International evaluation of the societal impact of NFA 2024

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Glossary

Al	Artificial intelligence
AT	Working Environment Authority, Denmark Arbejdstilsynet
BEU	Committee of Employment of the Danish Parliament Folketingets Beskæftigelsesudvalg
BFA	Sectoral Work Environment Communities Branchefællesskaber for arbejdsmiljø
ВМ	Ministry of Employment Beskæftigelsesministeriet
NFA	National Research Centre for the Working Environment, Denmark Det Nationale Forskningscenter for Arbejdsmiljø
OSH	Occupational safety and health
R2P	Research to practice

Key messages

Examples of what's going well that should be celebrated

- Continuing rigorous, independent research specific to the Danish labour market
- Documentation of societal impact through a new survey instrument
- More proactive in engaging stakeholders in setting research priorities
- Greater focus on tailoring communications to the needs of different audiences

Examples of opportunities for improvement in upstream impact

- With existing resources
 - Increase among scientific staff their awareness of and sensitivity to political context and decision-making processes in the Ministry of Employment and AT
 - Increase focus on evaluating scalable solutions
- With existing resources if workflows can be re-organized
 - Increase the timeliness of (at least some) primary research, such as with rapid evaluations, rapid behavioural/implementation research, and rapid qualitative insights (e.g., from conception to completion in 3-6 months)
- With new resources
 - o Increase even more the timeliness of primary research (e.g., from conception to completion in 3-6 weeks)
 - Increase the timeliness of secondary research (or 'evidence support'), such as by summarizing what has been learned from existing evidence syntheses and existing Scandinavian primary studies (e.g., in 2-5 business days)

Examples of opportunities for improvement in downstream impact

- Continue improving communications with AT at multiple levels to ensure mutual understanding and greater alignment, which includes more collaboration or coordination on tool development and more collaborative efforts to identify actionable insights arising from research
- Organize more meetings with key players in BFAs and with OSH training providers, who are the gatekeepers to many sectors, and encourage more win-wins and avoid (where possible) duplicative work

Examples of opportunities for improvement in communications

- Establish quarterly meetings between communications staff and R2P staff to review what projects are near fruition, and collaborate on planning for (including seeking stakeholder input about) messaging and communication modalities
- Increase focus on deriving practical and action-oriented insights for specific upstream decision-makers and practical and action-oriented implications for categories of downstream practitioners

Executive summary

Introduction

The purpose of this evaluation was to assess and make recommendations about how to improve the institutional performance of the Danish National Research Centre for the Working Environment (NFA according to its Danish acronym) with regard to its societal impact. The evaluation covers the period 2020-2023. This evaluation of NFA's societal impact was conducted alongside but independent from an evaluation of NFA's academic impact.

NFA defines its societal impact as the occupational, health-related, political, social, and/or economic improvements that are wholly or partially, directly or indirectly, influenced by NFA's research and research results.

Methods

Three experts in societal impact conducted the evaluation, with each also bringing some complementary perspectives, notably with one more focused on upstream impact, one more on downstream impact, and one more on communications and impact assessment. We relied primarily on two types of inputs: 1) existing documentation produced by or for NFA; and 2) interviews with key NFA staff and stakeholders. Specifically we reviewed 135 documents, of which 46 we deemed to be high priority. During the site visit we conducted 16 interviews with 24 individuals (and two meetings had to be cancelled). Following the site visit, one of us conducted a group interview with two individuals.

We organized our high-level observations into the three sections suggested in our terms of reference: 1) design of NFA's societal-impact strategy; 2) organization of NFA to deliver on this strategy; and 3) implementation of the strategy. We also developed a set of more actionable findings, which we grouped into examples of what's going well that should be celebrated as well as three types of opportunities for improvement, namely upstream impact, downstream impact, and communications.

Findings

We made the following high-level observations:

- the design of NFA's societal-impact strategy is remarkably thoughtful, including the research-to-practice (R2P) strategy, the communications strategy, the model of pathways to influence, and the societal impact instrument
- 2) the organization of NFA to deliver on this strategy largely makes very good sense, including the performance contracts for research directors and professors and the job descriptions for research-impact specialists and project leaders
- 3) the implementation of the strategy has advanced a great deal, including the significant attention that has been given to actively engaging AT.

We also noted that some aspects of implementation had just come together, such as the research-impact specialists only having recently been hired.

We identified many examples of what's going well that should be celebrated as well as some opportunities for improvement – for upstream impact, downstream impact, and communications – and these are summarized in the preceding 'Key messages' section.

Discussion

Our evaluation had three main strengths: 1) panelists' complementary perspectives; 2) extensive documentation reviewed; and 3) site visit and rich interviews with diverse NFA staff and stakeholders. The main weakness of our evaluation is it is very difficult to 'parachute' into a complex organization and a complex labour-market system and to make sufficient sense of it based on documents and a two-day site visit in order to generate actionable findings. Any errors of omission or commission are those of the evaluators.

Our findings are difficult to compare to the principal previous evaluation, which was conducted before NFA had made such progress with its R2P strategy and other elements of its approach to achieving societal impact, and before the NFA had implemented its instrument for measuring (downstream) societal impact. We did note that some important elements of the NFA's research-to-practice and communications strategies correspond to recommendations for improvement made in the previous evaluation of the NFA's societal impact (e.g., tailoring of communications modalities and content to target groups; engaging with stakeholders before and during (multiple stages of) the research process).

Report

Introduction

The purpose of this evaluation was to assess and make recommendations about how to improve the institutional performance of the Danish National Research Centre for the Working Environment (NFA according to its Danish acronym) with regard to its societal impact. The evaluation covers the period 2020-2023. This evaluation of NFA's societal impact was conducted alongside but independent from an evaluation of NFA's academic impact. The cost of the evaluation was covered by NFA, which must ensure that any evaluation of its work be carried out in accordance with the executive order on evaluation of government research institutes (The supporting regulation can be found here: Bekendtgørelse om evaluering af sektorforskningsinstitutioner (retsinformation.dk.))

NFA defines its societal impact as the occupational, health-related, political, social, and/or economic improvements that are wholly or partially, directly or indirectly, influenced by NFA's research and research results.

The target audiences for NFA's policy-oriented (upstream) impact are primarily the Danish Ministry of Employment, the Danish Working Environment Authority (AT), the Employment Committee of the Parliament (BEU), labor-market stakeholders, other relevant authorities in Denmark.

The target audiences for NFA's practitioner-oriented (downstream) impact are primarily the so-called 'knowledge brokers' that work in or provide services to public and private enterprises, including occupational safety and health representatives in the legally mandated occupational safety and health organizations, instructors in occupational safety and health education, consultants in employer-, sector- and employee organizations, and labour inspectors from AT. Managers and workers in workplaces are a secondary target audience. Clinicians involved in the care of injured workers are not considered a target audience.

Methods

The evaluation was conducted by three experts in societal impact, with each also bringing some complementary perspectives – one more focused on upstream impact (John Lavis),(1), one more on downstream impact (Ron Saunders),(2), and one more on communications and impact assessment (Marianne Lykke),(3). The evaluation panel was appointed by the NFA board based on a recommendation from the Innovation Fund Denmark. The panel was supported with practical assistance by the NFA (e.g., sharing documentation and arranging meetings) but the panel itself operated independently of the Danish Ministry of Employment, including NFA.

The evaluation relied primarily on two types of inputs:

- existing documentation produced by or for NFA
- interviews with key NFA staff and stakeholders.

