

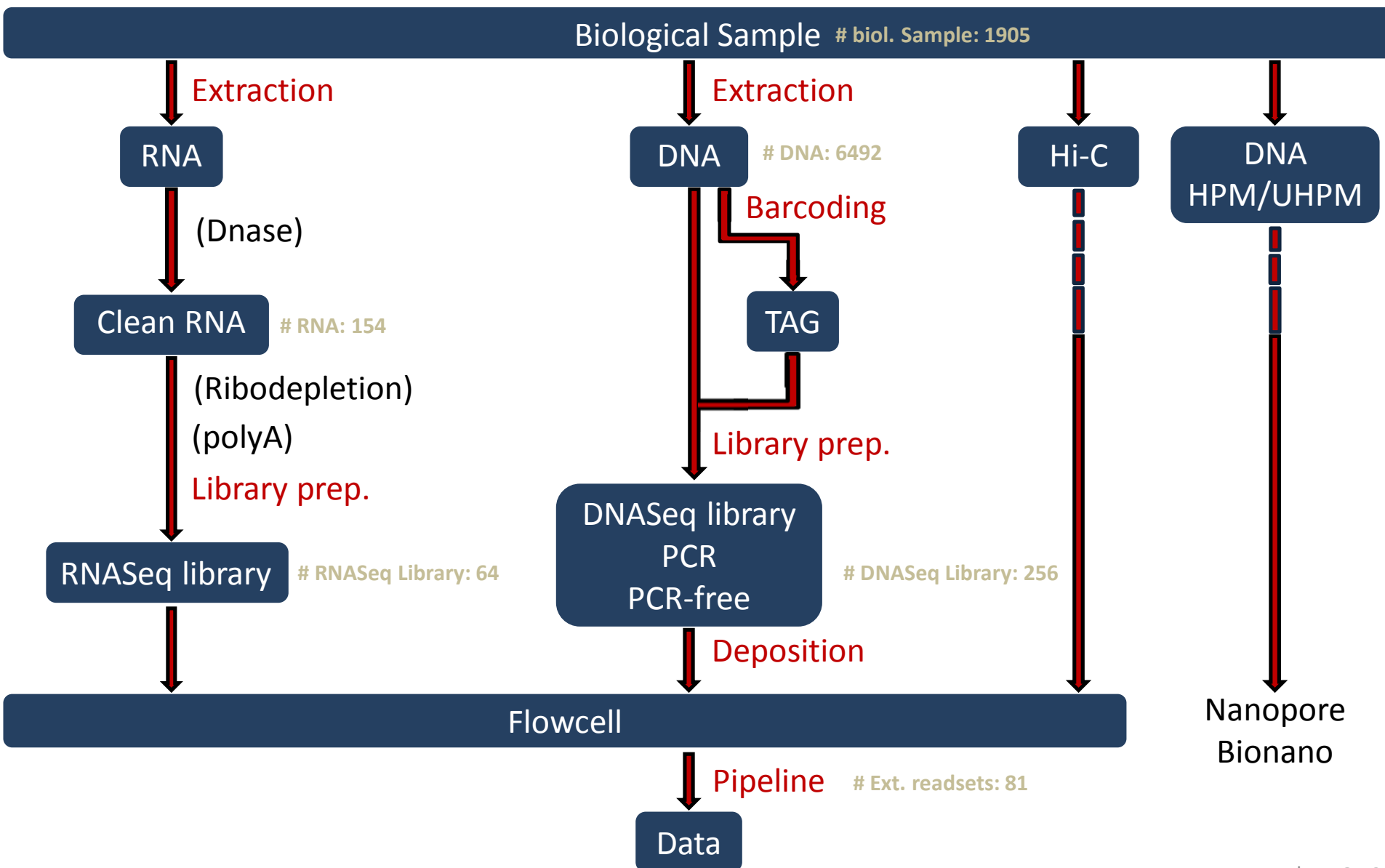


Seqlab: The Illumina platform

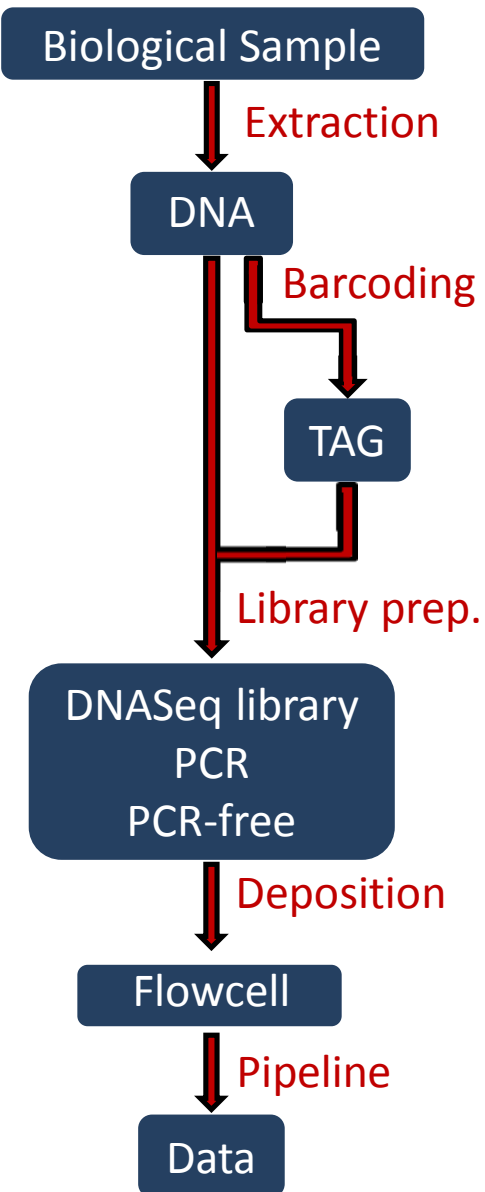
Research Meeting

Genoscope - CEA, Evry, France
