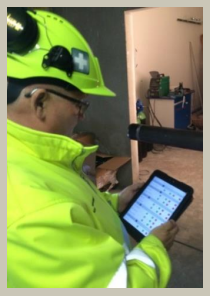
Safety Observer app for use in measuring safe working conditions and behaviour with nanomaterials



Nanosafe2018, Grenoble, 07-11-2018

NATIONAL RESEARCH CENTRE FOR THE WORKING ENVIRONMENT Denmark

perosh PARTNERSHIP FOR EUROPEAN RESEARCH IN OCCUPATIONAL SAFETY AND HEALTH

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Affiliation

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- Å CaLIBRAte project WP 4, EU Horizon 2020 research and innovation programme under grant agreement No 686239
- Å Working Environment Council, Denmark, Nano taskforce
- Å Danish Centre for Nano Safety

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Presentation objective

- Preliminary results in developing a tool for use in safety rounds in workplaces and laboratories that work with or are exposed to chemicals and manufactured nanomaterials
- The tool is to be intuitive and easily useable by students, workers, faculty, lab directors and OSH professionals in assessing nano OSH risks

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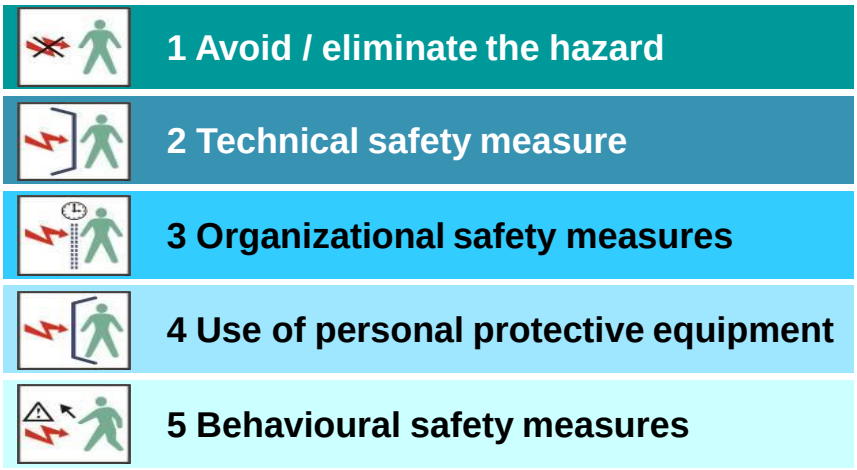
Hierarchy of OSH measures



Reactive and proactive measures

Decision	Process	Results
OSH goals Strategy	**Proactive measures** Near miss incidents	**Reactive measures** Accidents
Acceptable risks	Tool maintenance	Injuries, illness
Standards, SOPs	OSH training	Works absence
Activities, etc.	Communication, etc.	Economics, etc.

Fast feedback
days/weeks/months

Slow feedback
1-3 year

óSafety Observerôapp

ÅFree ☺, iOS/android, smartphone/tablets, app stores in 150+ countries

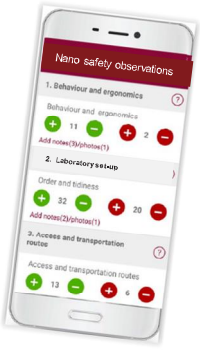
ÅFor use in systematic safety rounds

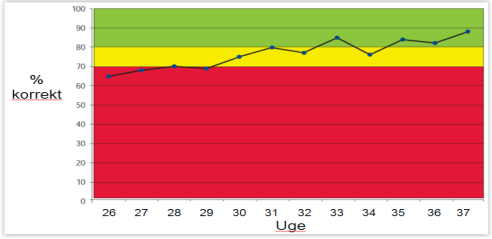
ÅApp template for Nano OSH in academia and industry

Safety Observer

NU PÅ Google Play

Hent i App Store





Measuring safety conditions and behaviour

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ÅBehaviour, ergonomics, PPE, technical assistive devices

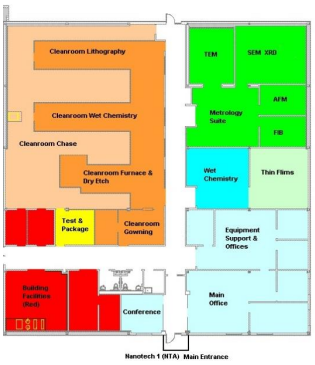
ÅIn labs, production, hallways, change rooms

ÅSigns, labels, warnings..

ÅEquipment, tools etc.,

ÅOrder and tidiness

ÅEtc.



Nanotech lab

Å**Make your own lists!!**

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Examples of things to observe and measure

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1) Signage, marking and labelling (one of more observation for each room, storage area, piece of equipment or tool, etc.)

2) Personal protective equipment (e.g. gloves, lab coats, long pants, safety glasses, ear plugs, face shields, closed-toed shoes, respiratory masks)

3) Nano handling, storage, transport (one observation for each process in a given area)

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Examples of things to observe and measure

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4) Ventilation and filters (e.g. one observation for each HEPA-filer as to whether it is properly maintained and cleaned)

5) Technical aids (e.g. fume exhaust hoods, glove boxes)

6) Order and tidiness (work and transport areas); First aid equipment

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Examples of things to observe and measure

