The CROWN project will be comprised of three technical work packages (WPs) and a management one:

 - In WP1 we will resolve key challenges in the design and analysis of wireless networks whose elements operate autonomously. In this setting, two crucial issues are (i) extracting the information needed by the nodes for executing their protocols, and (ii) modeling and predicting their spontaneously emerging interactions. The main theoretical tool will be game theory.
 - In WP2 we will explore open question in the design and analysis of wireless networks whose elements coordinate with each other to optimize a common goal in a distributed manner. The main theoretical tool will be distributed optimization.
 - In WP3 we will leverage the methods above towards optimizing network performance in terms of concrete objectives, such as maximize transport capacity, minimize data transport delay and minimize energy consumption, and in a more concrete network paradigm, i.e., Delay Tolerant Networks.
 - Finally, WP4 will be dedicated to project management and dissemination of project results.

It should be noted that a continuous interaction among all WPs will take place. This interaction will allow for continuous adjustment of the methodology. The outputs of WP1 and 2 will be fed into WP3. Also, input from WP3 will modulate the research methodology in WP1, 2 and vice versa. An overview of all WPs and their associated tasks is provided in the table below.

WP1: Understanding and influencing uncoordinated interactions of autonomic wireless networks

Leader   : UTH
Duration   : M1-M36
Personsmonths   : UTH:30, NKUA:10, AUEB: 10

 Task 1.1:   Efficient real-time learning and information extraction amidst uncertainties and
  Task 1.2:   Predicting and resolving conflicts in wireless networks through non-cooperati
  Task 1.3:   Spontaneous Cooperation in Uncoordinated Autonomic Wireless Networks (M

WP2: Optimization through network coordination

Leader : NKUA
Duration : M1-M36
Personsmonths : UTH:20, NKUA:30, AUEB: 20

Task 2.1: Optimizing network connectivity through iterative message passing techniques
Task 2.2: Detection and localization of primary sources (M4-M36)
Task 2.3: Distributed cooperative optimization in wireless networks (M25-M36)

WP3: Autonomic and Collaborative Protocols in Wireless DTNs

Leader : AUEB
Duration : M1-M36
Personsmonths : UTH:15, NKUA:15, AUEB: 20

Task 3.1: Autonomic operation of wireless DTNs (M1-M24)

Task 3.2: Coordinated operation of wireless DTNs (M10-M36)

Task 3.3: Realistic wireless DTN protocol design (M1-M36)

WP4: Management and Dissemination

Leader : UTH
Duration : M1-M36
Personsmonths : UTH:4, NKUA:2, AUEB: 2

Task 4.1: Administrative and Technical Management (M1-M36)

Task 4.2: Dissemination (M1-M36)