



ISTITUTO NAZIONALE PER L'ASSICURAZIONE  
CONTRO GLI INFORTUNI SUL LAVORO

# The VIP Moving project and the ISI calls: addressing multiple evaluation challenges

*Elena Ragazzi (p), Angelo Castaldo, Lisa Sella, Stefano Signorini*

*Convegno*

SCIENCE-BASED POLICY MAKING IN  
OCCUPATIONAL SAFETY AND HEALTH

# A story dating back in the time

## PARLIAMENTARY INVESTIGATION COMMISSION OF THE SENATE. INTERMEDIATE RELATION 14/3/2016

The commission «*has established to conduct an activity of evaluation of the public policies in the sectors [...] identified in the institutive resolution of 4 December 2013.*»

### CIV – PLANNING REPORT 2019 – 2021 MISSION 3 – LABOUR POLICIES

«*Implementation of a structured monitoring system, for each phase of the calls, to provide the CIV with evaluation elements on the effectiveness and efficiency of the incentive system with the aim of developing strategies [...] functional to the protection of health and workplace safety*»

**2018: INAIL REPORT TO THE EUROPEAN COMMISSION ON THE COHERENCE OF THE ISI CALLS WITH THE EU STATE AID REGIME”**

A research question was emerging: are the prevention policies well implemented respect to the Italian needs, and are they effective?

# OSH policies: **evaluation**

Evaluation studies of OSH policies are very scarce. A survey conducted under the Regulatory Fitness and Performance Program (*REFIT – European commission 2017*) of ex post evaluation of the EU directives on health and safety at work concluded:

"given the current evidence and data sources, it is not possible to demonstrate links between regulatory activities and changes in the health and safety outcomes"

The European Agency EU-OSHA introduced firstly evaluation as a priority for 2013 – 2020 (*EU-OSHA 2013*)

«The lack of evaluation studies of interventions in the field of SSL is widely recognized. Studies are needed to assess feasibility and effectiveness»



# Why starting with the ISI calls?

## Why so little evaluation?

- Lack of motivation (the attention of the voter is high, no political need to justify intervention in this field)
- Difficulties in impact evaluation for overall regulation
- Specific evaluation challenges for OSH policies

## Nevertheless:

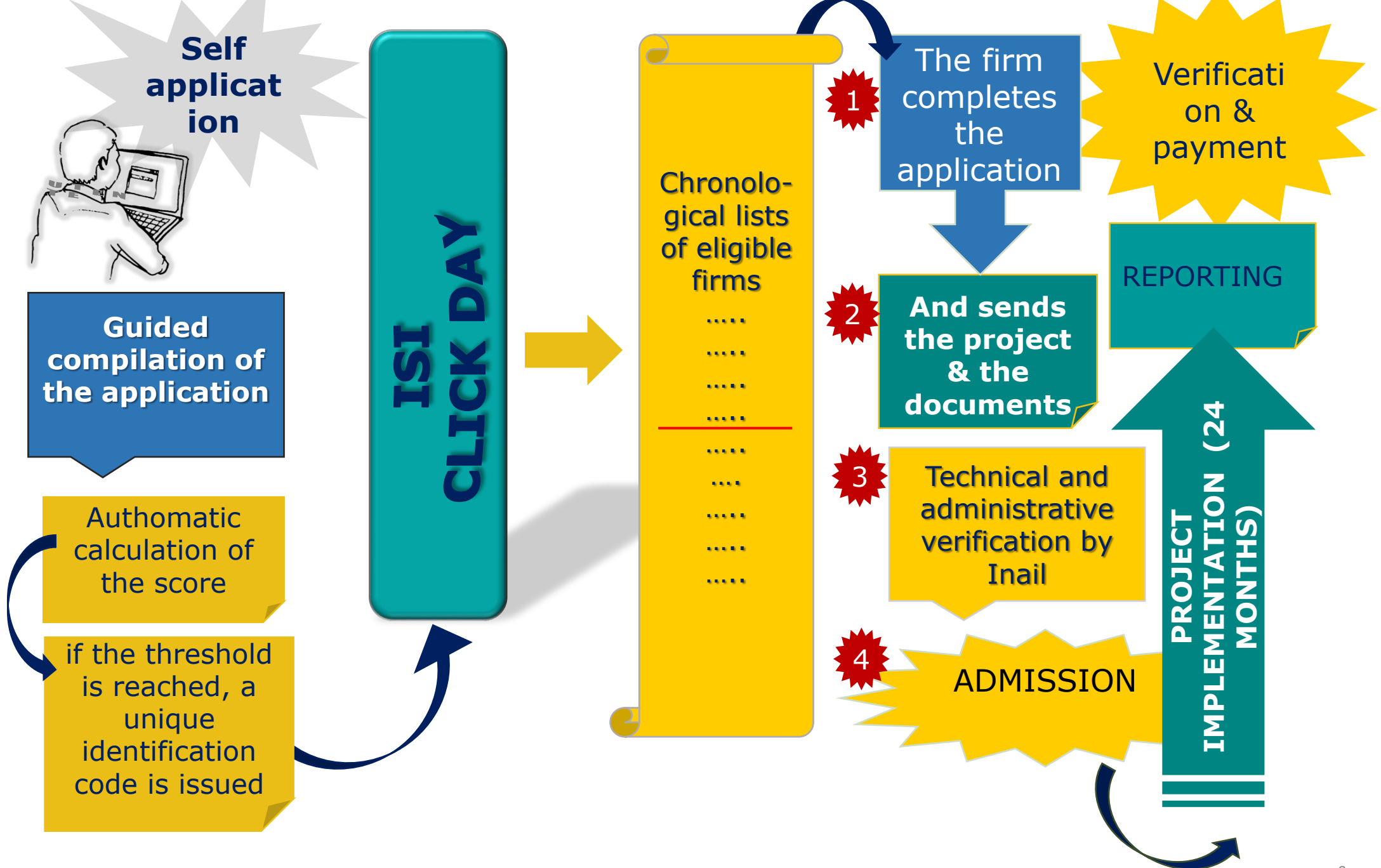
- In the policy toolkit represented by **regulation enforcement, information and training, and economic incentives**, these last are strongly underrepresented, so evidence on their effectiveness is required to change the balance
- There is a need for focused evaluation on specific policy instruments targeting specific points of resistance to improvement