The evaluation unfolded temporally as follows:

- the chair met virtually with the NFA support team (Steffen Bohni, Sara Kabel Pedersen, and Kathrine Frimann Jensen) on 9 February to learn more about the context for the evaluation and the available documentation
- the panelists met virtually on 2 April, 26 April and 24 May to plan their work, to
 discuss emergent themes from their document review, to agree the types of
 individuals they would like to interview, and to develop draft interview guides (and for
 these meetings they invited two members of the NFA support team Sara and
 Kathrine to join near the end of the call to answer questions)
- between meetings, the panelists read the existing documentation (including additional documentation that they requested) and asynchronously edited shared documents that were initially developed by the chair (e.g., an assessment table to capture key observations on the documents provided by the NFA, key themes that each wanted to explore in the interviews, a listing of the proposed type of interviewees, and draft interview guides)
- the NFA support team identified representatives of each type of interviewee, scheduled interviews with them, and shared with them the draft interview guide corresponding to their role
- the panelists conducted a site visit on 6 and 7 June and, as part of the site visit, the
 panelists conducted in English in-person or virtual interviews, initially starting with key
 questions from the relevant pre-circulated interview guide and transitioning over the
 two days to starting with a request to react to the panel's preliminary ideas for how to
 make NFA more timely, focused on scalable solutions, and practical
- after the site visit, one of the panelists (ML) conducted a group interview virtually, in Danish, with two individuals whose interviews could not be scheduled during the site visit
- after the site visit and these additional interviews, the chair drafted first a list of key messages and then the full report and the other two panelists asynchronously suggested additions and edits to these drafts.

The penultimate draft was then shared with the NFA support team for fact-checking and the panel had final authority over which suggested corrections to act upon.

We provide in appendices the documents reviewed (appendix 1), schedule of interviews (appendix 2), proposed and confirmed interviewees (appendix 3), and draft interview guides (appendix 4). One draft interview guide was for NFA staff who developed and execute the approach to achieving societal impact, a second was for representatives of NFA's policy-oriented impact (upstream) target audiences, a third was for representatives of NFA's practitioner-oriented impact (downstream) target audiences, or knowledge brokers, and a fourth was for representatives of organizations that engage both NFA's policy-oriented (upstream) and practitioner-oriented (downstream) target audiences.

Findings

We reviewed 135 documents, of which 46 we deemed to be high priority,(4-49) and we conducted 17 interviews with 26 individuals (and two meetings had to be cancelled). All of the interviews were conducted during the site visit, with the exception of a group interview — conducted by one of us (ML) — with one of the two individuals who had to cancel their interview, as well as one other individual for whom an interview could not be scheduled during the site visit. We had full discretion in which additional documents we requested, which types of interviewees were approached, how we conducted the interviews, and how we drafted our report.

High-level observations

We have organized our high-level observations into the three sections suggested in our terms of reference:

- 1) the design of NFA's societal-impact strategy
- 2) the organization of NFA to deliver on this strategy
- 3) the implementation of the strategy.

First, we concluded that the design of NFA's societal-impact strategy – specifically both the research-to-practice (R2P) strategy (9) as well as the communications strategy (11) – are remarkably thoughtful, reflective of the research literature on achieving research impact, the NFA's experience with their stakeholders, and the previous review of societal impact.

Particularly noteworthy are the commitments to:

- tailoring communications to target groups (as recommended by the previous evaluation (44))
- emphasizing action-oriented knowledge and tools
- making use of stakeholders' own communication channels
- engaging with stakeholders before and during (multiple stages of) the research process, which responds to a recommendation of the previous evaluation (44)

- having regular dialogue with key stakeholders, especially 'bridge builders', about research priorities and findings
- measuring traffic on website, social media activity, reach of newsletter (and emphasizing these channels)
- enhancing R2P competencies
- incorporating impact objectives in all new research applications
- using both impact survey and impact case studies.

In addition, the NFA framework for thinking about impact, showing pathways to outputs, intermediate outcomes and 'final' outcomes (see, for example, 43) seems sound. It is – as noted in NFA documents – similar to the <u>research-impact model</u> used by the Institute for Work & Health.

We offer the following evidence in support of the conclusion that the R2P and communications strategies are sound:

- the R2P strategy,(9) which concentrates the centre's focus on approaches to achieve both upstream and downstream societal impact, reflected the available science and best practices in the area when it was developed in 2020
- key presentations on the organization's approach to achieving societal impact reflect a sophisticated and steadily evolving understanding about pathways to influence (41; 42)
- the impact instrument and its rigorous development process constitute an important global contribution, (48) the ongoing use of the instrument reflects a strong commitment to grounding the centre's learning and improvement in objective measures, and the efforts to bring the instrument to wide attention are commendable (46)
- the impact cases provide complementary support for the centre's efforts (31)
- the communications strategy reflects best practices (11)
- the examples of digital products and the social media statistics are compelling (8; 33)
- the effort to contribute to the scientific literature, such as the paper on 'policy utilization,' is commendable.

We would also note that:

- the R2P field has moved a long way in the last four years and now may be a good time to update the R2P strategy and perhaps have a separate strategy for upstream and downstream impacts
- the impact instrument, like any instrument, has its pros and cons
- (as we return to below) it may be helpful to increase the number of impact cases documented each year (and ensure the cases cover a mix of upstream and downstream impacts).

We expand here on our second point (about the impact instrument). It is a useful tool that captures an overall assessment of the reach and use of the NFA's research and we recommend that it continue to be used by the NFA. However, it is important to recognize several limitations.

- It does not measure 'end' outcomes (impact on worker health and safety), though
 reach and use are preconditions for achieving such outcomes. Measuring final
 outcomes on worker health and safety at the level of the institution would be
 practically impossible, but this limitation of the instrument should be more clearly
 recognized.
- The instrument does not seem to capture stakeholder relationships or engagement in the research process. It would be useful if the questionnaire included a few items about these, as one would expect strength of relationship/degree of engagement to influence research use.
- The assignment of numbers to create a scale is inherently somewhat arbitrary. For example, in some of the questions, 25 points are assigned for 'knowledge but no use' and there is a grading from 50 to 75 to 100 for low, medium and high use. Does low use really indicate half the impact of high use? Related to this problem, the summing of all scores, unweighted, to create an index number, assumes each question has equal importance (although the team has attempted to find studies indicating what the weighting should be).

Second, we concluded that the organization of NFA to deliver on this strategy largely makes very good sense, and we offer the following evidence in support of this conclusion:

- the performance contracts for research directors and professors helpfully support the centre's focus on societal impact (18; 19)
- the job descriptions for research-impact specialists and project leaders also helpfully support the centre's efforts to have stakeholders use NFA research, and to document societal impact (20; 21).

Third, we concluded that the implementation of the strategy has advanced a great deal, and we offer the following evidence in support of this conclusion:

- the societal impact survey instrument is being used annually and demonstrating incremental improvements
- significant attention has been given to actively engaging AT (22-24; 34)
- a number of initiatives have been put in place to strengthen relationships with a broad range of other stakeholders (as reflected in documents 6.10 and 7.6-7.10), including consultations when preparing grant applications, more regular engagement of stakeholders in the research process as well as dialogue with stakeholder groups (including twice yearly meetings with a 'company panel' of representatives from private firms) about research priorities, research findings, etc.(50-54)
- NFA is responding positively to recommended improvements in its relations with upstream stakeholders
- data on social media views and followers show an upward trend 2021-2023 (document 6.2l from Communication Day 2023).(55)

Regarding the first point, the global index shows an improvement from 41.3 in 2021 to 42.6 in 2022 to 44.2 in 2023 (document 6.2k, p.11).(56) It shows relatively high scores for usability, with lower scores for reach and use. (However, it is difficult to know what constitutes a good score since this is a new instrument.) The overall index shows

relatively low scores for employer organization representatives, work environment inspectors, and union representatives (document 6.3b, table 8).(57) In one of our interviews with NFA staff, they noted that they are using such findings to help identify under-served clients.

Regarding the third point, many of the stakeholders we interviewed confirmed that they are involved in NFA research and in priority setting, that this is happening more than was the case in the past, and that the NFA has made a greater effort in recent years to meet the needs of those who use its research. One stakeholder commented that in the last two years, they have come to think of the NFA more as "knowledge partners".

Regarding the fourth point, the societal impact instrument focuses on downstream users and does not address use by the policy community (i.e., upstream stakeholders). However, there was an external report on upstream impact (document 6.1a, which is dated January 2023 and based on 30 interviews) that indicates that NFA is seen as trustworthy, relevant, and influential.(58) The report also documents differences within this community about preferred forms of communication, with politicians wanting inperson briefings in non-technical language, while civil servants want access to more detailed information and data. The report recommends more engagement with upstream parties on setting the research agenda and, in particular, more dialogue with AT. Indications that NFA has been responding positively to these recommended improvements in its relations with upstream stakeholders, especially the AT (per document 7.9), including:

- · more frequent meetings to discuss strategic priorities
- informing the AT about the NFA's research application pipeline
- consulting the AT on emerging issues
- involving AT in the "follow-up groups" regarding research projects, and
- more closely coordinating communications and ensuring they incorporate actionable insights.(59)

This multi-pronged response is admirable.

