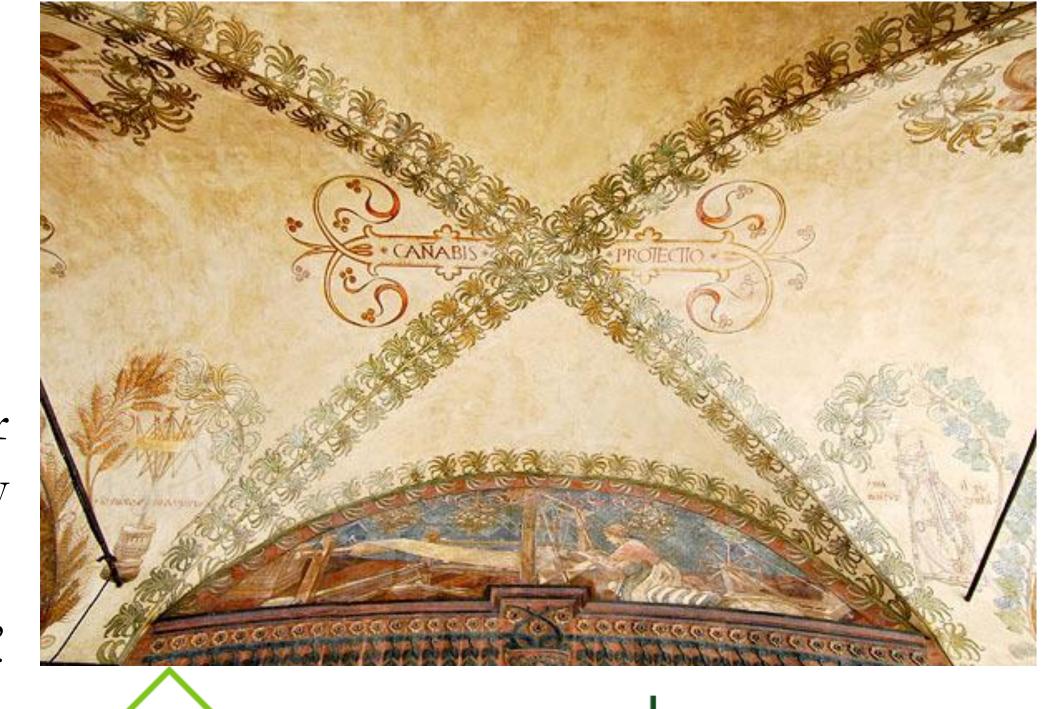
UNIHEMP – Cannabis protectio

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It aims at the creation of a **circular economy** around the hemp chain, where its waste comes into new production cycles, such as those of **biochemicals with high added value** and renewable energy, in the broader perspective of an advanced European bioeconomy that will allow smart and green growth. The hemp waste is the apical part of the plant, the inflorescence, actually rich in extremely interesting secondary metabolites from a pharmaceutical point of view, as well as the shives, that is, the woody part of the stalk that remains after the fiber is removed.





http://unihemp.dhitech.it/

In order to achieve the goals of the project, several studies will be conduced on agronomic aspects, biotechnological aspects of the lignocellulosic biomass and biochemicals production chains, on the valorisation of by-products, creating close synergy between private companies and public research partners.

Coordination, exploitation and dissemination (WP 1)

Selection of new hemp varieties for manifacturing, cosmetic and pharmaceutical biochemicals (WP 2) Supercritical Fluid Extraction of essential oils and biochemicals from the biomass of the apical part (WP 4)

New smoking biochemicals (WP 5)

New cosmeceuticals, pharmaceuticals and food supplements (WP 6)

Chemical and microbiological analysis of the biomass of the apical part and shives (WP 3) Exploitation
of hemp
chain byproducts for
energy
production
(WP 7)





Centro di ricerca Cerealicoltura e Colture Industriali (Acireale, Bologna, Caserta, Rovigo)

Centro di Ricerca Agricoltura e Ambiente (Bari)

Centro di Ricerca Difesa e Certificazione (Battipaglia)



Manifatture Sigaro Toscano S.p.A

SECI

Legal evaluation of uses of hemp inflorescence (WP 8)

WP 2 goals:

- 1) Identify varieties suitable for South Italy pedoclimatic conditions, used as source of biochemicals;
- 2) Select materials with high content of bioactive compounds;
- 3) Study molecular mechanisms of accumulation of active compunds and develop molecular markers for these traits;
- 4) Test the possibility to modulate the accumulation of active compounds in hemp biomass;
- 5) Identify phytopathological critical issues and crop defense strategies for healthy products.