May, 2022

Workflow at a glance



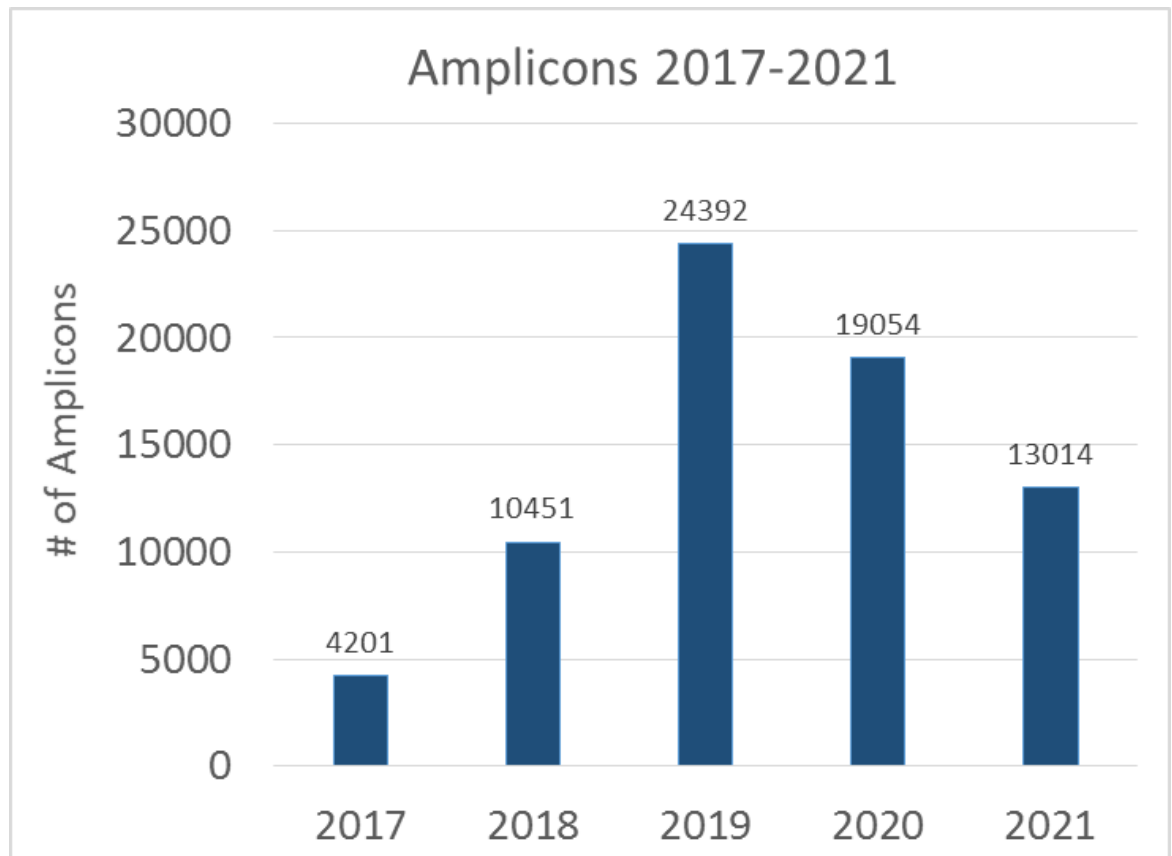
Amplicons & DNaseq



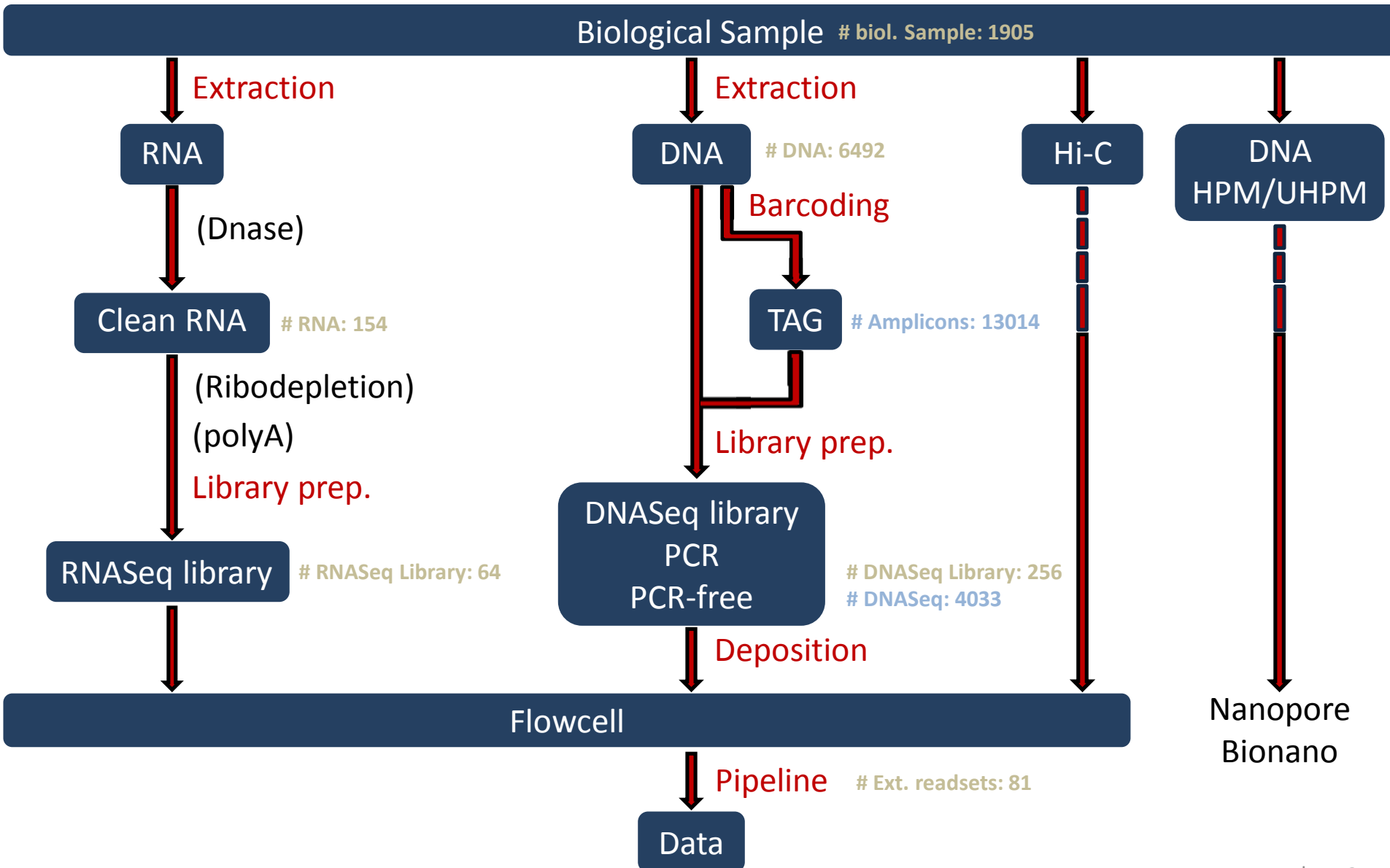
2021

Amplicons: 13014 – 31 targeted regions

DNaseq: 4033



Workflow at a glance



RNASeq

Biological Sample

Extraction

RNA

(Dnase)

Clean RNA

(Ribodepletion)
(polyA)

Library prep.

