - no big deal, so easy.

Supervisors said this proficiency and overview was ‘unheard of’ – that they could speak up and had developed such an intellectual overview at this point in their careers even before the actual PhD defense stage.

### **Key learning**

The peer group was essential in delivering this overall understanding:

- Connecting the individual and the generic - each focused on achieving own results – yet conversant / they knew each other work
- Peer group acting as a counterweight to the solo PhD journey.
- Showed they supported each other’s projects
- Culture of support - where if some aspect of the thesis needed correction or development, they would be able to address the problem in the moment.
- Ready-made sideway group to sort out their thinking.
- Overcome the competitive boundaries - can’t show your work out of fear that others will steal it.

In this the fear of stealing ideas by other reduced – addressing this in the moment when it goes on - not relying on a procedure that can take months to sort a dispute via official / administrative lines.

### **c. Shift & maturity in role of students**

***Marie Curie Objective: developing talent, becoming independent researchers, taking responsibility at an early stage***

Representative examples of student maturity in working with their supervisors.



i. Where once student's self-doubt had been at the centre of her way of operating the experience of secondments building on the supportive quality of her supervision, sharpened her and appeared to give her overall confidence in her skills, command of the subject and ability to communicate.

What was striking in this meeting was the level of partnership and collaboration in the way she and her supervisor, presented together, the student taking the lead - with the subject matter being passed between them as co-workers with one in a supervising role with her expertise, and the other in the development role with real command of the subject. This was inspiring.

ii. A student who earlier flummoxed her supervisors by being out of communication, and often presenting in deep distress, had made a transition. The student had made a gigantic leap with a public approach was warm and quietly outgoing and with an exceptionally clear presentation.

iii. A student took an influential role in the 'presenting the presentations' - promoting a joint collegial atmosphere of recognition around ability and a general sense of accomplishment through the way he responded to question and answer, whilst reaching out to and including the whole group.

### **Key learnings on**

#### *Research project and doing research*

- Ability to develop their objectives
- Clarity/focus on how to finalise their PhD thesis
- Managing boundaries and resources to get there
- Fulfillment of turning the dream into reality
- In touch with the joy & the craft of doing research
- More nuanced work-life balance

**In terms of the research,** this allows ESRs to be:

- Clear in how to interpret and present their research
- Connect on what needs to be done/ what is required of them
- Ask for help
- Negotiate resources and requirements

#### *Self-leadership and agency*

- Shedding insecurity in order to be less restricted, more free to focus on own research
- Realistic view of self, therefore more responsibility towards self and needs

- Grasping and dropping disabling/self-defeating behaviour and how that interferes with objectives, for example –
  - overworking and trying to be perfect
  - reacting badly to feedback
  - letting go resentment at being dependent on authority.

### *Ability to Collaborate*

- With supervisors in and from a junior position
- More awareness and responsiveness in collaboration
- Changing assumptions to be taken as a serious researcher
- Freedom of equipping self to be independent and self-reliant
- Becoming an attractive partner to work with.

As a group, the majority of them worked through a higher sense of awareness, becoming less destructive – whether covertly or openly – towards understanding the need to draw help from others

### **Research outcomes**

At the time of writing it is too early to judge which research will stand the test of time, be creative and innovative in a long-lasting way – whether by working on fringe issues that then become central, or delving into more mature areas of research whilst providing a cutting-edge point of view.

Assessing the value will emerge later.

In an expertise-driven field, they have developed awareness about how to evaluate expertise and integrate new skills.

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## **Example 2**

### **The Self-Led Career Event - ESR facilitation of events requiring initiative and leadership**

*Marie Curie Objective: Innovative Training Network is to train a new academic generation to become creative, critical and autonomous intellectual risk takers, pushing the boundaries of frontier research.*

The self-led Career Event illustrates ESR enterprise, capability, and eagerness to learn transferable skills of facilitation.

## **Background**

In early 2024, the RC negotiated a brand-new initiative with the Association of Facilitators (AoF) to accredit the ESR-Development Track within Mindshift. This enabled ESRs to be certified for ‘Partnership Working as Network Participant Facilitators’ in science networks. The aim is to establish accelerated ESR awareness and ability in the roles of being a facilitator of others in groups at work – and including being a participant facilitator - as a facilitative group member.

## **Description**

The ESR group chose to work on the urgent theme of career choices - their option of continuing in academia or switching to industry and what both career paths would entail.

Four ESRs volunteered to manage this initiative as the Management Team (MT). They actively consulted the full ESR group about what they wanted to know in order to make an informed decision in their next career move. Between April and May 2024, they designed not a single event, but came up with a series of six sessions!

The RC facilitated the ESR facilitators and the MT. This was a huge learning experience, confusion about the aims and the design came to the surface: all ESRs to facilitate or several of them? Agreements were made to have the MT facilitate with the help of those ESRs who volunteered.

Discussion of this confusion made us offer a RC-led online session on Facilitation for the whole ESR group, on how one can facilitate a group conversation as a member. The MT pulled this session together in 4 days!

In discussion, they brought the design back to themes of:

1. Industry versus Academia career choice
2. Identifying
  - a. What is a ‘good’ job interview for an academic by setting via mock-up interviews / via role-play
  - b. What is a ‘good’ job interview for an industry setting the same way
3. How to navigate ‘common pitfalls’ and ‘hot potatoes’

## **Key learning**

Skills of facilitation of discussion groups and events give them a resource. The experience empowered them to not only to speak up, but also to understand

how to craft events to have purpose. They took ownership, accountability and responsibility of an initiative in which they brought in senior supervisors.

This student initiative involved the ESRs in acquiring core professional skills in action of:

- Designing a workshop
  - Planning a multi-session event with multiple stakeholders
  - Thinking ahead in a timely fashion about future career choices
  - Role-play on interviews
  - Organisational way of thinking/ asked and received authorisation via the Mindshift Training Committee
  - Preparing key senior and fellow ESR people to be clear about their involvement and their task
  - Facilitating themselves and more senior people in the moment during the event
  - Learning to use/relate to senior people as resources in collaboratively
  - Representing on group to another - the ESR group to industry and academia as future employers
- 

### **Example 3**

#### **The Self-assessment Event - ESRs capacity for self-reflection, managing their own behavioural communication**

*Marie Curie Objective: Training a new academic generation to become creative, critical and autonomous intellectual risk takers, pushing the boundaries...*

#### **Description of the event**

A different self-reflective and assessment two-day workshop took place in May 2024 for self-appraisal and peer assessment, in the service of the 'Network Participant Facilitator' certificate from AoF.

ESRs interviewed each other, wrote their self-assessment, presented either a critical situation or a situation of achievement and received feedback from their peers. The group reacted to both the story, the way it was presented and how the presenter had developed with them in the Action Learning group (over the years). The feedback related to how they valued the person, the behaviours the presenter needed to watch out for or would like to see more of, and their potential 'cutting edge'. There was much joy in recognition of each other's growth and development.

The workshop ended by taking stock of what the ESR development track has meant for them and how it could benefit future ITNs.

### **Key learning on self-recognition**

The workshop marked a developing personal and professional capacity for self-reflection and self-awareness. Many do not achieve this until much later in their careers. The capacity was seen by the students as an enormous gain and transferable skill.

The joy in gaining recognition is often buried deep, beneath a heap of self-judgment and criticism accumulated right from early years. This opportunity for ESRs to mirror and reflect on each other's growth and development was inspiring.

Our understanding is that self-leadership is the precursor and foundation of leadership of others. And collectively, this group has gone further in the capacity to look at themselves rather than easy alibis of attributing difficulties, hard issues, problems as the responsibility of others, carrying a greater role in taking responsibility.

This workshop focused on their awareness of self in professional as well as personal settings. They learnt to:

- Appraise themselves
- Appraise others
- Communicate feedback in an acceptable fashion
- Take responsibility for their image and reputation
- See that behaviour has consequence and impact on others
- Take responsibility for their own strengths and weaknesses straightforwardly
- Become aware that they not only see themselves, but also that they are seen by others in a professional public setting

## Value of the developmental activities

We now like to look at the value that came out of the developmental activities: the action learning for supervisors, the development track for ESRs, the potential in the ESRs future careers and finally, of having a developmental partner ‘on board’ of an ITN.

### Value of Supervisor Development groups - in its widest sense, personal & professional development through Action Learning

The Marie Curie Horizon Europe’s Guidelines on Supervision<sup>8</sup> promotes effective supervision that ‘should apply throughout the lifetime of the project. Among others, it emphasises specific provisions to:

- ‘provide a wide focus on project management, communication, interpersonal skills, and awareness of mental health issues’
- ‘include peer-to-peer support in which supervisors themselves can ask each other for help or in which they can share specific questions they may have’

For the supervisors who joined the Action Learning “mirror” track, these EU objectives matched the RC’s development partnership model. It helped reach a deeper understanding of the supervision process- and influence & shape it - for the benefit of the Mindshift doctoral programme.

### For Supervisors - Action Learning provided

During Mindshift:	For the Future:
Place to deepen existing and new work relations	More awareness of cultural differences round students & organisations and how to work with these
Place to discuss the pressures within academia and industry	Enriched experience of how a network can be a community
Receive feedback on their modus operandi	Experience that academia can go beyond operating from the individual
Finetuning of active listening and active telling skills	Deeper understanding of supervision as also a human developmental process
Discussed and refine the minutia in supervision – awareness of the subtle switches in mentoring	Exchange of different university ways of doing things; learning from each other

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<sup>8</sup> <https://marie-sklodowska-curie-actions.ec.europa.eu/about-msca/msca-guidelines-on-supervision>

### **Value of the ESR Development Track included:**

<b>During Mindshift</b>	<b>For the Future:</b>
Sense of Belonging - during ups and downs & phases of research	Learned about teamwork and communal/ working in a community
Active support network of peers as colleagues	Have grown a network that can go on for a lifetime
Keeping them committed & focused on their work when they did not want to acknowledge their challenges publicly	Aware of cultural and organisational differences and how to work with these
Supported them to come of age personally & professionally in role	Enriched experience of how a network can be a community
Felt cared for and facilitated	Experienced that academia is not just individual – e.g. by doing a solo PhD.
Learned how to negotiate and handle difficult situations	Self-leadership and leadership of others

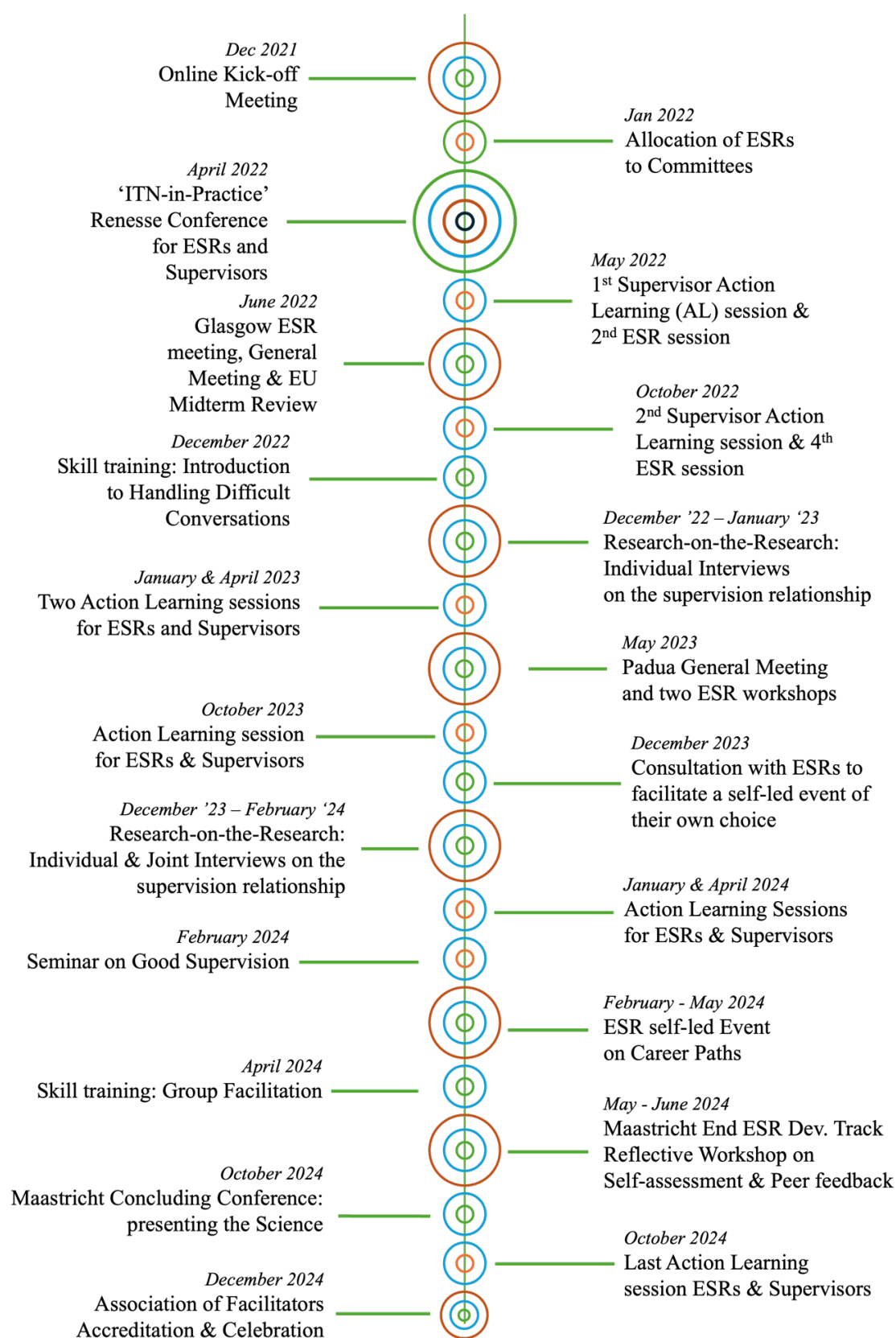
### **Future Potential - influence of these young PhDs as they enter the world of work in academia or industry:**

- See ways how to marry the task and relational behaviour in ways that allow them to be influential and able to cut through divides across organisational units and institutions
- See where they stand in relation to other people and where to rely on their own capability. Capacity to stand back, be self-reflective and use imagination in relation to research
- Self-reliance and self-leadership: proof will be shown in how they use these qualities in their future careers
- When in positions of real influence will want to seek the development of this joint, communal way of working.