These arguments point to the importance of an evaluation of the ISI calls which represent the most long-lasting (12 years) and richly endowed (more than 3 billions€ over 12 years) experience in the field of incentives to investments.



# The ISI calls: **features**

- Yearly national calls, with a budget shared per region
- Incentives for (productive) investments that imply (also) an improvement of safety and health
- Not funding investments to comply with minimum requirements
- Grants covering up to 65% of the expenses and up to 130,000 €
- Targeting small and micro firms
- Based on applications by firms who have to provide just basic information. *Eligibility is determined by a score based on priority criteria (on the firm and/or on the project) that vary every year and may also be differentiated at the regional level*
- eligible firms participate into the click-day, when only a small share of applications are funded
- Selected applications are funded, after a detailed check on the project, until regional budget is exhausted



In the context of OSH policies ISI calls appear to be particularly adequate for **counterfactual impact evaluation**

**Random assignment to treatment:** the click-day mechanism randomly allocates the grants to a list of eligible candidates (minimum score requirement)

The process generates a **natural experiment**:

- **Treated firms:** those who were granted funding for the investment
- **Control group:** eligible applicants not selected by the click-day mechanism

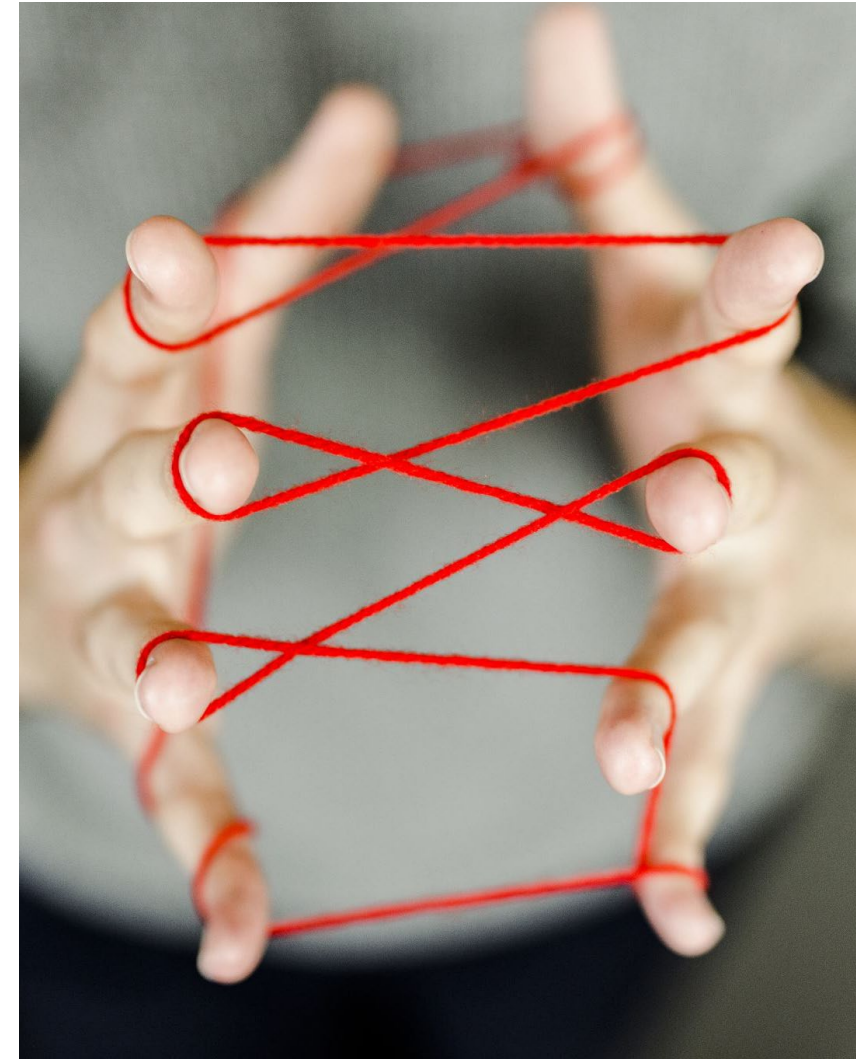
However, there are some **methodological challenges**, that we addressed in the **VIP-Moving project**