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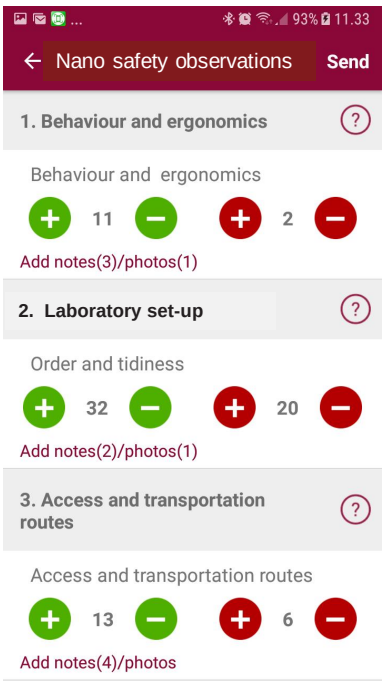
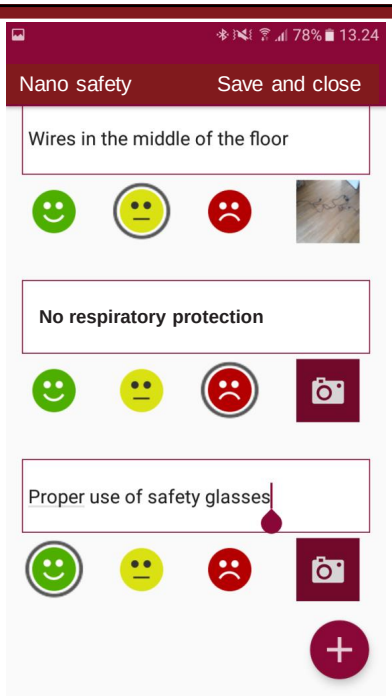
7) Hygiene (e.g. no food or drinks in the lab; changing clothes)

8) Waste storage, recycling and disposal (e.g. signs, labels)

9) First aid (e.g. one observation per necessary station)





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Nano OSH index

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Topic	Correct	Total	Not correct	Total
1. Nano signs, labels, etc.	///// ////	9	///// //	7
2. Nano storage	///// ///// ////	14	/////	5
3. Nano ventilation and filters	/////	5	/	1
4. Nano waste disposal	///// ///	8	///// ///// ///	13
5. Nano personal protective clothing/equipment	///// ///// ///// ///// ///	23	///// ///// ////	14
6. Etc.	///// /////	10	//	2
	Total	**69**	**Total**	**42**
			69 ---------- x 100 = 69 + 42	**62 %**

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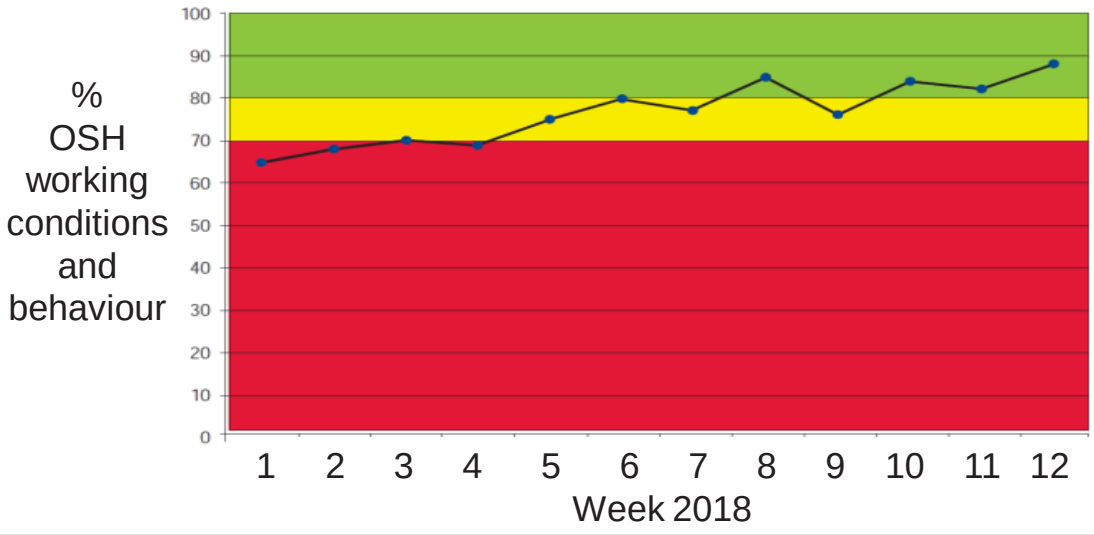
Safety index



Safety Observer app

ÅSystematic observations of safety conditions and behaviour

ÅCan be used in many branches and settings

ÅLists/templates can be written in any language

ÅAdd notes, photos and smileys

ÅReport provided on device and in email (PDF)

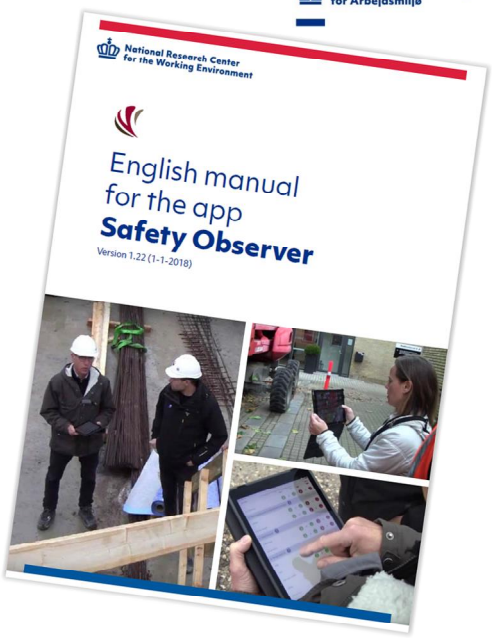
App links

Information

Åwww.nfa.dk/safetyobserver

Administrator modul

Åwww.safetyobserver.mobile-identity.com



Thank you for your attention

☺

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