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In Part Two, we will fully describe the work and the sequence of personal and ESR group development activities undertaken by The Recess College as a full non-academic partner.

## Chapter 8 – Timeline and flow of activities





## **The flow of ESR development track and ‘supportive activities with supervisors’**

The Recess College activities show the movement from the formal start to a real interactive, creative way of working between the students and The Recess College, supported by supervisors who enjoyed seeing what the students were capable of. It is clear to see that the way the students matured in terms of taking ownership of their own development and their capacity to active contribution to the development of the PhD as promoted by supervisors.

The Recess College activities from November 2020 until December 2024 are described via individual, green ‘bubbles’ to give you a sense of what happened when.

This is followed by a comment from our side of where we found ourselves at that moment in time or on a key relational interaction during that activity. Relevant approaches / methods in group facilitation are represented by the light-yellow rectangles.

**Facilitating: THE ONLINE KICKOFF MEETING**  
*Two afternoons in December 2021 – at the end of Covid instead of  
the first General Meeting at a physical location*

**Introductory student sessions:** first time all met each other; the group becoming real; making connections; sharing past supervision experiences - to help them think about their hopes and fears and prepare to engage with supervisors actively. Some had had bad experiences – authorship taken over; 1 year wait for PhD position that did not come. Others experienced quality – the right balance of challenge and support. Some stayed neutral.

The students had wonderful time in their separate group...Fun, relaxing passing the virtual ball to get everyone talking.....

**Supervisor meetings:** very difficult online to open up to each other. Necessary admin download was very important and put the Administrator in central position as support for the whole programme.

**Comment:** *the two cultures of Academics and Non-Academics came together but with the supervisors in very different roles:*

- **For Academics** - *the kick-off in the form of a workshop was too fast paced and unusual – the breakout mini-workshops were a bit of a challenge/confrontation, meeting like this, debating issues openly. Found the way of working exposing. Asking about their own experience of supervision was destabilising not making it easier to discuss perspectives on styles of offering supervision.*
- **For Company** – *the workshop seen by them as not slick nor efficient enough but as sloppy on our part. In a separate session, the industry supervisors were asked “What is in the ITN for you?” Quite different motivation from academics – introducing us to their motivation in joining ITN*
  - *Wanting to meet the brightest and the best for own future recruitment*
  - *Learn latest science*
  - *Not altruism!*

**Organising: ALLOCATION OF ESR TO COMMITTEES**  
*January 2021*

**Online meeting** with all the ESRs allocate them to the Mindshift ITN committees. Membership of a committee was seen as demanding; time-consuming yet a terrific opportunity by the ESRs, including their own ESR committee.

The usual process is that supervisors suggest their own candidate, often in line with their own arena of interests. For the ESR group decision-making, we devised and suggested a quick method for working out who would be good in the role and how to divide the available committee positions. Students put their own names forward, saying which committee they wanted and why they were interested. When too many went for one committee, we drew names out of a hat. Students embraced this allocation, and supervisors went along with it readily.

***Comment:** the Learning aim was to get students at an early stage to start thinking in terms of appraisal, who is good for the job and role dimensions.*

***Comment:** The Committee work structure was a bonus for Mindshift at the point of the Joint 'ITN-IN-PRACTICE' Event. There was immediate interest in getting to know each other's views. Across the supervisor/student divide, topics emerging in the Open Space event had destination in the shared committee structure through which the issues could be properly and appropriately processed.*

**Delivering: THE JOINT 'ITN-IN-PRACTICE' EVENT**  
*2.5 days in Renesse, the Netherlands, April 2022*

**Attendance:** All ESRs except for two with difficulties who were represented by flowerpots and carried by students into the different rooms used for workshops, and videos were made of the events so that they did not miss out. Half, mostly the daily supervisors came.

**Open space:** lively experience of debate between the whole group of supervisors/students – sharing the pressures of the academic system. Prioritising together the issues that were urgent and important to get into both individually as for the network as a whole.

**Team development and Inter-group Communication workshop:** This RC on managing roles and boundaries (till now never before rejected) caused real anger amongst the supervisor group at 'something so stupid' or irrelevant even insulting set up by ourselves. Good things came out of this, however. The RC gave the leadership to the professors, publicly acknowledging we understood they had not found this second workshop session useful. What followed was a

**Marvelous session run by supervisors** alone with all students debating how to handle the inequalities of the different university regulations including PhD provisions, visas etc. This led to a new relationship with supervisors co-sharing the event and agreeing to a relationship with RC.

At the end of the joint conference there was a shared concern about the reactions of the supervisors not present – which turned out to be very well justified - how would they react – would they understand and follow through on thinking of an ITN working as a community of purpose. The worry equally shared between supervisors and students – particularly those students whose own supervisor was not present.

**Comment:** *After the difficult interteam event we aimed to understand the difficulties and pressures of both roles – supervisee and supervisor. Was the not knowing / finding out during the interteam exercise too embarrassing for supervisors in relation to other (not yet known) supervisors and even more so to their 'fresh' PhD students? RC did not take a rival position.*

## **WE USED THE OPEN SPACE CONFERENCE METHOD**

Harrison Owen with his science background, organised in the mid-seventies a conference that took him three years to prepare. Afterwards the participants told him that the best part were the coffee breaks. This led him to come up with a method / technology where a conference is seen as one big coffee break around a central purpose allowing the group to self-organise around what is important to them at that moment in time.

Individuals create the agenda by first brainstorming and then voting on the topics they want to address collectively. Each topic gets a leader. The rules were: i) the law of two feet – you could move between groups as and when you want. 2) everyone had an equal voice, so students and supervisors had to listen to each other.

***Comment:** Supervisors were energised by putting on paper their concerns / wishes and delving into them with ESRs. ESRs felt that ‘the supervisors now knew and could take responsibility’.*

### **Delivering: ESRs IN THE ‘ITN-IN-PRACTICE’ EVENT** *1.5 days in Renesse, the Netherlands, April 2022*

Students only, immediately following the joint conference.

Enjoyed themselves without the “oversight of the supervisors” – not in rivalry with supervisors.

- First experience of Action Learning - Sense they are there for each other
- Vigorous atmosphere of purpose, interdependence and fun
- Bonds were formed for this shared endeavour enabling both support and action.
- Practical matters were arranged such as setting up an ESR WhatsApp group, as well as clarity on what needed to be arranged at the host university in terms of regulations and administrative challenges.

**Delivering: ACTION LEARNING SETS**  
*Two-hour sessions, online and in person,*  
*April 2022 – October 2024*

**On a three-month cycle.** Action Learning was offered to ESRs as a follow-up after Renesse for them to keep in contact & support each other on the stresses of the dual PhD track; share the impact of learning, their self-development & self-leadership; plus celebrate successes.

For the **ESRs**, Action Learning was challenging at the start – how to help each other to get into what they really needed; what was important; grow aware of the ability to act that they do have / to make the most of their situations.

AL for the ESR was a:

- Safe place - only for them - to talk and share. They are in charge of their agenda.
- Sense they are there for each other
- Vigorous atmosphere of purpose, interdependence and fun
- Learning the skill of active telling and active listening
- Ability to compare differences in university, group, lab approaches.

**How the ESR AL groups develop and change over two and half years?** Level of challenge, exploration and belief in an increased ability to influence and work through things (problems; situations; shaping their projects their writing; getting the results; go after what they want to publish and be proud of ).

AL has enabled ESRs to really grow; a shift from finishing a PhD, delivering a project to their supervisor to a project that merits with their own ambition and identity at work.

The value of Action Learning was:

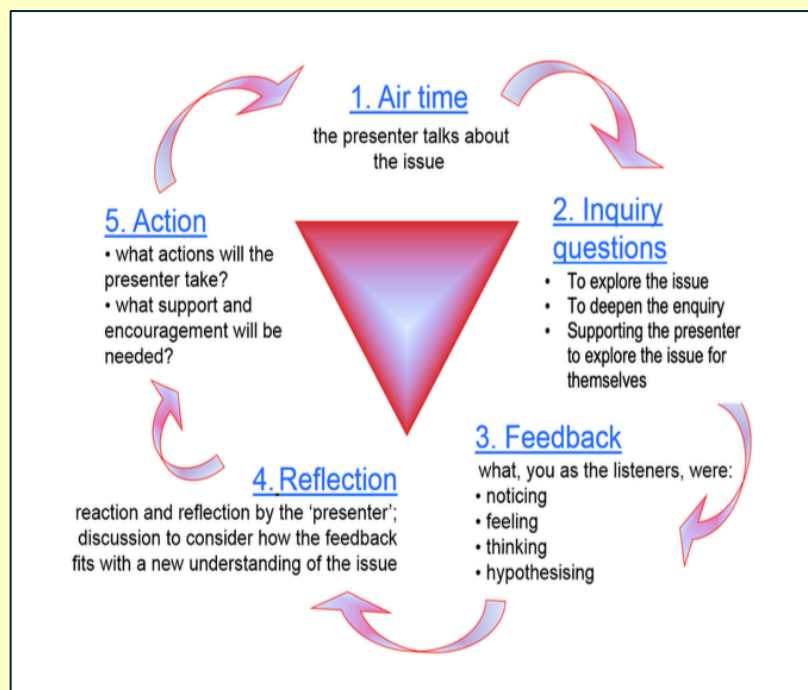
- Changes how hard you take things now- transformative
- Allows to us to look at ourselves from outside
- Get into issues faster and at greater depth

For the **Supervisors** at Renesse, they requested Action Learning for themselves – which, although not in the proposal, was understood as a support to individuals, connecting to the idea of Mindshift working as a community of people with a common purpose.

## USING THE ACTION LEARNING METHOD

Reg Revans used his experiences working in a scientific research laboratory where problems, ideas and solutions get shared and compared, to transfer these “action learning” techniques to management development programmes for the National Coal Board in the United Kingdom in the 1940s.

An action learning set follows a process where a presenter gets airtime to present an issue; the group enquires about the situation to gain a deeper understanding; the listeners then give feedback whilst the presenter goes into listening mode; the presenter then reflects on the feedback and decides on which action(s) to take.



The benefits of regular action learning sessions are that the participants get a richer understanding of issues, and the way they operate / take action, so they can make informed changes. Furthermore, they develop their capacity to actively tell and listen in groups.

## **COURSE WEEK GLASGOW**

*1 + 2 days in Glasgow, United Kingdom, June 2022*

### **Delivering the ESR pre-meeting**

First 24 hours ESR Students only, immediately following the joint conference. Action Learning + building a shared agenda on what to develop together in terms of (human) skill development and support. And how to engage with the network from an ESR perspective. The administrative issues became less pressing; now more on how to handle personal pressures and how to get the best out of the supervisory relationship.

### **Participating in the General Meeting / Course Week**

General Meeting then continued with the Supervisors present and the coordinator in the lead. ESRs gave Poster Presentations and had private time with the EU Representative as part of the Mid Term Review. Review given to the whole of the network.

***Comment:** EU Representative stated in her Review that she had not seen an ESR group that had bonded to this level of depth. The Renesse Conference put a solid fundament under the ESR group.*



**COURSE WEEK PADUA**  
*1 + 2 days + 1 day in Padua Italy, May 2023*

**Delivering the ESR Pre-meeting**

The introduction of the skill training ‘*Conflict Management - Handling Difficult Conversations in Moments of Friction*’ was delivered in an earlier online session. We now ran a separate taster session on this topic with Supervisors and students in a day workshop at the beginning of the Midtrack course week in Padua. Learning to ask questions and bring up worrying/disturbing issues was empowering for the students.