RNASeq library

Flowcell

Pipeline

Data

2021

Ribodepletions: 263

RNASeq: 1055

Librairies

RNASeq library



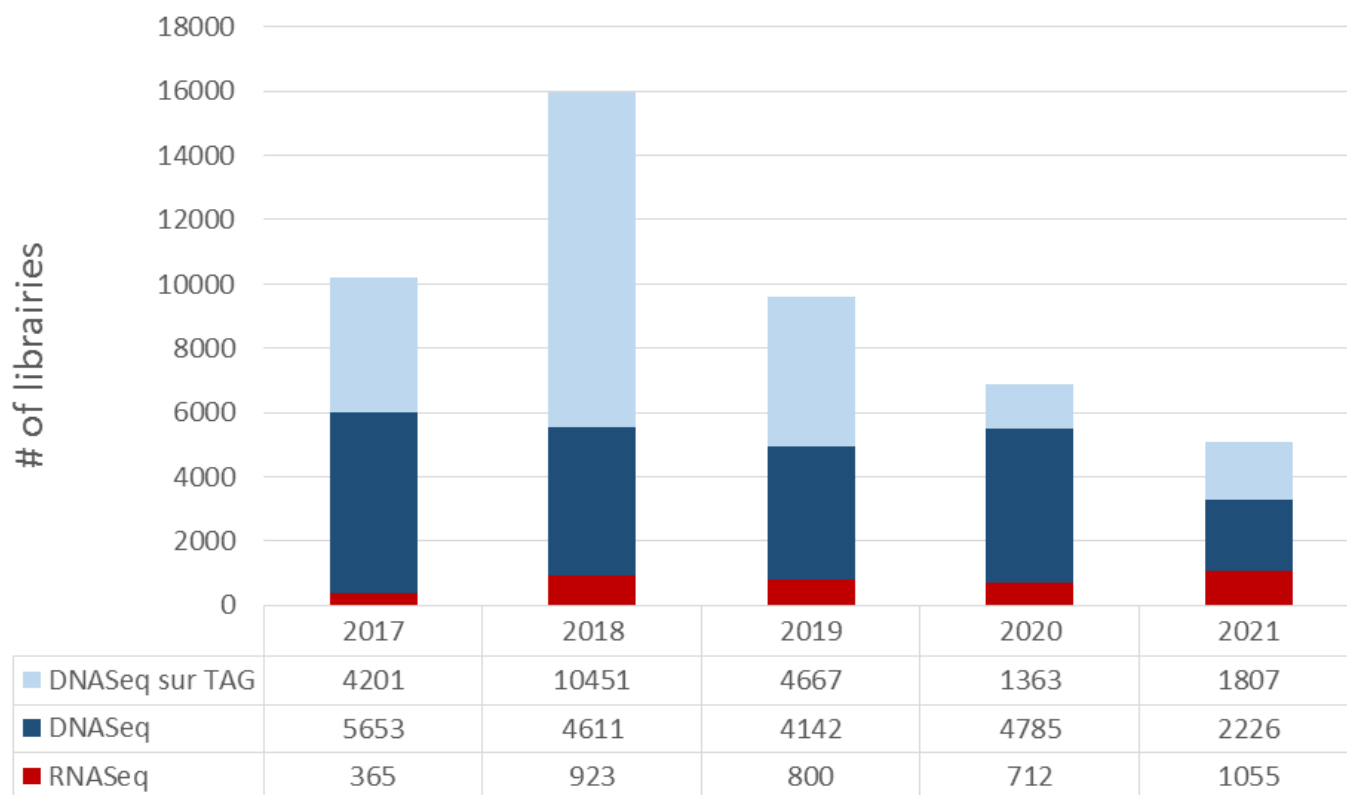
DNASeq library
PCR
PCR-free



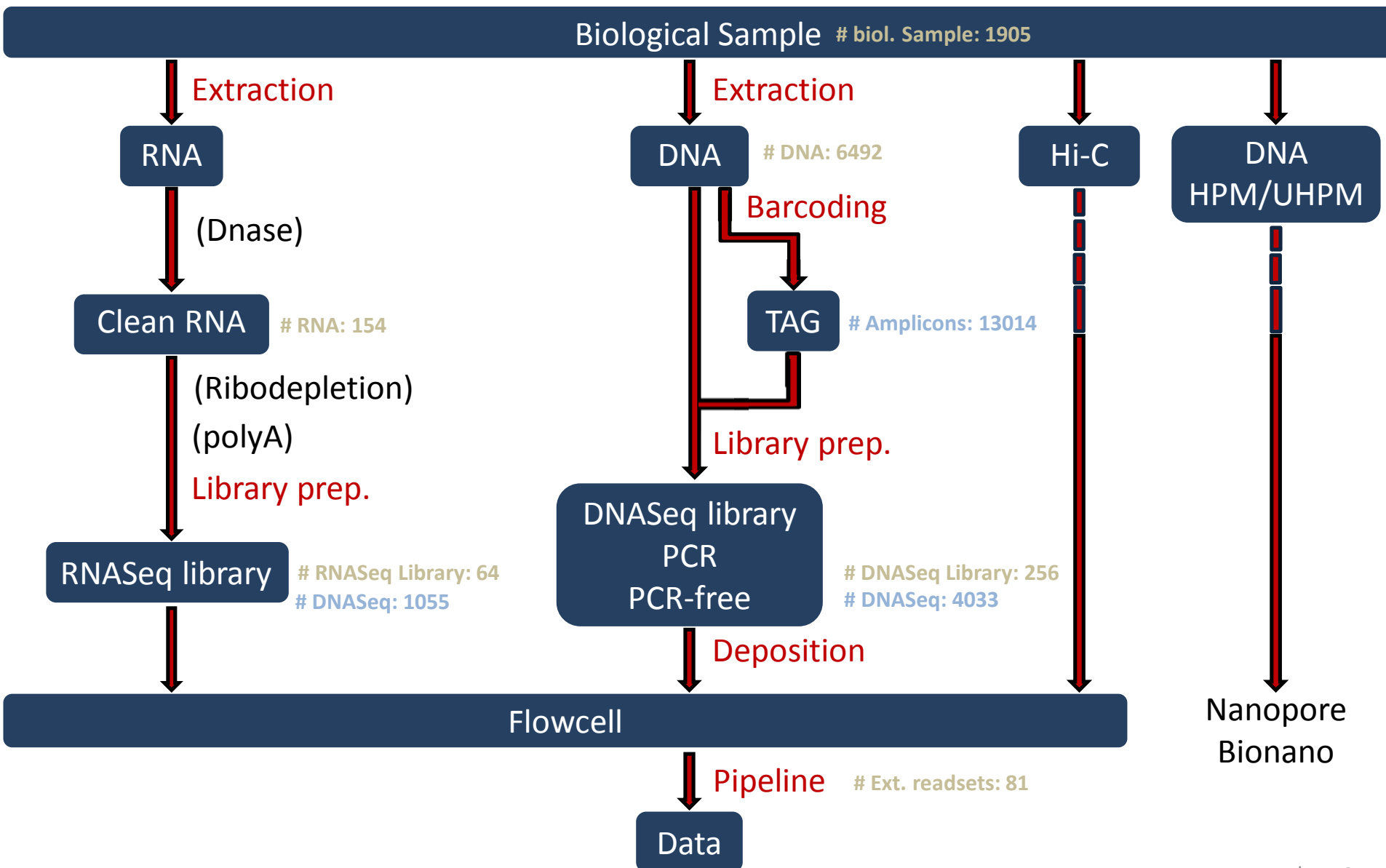