# Challenge 1: Identification of a clear causal link (general OSH challenge)

1. The effectiveness of the investment (eg the purchase of a machinery) is **conditioned by other factors** (eg the level of awareness and competence of the worker, the intensity and duration of exposure to risk).
2. There are many **confounders**, to be considered in a specific way, in order not to frustrate the readability of the effect.
- 3 For investments to improve **health conditions** it is very difficult to determine the cause-effect relationship, for:
  - the association with other chronic degenerative diseases
  - and with pathologies linked to the worker's lifestyle,
  - the latency time between exposure to risk and manifestation of disease that can reach some decades)

This evaluation was not feasible in the time frame of our case-study.





# Challenge 2: output and outcome variables (general OSH challenge)

1. Output and outcome variables are represented by **aleatory non-deterministic variables**. Accidents and illnesses are rare events, with very **low frequency**. Outcome variables may show low or zero variance, unless big samples are available.
2. To better detect the causal link between the investment and the outcomes, it is necessary to use metrics on accident (or illness) frequency and severity **restricted to cases that are connected with the risk addressed by the investment**. This requires **high quality and interconnectable databases** which is not the case... Very difficult to interconnect the taxonomy of type of investments (e.g., change of slipping soil, training), the risk (e.g., falling, bad posture in carrying out hard works), and the health event (broken bone, osteoarticular damage)

# Challenge 3:

## A policy with several goals (specific ISI challenges)

1. The general objective is articulated in various specific measures (e.g., purchase of machinery, projects for the adoption of organizational and control models, project that target specific, high-risk sectors).

**It is not possible to carry out a generic "evaluation of ISI calls", but it is necessary to design multiple assessments for the different measures.**

2. The main goal of reducing the incidence of accidents and illness comes with a secondary goal of supporting the renewal of the SME system (the policy was launched in 2010, during the great crisis). In literature evidence of the connection between occupational safety and technological progress may be found (Blank et al., 1996b; Sari et al., 2004), that gives support to this twin objective. BUT this implies also that, above all for the investment lines connected to the purchase of machinery, the safety purpose of the investment is not always prevalent

# Challenge 4: self application and external validity (specific ISI challenge)



- The mechanism of assignment to the treatment based on the click-day allows to assimilate the exercise to an experimental evaluation design. It compares the companies that have applied but have not obtained the grant, with those that have been funded.
- However, the self-selection into the experiment does not allow us to assume that companies that apply to be treated (similar to volunteers in a social or health experiment) are representative of the universe of target companies.
- In such conditions it is therefore necessary to assess the extent to which the results obtained in the impact assessment can be extended to the entire audience of recipients (**external validity of the evaluation**).
- **Which variables explain the choice to apply?**

# Challenge 4: attrition and alternative treatment

Since a substantial share of the sample of companies that were successful at the click day does not obtain the payment, there are problems of attrition and interruption of treatment.

It is essential to investigate the causes of dispersion (less and less attributable to the difficulties of the process), as they could represent a bias in the observed impact. The risk of bias is high in the following cases:

- Firms going bankrupt or closed.
- Firms that have obtained alternative incentives to carry out the investment



SEGUICI



@CnrIrcres



@cnr\_ircres



@cnrircres7711

**Thanks for your attention**

Presenter: Elena Ragazzi [elena.ragazzi@ircres.cnr.it](mailto:elena.ragazzi@ircres.cnr.it)