**Supporting the General Meeting / Course Week**

During the two-day GM/CW conference, students gave presentations, in person and online, on their research followed by a Q&A in a large conference room.

We were asked to help design a programme to help supervisors and students to bring the two fields of science in MINDSHIFT together. Together with key supervisors we facilitated a second Open Space session using again the Law of two feet with this time a focus on the research and what the network as a whole wanted to work on. This was followed by a self-led workshops to deepen the chosen topics and themes. The workgroups then shared in a plenary their findings and reacted to each other.

A turning point in the relationship with The RC came after the short one-hour session on the *supervisor/ESR relationship*. There was an important shift in trust. A questionnaire about the quality and breath of supervisor/student relationship was given out individually. “Pairs” were then asked to have private sessions in the room and the garden. Deep talks around the table emerged.

**Comment:** *Asking questions about the supervisor/ESR relationship and being given a framework for doing so opened up an unspoken area. Not a taboo area between the two – simply an unseen area – too unfamiliar. Normally each held onto their own frustration and experience of ways of working and behaviours that were not talked about. Emotional labour of work began to be less undisclosed. To our great surprise this event was really valued by many of those present. This may have been a change moment in how The RC was seen: the point where we stopped being seen negative light and regarded as potential support to the system.*

## **PADUA CONTINUED ...**

### **Delivering the ESR Post-meeting**

Glasgow Supervisors had asked The RC to offer a skill training to ESRs on how to present their research successfully.

### **Review presentations with ESRs**

Both online and in person ESR research presentations had been recorded on video. In small groups key parts of the presentation were viewed and commented on – how is someone coming across? How are you as the presenter communicating? Is the presenter having a rapport with the audience?

It was literally a sticky session – the circumstances (see comment) were just too hard. Half group actively thought it was highly important / how they come across. Other half gave up: ‘this is simply too warm and hard to work’

After having moved back the original venue, we did action learning and as well looked at how the ESR Committee Allocation was working.

***Comment:** The full conference venue and visits had been delightful. The room for the ESRs at the Academic hospital was set in the middle between two corridors, no windows – no aircon - Italian summer heat - noisy and uncomfortable, very limited screen viewing. The limited video and environment made it very hard to review the presentations. Lapse in quality of the organisation did have effect. Was it intentional? Sending a message not to spend money on ESRs*

## SEMINAR ON GOOD SUPERVISION

*1 hour, online, February 2024*

This seminar was initiated because The RC noticed that for a fair number of students the conditions, expectations, timeline, the requirements and the management of the ending was vague and not clearly setup. Many did not understand what to do.

On behalf of the students, The RC gave an invitation to two of the Glasgow supervisors to share their experiences of their own PhD journey and how they now supervise this phase. Their department in the UK is familiar with the 3-year PhD and they therefore were specialised in the delivery of PhDs in time – by creating clarity over timelines, explicit expectations and writing a thesis in light of the stepping stones in a PhD journey. They shared their personal past experiences and challenges in the pre-doctoral stage of writing. They also described from their point of view examples of how good and bad supervision affected them personally.

***Comment:** Relief and amazement by most of the group – who saw how the clarity of managing expectations on both sides took out stress. What the seminar really fed: was the issue and urgency of how to get to an end-point, how supervisors manage the process, set expectations and timelines, work to get the ESR across the finish line. Many did not know how this was done. The conversation gave them a perspective on how to plan and shape their work. Most ESRs did not have this explicit experience, admired and envied it.*

This seminar was part of a series of short, online lectures & check-ins.

**SELF-LED EVENT ON CAREERS**  
**sparked and supported ESRs to run it**  
*7.5 hours, online, April & May 2024*

The RC negotiated with the Association of Facilitators to accredit the ESR-Development Track within MINDSHIFT. This brand-new initiative enabled ESRs to get certified for Partnership Working as Network Participant Facilitators in Science Networks. The aim is to establish awareness and ability in the role of facilitator – including being a participant facilitator aka a group member.

In December 2023 we consulted the ESR group on “what subject matter” they wanted to facilitate and the best time to do this. The idea was brought up by them to look at what is in store after MINDSHIFT and the PhD – the option of continuing in academia or switching to industry and what both career paths would entail. The group chose this theme.

Four ESRs volunteered to manage this initiative - one person not having been part of any the committees yet, giving him the experience of representing others.

In February this fresh Management Team (MT) actively consulted the ESR group about that they wanted to know in order to make in an informed way their next career move. The MT got agreement on the initiative and a shared list of questions from the ESR group. The MT then designed not a single event but came up with a series of six sessions.

RC facilitated the ESR facilitators and the MT. Confusion about the aims and the design came to the surface: all ESRs to facilitate or several of them? Agreed to have the MT facilitate + those ESRs who volunteered. The discussion on this confusion on Friday made us initiate an RC led online session on Tuesday on Facilitation to the whole ESR group and how one can facilitate a group conversation as a member. MT pulled this session together in 4 days! In discussion brought the design back to four online sessions:

1. Debate on Industry versus Academic career development
2. What is a ‘good’ job interview for an academic setting via mock-up interviews / via role play
3. What is a ‘good’ job interview for an industry setting
4. How to navigate ‘common pitfalls’ and ‘hot potatoes’

**Comment:** Thrilling. They were doing it – under their own control. Made it formal by getting mandate from the Training Committee - allowed to write and involve supervisors. Both industry and academic career – test both options – many ESRs went to both sessions to find out.

MT organised – took real authority and initiative to make this happen. Prepared questions. MT setup prep session with the facilitation team and the speaking supervisors. They took responsibility and persuaded a fellow ESR who had reservations to be one of the candidates to be interviewed which he did very well.

The MT and the volunteer ESR facilitators were briefed and debriefed for each event by RC enabling fast learning on “the job”. Got both into the personal and the role of facilitator.

One senior supervisor did something outside the process that was not agreed beforehand. A role play was agreed and instead he did an interview with a fellow supervisor about how he was recruited for his current job. They learnt how to work in the moment as a facilitator when a “curve-ball” gets thrown.

The invited supervisors opened up and gave more than was expected. An industry supervisor during the debate shared about his career where he did a start-up directly after using his research. He had worked for 15 years at fast pace, then crashed. In hindsight he would have done personal work alongside work. A senior supervisor shared that she was impressed how well the ESR facilitators had supported the debate.

Another time the supervisors took over the debate because they got curious into each other’s way of recruiting (Madrid and Glasgow). They went beyond ESR need. For ESR facilitators great learning – “supervisors are human and can make mistakes” and then in my facilitator role I need to protect the conversation and the group.

**Comment:** This was a unique, ground-breaking initiative to do two things: 1) support the development of their facilitation capability 2) work on careers as a group; the learning about the future was shared and tackled! And enjoyed to the fullest by all present. Career choice was explored in active way; students rehearsed their behaviour and understood what was involved.

## CERTIFICATE IN NETWORK FACILITATION

**Facilitated: ENDING WORKSHOP:  
PEER & SELF-ASSESSMENT  
2 days, Maastricht, May 2024**

The Recess College negotiated a certificate in network facilitation with the Association of Facilitation. This is the first on the world as far as we know. The Self-Assessment was voluntary – all ESRs chose to go for it.

The ESRs were taken into the unique way of their self-facilitation, namely their a) Personal growth b) Growth in competence c) Ability to manage their PhD project d) Ability to manage organisational issues.

They got into their facilitation first through an intuitive process as well as by rational ways. In ESR pairs they interviewed each other. Again, the aim was two-fold – how does what you do enable a good interview and secondly, to not leave the ESRs with a blank page to start writing their self-assessment.

In their familiar Action learning groups, ESRs received feedback from their peers after having presented either a critical situation or a situation of achievement. The group reacted to both the story, and the way it was presented and how the presenter had developed with them in the Action Learning group by sharing how they valued the person, what someone needs to watch out for in terms of behaviour and what they would like to see more of / what is their cutting edge. There was much joy in getting recognition of their growth and development.

The workshop ended by taking stock of what the ESR development track has meant for them and how it could benefit future ITNs.

***Comment:** some ESRs started to understand that they have a public persona and need to represent themselves in public life because others will have views and opinions on how they behave. The ESRs internalised the value of receiving appraisal and giving appraisal. They crystallised their understanding of their personal growth as people in role so they now know in their future career how to be in contact with their environment and themselves from where they are / not where they need to be.*

## **SUPPORT FOR THE COORDINATOR**

### ***Going from Solo to Team based***

The coordination team consisted of a founding father who was retired and at distance and an administrator making sure that the finances were in order, events got planned and organised and changes timely communicated to the EU.

The main coordinator felt alone in setting direction for the network. After Glasgow a support group was created with the coordinator plus two senior supervisors and facilitated by the director of The Recess College (for more detail see the interview with the Coordinator).

The administrator established her role in during the kick-off as a central point or organising. She was enormously helpful as a partner to the coordinator in keeping the focus of administration clear and in a timely way. It was enormously helpful that she had so much previous experience in the management of ITNs.

For more, see the separate interview with the coordinator.



## CONCLUDING CONFERENCE

*2 days, Maastricht, October 2024 - A Masterpiece*

The presentation/Q&A showed the real-life meshing in the research projects between the scientific and development tracks – combining in a shared ‘thrust’ ways of working that sparked and benefitted research discussion and planning. The whole network contributed, combining the individual with the collective needs.

After reaching agreement in the Network committee on the purpose of the conference, the coordinator worked with the ESRs – who rejected his first proposal for a traditional format of poster presentations.

This real negotiation led to a new working form that fitted the occasion enabling in depth discussion on science with fellow ESRs & supervisors. In groups of three per round, for up to 15-minutes in plenary ESRs presented their research data, conclusions and plans; afterwards the presenters went into smaller, separate workrooms based on their interest. An inter-active Q&A took then place for 45-minutes with a computer linked to a projector ready to pull up relevant information.

Not only did this way of working allow supervisors to connect to the research of any student – not only their own - plus empower students to zoom into specific parts of their research, it also enabled research-led conversations between supervisors in the room and in between rooms. The conversations felt fresh, easy and with time for exploration.

The atmosphere in the discussion on the state of the research became more relaxed and open for collaboration - not sitting in a large plenary room being judged for asking “less intelligent questions”. As one ESR said: “at conferences I present results as statements; here I could share what I was not yet sure about, allowing others to join me.”



## CONCLUDING CONFERENCE continued...

### MULTI-DISCIPLINARY EXCHANGE & OVERVIEW OF RESEARCH FINDINGS AS AN ITN

The last quarter of the conference was reserved to identify linkages between projects, and those that would be interesting and promising strands to explore in future.

Students were asked to lead this multi-disciplinary exchange & co-working for the whole group. On behalf of Mindshift, they confidently described how their research projects linked with each other - so that the benefit of the ITN could be seen publicly, as not just as a set of individual projects but as collectively cohesive and coherent.

Integration of research methodology, the impact of peer bonding merged very practically at the very last part of the session during the Concluding Conference. New interactions took place between ESRs, between ESR and Supervisors, but also between Supervisors – both from academia and industry. Everybody had more time to go into the actual research.

This conference was also a final farewell to The Recess College in Mindshift. When we arrived part way through the meeting, we were surprised and touched to be greeted with almost rapturous welcome.

***Comment:** the negotiations between the supervisors, the coordinator and the ESRs about what and how to do this conference resulted in finding a new 'space' just before a presentation at a conference – a space where 'half products' can be shared, discussed and action taken by drawing in fresh combinations of potential collaborators: a new way of working where form and function fit like a glove.*

*Some supervisors were thrilled that students had learnt so much about each other's work in the context of the peer group, and their practice of helping each other. One supervisor said the level of ESR overview on research was quite remarkable and one she had never seen happen before.*

*The research conclusions illustrated how the human/personal development and the research focus meshed into a shared 'thrust' in a way of working that sparked and benefitted both. Students were clear about this.*

## Chapter 9 - Themes from Action Learning

Action Learning proved highly important because it gave private space for reflection on the experience by both students and supervisors in managing the research process. This gave insight and increasing confidence in public activities and debate.

For the ESRs Action Learning was part of the original grant proposal. Action Learning for supervisors was based on their request at the Renesse ITN-in-Practice conference. Confidentiality of individual material in the Action Learning was at the centre of our agreement – it was up to the participants to take out and act on what they gained for themselves taking part in their Action Learning group.

At that point, we had not thought beforehand that themes that emerged in the action learning sessions over time would paint such a useful picture of the shifts that supervisors and ERSs made within Mindshift.

These changes over time give a real sense of movement providing a unique insight from both the student and the supervisor perspective. We are privileged to use this confidential information from the series of Action Learning sessions, running for over two years, triangulated with the findings from the Research-on-the-Research interviews.