Hi-C



Evolution of librairies 2017-2021



Workflow at a glance



Flowcell

Flowcell



MiSeq

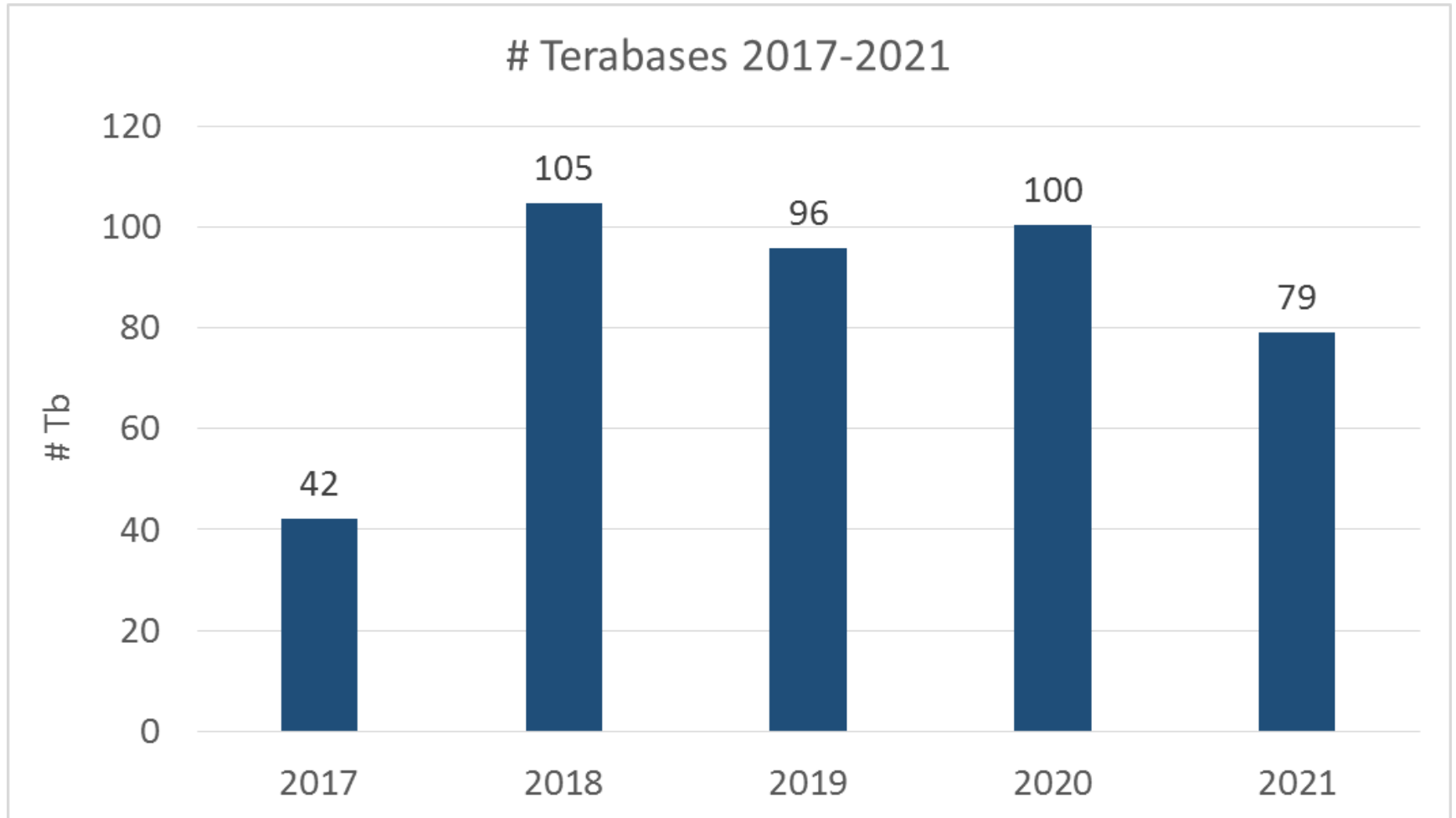
Flowcell	type de runs	# Lane	nbre de clusters PF/lane	nbre de bases (total yield / FC)
MiSeq Nano 300 cycles	2X151 pb	1	1M	>500 Mb
MiSeq Nano 500 cycles	2X251 pb	1	1M	>1,2Gb
MiSeq Micro 300 cycles	2X151 pb	1	4M	>1,2Gb
MiSeq 300 cycles	2X151 pb	1	12M	>4,5 Gb
MiSeq 500 cycles	2X251 pb	1	12M	>7,5 Gb

