

# IDAMES (Innovative Dietary Assessment Methods for Epidemiology and Public Health), an EU funded project

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## Background

The need for new dietary assessment methods to better measure diet in large-scale epidemiological studies is well recognized. Validation and comparative risk studies indicate that the standard instrument for such studies, the food frequency questionnaire (FFQ), might not provide the dietary data needed to investigate the diet-disease-relationship properly.

## Objective

The objective of this project is to evaluate innovative approaches in their ability to provide quantitative and more precise estimates for diet in epidemiological studies. Innovation approaches include the use of an advanced methodology, identification of new applications of existing instruments and the promotion of statistical strategies to generate best estimates of individual intake.

## Methods

The project consists primarily of literature reviews and a pilot study. Standard operating procedures (SOPs) will be delivered to help other researchers to adopt and apply new methodologies. Systematic literature reviews identified studies that addressed the validity of methods, the use of 24-h-recalls (24HDR), and innovative techniques including new statistical concepts in combining data. The pilot study has investigated the feasibility applying advanced methods in 5 existing cohort study populations across Europe (Figure 1).

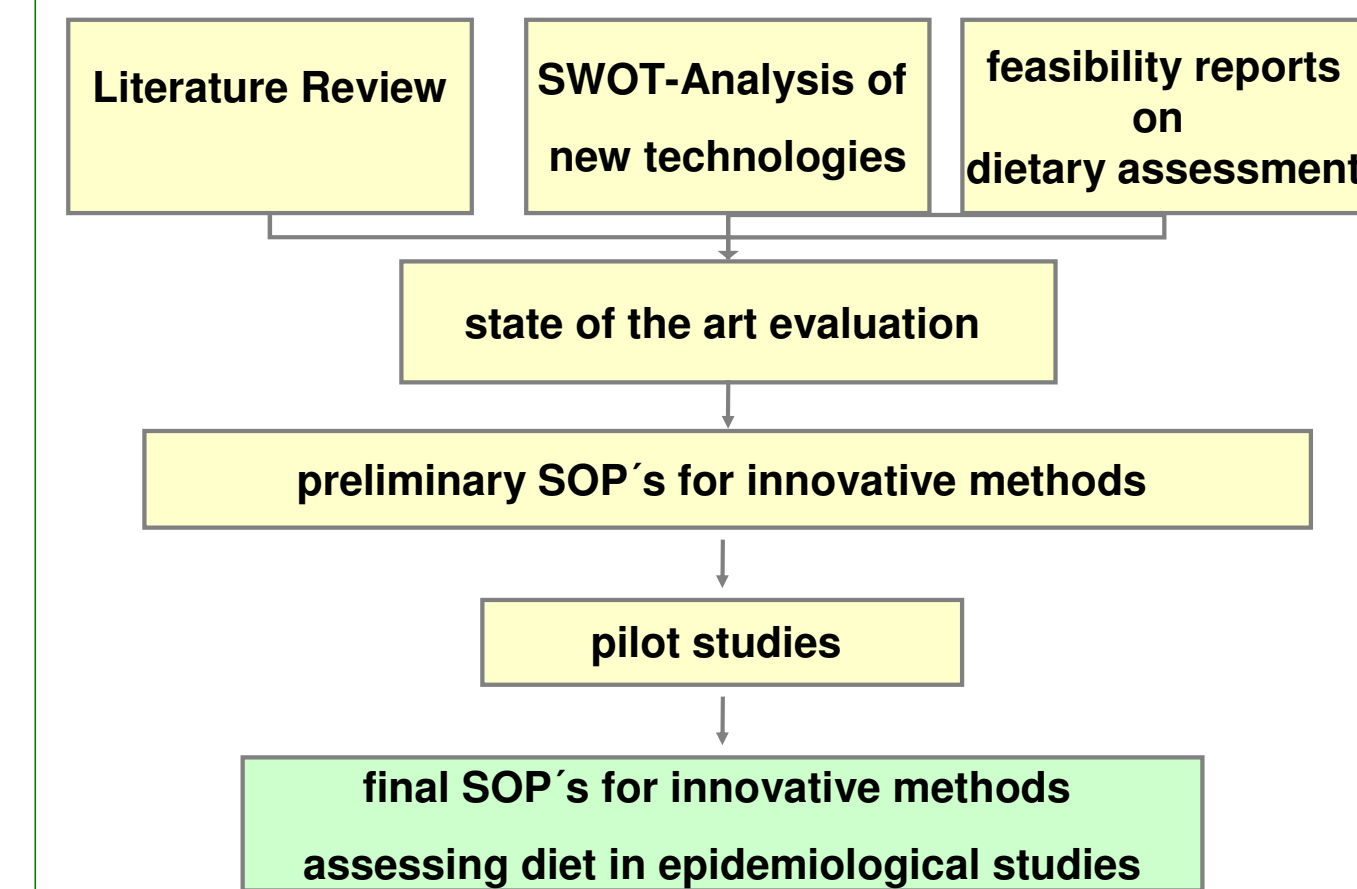


Figure 1: Workflow of the IDAMES project

## Results

### State of the art review

The 24HDR appeared to be an appropriate instrument to obtain detailed and quantified dietary data. 24HDR can be applied by interview (face-to-face or telephone) and recently self-administered as web-based tool. Similar to surveys, at least two 24HDR per subject are needed allowing the calculation of non-linear calibration functions. Advanced statistical