These valued insights into the concerns and positive key moments of change – both illustrate the movement from wary moments at the beginning to positive grappling with issues towards the end.

### **Timeline for Action Learning Sessions**

For ESRs – April 2022 to October 2024

For Supervisors – May 2022 to September 2024

# ESRs Action Learning – Overview

Timeline - April 2022 to October 2024

## Focused on

- Key themes in relation to the development of their research
- Space & Environment – primary/ secondment
- Attitude to supervisors + the research
- Self-leadership - Handling it (or not)
- What Action Learning has meant to them

## DATA FROM ESR ACTION LEARNING SESSIONS

May 2022 (after Renesse)	October 2022 (after Glasgow)	April 2023	October 2023 AL (after Padua)	January 2024	April 2024	October 2024
KEY THEMES						
ALL THE STARTING UP TROUBLES – venting/ struggling/ figuring out	CAN'T BELIEVE HOW FAR WE'VE COME IN A YEAR since we started	SETTLING IN – getting on with it	CONTRASTING - good & bad experiences – each doing his/her own thing	ATTENDANCE DIP - half ESRs showed up, so ones attending benefited from deep action learning	GOOD SPIRITS DESPITE PRESSURE to finish PhD	GROUP COMING TOGETHER Building/‘resilience’ Responsibility of what’s really mine <ul style="list-style-type: none"> <li>• More confidence, less anxiety</li> </ul>

SPACE / ENVIRONMENT						
<ul style="list-style-type: none"> <li>• practical constraints /visa applications, support ideas, accommodation. “nitty gritty reality arrangements”, research related conferences etc.</li> <li>• emotionally heavy home sickness, ‘foreigners’ (language &amp; culture), loneliness (estranged from the family) and physical distance</li> </ul>	<ul style="list-style-type: none"> <li>• real back home trouble – turmoil/ protests and not seeing family in long time, worried &amp; mentally ‘back home’</li> <li>• delays in getting resources such as lab delays</li> <li>• time management – fitting in conference vs research vs etc.</li> </ul>	<ul style="list-style-type: none"> <li>• different atmosphere: can-do mentality</li> <li>• quick back &amp; forth on practicals – tips on how to set-up secondments? Prepare? Get feedback? When to ask for it?</li> <li>• Galileo effect – how do you handle the reactions if you do research that upsets the existing system, and the system is either ignorant or becomes hostile?</li> </ul>	<ul style="list-style-type: none"> <li>• smaller groups (busy with things; some missing AL without informing)</li> <li>• variety– some feeling stronger in negotiation, others struggling but still committed</li> <li>• extreme reactions – experiencing ‘ugly side of academia’/ difficulties&amp; pressures; feeling lonely/isolated in the system (cultural bias but not overt)</li> </ul>	<ul style="list-style-type: none"> <li>• download of complaints; stressed, having to do x,y,z</li> <li>• ESRs struggling – research late because lab delays - luckily possibilities of extensions; worrying about secondment difficulties</li> </ul>	<ul style="list-style-type: none"> <li>• extension issues – practical advice on visas, time mgnt</li> <li>• variety: reactions / timeline not going well / bit closed off <u>versus</u> real boost in energy / belief / feeling grounded</li> <li>• shifts from before - writers block / wanting to quit / bad secondment <u>versus</u> clear plan &amp; ambition</li> </ul>	<ul style="list-style-type: none"> <li>• concluding conference fresh on people’s minds – their influence in it</li> <li>• contract ending in Oct/Nov – preparing for interviews and applying for grant</li> <li>• energy round what is next or focus on research / thesis</li> <li>• uncertainty on the outcome – unsure how to fund/support oneself between now and early next year</li> </ul>
ATTITUDE TO SUPERVISORS / RESEARCH						
<ul style="list-style-type: none"> <li>• dependency – stress &amp; anxiety</li> <li>○ Keeping silent- not speaking up, feeling let down, resenting - not knowing how to have a conversation</li> <li>○ confronting / combative - having ineffective/explosive conversations</li> <li>○ multiple supervisor points of contact not just 1:1 but 1:4 or 1:6 sometimes – don’t know how to manage.</li> </ul>	<ul style="list-style-type: none"> <li>• project changes: difficult but now able to work it through – conversations with Supervisors post-Glasgow Conference – used up months to learn how to make things happen; diplomatic but not overly mister nice guy!</li> <li>• tackling disciplines &amp; skills other than the ones you know – out of our depth but coping with it</li> </ul>	<ul style="list-style-type: none"> <li>• supervisor negotiations collecting data for refining research</li> <li>• more awareness in handling the relationship – setbacks but not blaming the supervisor – support - asking for help – new</li> <li>• research – attitudes ranging from good &amp; happy to okay, neutral (masking?), worried about outcome, timing; mix of failures in research - but also progress.</li> </ul>	<ul style="list-style-type: none"> <li>• hard secondments – some with vague input / pressures of having a bad time with a ‘good’ supervisor; sometimes feedback secondment supervisor harsh – not wanting to go back</li> <li>• some experience a negative relationship and others a good secondment with less pressure to perform</li> <li>• more ability to ask questions</li> </ul>	<ul style="list-style-type: none"> <li>• supervisor &amp; ESR mismatching expectations Research interview joint conversation not “done justice” to ESRs “expected to do more outside the work hours”. <i>RC facilitator explored “need to speak up and do own part”</i></li> <li>• valued one-on-one coaching by supervisors to prepare for important meetings.</li> </ul>	<ul style="list-style-type: none"> <li>• realisation that publishing is the way to obtain future via post-doc grants</li> <li>• holding both-reality of not finishing on time and practicalities (<i>if not, what are the options</i>)</li> <li>• a shift from previous frustrations &amp; strong reactions to supervisors’ inputs <u>to more ownership</u> of getting things done</li> </ul>	<ul style="list-style-type: none"> <li>• variety of emotional states ESRs: <ul style="list-style-type: none"> <li>○ still feeling judged</li> <li>○ an emerging sense of responsibility</li> <li>○ even those extending are determined; worked out arrangements with supervisors</li> </ul> </li> <li>• “as long as I have a timeline, I will find a way to get it done”</li> <li>• after Maastricht feeling validated know what to do for next months.</li> </ul>

SELF-LEADERSHIP						
<ul style="list-style-type: none"> <li>• pressure on self – theory that ESR should know what he/she is doing</li> <li>• the idea of self-leadership is a welcome surprise – even in a foreign country taking matter into one's own hands can lead to real results</li> </ul>	<ul style="list-style-type: none"> <li>• shift from self-doubt (do I deserve this PhD) to no (/less) doubt that I do!</li> <li>• pressure to organise and get things done - balance clear guidance and expectation vs. do it yourself independently</li> </ul>	<p>Going from being</p> <ul style="list-style-type: none"> <li>○ a bit lost</li> <li>○ positive but maybe riding on a false high</li> <li>○ tired yet motivated</li> </ul>	<ul style="list-style-type: none"> <li>• keeping your head down whilst still knowing there's support at hand</li> <li>• feeling not good enough but not giving up - wanting to be heard &amp; find solutions</li> <li>• getting more validation – e.g. stepping up and asking for help</li> <li>• trying to keep up appearance of all is OK (underneath fear of being asked to leave)</li> </ul>	<ul style="list-style-type: none"> <li>• Variety – some ESRs in a better place now – aware of the amount of work ahead to finalise thesis but good energy</li> <li>• joyful motivation from other ESRs</li> <li>• group noticing how they have come a long way – learning to ask for help</li> </ul>	<ul style="list-style-type: none"> <li>• previously stressed now in a better space – extensions – more aware of boundaries / need to communicate – secondment was crucial in that understanding</li> <li>• learned that working on the PhD leads to personal / self-development</li> <li>• differing levels of insecurity &amp; curiosity round career sessions</li> </ul>	<ul style="list-style-type: none"> <li>• despite uncertainty on extensions, determined to continue - “part-time jobs pay bills”</li> <li>• real resilience: if not Plan A, plan B will work</li> <li>• more confidence /less anxiety – not so frustrated when deadlines missed, staying open/ realistic.</li> <li>• handling when told off- instead of bitter, conversations</li> </ul>
WHAT ACTION LEARNING MEANS TO THEM?						
<ul style="list-style-type: none"> <li>• safe space without judgment</li> <li>• allowing me to listen what others have to say</li> </ul>	<ul style="list-style-type: none"> <li>• helps to belong to a group</li> <li>• pushing for reality check, are projects over-ambitious?</li> <li>• gives clarity - it's a lot but we want it</li> <li>• important to be heard – even if no solutions</li> <li>• space without supervisor is a relief</li> <li>• not had this connection in other studies elsewhere... built the trust and support we need</li> </ul>	<ul style="list-style-type: none"> <li>• ESRs bonding – six ESRs will be in Madrid - looking forward to the social part!</li> <li>• cooperation and feedback from each other important</li> </ul>	<ul style="list-style-type: none"> <li>• conversations about group experiences</li> <li>• Madrid group – several ESRs, mixed dynamics</li> <li>• Other group with same supervisor / different experience – not fully open conversation yet some learning.</li> <li>• group session is straight – helps us get calm / let go &amp; exhale - everyone coping &amp; using AL time for self / individually</li> </ul>		<ul style="list-style-type: none"> <li>• AL helped us learn to manage expectations – own and others – where ‘stubborn’ before, now ‘flexible’</li> <li>• working with RC resulted in ‘wearing new glasses’</li> <li>• groups working well challenging/supporting each other - a real sense of strength in them as a whole</li> </ul>	<ul style="list-style-type: none"> <li>• looking forward to the ESR ceremony and celebration – Partnership Working in Science Networks Accreditation by the Association of Facilitators in December</li> </ul>

# Supervisor Action Learning – Overview

**Timeline** - June 2022 to September 2024

## Focused on

- Key Themes
- Larger issues in the system
- Attitude towards ESRs
- What Action Learning means for the Supervisors

## DATA FROM SUPERVISOR ACTION LEARNING SESSIONS

June & October 2022	January & February 2023	April 2023	October 2023	January 2024	April, June & July 2024	September 2024
KEY THEMES						
OVERWHELM WITH DEMANDS TO FIT IT ALL IN	SEE GROUP BOTH AS SUPPORT AND PRACTICAL HELP	SECONDMENTS & FUNDING	SEA OF ADMIN; LOOKING AT THE END	WRESTLING THROUGH, & FIRST GOOD RESULTS	DEEPENING CONVERSATIONS WITH ESRs	SEEING MORE CLEARLY ESR & OWN PERSPECTIVE
<ul style="list-style-type: none"> <li>• handling difficult conversations</li> <li>• administrative overload</li> <li>• role of women in science – gender and power</li> <li>• working with superiors - and accepting legacy</li> <li>• getting to know the spirit of the research team</li> <li>• agreement on working together &amp; confidentiality</li> <li>• long history between departments and involving more people</li> <li>• could have used AL much earlier in their careers</li> </ul>	<ul style="list-style-type: none"> <li>• Less overwhelm</li> <li>• necessary honest exchange; giving and receiving feedback</li> <li>• practical tips on ESRs</li> <li>• generation gap – different appreciation of work/life balance</li> <li>• so much time on personal life</li> <li>• more directness after close working with colleague - sharing struggles together to build a strategy</li> <li>• like the multiple levels of Mindshift</li> </ul>	<ul style="list-style-type: none"> <li>• all energised and less overwhelm despite situation</li> <li>• exchange about funding ideas</li> <li>• preparing for Padua</li> </ul>	<ul style="list-style-type: none"> <li>• long gap from April so getting into it took longer</li> <li>• renewed frustrations with the administration system</li> <li>• collapses into a gender issue – ‘women take care of the common good’ / not seen, not respected</li> </ul>	<ul style="list-style-type: none"> <li>• new year, but same problems</li> <li>• recognising need for resilience – ‘you need muscles everywhere’ to recover from rejection, limited time &amp; pressures</li> <li>• reflections on how ESRs see supervisors</li> <li>• going solo, need to get in to help people</li> <li>• coordinator role is fathering</li> </ul>	<ul style="list-style-type: none"> <li>• turnaround from last time about difficulties with ESRs</li> <li>• useful exchange of ideas and communication</li> <li>• real conversation about ESR expectations and working with the tension between vested interests</li> <li>• relationships are not all easy but handling them</li> </ul>	<ul style="list-style-type: none"> <li>• Mindshift is the centre of the world for many ESRs</li> <li>• varied situations – “Things are not as scary”</li> <li>• feeling busy &amp; overwhelm</li> <li>• need to be more cautious in reaction</li> </ul>

