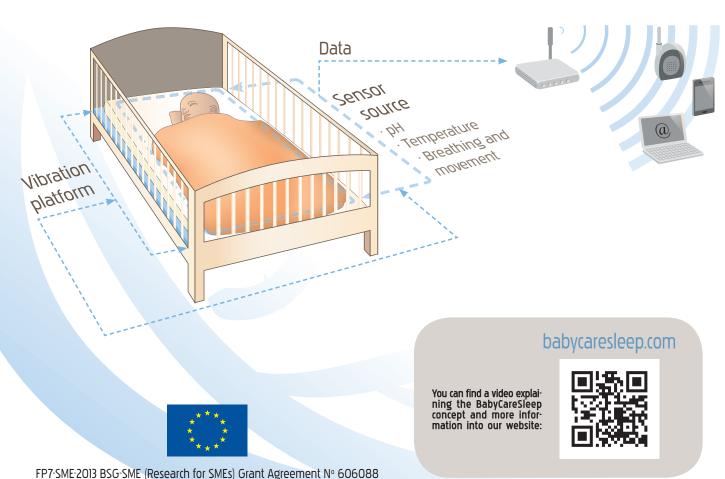
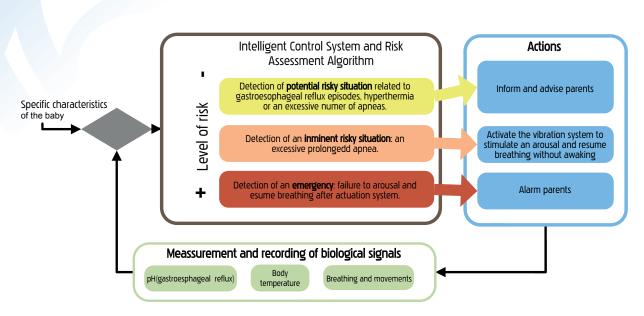


DEVELOPMENT OF A NON-INVASIVE BABY SLEEP MONITORING AND INTELLIGENT CONTROL SYSTEM FOR THE PREVENTION OF UNEXPECTED DEATH IN PREVIOUSLY HEALTHY BABIES AND EARLY DETECTION OF RISKY SITUATIONS

Sudden Infant Death Syndrome (SIDS) is the highest cause of death in the post-neonatal period (between 2nd and 6th month of life). Only in Europe, each year 2 400 infants still die of SIDS, an unexpected disease happening to infants who die in their sleep with no evidence of accidental asphysia, inflicted injury or organic disease; being a multifactorial syndrome mainly related to overheating, prolonged apnea, gastroesophageal reflux or inadequate bedding system and posture. In addition, SIDS is ten times more frequent within preterm newborns, around 385 000 babies per year are born preterm in Europe.

BabyCareSleep project aims to develop a novel non-invasive intelligent monitoring system to prevent unexpected deaths in previously healthy infants and to detect risky situations in an early stage. Integrated in the cot through biosensing textiles, matrices of sensors will detect the most relevant biological parameters that will enable the detection of potential risky situation and performing preventive actions. The preventive system will stimulate sufficiently the baby's brain (generate a sleep arousal) avoiding infant's hypoxia and resuming breathing activity and will be so gentle to not awake the baby from sleep. The project started on 1 November 2013 with a planned duration of 24 months.





BabyCareSleep project counts with all the involved SME through the supply chain (textiles, electronic & communication, mattresses and a paediatrician sleep clinic); with RTDs of biomechanics, smart textiles and intelligent control systems; and with the support of a association for paediatric research.

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Members of the consortium















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