



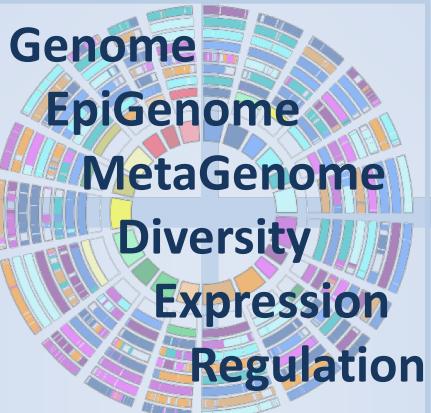
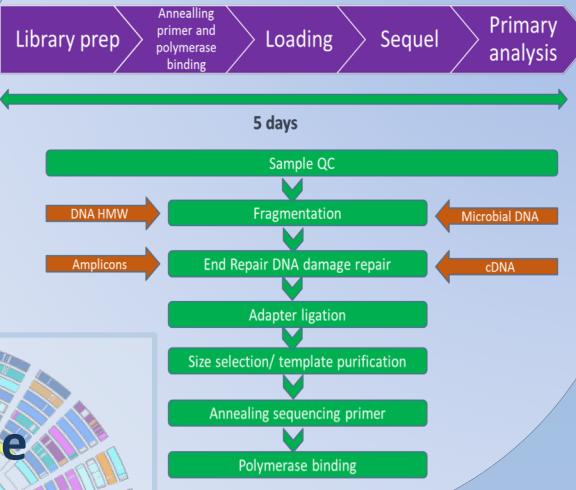
# Genomics from Long-Reads Sequencing (PacificBiosciences Sequel)



## APPLICATIONS

- Complex genome (re-)sequencing**  
→ Reference sequence, Pangenome
- Targeted sequencing**  
→ Amplicons, Capture
- Epigenomics**  
→ DNA modification, Methylation
- RNA-seq full length**  
→ Expression Atlas, Annotation
- Metagenomics**  
→ RNA 16S, Shotgun

## WORKFLOW



## RESULTS

Species	Genome lenght	output / SMRTCell (Gb)	Mean insert lenght (kb)	N50 Kb
Wheat (first SMRTCell)	17 Gb	3,7	7,7	12,5
Lupine	500 Mb	3,1	9,4	15
Tobacco	500 Mb	6,02	9,5	17,2
Tomato	900 Mb	5,02	17,15	28,3
Cucurbitaceae	450 Mb	7,54	17,2	30,1
Grape	500 Mb	8,9	11,9	21,25
Chicory	1,2 Gb	10	16	29,3



6,3 Gb per run

N50 of 22Kb

Inserts of 12Kb

For 2988 €

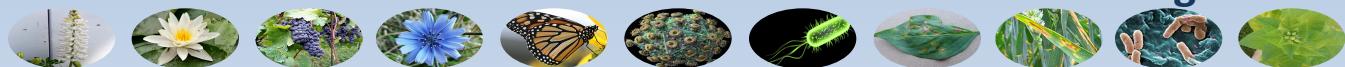
5-10 Gb

5 days

N50 10-30 Kb

Insert size 10-20 Kb

## Plants



## Animals



## Bacteria



## Fungi

