

## Do Cardiac Health: Advanced New Generation Ecosystem (DoCHANGE)

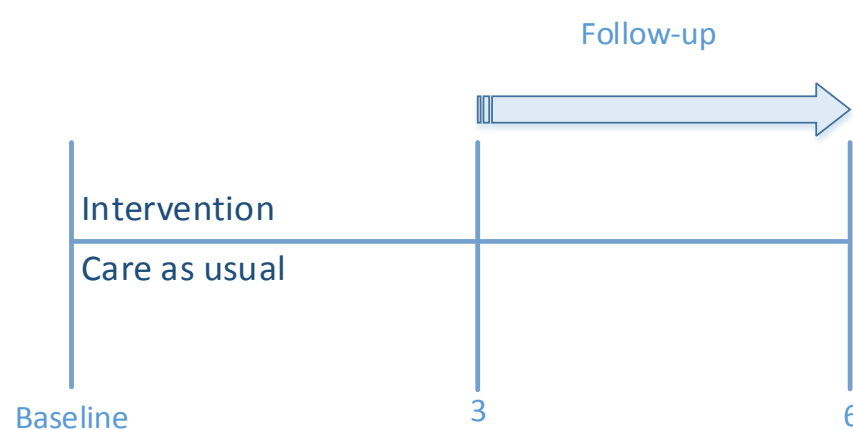
E.R. Broers (Msc.), J. Widdershoven (MD, PhD), J. Piera Jimenez & M. Habibovic (PhD) on behalf of the Do CHANGE Consortium

### Background

Cardiac diseases are one of the leading causes of death worldwide. Changing patients' lifestyle (e.g. diet, physical activity, distress) could be one means by which the onset and/or deterioration of cardiac diseases could be addressed. However, living with a chronic disease requires high patient involvement and self-management. In order to assist patients in living with the heart condition and changing their lifestyle, the Do CHANGE ecosystem has been developed.

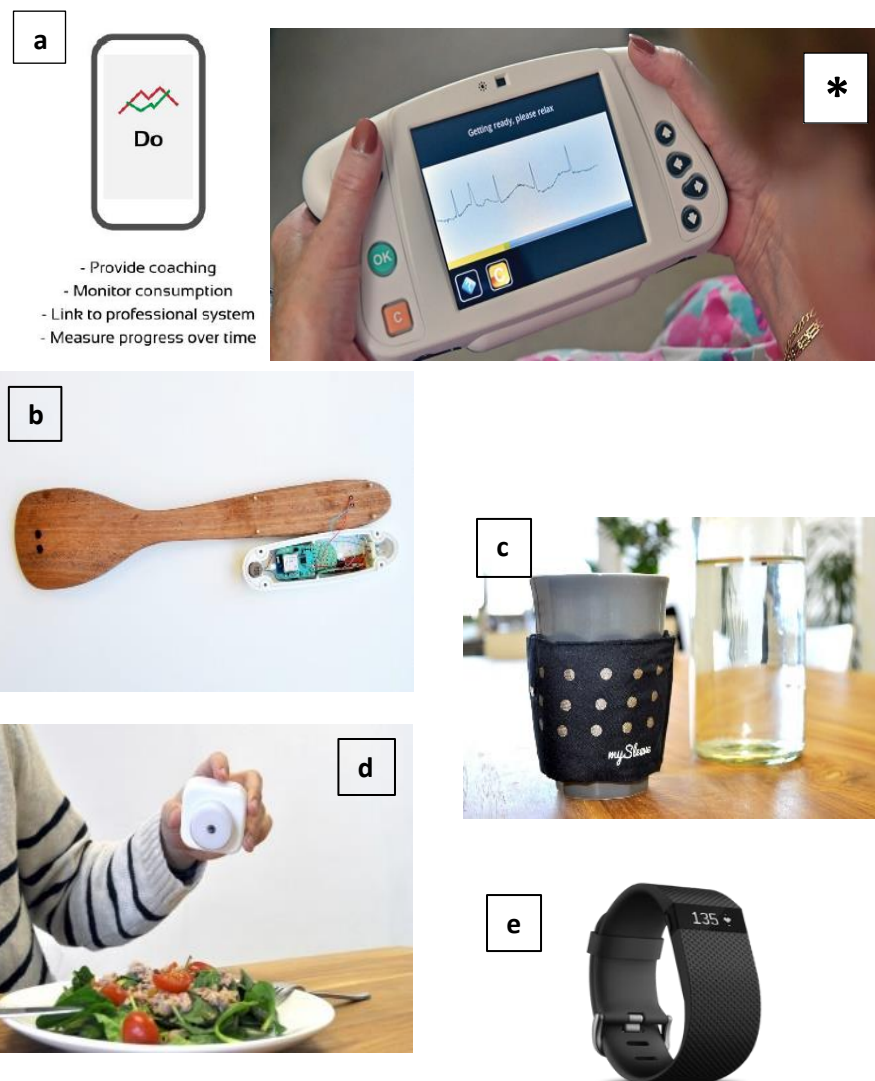
### Methods

300 coronary artery disease, hypertension and heart failure patients will be recruited from three hospitals in total: in The Netherlands, Spain, and Taiwan. They will be randomized to either the intervention or the care as usual group (1:1). Patients will receive a 3-months online integrated intervention which aims to change their lifestyle and improve their disease management.



By using the CarePortal (\*) and participating in the Do Something Different ([www.dsd.me](http://www.dsd.me)) (a) program, patients will be able to monitor their own disease management and facilitate lifestyle change. Furthermore, to make the intervention as patient-tailored as possible, the cardiologist will (together with the patient) decide which additional intervention modules are useful for the patient. The available modules are: **b)** the spatula (COOKit) which measures patients' salt intake, **c)** the smart cup (FLUiT) which measures patients' fluid intake, **d)** an application on the patients' mobile phone which measures general food intake, and **e)** an activity tracker (FitBit)©.

### Tools & services



- Provide coaching
- Monitor consumption
- Link to professional system
- Measure progress over time

Short project animation:

<https://www.youtube.com/watch?v=igAVmWnbgds#t=27>

### Integration of data

The integration of data collected by the tools and services will be supported with an ecosystem where all data will be stored and available for research purposes. In addition, the data will be available for patients and health care professionals in order to monitor disease management

### Conclusion

The aim of the study is to enhance lifestyle change within the cardiac population by providing patient tailored support that meets patients' needs.

The effectiveness of the intervention will be evaluated using a newly developed evaluation framework for evaluating mHealth solutions. The framework is based on the existing MAST methodology.

This trial is registered at [www.clinicaltrials.gov](http://www.clinicaltrials.gov), trial number: NCT02946281