LARGER ISSUES IN THE SYSTEM						
<ul style="list-style-type: none"> <li>• chronic stress - wondered why life as a scientist had to be lived in a state of “chronic overwhelm”</li> <li>• lack of admin help - difficulty of authorising small things (takes away from supervising / research), lack of budget</li> <li>• not enough time – submit an article to authenticate PhD, last minute grant submission deadlines</li> </ul>	<ul style="list-style-type: none"> <li>• management situation “toxic revolt of post grads”</li> <li>• time pressure - e.g. with theses defenses</li> <li>• male vs female supervisors – the dilemma of confronting or ignoring until time runs out</li> </ul>	<ul style="list-style-type: none"> <li>• available funding sources in Europe</li> <li>• Mindshift budget light on experimental work, travel uses lot of the resources</li> </ul>	<ul style="list-style-type: none"> <li>• victims of the system – love for science but drowning in the sea of administration – two-year wait to sign documents, not getting reimbursed for a year, 20-page legal documents for a small thing</li> <li>• changes in the department, lab / group closures, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• PhD process is to become an ‘autonomous thinker’ – process of maturation – to learn intellectually, learn the job and also manage expectations</li> </ul>	<ul style="list-style-type: none"> <li>• nature of relationship with PhD differs by supervisors – overall &amp; beyond Mindshift - inspire students to say: it’s ‘your job, your choice’</li> </ul>	<ul style="list-style-type: none"> <li>• impact of having just three years to complete the PhD in the ITN programme</li> </ul>
ATTITUDE TOWARDS THE ESRs						
<ul style="list-style-type: none"> <li>• many differences between ESRs as regards to their needs – some are <ul style="list-style-type: none"> <li>○ dependant (want us to organise &amp; set up)</li> <li>○ aware of pressures so they don’t burden us</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• generational gap - years ago spent all weekends in the lab</li> <li>• ESRs not recognising the vast opportunities offered to them – could almost be jealous- we did not have these</li> <li>• varied interactions – lunch together, online zooms, don’t meet at all, meet when there are problems, meet everyday</li> <li>• which small or big decision needs to be shared with supervisor?</li> <li>• solution: dual control – attach a Senior Post Doc with ESR</li> </ul>	<ul style="list-style-type: none"> <li>• challenge of multiple ESRs coming and going on secondments</li> <li>• committed to more direct and clear discussions with ESRs</li> <li>• difference between ‘managing’ (organising &amp; preparing etc) and ‘mentoring’</li> <li>• came up with phrase “open conversation”</li> </ul>	<ul style="list-style-type: none"> <li>• sadness, disappointment and sense of loss towards ESRs– “they don’t want to be scientists”</li> <li>• questioning the future of ESRs as scientists per se</li> <li>• immediate concerns if ESRs would finish the PhD on time</li> <li>• dealing with extensions and change in funding</li> </ul>	<ul style="list-style-type: none"> <li>• Some ESRs anxious, feeling impostor syndrome – even thinking about quitting – how to help them?</li> <li>• supervisor surprised by this information, thought communication was good – realised it’s not ‘black and white’ but ‘grey’ - sees ESR everyday but did not ‘see’ this</li> <li>• all agreed that ESRs compare with each other- “They see what others do. They do not see what they do”</li> <li>• acknowledge distance from home and adjustment issues</li> <li>• also feeling the responsibility and burden of expectations from ESRs</li> </ul>	<ul style="list-style-type: none"> <li>• unsatisfactory interaction, ESRs have problems they do not share</li> <li>• learned a lot from sharing of experiences - good parenting, consistent, caring, boundary setting.</li> <li>• things are settling</li> <li>• after intervention from RC, the other one is planning an extension so less pressure, but struggles continue</li> <li>• supervisor relieved that this ESR had a secondment planned with another supervisor</li> </ul>	<ul style="list-style-type: none"> <li>• ESRs &amp; PhDs not taking initiative - no sense of vocation</li> <li>• meetings with the students to exchange on where they are</li> <li>• helped to reposition as facilitator – less as parent or instructor</li> <li>• played around with the idea of role play / role reversal to understand ESR’s points of view</li> <li>• relationship with ESR had matured</li> <li>• building trust within the supervisor group</li> </ul>

WHAT ACTION LEARNING MEANS TO THE SUPERVISORS – ROLE OF RC & MINDSHIFT						
<ul style="list-style-type: none"> <li>• genuine exchange</li> <li>• insight for supervisor how their behaviour/ how they come across</li> <li>• value gained from listening to the others</li> <li>• take a step back - detachment- not feel so involved</li> <li>• referred to Mindshift (AL) as being a safe space where they could really exchange – “one of the best things recently”</li> </ul>	<ul style="list-style-type: none"> <li>• seeing the group as support but also practical help</li> <li>• ability to share failures and challenges</li> </ul>	<ul style="list-style-type: none"> <li>• role of RC is “essential” in the ITN</li> <li>• need to continue sessions</li> <li>• RC had helped supervisor stop everyday life and think</li> <li>• RC had helped change the way we approach the relationship</li> </ul>	<ul style="list-style-type: none"> <li>• group acting as a support group also using challenge</li> <li>• group works to get through defensiveness</li> </ul>	<ul style="list-style-type: none"> <li>• one Supervisor asked if Mindshift was the best programme – causing a lot of stress</li> <li>• others thought it provided a lot of opportunities incl. leadership training, and learning to work in a network</li> <li>• even multi-tasking was the aim of this PhD</li> <li>• Mindshift addresses ‘human value’ - that’s the real value</li> <li>• ended on a lighter note- should raise a lot of funding to make it run for 10 years!</li> </ul>	<ul style="list-style-type: none"> <li>• it was a busy time and Mindshift was adding to the ‘busyness’</li> <li>• realisation that taking time off on the weekends is good- not feeling ‘less productive’.</li> </ul>	<ul style="list-style-type: none"> <li>• would be possible to organise a A.L. continuation - sad if it was to come to an end</li> <li>• RC increased the chance of doing studies together; developed relationships / easier to contact necessary part of scientific community</li> <li>• great personal support</li> <li>• valued the opportunity to get together to exchange</li> <li>• in situations where they were isolated</li> <li>• taking the role of facilitator is useful.</li> </ul>



# Chapter 10 – Role of the Coordinator/ Convener in the Mindshift Consortium

## Bringing it together: overview of the role

This chapter is based on an interview with Koen Reesink- how as convener & co-ordinator he

- made the ITN possible
- used his intellectual discipline in seeing the ITN as a system
- his leadership was to reach out to everyone
- Feeling for community
- Love of seeing young people grow and develop as researchers and as people and joy in seeing this
- made a unique contribution to make it happen with quality

## The Interview

### Introduction – the Co-ordinator role

*“I see the network as an organisation of ‘weak relationships’ that is partly autonomous, with agents all making their own independent steps in order to work together. Co-working cannot be forced, it has to be chosen. This cannot be prescribed by the outside but develops with its own momentum and creativity.”*

*“A network has shape in its connections and dynamics. If a part of the network takes initiative, then it can be productive, make quick connections, be resilient, creative. This is the promise of a network.*

*Networks can break up - or re-form and be resilient.”*

### Background

Thomas Unger, one of the founding fathers of the MINDSHIFT initiative, asked Koen Reesink to be convener for the proposal. This meant that after Brexit took out Glasgow as the lead member, Maastricht now became the coordinating university for the consortium.

**“My original role had been to manage and shape the proposal for the consortium”.** When the proposal was not accepted by Marie Curie originally, Koen provided the staying power to continue to apply even when other consortium members were by this time demotivated. As a result “I got stuck with three years”.

Once the grant was issued, Koen was asked to convene and coordinate. This is his first time he had taken such a role - having no clarity on how to work as a consortium. People simply turned to Koen and expected him to carry on. Three personal skills that worked for him in this:

- Convening – a talent he’s shown many times in his institute in bringing different disciplines together
- Leading discussion between diverse groups needing to work together
- Ability to handle stress in decision making

In agreeing to take on the role, Koen determined that he would not operate on an authoritarian pyramid. He believed he was solid enough to handle inevitable crises. His concerns were whether he would get too ‘stuck’ personally – becoming inflexible through dealing with too many triggers of his own. However, having started the ITN, he did not want to lose what he had facilitated.

At this point he brought in his own values and experience of personal change and development, inviting The Recess College as a developmental partner to Mindshift. This may have been seen by others as a fair reward for his willingness to take on an onerous task.

### **Motivation & investment in his convener role**

Koen sees the role of convenor to understand the objectives without being constrained by 1) built-in limits of administration or 2) acting as figure head. One highly important objective for him was working on integration of multidisciplinary science, in the context of hypertension as a network disease.

The parallel role of Tara as Network Administrator was hugely valued by Koen - and others – for the utterly essential and long-standing know-how she has about ITN administration and objectives.

She and Koen were a team in working with the challenges, pressures and required bureaucracy of both the EU and university.

### **Stresses & Pressures in a Network**

When a couple of the most senior figureheads of the consortium attempted to expel The Recess College from Mindshift and its contribution from the

programme, he did not (feel able to) confront them directly. In parallel, he feared that if he challenged them there was real risk of the Mindshift consortium blowing up. This led him to a fundamental re-think of his role and also the dynamics of leading, convening, coordinating in a key role.

### **Clarity via crisis**

The crisis with the original professors wanting to expel the Recess College allowed for clarification of the distinct partnership and commissioning roles.

Given that the impetus for The RC joining the ITN came from Koen, lack of clear leadership from Koen appears to have been confusing, leaving other supervisors unclear, passive and in a quandary. It was the ESR representative on the Supervisory Committee who spoke up to say the ESRs found the RC input valuable and opposed the idea that others could make negative judgments on the benefits they were experiencing.

At this point The Recess College also set their conditions regarding his role at this sink or swim moment (step up or The Recess College would be out) which created both clarity and strength to embrace the role fully.

### **Network as a hub of ‘weak relationships’**

...solution to crisis - he turned his thinking around, on his own, using an analogy of an organisation with a ‘hive mind’ where there is no central power hub:

"An ant colony moving their hill, goes like: one group moves west, another moves east, the third thinks what the heck is going on; ... just another day at the office." (After Kelly, *Out of Control*, Ch.2, p.12)

Koen decided to see opposition to The Recess College in these terms – as a mix of both resistance and acceptance – that needed to co-exist and be worked with.

Koen’s belief was that the larger group were learning the benefits of co-working – going beyond viewing the network as a pyramid or hierarchy. Koen decided that he could stick to his guns, be available, see the network not as fragile but active and could continue to convene.

## **Falling into the trap of working solo**

### **In his role as convenor / coordinator he's driven by instinct.**

"I went for a special kind of micromanagement, neither delegating, contracting nor engaging with the whole of Mindshift as a coherent group. My wish to understand different perspectives and work to plant ideas and ask people for responses. I 'play the music and do the cooking'. I was once called a 'water-bearer' 'the lightest glue' when making things happen, in this sense a leader/challenger and a promoter of the organisation rather than a more obvious role, the classical 'boss' view in a hierarchy.

### **"I needed to show to people for them to understand the way I operate."**

Using his instincts to interact with the network meant that at the start Koen too often went solo. By forming a support group to engage with him, consisting of the Director of the Recess College and two senior supervisors, time and space was created to look at how the network was behaving dynamically. The aim was to discuss what would help to support movement within Mindshift and to lead on what needed to be encouraged, supported or changed.

This involved grappling with the big picture and turning to how to work in a timely way to thinking how to introduce ideas to make events happen in

- fusing ideas across disciplines
- bridging the foci of knowledge – science and medicine
- developing resources and knowledge
- working with potential of seeing the gaps in approach and practice

## **The Recess College Perspective - on the convener/coordinator role**

Koen's growth in his role as coordinator / convener and his initial relationship to The Recess College was:

- Trusting and wanting the potential of what it could mean for ESRs and the network development
- Left RC to handle conflict through lack of prior negotiation with the ITN
- Had to learn to become the commissioner of work offered by The RC when his default loyalty to this sometimes got in the way.

The feedback given by The RC was that so much of what he brought to Mindshift was original and inspirational. Our understanding however was that a

network requires a fuller leadership role, one of inspiring the network, with him explaining what he stands for, rather than consistently giving away part of the role to the leading founding father, who kept leading the members back to past preoccupations.

What became clear was Koen's (possibly too great) loyalty to key founding fathers as the ones who entrusted him with the opportunity to manage the network played out at the concluding session. Koen invited one to make the opening and closing speeches, as though he must give them public honour even at the expense of others in the group more immediately connected to the current endpoints of the Network research.

### **Unique contribution – integrating various strands in Mindshift**

Without Koen there is no doubt in our minds that Mindshift would not have risen to the level of cohesion that it accomplished. By avoiding taking a power-role as leader he occupied an alternative central role in the consortium; one that is probably the most congruent with the character and functioning of a network. He was of course highly efficient, but the key thing is that as a central hub, he was always available for a discussion by people of different views and persuasions.