methods are now available that estimate individual intake and population distribution functions using two sources of dietary information by combining 24HDR with a kind of food propensity questionnaire. The decision on how many days should be covered by 24HDR measurements to obtain a satisfactory estimate of the individual dietary intake depends on further considerations including statistical advice.

### Pilot studies

The feasibility of applying three 24HDR by telephone in conjunction with a web-based food propensity questionnaire has been investigated. FFQ type questionnaires are suitable for self-administration and could be completed via the internet. Relative to traditional FFQs, the work load for the participant is increased by the 24HDR whereas the web-based tool might reduce the burden (Table 1).

Table 1: Total response and participation rates for the European Food Propensity Questionnaire (EFPQ) by IDAMES Center\*

IDAMES-centre	Total response rate		Total participation rate		participation rate for Web-based-EFPQ		participation rate for Paper-EFPQ	
	n	%	n	%	n	%	n	%
Florence (I)	66	82.5	48	60.0	26	54.2	22	45.8
Potsdam (D)	74	92.5	55	68.8	19	34.5	36	65.5
San Sebastian (E)	72	90.0	59	73.8	11	18.6	48	81.4
Tartu** (EE)	77	96.3	70	87.5	65	92.9	5	7.1
Tromsø (NOR)	60	75.0	30	37.5	21	70.0	9	30.0

\*\*recruitment within baseline interviews

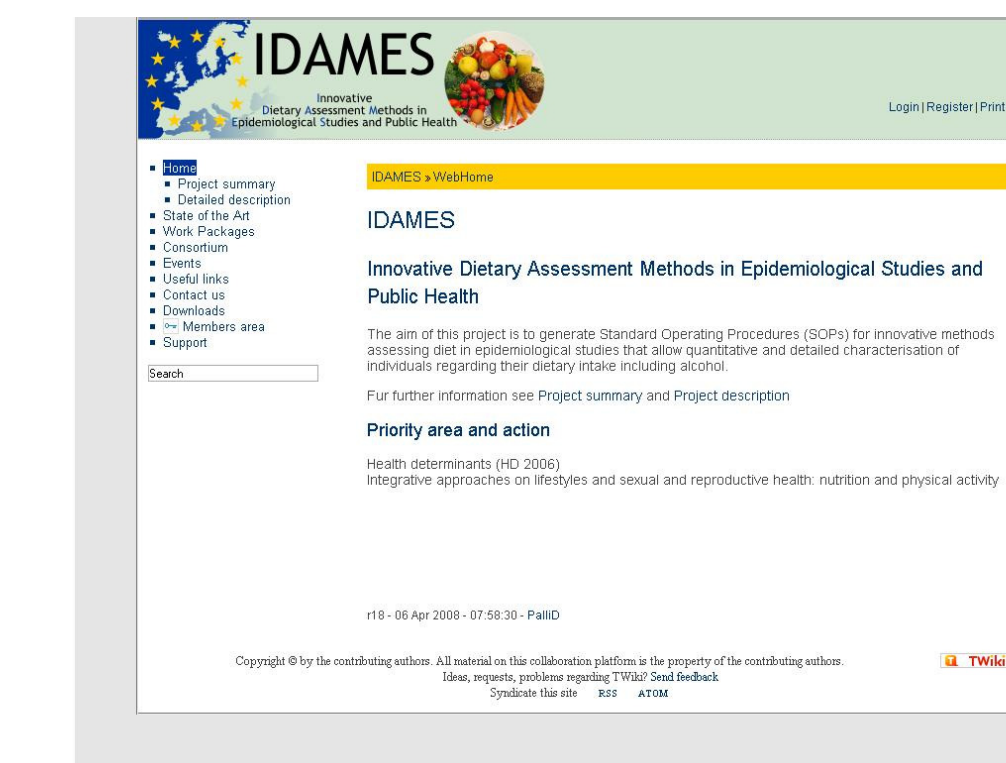
### SOPs

The SOPs will be available for the use of 24HDRs or other short term instruments and web based FFQs

## Conclusion

Innovations in dietary assessment seem to be feasible regarding new methodology, new applications of existing instruments, and extended use of advanced statistical methods. If such innovations will also convince the study participants, progress will be seen in epidemiological studies in the future.

## More information



<http://www.idames.eu>

## Funding



The study is supported by the Executive Agency for Health and Consumers, EU