Regarding the fifth and final point, data on social media views and followers show an upward trend 2021-2023. Document 7.11 indicates that NFA has completed several analyses of its target audiences in order to better tailor communications to their needs and preferences, and the NFA has changed the approach in its website to focus on 'knowledge brokers' rather than researchers.(60)

We did note that some aspects of implementation had just come together, such as the research-impact specialists only having recently been hired. There is an opportunity to strengthen coordination between R2P and Communications staff, as we note below.

Actionable findings

We have organized our more **actionable findings** into four sections:

- 1) what's going well that should be celebrated
- 2) opportunities for improvement in upstream work

- 3) opportunities for improvement in downstream work
- 4) opportunities for improvement in communications.

We have further divided the opportunities for improvement in upstream work – to make NFA more timely, focused on scalable solutions, and practical – into three sub-sections:

- 3a) with existing resources
- 3b) with existing resources if workflows can be re-organized
- 3c) with new resources.

First, we identified **what's going well that should be celebrated**, with the first being a continuation of a tradition, the fifth being a new development, and the other three being trends:

- continuing rigorous independent research specific to the Danish labour market
- more proactive about engaging stakeholders in setting research priorities (e.g., through the 'umbrella' advisory committees and more frequent meetings with the AT about strategies) and in offering to be helpful and organizing meetings, and more responsive when asked for help
- more intervention research (i.e., more focus on solutions, not just problems like hazards), plans for costing (to enable return-on-investment analyses and 'best buys'), and improvements to organizational culture, including receptiveness to input
- greater focus on tailoring communications to the needs of different audiences, digital modalities (e.g., social media, webinars, videos) and plain-language communication (e.g., fact sheets), as well as more measured communications of content (e.g., fewer media 'bombs')
- documentation of societal impact through a new survey instrument, and transparent tracking of project-related staff, collaborating individuals and networks, descriptions, themes, outputs, and dissemination activities through a research-information system (Pure) – example: https://nfa.elsevierpure.com/en/projects/de-smukke-unge-mennesker.

Second, we identified six opportunities for improvement in upstream impact:

- with existing resources
 - o increase among scientific staff their awareness of and sensitivity to political context and decision-making processes in the Ministry of Employment and AT, which includes getting ahead of emergent issues (e.g., AI), being attentive to predictable windows of opportunity (e.g., new political agreement in the autumn), and being clearer in communications with the minister and parliamentarians about what was found in research and what caveats apply to it
 - increase focus on evaluating scalable solutions (e.g., solutions that lend themselves to country-wide application with light-touch ongoing support and as distinguished from resource-intensive solutions that are primarily feasible under the unique conditions of a research project)
 - increase focus on supporting behaviour change (e.g., among firms) once the problem has been documented and scalable solutions identified – and hence invest more in behavioural/implementation research
- with existing resources if workflows can be re-organized

- increase the timeliness of (at least some) primary research, such as with rapid evaluations, rapid behavioural/implementation research, and rapid qualitative insights (e.g., from conception to completion in 3-6 months)
- with new resources (which may range in scale from a small-scale pilot like one undertaken in Canada for 2.5 million Danish Kroner to a more fulsome pilot)
 - o increase even more the timeliness of primary research (e.g., from conception to completion in 3-6 weeks)
 - increase the timeliness of secondary research (or 'evidence support'), such as by summarizing what has been learned from existing evidence syntheses and existing Scandinavian primary studies (e.g., in 2-5 business days).

The last four opportunities could be considered part of a second 'track' for creating value with research, alongside the existing track of in-depth research (e.g., from conception to completion in 2-5 years). The final of these last four opportunities may require, as has been the case in Canada, for it to 'be seen to be believed' (and to understand why it could become part of the 'new normal'). One interviewee who one would expect to benefit significantly from timely, demand-driven evidence support didn't currently appreciate the value. We note that many of these opportunities would also open up the possibility of increasing support to European Union processes (e.g., in DG Employment and EU OSHA).

Third, we identified three opportunities for improvement in downstream impact:

- increase among scientific staff their knowledge about contexts and mind-sets of companies
- continue improving communications with AT at multiple levels to ensure mutual understanding and greater alignment, which includes more collaboration or coordination on tool development and more collaborative efforts to identify actionable insights arising from research
- organize more meetings with key players in BFAs and with OSH training providers, who are the gatekeepers to many sectors, and encourage more win-wins (e.g., having BFAs acknowledge NFA as a source where possible) and avoid (where possible) duplicative work (e.g., detailed communications to enterprises of different types could be considered duplicative work whereas apps and insights that can be applied to many types of enterprises would not be duplicative).

We note that it may also be helpful to explore why some sectors like construction have been less engaged to date.

Fourth, we identified four **opportunities for improvement in research-to-practice and communications**:

- establish quarterly meetings between communications staff and R2P staff to review what projects are near fruition, and collaborate on planning for (including seeking stakeholder input about) messaging and communication modalities
- increase focus on deriving practical and action-oriented insights for specific upstream decision-makers and practical and action-oriented implications for categories of downstream practitioners

- continue improving the website, which includes making digital communication
 products (e.g., videos) more visible and findable, possibly complementing them with
 journalistic stories about macro and micro level impacts, and possibly placing NFA
 research alongside broader research understandings (e.g., evidence synthesis about
 solutions to complement evidence about a problem) and AT regulations and
 guidance (but likely not alongside BFA tools and other products)
- continue enhancing the documentation of impact, including through:
 - o additional case studies (e.g., to profile the role of intermediaries)
 - o documenting 'final' outcomes (improvements in worker safety and health).

Regarding the last point, measuring final outcomes on a project basis where data and funding permit would be valuable. It is resource-intensive, unless the clients do the analyses themselves, and can take years to complete (especially where longitudinal data are needed), but worth doing on occasion to illustrate the achievement of 'final' outcomes.

We note that the second opportunity is particularly important when communicating with the minister and, through the minister's letter and a research summary, with parliamentarians.

Discussion

Principal findings

The design of NFA's societal-impact strategy is remarkably thoughtful, including the research-to-practice (R2P) strategy, the communications strategy, the model of pathways to influence, and the societal impact instrument. The organization of NFA to deliver on this strategy largely makes very good sense, including the performance contracts for research directors and professors and the job descriptions for research-impact specialists and project leaders. The implementation of the strategy has advanced a great deal, including the significant attention that has been given to actively engaging AT. Some aspects of implementation had just come together, such as the research-impact specialists only having recently been hired.

More concretely, we identified many things that are going well that should be celebrated, with the first being a continuation of an NFA tradition, the fifth being a new development and the other three being trends: 1) rigorous, independent research specific to the Danish labour market; 2) more proactive about engaging stakeholders in setting research priorities (e.g., through the 'umbrella' advisory committees) and in offering to be helpful and organizing meetings, and more responsive when asked for help; 3) more intervention research (i.e., more focus on solutions, not just problems like hazards), plans for costing (to enable return-on-investment analyses and 'best buys'), and improvements to organizational culture, including receptiveness to input; 4) greater focus on tailoring communications to the needs of different audiences, digital modalities (e.g., social media, webinars, videos) and plain-language communication (e.g., fact sheets), as well as more measured communications of content (e.g., fewer media

'bombs'); and 5) documentation of societal impact through a new survey instrument, and transparent tracking of project-related staff, descriptions, themes, outputs, and dissemination activities through a research-information system (Pure).

Strengths and weaknesses

The main strengths of our evaluation were: 1) engaging three experts in societal impact who bring such complementary perspectives; 2) extensive documentation made available for review (135 documents); and 3) site visit and rich interviews with such diverse NFA staff and stakeholders (16 interviews with 24 individuals, followed by one group interview with two individuals by a single panelist).