He perfected the art of 'nudging' or the 'light touch' namely helping individuals and groups to see what they could do in the situation confronting them and opening eyes on how for them to turn to others to work together, support each other, find stimulation and make small but significant moves as colleagues operating sideways together as peers. The mass of small moves turned into the beginning of a cultural net of connections. As a result, most big confrontations were avoided, and a very real sense of belonging developed with capacity for edging towards working collectively and taking greater risks.

### **Koen's conceptual grounding of his belief in networks and his own role**

*Every coordinator must, by definition, have their own particular value-base or drive in order to keep themselves going with such an arduous task. In terms of leadership in a network the strength of Koen's commitment to co-working as a network came from his sense of the values and intellectual conceptualisation that underlay Koen's resilience to continue. The intellectual drivers came from books such as:*

- Kevin Kelly, *Out of Control* (1995) - <https://a.co/d/4ovm34B>
- Gregory Bateson, *Steps to an Ecology of Mind* (1972)- <https://amzn.eu/d/18SGelT>

## Chapter 11 - The Institutional Relationship- The Recess College within the Mindshift consortium

Behind The Recess College-led activities is a story of how The RC was integrated into Mindshift. Here we show this journey, from our initial entrance of nominal inclusion at the beginning to being accepted at the end as a partner making a valued difference.

We explore key events of how we were regarded, seeing these as tipping points – whether positive and negative – that led to changing perceptions of our role as a development partner. Our interpretations on this are speculative, may be only partial, could be regarded differently or indeed, as wrong. In this we would also like to share misunderstandings and mistakes made by The RC that may have contributed.

The RC ethos of self-reflection and self-responsibility is evident in this in-depth case study based on our worldview of the network as a ‘learning organisation’ – the emergent way of integrating learning along the way.

### Highlights of the journey to

#### **Gaining entry, gaining acceptance**

Critical incidents arising out of inherent complications

Tipping points – lessons learned

#### **The value brought by The Recess College**

Impact and benefits

Highlight difficulties – how these might be avoided

#### **Partner role rather than trainer**

The dynamic of a development role versus that of trainer

## Gaining Entry; Gaining Acceptance

### Overall - within Mindshift

*Acceptance by ESRs* was never in doubt. They valued the workshops, the space and support for their overall development and their connection as a group.

*Acceptance by the Supervisors* was altogether “rockier”. It was marked by differences round basic assumptions about of how networks and groups operate, the nature of development inputs - and over our initial organisational

assumption that if The RC were to work with the students, we had to work with supervisors in parallel.

The RC was only gradually allowed in to be partners in reality, more than simply on paper. Thinking backwards, we see a progression in the shift from initial indifference to acceptance of The RC as partners as having meaning and significance.

### **Three main phases to final acceptance**

The flow from difficult place to acceptance, relevance with give-and-take partnership was characterised by three main phases

#### **1) Indifference followed by rejection**

In the first months, The Recess College appeared to be regarded with tepid indifference within the loose coalition of professors, whilst at the same time being asked to prove ourselves. This was followed rapidly by active rejection by a faction of the consortium – the founder/leaders of the ITN - generating much tension on all sides and ours.

#### **2) Tolerance or interest / waiting to see**

After the first Course week in Glasgow in the first year, when the full network first met in-person after Covid, a rather unenthusiastic tolerance emerged, more like resignation by some supervisors. It was also the beginning of a sea-change, hostility diminishing; some ‘little green shoots of interest’ / others watching, or open, waiting to see what and where we had something to contribute.

#### **3) Acceptance and relevance**

Half-way through the ITN period, after the second Course week in Padua attitudes to development activities and to us changed incrementally, developing gradually, a new relationship with wider group and partnership and collaboration with supervisors. First glimpse of our value in asking new/different questions for the ITN on non-content related, relational questions about science learning and science students. Recognition that we were offering sound support to ESRs

## **Phase One - Indifference followed by rejection**

### **Critical incidents - firstly, Inherent Complications:**

#### ***1. Arising from the way the RC role was included in Funding Proposal***

Agreement and funding were nodded through in response to the recommendations – and perseverance – of the Coordinator. This was perhaps a *quid pro quo* appreciation for his taking over the organising and research arrangements. His invitation to The RC was based on prior experience of our development work with PhDs and post-docs and the life-changing transformations they reported.

Three or four online meetings with groups within Mindshift were set up, designed to win approval. These were mainly lack-lustre, leading to an indifferent tolerance of The RC involvement. Some had negative previous experiences of leadership and personal development – many, with some exceptions, did not see it as relevant nor were particularly interested.

#### ***2. Arising from supervisors having little to no idea of what RC had to offer***

With the beauty of hindsight, without discussion at depth or individual meetings beforehand, two problems emerged. Firstly, The RC lacked insight into the views of the professors - we did not know what people really thought or wanted. Secondly indeed, there was little opportunity for the professors to check us out, except by reacting to an event.

The supervisors' view was as important as the ESRs.

Supervisors held the weight of real responsibility for governance for the network. They had to safeguard their position in carrying the legacy of previous research, supervisory experience and current accountability for doctoral students and ITN as a whole. There was far more at stake for them; the effort to accept us was far larger for supervisors than for the ESRs, who came in open, uninhibited, and able to value our efforts at face value.

#### ***3. Arising from the problem of how a consortium arrives at decisions***

For Mindshift, a loose community of disparate sub-groups, decision-making was problematic. A proposal of a different kind requires cohesion and commitment of time for finding out what others really think. Decisions involve debate, delving into the issue, hammering out differences, influencing each other and making conclusions based on what the decision really involves.



Lack of mutual understanding may have been responsible for some of the contradictory assumptions about our role, both on our part and between members of the consortium.

On the other hand, we might not have been invited at all, without the process as it was.

#### ***4. Arising from specific concerns of what is science & development***

Two groups of supervisors were particularly strong on the demarcation between the science and the development tracks - but for very different reasons:

- One group worried lest our work with ESRs would be time-wasting and fluffy (distracting during a three-year degree). *Later this group of supervisors recognised that we were working for ESRs, made timely suggestions for a training and gave highly appreciated online lecture to the whole ESR group.*
- Rejection and resistance from the other group was framed as insistence on strict demarcation; research was for science and the scientists alone – and our work was around training for ESRs and had little or nothing to do with science. Space should not be given for the development track to prove itself. This view was not ours.

In retrospect, both types of resistance embodied instinctive understanding of some of the real differences in objectives and concerns involved in academic leadership. The Mindshift development story highlights a number of aspects of academic culture, both positive and purposeful and the not-so much.

#### ***5. Arising from the RC responsive approach to development***

Whilst The RC-led activities in retrospect, may now look like a programme designed beforehand and brought to Mindshift, in fact, we worked mostly in an emergent way, evolving activities as required, matching these in line with the ITN research process. Our aim was to work with Mindshift dynamically, as responsively as possible, to the timing and flow of the task and the ambitions of Mindshift.

This developmental approach may have been unsettling to some. It is not immediately predictable, nor can it be pigeon-holed in the same way as pre-prepared schedules of teaching and training. It may also have been seen by some as a challenge to classical methods of teaching, lecturing and training and

the underlying academic culture - as well as traditional assumptions about learning, and even, what developmental learning is for.

## **Tipping Points in progressing the relationship**

### ***1. Embarrassing Supervisors at the ITN-in-Practice, Renesse and turnaround in the outcome***

The activity that triggered a powerful reaction by supervisors at the introductory event in Renesse was on communication, negotiations, handling boundaries plus clarifying responsibilities. The exercise took for granted an expectation of daily life in organisations, that people would be working in teams and units, have to connect and negotiate with others individually and collectively.

The supervisors basically went on strike (the ESRs quite intrigued). The supervisors experienced the exercise as basically just ‘too stupid’ in a situation where they did not grasp the point of the exercise. This was a bad and critical moment.

It was the RC’s mistake and lack of judgment, partly based on our ignorance of the differences of culture as fully as was needed nor the:

- The strength and pressures of the individualistic culture in academia.
- This programme as one of many calls on supervisors, with other priorities and doctoral students taking their time and mental space
- And the factor of embarrassment of supervisors not getting it right when dealing with the same uncertainty as their fresh PhD students.

### ***Beginnings of a new relationship with give and take***

The RC gave up leadership of the event to the supervisor group in a way that was congruent for them... lo and behold! Supervisors and students sat jointly working together on the boundary issues of common importance to them. It was exactly the situation hoped for but through a different means.

In the end supervisors and The RC led the next part of this module together.

Following this, supervisors asked if they could have the opportunity to participate in an Action Learning Personal Development group such as we were offering students. This was not part of the original Mindshift proposal, but it

seemed so valuable in every way we went ahead with it, at our own cost, without prior agreements in the proposal.

## ***2. Consequences - arising from splits amongst supervisors***

The Renesse Introductory residential workshop included half of the supervisors only; the other half chose not to attend. Students worried that the discussion and approaches in the work we had done together would not be honoured by those absentee supervisors.

The premonition proved true, or at least was followed by intensified resistance to the work of The College amongst a group of the absentee promoters and supervisors.

### ***Positive outcome of friction – lessons learnt***

The conflict led us to explore the significance of this clash of behaviours and culture which we saw as illuminating assumptions and mindsets around what ‘network’ in science means.

The RC had not appreciated different assumptions in how the word ‘Network’ is used - and that it means something very different in an academia context from our own. For The Recess College, our understanding of the implied meaning of the term ‘network’ is of an innovative community of people/professionals, changing and building their organisational system through exploring options and talking about how they operate together as a learning organisation.

Professors as an ITN consortium had the same commitment to working together on research but not to the idea of ‘working at the way you work’ on things. Building a learning system cooperatively was not a primary objective in their minds.

### **Concepts of a Network**

One complicating factor in the RC partnership of in Mindshift was that we, as well as other sub-groups, had differing views of what the keywords meant:

***organisation, network, collective.***

*Formally - a system, complex and interconnected  
system/structure, complex system/arrangement, nexus*

*Informally - a grapevine, bush telegraph, old boy network*

## Different perspectives of networks held in this ITN

**Majority view** - an *administrative / academic mechanism* for pushing the boundaries of research, as one in which professors can collaborate, interchange on their themes, integrating some approaches.

A view held by the majority of professors and non-academics.

Similarly,

*an academic mechanism – but administered from traditional perspective of power and influence* using assumptions of power and hierarchy held by individuals in their own departments, and not in the light of a shared collective.

**Sceptical view** – *mechanism for a group of professors to come together, get the money - and run (with their own research project).*

A view that commonly quoted– wryly - though not personally owned.

**Social/management, training & development view** - *a cohesive community where people work together, create ground rules and agreements on working relationships, reflect on decision-making, skills, and overall, meet the demands of the task collectively as well as individually.*

*Comment:* Organisations like The Recess College are likely to interpret a network in the light of a Learning Organisation\*, operating as a living organism.

The Recess College started with this last view not realising the difference of starting points. Supervisors started with either of the first two views, but mostly the first as a mechanism for promoting collaboration and a huge opportunity to promote meaningful research.

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\* “PETER SENGE – The Fifth Discipline” (2005)

A manager's guide to leadership: an **action learning** approach. Mike **Pedler** (Mike John), 1944- John **Burgoyne** (John G.); Tom **Boydell** (2010)

## ***The push and pull political power-move to expel the Recess College***

The Supervisory board was presented with a *fait accompli* motion to remove The RC from Mindshift, by the most senior professors in the ITN. They said they were speaking on behalf of the ESRs, as the wish of the whole consortium of Mindshift.

It is not clear how Mindshift members were consulted, though the move was presented in the ITN's Supervisory Board as if with the authority of the whole consortium. We experienced the initial rejection as truly difficult at a human level in its own right, but at the same time we began to see it as a valuable form of data.

If we accept the Co-ordinator's view of a network links being of 'weak, rather than well-formed' relationships, this proposal left the Supervisor members of the Committee in a quandary, and rather speechless. At that point they appeared neither to be ready to endorse the work of The RC nor, in fact, to reject it.

The moment, we gather was full of insecurity. The Co-ordinator who sponsored The RC personally did not speak up.

The ESR representative on the committee pointed out that ESRs had not been consulted; this was not their viewpoint. ESRs found The Recess College and development track valuable; how could anyone know, without having been present at the ESR workshop.

### ***Shift to tolerance - via third party***

Rejection shifted into tolerance at the EU Mid-term Feedback meeting at the Glasgow Course week where Laurence Marrama-Rakotoarivony<sup>1</sup>, Marie Curie Project Officer at the European Research Executive Agency, Belgium met the students of this ITN privately. As part of her feedback evaluation, she congratulated Mindshift and valued highly how well Mindshift was doing in developing such a vibrant network of ESRs at such an early stage of the ITN.

This was a positive tipping point for The RC as Mindshift valued being valued! The RC was no longer a pariah target – or, the image comes to mind, an unwanted immigrant group - by a small though important sub-group.