NovaSeq

Type de flow cell	type de runs	nbre de clusters/lane		# lane	# clusters/Flowcell		nbre de bases (total yield / FC)
SP 100 cycles	2X51	325	millions	2	650	millions	65-80 Gb
SP 200 cycles	2X101			2			134-167 Gb
SP 300 cycles	2X151			2			200-250 Gb
SP 500 cycles	2x251			2			325-400 Gb
S1 100 cycles	2X51	650	millions	2	1,3	billions	134-167 Gb
S1 200 cycles	2X101			2			266-333 Gb
S1 300 cycles	2X151			2			400-500 Gb
S2 100 cycles	2X51	1,7	billions	2	3,4	billions	333-417 Gb
S2 200 cycles	2X101			2			667-833 Gb
S2 300 cycles	2X151			2			1 - 1,25 Tb
S4 100 cycles	1X35	2	billions	4	8	billions	280-350 Gb
S4 200 cycles	2X101			4			1,6 - 2 Tb
S4 300 cycles	2X151			4			2,4 - 3 Tb

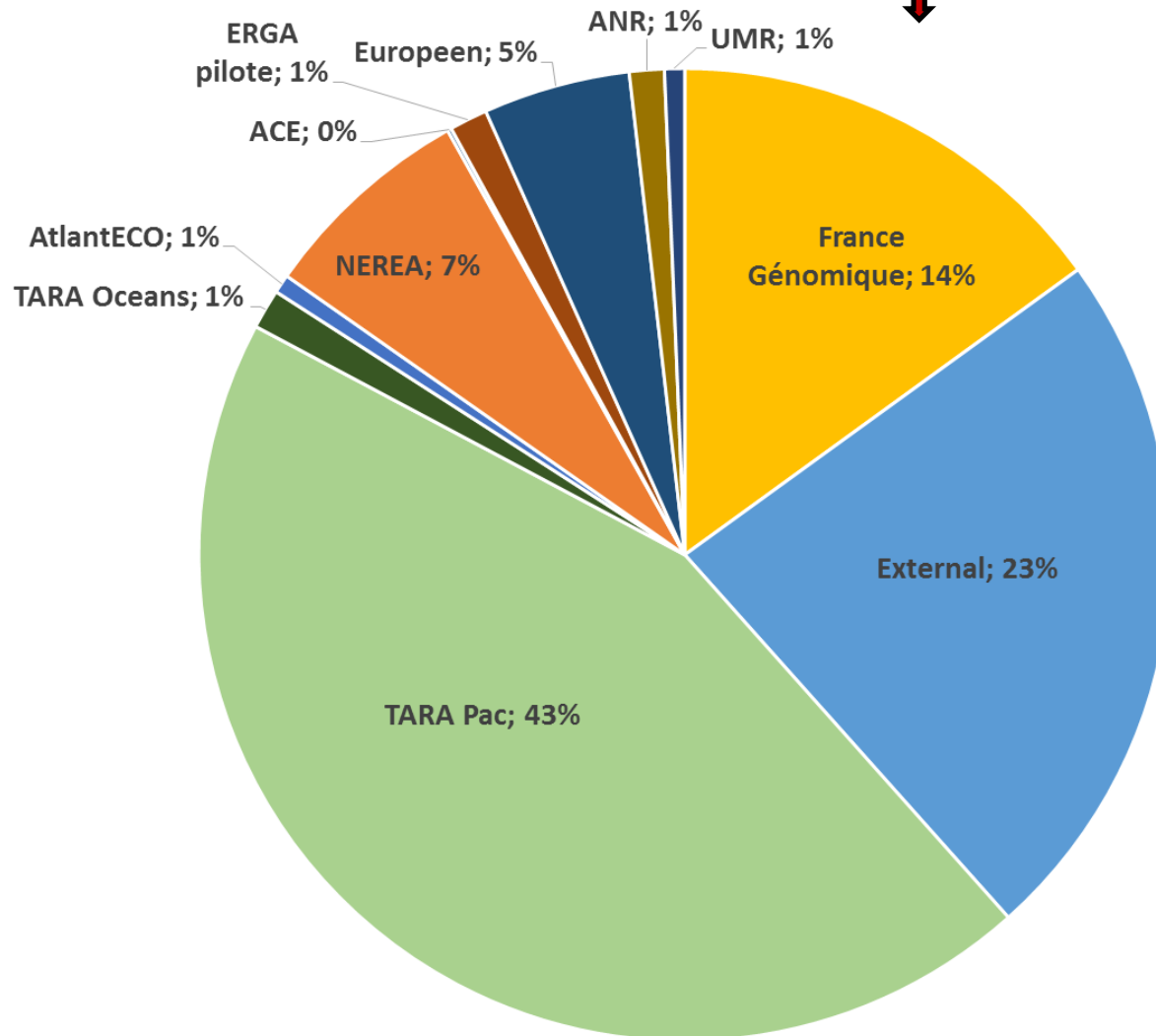
Data volumetry over the years

Data

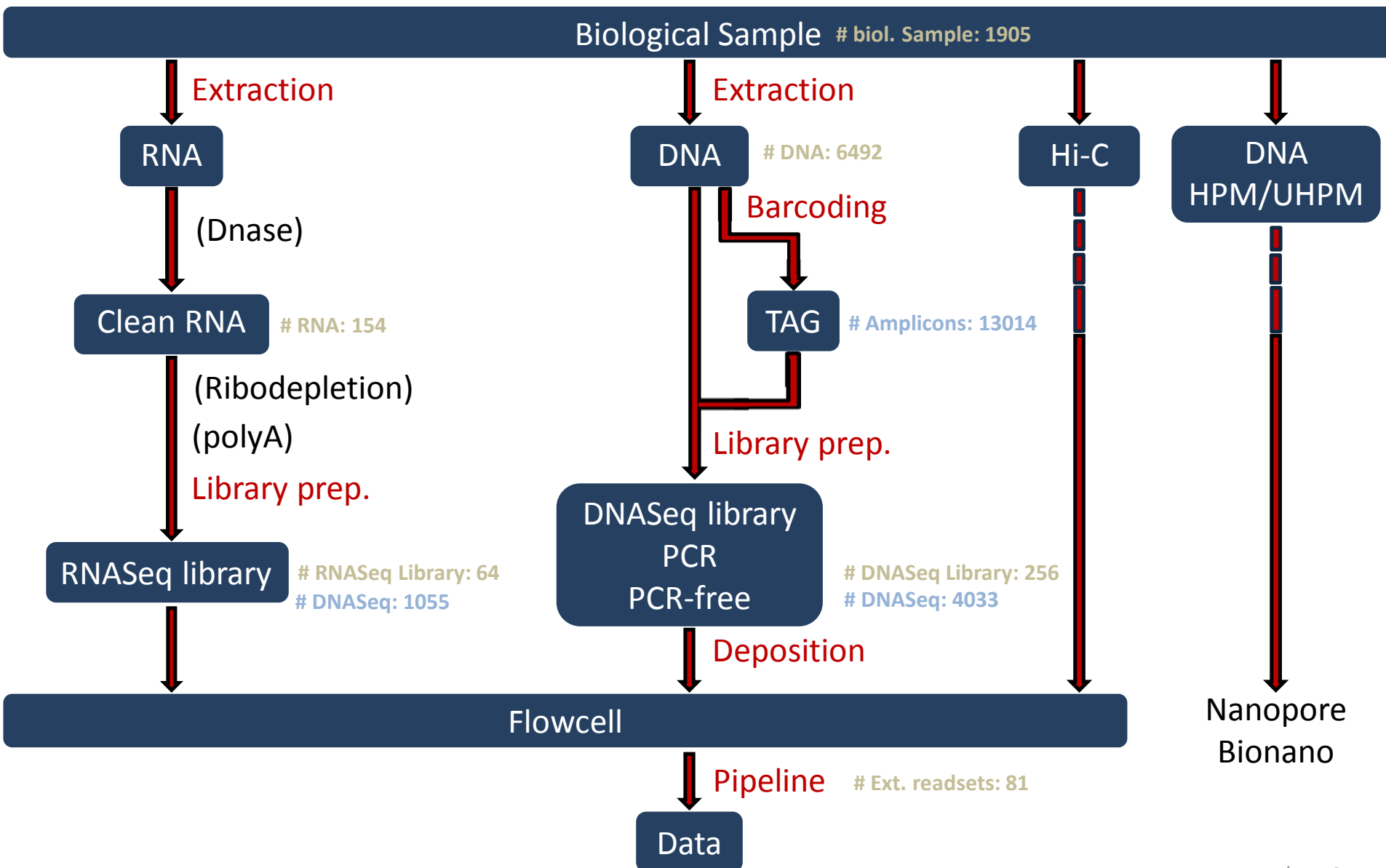


Repartition of bases in 2021

Data



Thanks NGL





QUESTIONS?

Team work



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