The main weakness of our evaluation is it is very difficult to 'parachute' into a complex organization and a complex labour-market system and to make sufficient sense of it based on documents and a two-day site visit in order to generate actionable findings. Any errors of omission or commission are those of the evaluators.

Findings in relation to previous evaluations

Our findings are difficult to compare to the principal previous evaluation,(44) which was conducted before NFA had made such progress with its R2P strategy and other elements of its approach to achieving societal impact, and before the NFA had implemented its instrument for measuring (downstream) societal impact. Much of the previous evaluation involved surveys of and interviews with NFA stakeholders, whereas our evaluation had the benefit of access to data on impact collected by or for the NFA.

We have noted that some important elements of the NFA's R2P and communications strategies correspond to recommendations for improvement made in the previous evaluation of the NFA's societal impact. These include:

- tailoring of communications modalities and content to target groups
- engaging with stakeholders before and during (multiple stages of) the research process.

Implications for policy and practice

We identified six opportunities for improvement in upstream impact, three of which are do-able with existing resources (increase among scientific staff their awareness of and sensitivity to political context and decision-making processes in the Ministry of Employment and AT, increase focus on evaluating scalable solutions, and increase focus on supporting behaviour change among firms), one of which is do-able with existing resources if workflows can be re-organized (increase the timeliness of at least some primary research), and two of which are do-able with new resources (increase even more the timeliness of primary research and increase the timeliness of secondary research, or 'evidence support'). We identified three opportunities for improvement in downstream impact: increase among scientific staff their knowledge about contexts and mind-sets of companies, continue improving communications with AT at multiple levels

to ensure mutual understanding and greater alignment, and organize more meetings with key players in BFAs and with OSH training providers, who are the gatekeepers to many sectors, and encourage more win-wins. Finally, we identified four opportunities for improvement in communications: establish quarterly meetings between communications staff and R2P staff to review what projects are near fruition, and collaborate on planning messaging and communication modalities, increase focus on deriving practical and action-oriented insights for specific upstream decision-makers and practical and action-oriented implications for categories of downstream practitioners, continue improving the website, and continue enhancing the documentation of impact, including through additional case studies and 'final' outcomes where feasible.

Implications for future evaluations

We learned two lessons with this evaluation that may be helpful in future evaluations: 1) it would improve the efficiency of the process to prepare a small number of bespoke documents, or at least to send only the priority documents, which we determined to be at most 46 of the 135 documents that were sent (rather than have each panelist have to review a very large number of highly overlapping documents); and 2) it would save a lot of time if all documents written in Danish were converted to English using Google Translate before being sent to English-speaking panelists (rather than have the chair manage this translation process).

Appendices

Appendix 1: Documents reviewed

- 135 documents were received, mostly in Danish and then translated into English by a colleague of the panel chair's using Google Translate
- 46 documents were deemed a priority (and these are highlighted in green in column 3 below and noted as 'Priority' in column 5)
- 2 documents were not yet available at the time of report preparation (4.4, which was expected to be published in July or August, and 7.4, which was expected in May)
- 2 documents could not be fully translated (4.5 and 6.9b)

	Document name	Description (with priority ones highlighted)	Lang (da/en)	Status / priority
1.	Governing and strategic documen	ts		
1.1	Vedtægt for NFA	The statutes for NFA	Da	
1.2	NFA's strategi 2019-2022	NFA's Strategy 2019-2022	Da	
1.3	NFA's strategi 2021-2024*	NFA's Strategy 2021-2024	Da	Priority
1.4	Kommunikationsstrategi*	Communication Strategy 2021- 2024	Da	Priority
1.5	Research to practice strategi*	Research-to-Practice Strategy 2020	Da	Priority
1.6	NFA's mål- og resultatplan 2020	NFA's target and result plan 2020	Da	
1.7	NFA's mål- og resultatplan 2021	NFA's target and result plan 2021	Da	
1.8	NFA's mål- og resultatplan 2022	NFA's target and result plan 2022	Da	
1.9	NFA's mål- og resultatplan 2023	NFA's target and result plan 2023	Da	Priority
1.10	NFA's årsrapport 2020*	NFA's annual review 2020	Da	
1.11	NFA's årsrapport 2021*	NFA's annual review 2021	Da	
1.12	NFA's årsrapport 2022*	NFA's annual review 2022	Da	
1.13	NFA's årsrapport 2023*	NFA's annual review 2023	Da	Sent on 5/4 Priority
1.14	NFA's årsberetning for 2020*	NFA's annual report 2020	Da	
1.15	NFA's årsberetning for 2021*	NFA's annual report 2021	Da	
1.16	NFA's årsberetning for 2022*	NFA's annual report 2022	Da	
1.17	NFA's årsberetning for 2023*	NFA's annual report 2023	Da	Sent on 5/4 Priority
1.18	The organization of societal impact and the R2P strategy	Your questions; "How is NFA's work with societal impact organized?" and "Does NFA have a Research-2-Policy-strategy?" are answered is this document.	Eng	Sent on 5/4 Priority

		The referenced documents are		
		numbered 1.19, 1.20, 2.3 and 2.4.		
1.19	Resultatlønskontrakt, forskningschef, Andreas Holtermann, 2023	Example: Performance contract for a Research Director (Andreas Holterman, 2023). The other performance contracts for Research Directors are comparable to this	Da	Sent on 5/4 Priority
1.20	Resultatlønskontrakt, professor, Lars L. Andersen, 2023	Example: Performance contract for a professor (Lars L. Andersen, 2023). The other performance contracts for professors are comparable to this	Da	Sent on 5/4 Priority
1.21	NFA's governance	NFA's governance	Da/Eng	Sent on 5/4 Priority
1.22	Addressing 'clinicals' in NFA's strategy	Your question; "Why are 'clinicals' not mentioned as part of NFA's knowledge brokers?" is answered in this document	Eng	Sent on 5/4 Priority
2.	Job structure and descriptions			
2.1	Cirkulære om stillingsstruktur for videnskabeligt personale ved sektorforskningsinstitutioner	Circular on job structure for scientific staff at sector research institutions	Da	
2.2	Funktionsbeskrivelser*	Function descriptions at NFA	Da	
2.3	Funktionsbeskrivelse for research impact specialister	Job description for the research impact specialists	Da	Sent on 5/4 Priority
2.4	Funktionsbeskrivelse for research impact projektleder	Job description for the research impact project leader	Da	Sent on 5/4 Priority
3.	Previous evaluation reports			
3.1	Evalueringsrapport om NFA's akademiske aftryk for perioden 2014-2019.	The international evaluation of the scientific impact of NFA for 2014-2019.	En	
3.2	Evalueringsrapport om NFA's samfundsmæssige aftryk for perioden 2014-19.*	The evaluation of NFA's societal impact for the period 2014-2019.	Da	Priority
3.3	Engelsk resume af rapportens konklusioner og anbefalinger.	Summary in English of the report's conclusions and recommendations.	En	Priority
3.4	Bestyrelsens redegørelser om opfølgning på evaluering af videnskabeligt og samfundsmæssigt aftryk (2021)*	The document is a statement of the Board of NFA regarding the recommendations presented in evaluations of the scientific impact and the societal impact to the Minister of Employment.	Da	Priority
4.	National strategies and agreement	<u></u>		
4.1a	Trepartsaftale om prioriterede nationale mål for arbejdsmiljøindsatsen (2020) inkl. bilag 1-5*	Tripartite agreement on prioritized national goals for working environment efforts incl. annex 1-5 (2020)	Da	