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<sup>1</sup> [https://op.europa.eu/en/web/who-is-who/person/-/person/REA/REA-CRF\\_234758-00006AA34232-000000FC3C--](https://op.europa.eu/en/web/who-is-who/person/-/person/REA/REA-CRF_234758-00006AA34232-000000FC3C--)

This was one situation where we as “non-academic” and non-beneficiary could not have defended our position. It tipped the balance towards real acceptance. We were a mixture of amazed, impressed, relieved and very happy that the ESRs stood up at this moment in time to protect something that they valued.

### ***Power struggle representing wider trends and tensions in academia***

The move to expel The RC was experienced by us as a power struggle for the soul of the network, the culture of learning in the ITN. We sensed this incident represented an even more fundamental struggle at a wider level of national concerns and ambitions - implicitly being enacted in miniature in Mindshift.

This tension is around the future culture of academia – in particular how academia recruits, holds and develops the scientists of the next generation. The question of academic culture was not only relevant within Mindshift but is debated widely as questions of ‘social safety’ in Northern European academic institutions. Social safety is seen to be connected intimately with the human/employee retainment consequences of top-down methods of handling power and recognition.

Openness to change at the macro-level is matched by resistance to it. Conflict arises over which is valuable – whether the direction, style and culture of academia should be more inclusive and transparent organisationally - or not. Resistance appears to link with traditions of career progression being held firmly, at the centre, hierarchically, along with opaque rather than open decision-making patronage, and conventions of research publication.

Essentially personal development lends itself to ‘democracy’ in an organisational rather than political sense. It involves the ‘democracy’ of working with the tension of reconciling bottom-up and top-down interests and views. Personal development leads to organisational change. People learn to say what they think and work to be collaborative. This develops more inclusive, transparent, responsive ways of operating, empowers people to speak their truths and to suggest how to make their contribution. Not necessarily wildly but on behalf of equitable interactions round experience, knowledge and resources – people are not left dangling.

## **Phase Two: Tolerance / interested / waiting to see**

On the surface this period in Mindshift may have seemed to be a bit stagnant. Underneath, there may have been a lot more happening, in terms of a quiet reappraisal of values over the idea of social and personal development, how we could support the PhD task for supervisors and ESRs.

The first year, from Glasgow Course week, up to and after the Padua meeting had been a sort of ‘no-man’s land’ – a period of what it felt like inactivity or no movement though some student activities took place.

In retrospect, this looks like a time of gradual sea-change of values about the social and personal development, in other words the value of a relational focus, a forwards and backwards movement in which different supervisors at different times, started to connect and started to use our support. Another analogy was there was a lot of toe-in, toe-out. They got into conversation with us talking about different views of what was needed for student. Such conversations became easy and ‘non-political’ but individual.

### *Private value but public void*

As an example, momentum within Action Learning was developing, important issues being discussed amongst both ESRs and supervisors in their different groups (see overviews of Action Learning themes). These Action Learning groups had the quality of being private choice rather than public event of acknowledgement by the people involved, not changing the way we were viewed institutionally. This period coincided with the start of serious projects and lab experiments being set up.

Our online seminars for ESRs continued.

## **Phase Three: Acceptance and Relevance**

Two drives emerged in working in supervisors working with The Recess College in this period, now in a way that would not have been openly tolerated at the beginning, namely,

### **A hunger for more on supervision**

### **Desire for student role in personal development**

- Working on supervision was *the one key area* that the daily supervisors would have liked
- A very real hunger amongst a core of supervisors for understanding more about supervision, thinking about and fine-tuning the art, as the last phase of achievement came in sight.

- Clear wish to reflect on and delve into the nature of the personal and individual qualities of supervision.

Real discussion of the demands, processes and aims for individual students in supervision, became clearly what most supervisors wanted more of, and could have offered earlier had we not been divided by the ambiguity of the mismatching factors of our entry into the consortium

**The tipping point towards real partnership** started in the Padua Course week. With a first glimpse of our value for the ITN of our focus on the relational aspect of the mentor-mentee role and practice

We gave

- i. A short session which enabled supervisors and ESRs to have a conversation on the dynamics and arrangements of their own Mentor-mentee relationship.
- ii. ‘Handling Difficult Conversations:’ preprogramme workshop we facilitated was made open to all, supervisors and students.
- iii. A questionnaire for supervisory pairs to discuss in person the way their relationship worked. To our surprise going through the questions together student and supervisor was seen as helpful by the body of the ITN as a whole

The questionnaire gave the two sides of the supervisor relationship a way of discussing the strength and the gaps in their relationship together without judgement but with curiosity. We worried the consortium might reject this as strange and intrusive. In fact, it turned out that the supervisors and ESRs valued the structured opportunity of looking at their relations.

### **Happy accident of RC research interviews**

Strangely enough across the whole Mindshift group, the *round of individual and then threesome research interview meetings* between supervisor, student and our researcher/facilitators turned out to be key in deepening the relationship. On several occasion The RC was invited to contribute in the sessions to help on difficulties when relationship or current conversations were stuck / as a resource to break patterns.

At this point – after the turmoil of a difficult entry and a long apprenticeship on the part of the RC in gaining acceptance, it became clear that many supervisors would have welcomed greater space to explore the mentor-mentee relationship



had it been set up and accepted with clarity, right from the beginning as part of our contract in a living relationship with supervisors.

### **The character of Research interviews changed**

Real value in thinking about supervision at second round of interviews: Supervisors began to tell us experiences and concerns with their ESR, inviting our help in the joint interview meeting. A number of supervisors asked us to use the research interviews to facilitate a purposeful conversation with their ESR.

Sometimes this was about misalignment where they had different views or needed to make agreements on expectations and future methods for setting timelines & plans. For others, it was getting nearer to mutual understanding of different positions.

### **Desire for students to gain the most in development**

Suggestions on acquiring skills that will help them in their role as resourceful scientists –

- Basic and operational ones - such as presentations skills
- Relational ones - such as managing interpersonal communication and setting objectives, managing time
- Collegial experience - in which supervisors met the students more than half-way - for students to practice their leadership, event facilitation and influence in joint areas of the functioning of the Mindshift as an ITN

It was clear supervisors that took pleasure in and supported the ‘flowering’ extra-quality of self-reliance and influence amongst students both individually and as a group.

# Value of The Recess College as Development Partner

## Introduction

The ESRs said it best: “you don’t need to prove that your (RC) efforts were successful; we are the living proof of what you have done for us in this programme.”

The inclusion of a developmental partner meant that the development went far beyond what otherwise could have been expected from an individual PhD journey. The key academic focus operated in combination with students’ growing professional capacity to collaborate with peers, with supervisors, facilitate interactions and events, communicate and handle difficult settings.

ESRs have a clear view of their own contribution and the need for discrimination. They can discern differences in academic settings, are aware of the need for their contribution and leadership, in terms in developing future academic cultures rather than retaining either conformist or oppositional positions.

Only in retrospect we realised that we find ourselves operating in a way so profoundly based on the principles of developing learning in an organisation as a system.

## The Recess College was

### Part of the system not external to it

- Able to interpret what and why something is happening
- What is valuable in a living system

### Able to do this by joining / having the same yet different experience

- triangulating our experience with that of students and supervisors

### Acting as a ‘Third eye’ in Mindshift

- Matching and mismatching
- Helped take away blockages

*Matching and mismatching:* as a ‘third eye’, being both separate and part of Mindshift, we were able to provide a learning loop or ‘mirror’ on individual and collective relationships as these unfolded over the three years.

*Blockages:* moved towards clarity in being both efficient and effective, whether in individuals and collectively in the Network

## **Our unique access and contribution in the supervisor/student relationship in**

- Identifying what is happening at a given moment / when matching and mismatching in relationships in delivery of research is helpful and when not
- Accelerating understanding

## **Avenues and mechanisms to enable ‘unsticking’ patterns**

Offering avenues for confronting the patterns of an individual and / or those within the system for people in Mindshift at whatever their own level to:

- Go beyond the default position of relying on personal courage to tackle blockages and create change
- Counter the effects of going ‘solo’ whether running the system, handling university and other bureaucratic requirements, making arrangements, or dealing with complex and key relationships

## **Value of a Development Partner for Mindshift - rather than Trainer**

Partnership role is as a development track provider is a ‘double-loop<sup>2</sup>’ activity – of working - yet below the surface - with an enterprise to find out what is needed in an emergent and responsive way, always keeping track of what would be timely and relevant as well supporting the organisation to stretch its vision and capacity. In contrast, a trainer’s first order responsibility is offering skills to enable people to do things better.

## **Trainers are primarily in the business of transferring skills**

- Bringing prepared services for specific needs
- Training for specified skills
- Focus on predetermined areas
- Are in and out of the system, negotiating with it, not necessarily engaging in it
- Not in a position to challenge or discuss purpose and the rationale for activities.

## **Partnership from The RC perspective**

### ***For the Network***

Partnership meant we were involved in the act of developing the approaches to think and re-thinking the progress of research and development of the students.

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<sup>2</sup> Double Loop Learning in Organizations by Chris Argyris <https://hbr.org/1977/09/double-loop-learning-in-organizations>

Being part of the action  
Geared up to making it work  
Having influence  
Using our own experience as a form of data enabling us to:  
    Decide on activities emergently  
    Identify specific needs in timing and phases  
    Stay relevant to the Mindshift objectives

### ***For students***

The greatest boon that The RC offered was the opportunity and facilitation of student bonding. This was a vibrant counterweight to the important relationship with supervisors; Real involvement in their personal journeys in and outside Action Learning; Personal and emotional development as peers, professionals.

### ***For supervisors***

The RC presence in the network, allowed and encouraged supervisors to go beyond their transactional exchange of resources and focus on only the professional relationship. The Action Learning enabled them to both get in touch about what they wanted more of in terms of working together, working with their student, the network itself and the culture of academia.

### ***For the EU***

As we see it, an ITN is a temporary initiative that can be used as a ‘laboratorium’ to experiment with new ways of working and as such as a catalyst for changing academic culture. An ITN is both tied into and separate from existing academic institutions. A developmental partner can help bring out and work with new ways of working using both the desired and present work values.

Our understanding as another outcome of partnership in this ITN, is that as well as ‘*developing talent, advancing research*’, the momentum of academic networks may be in a position to greatly influence the viability of the way higher education and academia is able to work and draw in quality researchers and their science research.

### **The value of Participant Observation and Action Research Approach**

These methodologies acknowledge the usefulness of being part of the field you study and are working in.

Thinking back, it was such a boon to be part of Mindshift as a non-academic partner with a role of delivering developmental activities. It meant we

understood a great deal of what was happening ‘on our pulses’ - the emotions we and others were feeling as well as the tasks and duties. Our job was to contribute to empowerment of ESRs for their current and future roles. Inherently, we operated as both participants and observer. This involves bringing together and handling the elements of the role as:

Not neutral, through being separated but part of it having, reflecting on our own experiences

A discipline of reflecting on your own actions as much as those of others

Experiencing the progression of concerns, outcomes, challenges ourselves

Triangulating our experiences with that of students, supervisors to interpret the culture and identify activities.

**In conclusion, the value of a partner in a living, learning system**

As a developmental partner engaged in a living system, we learned about the ITN of Mindshift personally, in a way that allowed us to come close, to discriminate what is purposive about it, and achieves outcomes. We began to understand the culture at depth and, as part of the Network, to influence collaborative thinking for supervisors as well as students.

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The concluding part of the Mindshift Report includes key insights and recommendations for the EU towards building sustainable innovative training/doctoral networks in the future.

## **Chapter 12: Recommendations on Development Inputs based on the MINDSHIFT experience**

### **Introduction**

An ITN is a temporary initiative that can be used as a ‘laboratorium’ to experiment with new ways of working and as such can additionally be seen as a catalyst for changing academic culture. An ITN is both tied into and separate from existing academic institutions. A developmental partner can be instrumental by helping supervisors bring out and deliver fresh and practical perspectives across desired, wished for and present work practices and values.

The rationale for including a development partner within an ITN is not only to accelerate science innovation and development of future researchers, but also to enlarge the frame of reference for current and future workforce development and widen its impact. Working with the implications of the networked structure of an ITN, widens the grasp and understanding of the system of education that they deliver, by supervisors and students alike.

It is also timely. Students are being educated *for the future*. Supervisors have potential for affecting current academic norms and practices in their own institutions *now*. This offers immediate transferability from the ITN into ‘actionable knowledge’ within their own academic spheres to the benefit of student and collegial relationships.

