## **Enzymes Identification**

#### Metagenomic approach

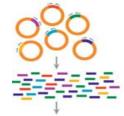


#### Extreme environment sample

#### **DNA** extraction



Clones Library construction and Sequencing



Assembly into scaffolds and contigs

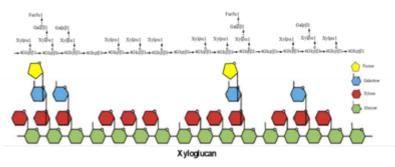
<u>1999-91</u> 1992-91 1

Data analysis and microorganism/genes identification

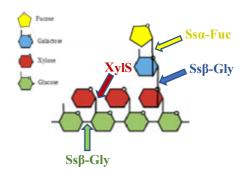


# **Enzymes Characterization**

## Novel enzymes involved in hemicellulose degradation



### Lab monosaccharides production



Investigate the potential use of novel enzymes in biorefineries for the sustainable production of energy