Silag-1-aktoeremes-ansvar-og-robret-for-de-nationale-arbejdsmiljoemaal Silag-2-affalt-opfoelgning-paanationale-mal-for-arbejdsmiljoemsalsen Appendix 2: Agreed follow-up on nationale-mal-for-arbejdsmiljoemsalsen Appendix 2: Agreed follow-up on nationale-arbejdsmiljoemsal Annex3: Selected sectors for the national working environment glost Annex3: Selected sectors for the national working environment effort Annex3: Selected sectors for the national working environment glost Annex3: Selected sectors for the national working environment glost Annex3: Selected sectors for the national working environment glost Annex5: Tasks of the working environment council Da Annex5: Tasks of the working environment council Da Annex5: Tasks of the working environment touncil Da Annex5: Tasks of the working environment research, Ministry of Employment 2020. Affale on en fremtidssikret arbejdsmiljoindsats og indsats mod social dumping (2023) incl. faktaark Annex5: Tasks of the working environment and efforts against social dumping incl. fact sheet (2023) Agreement on a future-proof working environment and efforts against social dumping incl. fact sheet (2023) Agreement on a future-proof working environment research (VIVE - The Danish Center for Social Science Research) Da Expected in July/Augu st; not received Annex5: A targeted regulatory effort by authorities, improved and more understandable occupational safety and health goals closer to workplaces. A targeted regulatory effort by authorities, improved and more understandable occupational safety pregulation, and Research, knowledge production, and dissemination closer to workplaces. Argeeted regulatory effort by authorities, improved and more understandable occupational safety properties Argeeted regulatory effort by authorities, improved and more understandable occupational safety properties Argeeted regulatory effort by authorities, improved and more understandable occupational safety properties Argeeted regulatory effort b					
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	5.4	Ergonomisk Arbejdsmiljø 2021-	Musculoskeletal disorders 2021-	Da	

5.5	Forskningsprogram for Psykosocialt arbejdsmiljø 2021-2024	Research Program for Psychosocial Work Environment 2021-2024	Da	
5.6	Forskningsprogram for Sikkerhedskultur og arbejdsulykker 2021-2024	Research Program for Safety Culture and Occupational Accidents 2021-2024	Da	
5.7	Description from evaluation 2020: Chemical working environment	Description of Research Area from evaluation in 2020: Chemical working environment	En	
5.8	Description from evaluation 2020: Musculoskeletal disorders and physical working environment	Description of Research Area from evaluation in 2020: Musculoskeletal disorders and physical working environment	En	
5.9	Description from evaluation 2020: Occupational accidents and safety culture	Description of Research Area from evaluation in 2020: Occupational accidents and safety culture	En	
5.10	Description from evaluation 2020: Psychosocial working environment	Description of Research Area from evaluation in 2020: Psychosocial working environment	En	
6.	Societal impact			
6.1a	Ekstern rapport om upstream aftryk 2022 samt metodebilag*	External report on upstream impact 2022 incl. method appendix	Da	Priority
6.1b	Metode og interviewguide - NFA Upstream evaluering	Method and interview guide - NFA Upstream evaluation	Da	Priority
6.2a	Eksterne oplæg om samfundsmæssig impact	External presentations on societal impact	En	Priority
6.2b	AESIS Institutional societal impact 2023-05-24 final	AESIS Institutional societal impact 2023-05-24 final		Priority
6.2c	Impactinstrument - NFA-KU	Impact instrument - NFA-KU		
6.2d	Impactinstrument - NFA - NIVA 2021	Impact instrument - NFA - NIVA 2021		
6.2e	Impactinstrument - NFA - AT	Impact instrument - NFA - AT		
6.2f	Impactinstrument - NFA - IWH 2022	Impact instrument - NFA - IWH 2022		
6.2g	Impactinstrument -AT 2022	Impact instrument -AT 2022		
6.2h	Impactinstrument - IWH 2023	Impact instrument - IWH 2023	En	Priority
6.2i	AESIS conference 2023 - challenge driven research full	AESIS conference 2023 - challenge driven research full		Priority
6.2j	AESIS conference 2023 - Monitoring Societal Impact	AESIS conference 2023 - Monitoring societal impact		
6.2k	Perosh keynote 2023 Sorensen - injecting research into policy and practice	Perosh keynote 2023 Sorensen - Injecting research into policy and practice		
6.21	Oplæg KL konference - NFA	Presentation KL conference - NFA		
6.2m	Præsentation for Stami januar 2024	Presentation for Stami January 2024		
6.2n	Præsentation for AT analyse og	Presentation for AT analysis and		Priority

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6.2o	Oplæg NNF om samfundsmæssigt	Presentation NNF on social		
()	aftryk 2023-11-23 Impactinstrument - NFA - AESIS	footprint 2023-11-23		
6.2p	2021 - distribution	Impact instrument - NFA - AESIS 2021 - distribution		
6.2q	AESIS Institutional societal impact 2023-05-24 final	AESIS Institutional societal impact 2023-05-24 final		
6.2r	About NFA Sheffield Group meeting 2023-06-20	About NFA Sheffield Group meeting 2023-06-20		
6.2s	NIOSH presentation 2022-11-04	NIOSH presentation 2022-11-04		
6.2t	SEDIRK slidedeck 2023-04-18	SEDIRK slide deck 2023-04-18		
6.3a	NFA's videnskabelige artikler og konferencepapirer om samfundsmæssigt aftryk*	NFA's academic articles and conference papers on societal impact	Da	Priority
6.3b	Impactinstrument-published-2020	Impact instrument published 2020	En	Priority
6.3c	Vogel - Nano impact	Vogel - Nano impact		
6.4a	NFA's dokumentationsrapporter om impactundersøgelserne 2020-2022	NFA's documentation reports on impact studies 2020-2022	Da	Priority
6.4b	NFAs Impactmålingsinstrument 2021 - background report - final	NFA's Impact measurement instrument 2021 - background report - final		
6.4c	NFAs Impactmålingsinstrument 2022 - background report - final	NFA's Impact measurement instrument 2022 - background report - final		
6.4d	23-09-14 Method description - upstream impact document trail	23-09-14 Method description - upstream impact document trail		
6.5a	NFA's ledelsesinformation om samfundsmæssigt aftryk*	NFA's management information on societal impact	Da	
6.5b	Til direktion om epinior-uddybning-	How do we pass on NFA's important knowledge?		Priority
6.5c	2020-12-21 Oplæg til direktionen	2020-12-21 Presentation to the management		
6.5d	2022-10-13 Præsentation for ledelsesgruppen september 2022	2022-10-13 Presentation for the management group September 2022		
6.5e	2022-12-15 Præsentation for udvidede ledelsesgruppe december 2022	2022-12-15 Presentation for extended management group December 2022		
6.5f	2023-12-01 Præsentation for direktionen december 2023	2023-12-01 Presentation to the Executive Board December 2023		
6.5g	2023-12-08 Impact målinger - præsentation for chefgruppen december 2023	2023-12-08 Impact measurements - presentation for the management group December 2023		
6.6a	Metodebeskrivelser af uddybende interviewundersøgelser	Elaboration of the background for the decline in the assessment of applicability in the NFA's measurement of societal footprint 2020 to 2021	Da	Priority

6.6b	Interviewguide til uddybning af undersøgelse fra Epinion-	Interview guide for deepening the study from Epinion-		
	Norstat revideret	Norstat revised		
6.7a	Faktaark om samfundsmæssigt aftryk	Fact sheet about societal impact	Da	Priority
6.7b	Faktaark-impactinstrument	Fact sheet impact instrument		
6.8	NFA's impact cases – oversigt 2020-2023 incl. impact cases*	NFA's impact cases – overview 2020-2023, incl. impact cases	Da	Priority
6.8a	2020 Kort resumé af impactcase om Dansk Center for Nanosikkerhed	2020 Brief summary of the impact case on the Danish Center for Nanosafety		
6.8b	2020 Kort resumé af Impactcase om målrettet træning i arbejdstiden	2020 Brief summary of the impact case on targeted training during working hours		
6.8c	2020 Kort resumé af impactcase om natarbejde, helbred og ulykker	2020 Brief summary of impact case on night work, health and accidents		
6.8d	2021 Impactcase om coronatrivseldk	2021 Impact case about corona well-being Denmark		
6.8e	2022 Dagligvarer Daglig praksis i butik	2022 Groceries daily practice in store		
6.8f	2022 Dagligvarer Indretning af butik	2022 groceries furnishing of shop		
6.8g	2022 Impactcase Fysisk arbejdsmiljø i dagligvarebutikker	2022 Impact case: Physical working environment in grocery stores		
6.8h	2023 NFA_Impactcase_om_forebyggelse _af_smerter (10)	2023 NFA Impact case on prevention of pain (10)		
6.8i	2023 NFA-Impactcase om Safety Observer-8kor FINAL	2023 NFA Impact case on safety observer		
6.9a	Interne modeller om samfundsmæssigt aftryk	Internal models of societal impact		
6.9b		NFA's social footprint in the field of chemistry		Image could not be fully translated
6.10	Notat om relationsopbygning	NFA's efforts in relationship building	Eng	Sent on 18/4 Priority
6.11	Artikel om OSH research's impact on decision making	Article on OSH research's impact on decision making	Eng	Sent on 23/5 Priority
7.	Other background material			
7.1	Procesdiagrammer for ansøgningsprocesser*	Process diagrams for application processes	Da	
7.2	Peer-reviewed artikler og formidlingsopgaver 2020-2023*	Peer-reviewed articles and dissemination presentations 2020-2023	Da	See individual ones below
7.2a	Peer reviewed articles_2020	Peer reviewed articles_2020		
7.2b	Peer reviewed articles_2021	Peer reviewed articles_2021		