There are therefore four levels of recommendation:

- 1 The ITN as a change agent & means of influence in academia
- 2 Developing best practice formation in an ITN – the ITN as a learning system for students & supervisors
- 3 Equipping more ITNs as learning systems & Learning as a whole system
- 4 Template for facilitating an ITN development track - elements involved in partnership for best practice for running an ITN as a ‘learning organisation’ for research and professional development

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### ***For the EU***

#### **1 ITN as a Change Agent & Means of Influence in Academia**

**Recommendations on the value of a development partner in an ITN**

**To reproduce and extend the learnings from working together in the ITN and look for applications in the wider academic institutional setting**

- i. To use the ITN model as a ‘laboratorium’ for active engagement in influencing and leveraging the wider academic culture, practice and inter-university arrangements. To link with issues of efficiency, efficacy and social safety in universities at a significant period of debate in academic institutions in managing systems and structures of co-working in science.
- ii. Discuss with interested parties the policy and practice implications where such parties might find these useful for their own work
  - the supervision findings and potential
  - the system and organisational learning

This sharing of new ways of working and collaborating developed within an ITN happens at the moment at best on an ad hoc basis – not as a series of inter-organisational conversations between ITN and partner universities. Having a conscious and guided conversation between parties enables innovations developed within the ITN to be transferred and adopted.

If this model is of use, the EU could consider to include this aspect into the grant proposal format to raise awareness on institutional transfer of new ways of working / best practices developed within an ITN.

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*For the EU and policy & grant giving organisations*

## **2 Developing Best Practice Formation in an ITN – the ITN as a Learning System for Students & Supervisors**

- i. **At the inception of the grant:**  
**a working agreement with supervisors to focus on their own development in their central and critical role in handling the ITN, the system that delivers education.**  
*We discovered many key direct supervisors were open to self- & organisational development for themselves once they understood its benefit and impact on student development, educational coherence and collaboration.*
- ii. **For supervisors to collaborate and experiment with active experience of moving beyond individual and loose alliances towards working collectively, addressing common and possibly hitherto unshared practices in supervision.**  
 This further includes organisational ability to take soundings, consult, negotiate and demonstrate sustainable decision-making in relation to the unique task of educating a new cohort of young researchers for a newly combined science and knowledge field that is currently underserved in the existing academic setting. In other words,

move beyond being a group to a team, with members contributing to the whole whilst working on discrete areas and contributions.

The ESRs are new to network and without prior experience are more open to a group and network-oriented way of working.

iii. **Inclusion of self-study research of the ITN in delivering best practice supervision.**

To set up discussion of differences in the practice of supervision as these affect students, involve supervisors in developing the potential of ground-rules and norms of best practice that they then are willing to recommend to others. After an initial agreement on the scope and range, shadow consultancy of supervision using a consultative methodology of development to be introduced where supervisors can discuss the stages of development of the students' engagement in their research life and practice.

iv. **Auxiliary Funding for Supervisors in an ITN**

to consider whether to offer a supplementary financial support to enable this level of involvement by supervisors in a transitional stage of action enquiry. For an exploratory phase requiring extra investment on the part of supervisors, these science professionals would need to be given more time and involvement both online and in person than usual in a network programme.

v. **Longitudinal study of efficacy**

**To extend and fund in-depth longitudinal research on the impact of MINDSHIFT as a pilot**

In addition to studies undertaken by the EU, The Recess College would like to collaborate in following the development of the MINDSHIFT students and the roles they take in the future. This includes identifying the values they bring into work both at the beginning of their career and as they grow into positions of influence, whether in academia or commerce.

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*For future ITN leadership, EU and policy & grant giving organisations*

### **3 Equipping more ITNs as Learning Systems & Learning as a Whole System**

i. **For internal working & viability of a development track to promote a partnership role as basis of the development track.**

Partnership - as distinct from external trainer involvement - offers opportunity for co-working on emergent learning as different groups come together for a common goal and to develop a programme organisation that is fit for purpose to discover, deliver and learn. It further enables the practice of evolving new norms for discriminating best academic practice and organisational behaviour.



ii. **Certification of Network facilitation - to continue and roll out the option of certification of facilitation for supervisors and students.**

A world-first award was created and run through The Recess College and validated by the Association of Facilitators with:

*The objective*

- *For both students and supervisors* - it ignites personal self-awareness in the skills of being able to manage their side of the supervision relationship

- *For supervisors specifically* - it shed light on the ability to be explicit in managing the line between coaching on objective research, developing the student as a person in their role, and in handling concerns of being sucked into too great involvement in areas (therapeutic) for which they feel not equipped

*To be noted, in MINDSHIFT all students took the option of certification. After completion of the programme, a third of the daily supervising professors volunteered to undertake this self-and peer/colleague appraisal and certification (at their own costs).*

iii. **Facilitation of ITN Co-ordinators by EU:**

- **To offer a facilitated workshop for recent *Network Co-ordinators*** to identify successes, blockages, areas of support or improvement that might have made their life and accomplishment easier or more effective.

- **Coupled with offering regular facilitated Action Learning sessions for the future cohort of Co-ordinators.**

iv. **Follow up / further research**

Investment by the Marie Skłodowska-Curie Programme in a specifically selected tranche of ITNs operating with this wider remit, involving a developmental track. Using comparison of this group with a control group: to identify the value and efficacy of personal, professional and organisational development for the benefit of students and its current and future influence.

v. **Building capability and capacity across a wider field - to offer consultancy and promotion of network facilitation to widen resources for more groups to offer development tracks to ITNs.**

If the EU finds the inclusion of a development track inside an ITN of value to its life, health and impact, it may choose to include this way of working into as many ITN programmes as possible. The Recess College would welcome the opportunity and challenge to train other development track partners building up a resource pool.

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*For the leadership of future ITN consortia*

## **4 Template for Facilitating an ITN Development Track**

**Template of elements involved in partnership for best practice in running an ITN as a learning organisation for research and professional development**

*To note - we regard these as being of value within the life of an ITN. However, the art of a successful and unique ITN programme will be in the consortia deciding its own timing – ‘when to do what’. These recommendations are more specific, at a lower granular level.*

## **Template of elements for best practices- events & activities**

### **1. Preparatory Support for Building the ITN as a Learning Network**

**Development of a system to deliver**

*In person-meeting*

This involves clarification of what supervisors do in order to create an overall environment for the PhDs to work. This preparation requires a formation period, space and dedication for creating the system they will run, namely formulating working agreements, sharing norms, values and expectations. Once these norms are hammered out between professors with very different defined supervisory and organisational practices, the work of committees can be accelerated and operated in a smooth-running way with less interference of contradictory or unspoken agendas.

After receiving the grant agreement, the consortium needs to set up:

- i. **A two-day preparatory event for supervisors on their own, ironing out how to:**
  - Refresh the reality of their projects in the light of current reality
  - Review and revise how to work together on the programme
  - Identify relationships between projects and secondments

- Integrate leadership on shared projects / multidisciplinary research, how supervisors work together how to induct students (avoiding dilemmas of asking untried students to lead shared interfaces at the start).

ii. **Recruitment process**

Sessions together and online with Development Partners to identify the raft of specifications of academic and personal qualities in the recruitment of ESRs. Co-supervisors iron out the kind of candidate they need (not meet each other during the interview and then start their thinking – an ad hoc approach).

iii. **Identifying/arranging secondments, their integration & purposefulness**

Beyond the work in subcommittees – create a collective agreement: present individual agreements between supervisors to the group as a whole (agreed by the whole / to make it firm). Supervisors get to know each other and start work on the principles of their work relation- a way to go beyond administrative contracting and arrangements.

## 2. **Facilitating Development Support for Supervisors and Students**

### *For supervisors*

- Action Learning for supervisors with a facilitator-** four times per year of programme, for free discussion on managing the interface between own & other work, their own university demands and personal life (enormously valued in Mindshift).
- Supervision Facilitated sessions** developing best supervisory practice with supervisors. Four times per year of programme on differentiation of:
  - initial contracting between ESR to Supervisor and Supervisor to Supervisor
  - on-going management and handling the emotional interactions, blockages and breakthroughs within both research work and coaching of students in role.

### *For Doctoral candidates*

Facilitating their growth through stages of learning and unlearning past research and personal experiences as they grapple with the demands of research

- Action learning for ESRs with a facilitator-** four times per year to discuss challenges and successes as they confront the required adaptation of their identity in a new setting and often new culture.
- Development of a peer network** - Students time together without supervisors present to build lateral relationships. Three workshops over the programme at

beginning, middle and end of programme. Value of this is immense both for the immediate and for the future of their science and personal network. This ESR bonding is hugely facilitative in terms of knowing each other and their research work, support on secondments & emotional and social development

- v. **Lectures (mostly) on-line** - of students own choosing, that supports their engagement and understanding of their changing role as a PhD – such as time management, presentation skills, handling difficult conversations.

***Interactive Support for Supervisors and Doctoral Candidates***

- vi. **Facilitated on-line meetings with supervisors and students as part of yearly assessments** These were highly welcomed as an opportunity for revisiting and reviewing the original work contract, reciprocal expectations and support in forward planning
- vii. **Workshops during the programme with Supervisors & ESRs** Meet three times together so they can work as peers not only with their own supervisor but with the whole ITN organisation – the demands, responsibilities accountability of being in a privileged and demanding role and learn how to grow in it and together at key points to clarify co-working and roles in the research.

### **3. Continuing the Certificate on Network Facilitation**

The conditions for this Certificate in Network facilitation offers the following opportunities

***For students to create:***

**a self-led student initiative for learning key facilitation skills in professional settings** – on group and team development- in which they: choose the topic, promote & take ownership with the aim of learning how to handle negotiations, facilitate group discussion, participant interactions and acceptable outcomes.

***For Students and Supervisors:***

**A structured self-appraisal two-day workshop leading to certification: on own awareness in working with and through others**

**For students – brings self-awareness** of own behaviours and facilitation of others, early in their careers and relevant for their future work as leaders and managers in their chosen fields

**For the daily/direct supervisors – captures professors' contribution** to the overall facilitation of the learning process, their contribution to purpose and effectiveness of a network system of research delivery, styles of collaboration, self-awareness of own responses and reactions in coaching skills for their students.

## 4. Approaching Supervision Collectively

If the aim, next to developing ESRs, also includes innovative research, it is vital to provide a new extended approach to supervision, which would involve:

- i. **Six-weekly supervisors' supervision discussion groups** - sessions between small groups of supervisors on how they train their student and coach them personally. We discovered a great hunger for this coupled with some defensiveness about the huge variation in approach in different universities, departments and countries, personal commitment and openness toward the reality of the way a given student engages.
- ii. **For supervision to be a key project for next ITNs** - with supervisors identifying the granular experience of working effectively with professionalism and personality and on the basis of this to make recommendations for next ITNs - to assess what worked and did not work
- iii. **Option of joint triangular meetings for supervisor/team, student and facilitators** on clarifying their expectations at key junctures.

## 5. System and Organisational Development

- i. **Support committees**  
Development partner provides reflective moments to take stock of how a committee is working, reassess its objectives, its relation to other committees, and how its members want to work going forward.
- ii. **Research connections and areas of promise**  
Similarly, support for the network to decide how and when it is ready to assess the connections between existing research projects, where frontiers get pushed beyond the known and where areas of promise lie that need to be explored in the future.
- iii. **ITN evaluation: research, training, supervision relations, network development, ways of working.**  
Supporting the network as it evaluates together interactively how it functioned and what lessons can be learned for future endeavours. The knowledge is not primarily captured on paper but rather via the people who are present.

# The Recess College

The Recess College offers consultancy on change and development to organisations, personal consultation to individuals, and leadership and organisational development programmes. These stand out as life-enhancing in grasping what leadership means for the work of organisations and for individuals, personally in their life and roles.

The Recess College was brought in as a partner to support the EU MINDSHIFT programme as a *training ground and future predictor* for Early-Stage Researchers to negotiate good working relationships and effective delivery, both for the outcome of their current research and for their *future career*.

## Web and contact details

For any information, visit [www.recesscollege.org](http://www.recesscollege.org) or write to [administration@recesscollege.org](mailto:administration@recesscollege.org)

## Acknowledgements

### Lead Author:

**Elisabeth Henderson**, Founder and Director of The Recess College, with huge support from *Willem Moolenburgh*, and editorial support by *Maninee Karnik*.

With gratitude to the team of interviewers & Action Learning facilitators of The Recess College who gave dedicated time, beyond the call of duty, to ensure the quality of interviews with students and supervisors and subsequent write-ups: *Cheryl Brooker, Willem Moolenburgh, Erik Faber, Maninee Karnik, Marco de Graaff, Dame Perdita Hunt, Blanche Schroen & Mark Preston*. Also, to *Cecile Schut* and *Erik Faber* for their expertise in the blind modelling from the interview data. A special thanks to *Prof. Will Mandy* of University College London for his early, encouraging suggestions to follow a qualitative and thematic analysis approach.

And most importantly, an especially deep ‘Thank you’ to our Mindshift partners for their willingness and collaboration in exploring the impact of the development track on their programme. To the Coordinator, Administrator, Supervisors and ESRs of the Mindshift ITN, real appreciation for your contributions and your agreement to share the material, the learning and the experience.