7.2c	Peer reviewed articles_2022	Peer reviewed articles_2022		
7.2d	Peer reviewed articles_2023	Peer reviewed articles_2023		
7.2e	Presentations_2020	Presentations_2020		
7.2f	Presentations_2021	Presentations_2021		
7.2g	Presentations_2022	Presentations_2022		
7.2h	Presentations_2023	Presentations_2023		
7.3a	SoMe-statistik*	Social media statistics	Da/en	Benchmar k only available from 2023 Priority
7.3b	Benchmark 2023	Benchmark 2023		
7.4	Skema fra PEROSH-benchmarking	Overview of PEROSH benchmarking (Partnership for European Research in Occupational Safety and Health)	En	Expected May; not received
7.5	The Labour Market in Denmark*	Publication about The Labour Market in Denmark including key facts, collective bargaining, conflict resolution, and flexicurity.	En	
7.6	Oversigt over følgegrupper	List of stakeholder groups	Da	Sent on 18/4
7.7	Procesdiagram for ansøgninger	The application process	Da	Sent on 18/4
7.8	Kommissorium for virksomhedspanel	The company panel's terms of reference	Da	Sent on 18/4
7.9	Initiativer for styrket samarbejde mellem NFA og AT	Cooperation initiatives between NFA and AT	Da	Sent on 18/4 Priority
7.10	Kortlægning af interessenter del 1 og 2	Mapping of stakeholders part 1 and 2	Da	Sent on 18/4
7.11	Præsentation af kommunikationsindsatser (high impact)	Presentation of digital products (high impact)	Eng/da	Sent on 18/4 Priority
7.12	Mundtlige præsentationer (rådata)	Oral presentations (raw data)	Da	Sent on 18/4
7.13	Øvrig rådgivning (rådata)	Other consultant work (raw data)	Da	Sent on 18/4
7.14	Samarbejde med AT	Collaboration with AT	En	Sent on 27/6 Priority
7.15	Initiatives to enhance collaboration between NFA and AT	Initiatives to enhance collaboration between NFA and AT	En	Sent on 27/6 Priority
7.16	Status reports on collaboration initiatives September 2023 and January 2024	Status reports on collaboration initiatives September 2023 and January 2024	Da	Sent on 27/6
7.17	Oversigt over finansiering og fordeling af årsværk	Overview – annual accounts and staff over time	En	Sent on 27/6 Priority

7.18	Cover letters and briefing papers to BEU	Cover letters and briefing papers to BEU	En	Sent on 27/6 Priority
	ackground material not assigned a no e site visit	umber by NFA staff, and often hand	ded to the	panel at
8.1	Glossary of key terms: The 2024 evaluation of NFA's societal impact	Glossary of key terms: The 2024 evaluation of NFA's societal impact	En	Sent on 31/5 Priority
8.2	Testing a new set-up for dialogue between AT and NFA about new knowledge and knowledge needs	Testing a new set-up for dialogue between AT and NFA about new knowledge and knowledge needs	En	Sent on 6/6 Priority
8.3	Generic exchange and impact pathways	Generic exchange and impact pathways	En	Given on 7/6 Priority
8.4	R2P: Evaluation of the societal impact	R2P: Evaluation of the societal impact	En	Given on 7/6 Priority
8.5	Knowledge transfer and exchange: Shared spaces	Knowledge transfer and exchange: Shared spaces	Da	Given on 7/6 Priority
8.6	How we communicate	How we communicate	En	Given on 7/6
8.7	Research hidden in plain sight: Theorizing latent use as a form of research use	Research hidden in plain sight: Theorizing latent use as a form of research use	En	Sent on 5/7 Priority

Appendix 2: Schedule of interviews

Thursday 6 June

Time	Activity
9:00-9:30	Arrival and welcome to NFA, w. Director General Steffen Bohni
	Director General Steffen Bohni will welcome you and give you a quick tour of NFA, and show you to your designated office.
9:30-10:15	Interview 1.1 w. Director General Steffen Bohni
10:15- 10:30	Short break
10:30-	Interview 1-2: Jens Nørlem
11:00	Jens Nørlem is the Secretary Chief at PUF (Parternes Uddannelsesfællesskab).
	PUF is one of the largest providers of the mandatory OSH training in the regional and municipal labor market. ARBEJDSMILJØUDDANNELSEN (puf.dk)
	Jens is therefore an important knowledge broker in NFA's downstream approach to societal impact.
11:00-	Interview 1-3: Sine Frederiksen
11:30	Sine Frederiksen is the Director General of The Danish Working Environment Authority (AT).
11:30- 11:45	Short break
11:45-	Interview 1-4: Andreas Holtermann → Henriette Bjørn Nielsen
12:30	Andreas Holterman is Head of the Research Program Musculoskeletal disorders and physical working environment (MSB).
	Henriette Nielsen is Head of the two Research Programs: 1) Psychosocial Working Environment; and 2) Accidents and Safety Culture.
	They are supervisors for employees working with R2P at NFA.
12:30- 13:15	Lunch break
13:15-	Interview 1-5: Ole Henning Sørensen
14:00	Ole Sørensen is the R2P project leader at NFA and has had a leading role in the R2P work during the evaluation period.
	This interview will be held virtually.
14:00- 14:15	Short break
14:15-	Interview 1-6: Jesper Sørensen
14:45	Jesper Sørensen is the head of the Analysis & Behavior office at the Work Environment Authority (AT)'s Work Environment Technical Center (Arbejdsmiljøfagligt Center). Jesper collaborates extensively with the heads of research from NFA.

14:45-	Interview 1-7: Bent Horn
15:15	Bent Horn is a senior consultant in the Confederation of Danish Industry (DI)'s Department of Occupational Health Consulting.
	DI is Denmark's largest business and employers' organization, representing companies across a wide range of industries.
	Additionally, Bent serves as the vice chairman for BFA 5 (Transport, Service-Turism and Agriculture).
	Forside (bfa5.dk)
	The Sectoral Work Environment Communities (BFA's) are industry-specific partnerships focused on improving occupational health and safety standards within different sectors. The members of the BFA's consists of representatives from both employer- and employee organizations relevant to the specific sectors.
	Bent represents one of the social partners (the employer side), thereby representing both the upstream and downstream perspective.
15:15- 15:30	Short break
15:30- 16:00	Interview 1-8: Peter Klingenberg
10.00	Peter Klingenberg is the Secretary Chief of BFA Welfare and Public Administration.
	Godt arbejdsmiljø for velfærd og offentlig administration (godtarbejdsmiljo.dk)
	The Sectoral Work Environment Communities (BFA's) are industry-specific partnerships focused on improving occupational health and safety standards within different sectors. The members of the BFA's consists of representatives from both employer- and employee organizations relevant to the specific sectors.
	Peter is therefore an important knowledge broker in NFA's downstream approach to societal impact.
	This interview will be held <mark>virtually.</mark>
H	
16:00-	Interview 1-9: The communication team at NFA
16:00- 16:45	Interview 1-9: The communication team at NFA Sara Kabel Pedersen is the head of the Executive office and Communications.

Friday 7 June

Time	Event
9:15-9:45	Interview <mark>2-2</mark> : Inger Wesenberg Sandgrav
	Inger Sandgrav is the head of the Psychological and Ergonomic Work Environment office at the Work Environment Authority (AT)'s Work Environment Technical Center (Arbejdsmiljøfagligt Center). Inger collaborates extensively with the heads of research from NFA.
9:45-10:15	Interview 2-3: Anette Heen
	Anette Heen is the Course Director for the Confederation of Danish Employers (DA)'s Occupational Health and Safety training program (AMO).
	The DA's is one of the largest providers of the mandatory OSH training.
	Arbejdsmiljøkurser I hele landet DA arbejdsmiljøuddannelse (dakurser.dk)

	Anette is therefore an important knowledge broker in NFA's downstream approach to societal impact.
10:15- 10:30	Short break
10:30- 11:00	Interview <mark>2-4</mark> : Søren Kryhlmand
	Søren is the Permanent Secretary at the Ministry of Employment and former Director General of the Danish Working Environment Authority (AT).
11:00- 11:45	Interview <mark>2-5</mark> : Josina Moltesen & Andreas Jeppe Larsen
	Josina is the head of the office for Occupational Health and Safety at the Ministry's Center for OHS, Pensions and Analysis.
	Andreas is Head of Section in Josina's office, and works as a case handler.
11:45- 12:15	Transport to NFA by taxi
12:15- 13:00	Lunch break
13:00-	Interview 2-6: Lisbeth Kjersgård → changed to a virtual interview in August
13:30	Lisbeth Kjersgård is an occupational health policy consultant in the Danish Trade Confederation (FH).
	FH represents workers' interests and works to improve labor conditions. As one of the social partners, they play a key role in the Danish labor market model. Lisbeth is also a member of NFA's board. Lisbeth thereby represents both the upstream and downstream perspective.
13:30-	Interview 2-7: Charlotte Martin
14:00	Charlotte Martin is the Secretary Chief of BFA Construction.
	BFA Bygge & Anlæg - arbejdsmiljø i bygge- og anlægsbranchen - bfa-ba.dk
	The Sectoral Work Environment Communities (BFA's) are industry-specific partnerships focused on improving occupational health and safety standards within different sectors. The members of the BFA's consists of representatives from both employer- and employee organizations relevant to the specific sectors.
	Charlotte is therefore an important knowledge broker in NFA's downstream approach to societal impact.
	This interview will be held virtually.
14:00- 14:15	Short break
14:15- 15:00	Interview <mark>2-8</mark> : Stina Vrang Elias
	Stina Elias is the Chairman of the Board of NFA, and therefore plays a crucial role in NFA's strategic focus on societal impact.
	Additionally, Stina is the CEO of the Think Tank DEA.
15:00-	Interview 2-9: R2P personnel of NFA
16:00	This interview will include NFA employees who have been involved in the work with societal impact during the evaluation period, as well as the newly hired R2P specialists.

	Johnny Dyreborg, Senior Researcher, Accidents and safety culture
	Anne Helene Garde, Professor, Psychosocial Working Environment
	Ninna Maria Guldager Wilstrup, Research Assistant, Musculoskeletal Disorders and Physical Working Environment
	Stine Dandanell Garn, R2P Specialist, Musculoskeletal Disorders and Physical Working Environment
	Kristine Tarp, R2P Specialist, Psychosocial Working Environment
	Marie Svensmark Krag, R2P Specialist, Psychosocial Working Environment
16:00- 16:45	Check in and interview with NFA's Director Steffen Bohni
	This is the last interview, and here you will have the opportunity to ask Steffen Bohni any questions that may have arisen during your visit.

Appendix 3: Proposed and confirmed interviewees

Categories	Priorities
NFA staff	Board chair: 2-8 (Stina Vrang Elias)
	Director: 1-1 (Steffen Bohni)
	Vice director (administrative, communications, digitalization)
	Lead for social-impact strategy: 1-5 (Ole Henning Sorensen)
	Research impact staff: 2.9* (Ulla Birgitte Vogel, Johnny Dyreborg et al.)
	Two (of 4) supervisors of research impact staff: 1-4 (Andreas Holtermann &
	Henriette Bjørn Nielsen
	Communications staff: 1-9 (Sara Kabel Pedersen & Maja Frovin Andersen)
	Researchers who have been involved in communications like videos (several in
	one interview): covered by 1-5 and 2-9
Target audiences	Deputy (highest-ranking public servant; previously a DG at AT): 2-4 (Soren
for NFA's policy-	Kryhlmand)
oriented (upstream)	Strategic policy and program staff: 2-5 (Josina Moltesen & Andreas Jeppe
impact	Larsen)
	Specialist consultants and case handlers: 2.5 (combined with above)
	BEU politician: None could be scheduled
	• International stakeholders (e.g., EU-OSHA) if they are likely to have impact in
Torget audieness	Denmark: to be covered by Steffen (1-1) and by social partners (see below)
Target audiences for both upstream	Director from AT and her key staff: 1-3 (Sine Frederiksen), 1-6 (Jesper Sorensen), 2-2 (Inger Wesenberg Sandgrav)
and downstream	Employer representatives: 1.7 (Bent Horn; DI; also chair of BFA5-Transport,
impact: AT and	Service, Tourism, Agriculture); Christina Sode Haslund (DA) who ended up not
social partners	being interviewed by Marianne
'	Worker representatives: 2-6* (Lisbeth Kjersgard; FH) and Ulrik Spannow (3F)
	who were interviewed together by Marianne on 13 August
Target audiences	Intermediaries (BFAs – industry bodies) who communicate research to
for NFA's	companies: 1-8 (Peter Klingenberg; BFA welfare & public administration), 2-7*
practitioner-	(Charlotte Martin; BFA Construction)
oriented	People involved in the strategic work with educators (AMO education; Marianne
(downstream)	has lived it): 1-2 (Jens Norlem; PUF), 2-3 (Anette Heen; DA)
impact	Representatives of occupational health clinics (that are located in hospitals)
N - 4 - 4 - 4 - 1 / 5 A / 10	(DMKs): not considered to be important intermediaries (but more collaborators)

Note that the VFA (Working Environment Knowledge Centre) closed in 2019

Appendix 4: Draft interview guides

NFA staff who developed and execute the approach to achieving societal impact

Note that some questions will be more germane to some staff

- 1) What are the current strengths and opportunities for improvement in the research-to-practice strategy and the communications strategy?
 - a. In how they are conceptualized?
 - b. In their execution?
 - c. In ongoing learning and improvement?
 - d. In how you're organized to execute them and to learn and improve?
- 2) Why is there no corresponding evidence-to-policy strategy (is it that the research-to-practice strategy is meant to cover both downstream and upstream stakeholders?) and, more importantly, why is there no evidence-support strategy (see secondary questions for the upstream audience for a sense of what we mean*)?
 - a. Do your messages take into account volume, currency, quality, and local applicability of the evidence underpinning them?
 - b. What are you doing to complement (or guard against the potential downsides of) incentivizing research impact (which can create 'noise' and partial answers to complex questions from many researchers and organizations promoting only their own work or only their own forms of evidence)?
 - c. What are your approaches to influencing international institutions with significant influence on Danish regulations (e.g., OECD, EU, EU-OSHA)?
- 3) Specific questions emerging from our document review (which will be asked only of relevant staff)
 - a. Strategies: Why are health professionals largely missing from the approaches (is it that you focus almost exclusively on prevention and very rarely on return to work after injury)? Are we correct that you made a decision to not invest significantly in evidence synthesis and, if so, why (given that bodies of knowledge are more commonly used as the unit of focus for generating actionable insights)?
 - b. Communication content/messages: How do you tailor your messages to different target audiences to ensure it is applicable and actionable in practice?
 - c. Communication modalities: Do you agree that social media can contribute to visibility, while webinars, podcasts and videos can be better media for conveying and communicating more detailed information? Do you have the right mix of media types currently? How do you tailor your modalities to different target audiences? How do your email responses and presentations fit into the mix?
 - d. Staffing and workflows: How was the number and placement of R2P staff decided? How do R2P staff and communications staff coordinate their work with one another? How fluent are scientific staff in ways to meet the needs of target audiences?
 - e. Survey instrument: Why does it not cover relationships, engagement in the research process, and contextualization processes (i.e., pathways) alongside its existing focus on reach, usability and use? Why does it not distinguish types of use (e.g., instrumental, conceptual and symbolic)? Might the scoring give a false sense of precision, particularly given the lack of measurement of 'final outcomes'?
 - f. NFA interviews: How did you respond to the 'bite' in some of the interviews (e.g., interviews with people in private enterprises, which indicated that they rarely use knowledge from the NFA)?
 - g. Impact case studies: Why not more than two per year? Why not a longer internal version that explores pathways to impact?

Secondary question for upstream audience

1) Do you have in place mechanisms to elicit questions emerging from advisory and decision- making processes (and from the BFAs and other knowledge brokers who work in or provide services to public and private enterprises) and to identify emergent questions from horizon- scanning activities, to document the prioritized requests, to coordinate the supply of evidence responses to these requests, and to package the responses in ways that can easily flow into other aspects of your work?

- a. Does NFA help with eliciting, scoping and responding to your questions?
- b. If so, how helpful is NFA in this regard?
- 2) Are you reliably getting whatever forms of evidence you need to answer a given question, when you need it, in whatever form you need it, and with any required caveats about its currency (or recency), quality, and local applicability?
 - a. Does NFA help with providing timely, demand-driven evidence support?
 - b. If so, how helpful is NFA in this regard?
- 3) Do you have in place the enablers, culture and capacity for evidence use in your organization?
 - a. Does NFA help with improving the environment for evidence use?
 - b. If so, how helpful is NFA in this regard and what could NFA do better?

Representatives of NFA's policy-oriented impact (upstream) target audiences

- 1) Are you receiving actionable insights on relevant topics once the research evidence is sufficiently mature to warrant its consideration in your advisory and decision-making processes?
 - a. How helpful is NFA in this regard?
 - b. Has NFA's engagement, communication and helpfulness improved in recent years?
 - c. What could NFA do better?
- 2) Specific questions emerging from our document review
 - a. Do you have a sense why some target audiences (e.g., AT work-environment inspectors and industry/labour groups) may rate NFA lower on the reach, usability and use of its products than other target audiences?
 - b. Are NFA's content/messages and its communication modalities (e.g., social media; webinars, podcasts and videos; email responses to your questions and presentations organized at your request) sufficiently tailored to your organizational needs?
 - c. Do you find that NFA's products can be easily found when needed and sufficiently meet the diverse needs of people in your organization?
 - d. Are you sufficiently engaged in setting and iteratively refining NFA's priorities?
 - e. Do you consider NFA to be trustworthy, relevant, and influential?
 - f. What are your approaches to influencing international institutions with significant influence on Danish regulations (e.g., OECD, EU, EU-OSHA) and does NFA support these approaches?

Secondary questions

- 1) Do you have in place mechanisms to elicit questions emerging from advisory and decision- making processes (and from the BFAs and other knowledge brokers who work in or provide services to public and private enterprises) and to identify emergent questions from horizon- scanning activities, to document the prioritized requests, to coordinate the supply of evidence responses to these requests, and to package the responses in ways that can easily flow into other aspects of your work?
 - a. Does NFA help with eliciting, scoping and responding to your questions?
 - b. If so, how helpful is NFA in this regard?
- 2) Are you reliably getting whatever forms of evidence you need to answer a given question, when you need it, in whatever form you need it, and with any required caveats about its currency (or recency), quality, and local applicability?
 - a. Does NFA help with providing timely, demand-driven evidence support?
 - b. If so, how helpful is NFA in this regard?
- 3) Do you have in place the enablers, culture and capacity for evidence use in your organization?
 - a. Does NFA help with improving the environment for evidence use?
 - b. If so, how helpful is NFA in this regard and what could NFA do better?

Representatives of NFA's practitioner-oriented impact (downstream) target audiences, or knowledge brokers

- 1) Are you receiving actionable insights on relevant topics once the research evidence is sufficiently mature to warrant its consideration in your provision of services to public and private enterprises?
 - a. How helpful is NFA in this regard?
 - b. Has NFA's engagement, communication and helpfulness improved in recent years?
 - c. What could NFA do better?
- 2) Specific questions emerging from our document review
 - a. Do you have a sense why some target audiences (e.g., AT work-environment inspectors and industry/labour groups) may rate NFA lower on the reach, usability and use of its products than other target audiences?
 - b. Are NFA's content/messages and its communication modalities (e.g., social media; webinars, podcasts and videos; email responses to your questions and presentations organized at your request) sufficiently tailored to your organizational needs?
 - c. Do you find that NFA's products can be easily found when needed and sufficiently meet the diverse needs of people in your organization?
 - d. Are you sufficiently engaged in setting and iteratively refining NFA's priorities?
 - e. Do you consider NFA to be trustworthy, relevant, and influential?
 - f. What are your approaches to influencing international institutions with significant influence on Danish regulations (e.g., OECD, EU, EU-OSHA) and does NFA support these approaches?

Secondary questions

- 1) Do you have in place mechanisms to elicit questions emerging from the knowledge brokers who work in or provide services to public and private enterprises and to identify emergent questions from horizon-scanning activities, to document the prioritized requests, to coordinate the supply of evidence responses to these requests, and to package the responses in ways that can easily flow into other aspects of your work?
 - a. Does NFA help with eliciting, scoping and responding to your questions?
 - b. If so, how helpful is NFA in this regard?
- 2) Are you reliably getting whatever forms of evidence you need to answer a given question, when you need it, in whatever form you need it, and with any required caveats about its currency (or recency), quality, and local applicability?
 - a. Does NFA help with providing timely, demand-driven evidence support?
 - b. If so, how helpful is NFA in this regard?
- 3) Do you have in place the enablers, culture and capacity for evidence use in your organization?
 - a. Does NFA help with improving the environment for evidence use?
 - b. If so, how helpful is NFA in this regard and what could NFA do better?

Representatives of NFA's policy-oriented impact (upstream) and NFA's practitioner-oriented impact (downstream) target audiences, or knowledge brokers

- 1) Are you receiving actionable insights on relevant topics once the research evidence is sufficiently mature to warrant its consideration in your advisory and decision-making processes and in your provision of services to public and private enterprises?
 - a. How helpful is NFA in this regard?
 - b. Has NFA's engagement, communication and helpfulness improved in recent years?
 - c. What could NFA do better?
- 2) Specific questions emerging from our document review
 - a. Do you have a sense why some target audiences (e.g., AT work-environment inspectors and industry/labour groups) may rate NFA lower on the reach, usability and use of its products than other target audiences?
 - b. Are NFA's content/messages and its communication modalities (e.g., social media; webinars, podcasts and videos; email responses to your questions and presentations organized at your request) sufficiently tailored to your organizational needs?
 - c. Do you find that NFA's products can be easily found when needed and sufficiently meet the diverse needs of people in your organization?
 - d. Are you sufficiently engaged in setting and iteratively refining NFA's priorities?
 - e. Do you consider NFA to be trustworthy, relevant, and influential?
 - f. What are your approaches to influencing international institutions with significant influence on Danish regulations (e.g., OECD, EU, EU-OSHA) and does NFA support these approaches?

Secondary questions

- 1) Do you have in place mechanisms to elicit questions emerging from advisory and decision- making processes (and from the BFAs and other knowledge brokers who work in or provide services to public and private enterprises) and from the knowledge brokers who work in or provide services to public and private enterprises and to identify emergent questions from horizon-scanning activities, to document the prioritized requests, to coordinate the supply of evidence responses to these requests, and to package the responses in ways that can easily flow into other aspects of your work?
 - a. Does NFA help with eliciting, scoping and responding to your questions?
 - b. If so, how helpful is NFA in this regard?
- 2) Are you reliably getting whatever forms of evidence you need to answer a given question, when you need it, in whatever form you need it, and with any required caveats about its currency (or recency), quality, and local applicability?
 - a. Does NFA help with providing timely, demand-driven evidence support?
 - b. If so, how helpful is NFA in this regard?
- 3) Do you have in place the enablers, culture and capacity for evidence use in your organization?
 - a. Does NFA help with improving the environment for evidence use?
 - b. If so, how helpful is NFA in this regard and what could NFA do better?

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