

Synthetic Biology present & future
a view from Genopole
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Genopole, a Bio-Park created in 1998
with 2 missions



**To promote Research in genetics,
genomics and post genomics.**

**To implement a Technopole fostering
creation and development of
biotechnology companies.**

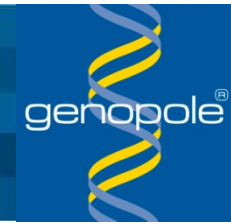
Genopole, N° 1 French Bio-Park



The score so far

	1997	2008
• Academic Laboratories (933 employees)	2	20
• Biotech Companies (1023 employees)	3	69
• Large scale facilities	0	19
• Funds raised by Companies (M€)	0	208
• Total headcount		
Direct	411	2293
Indirect	1000	6000
• Molecules or biotherapies ongoing preclinical & clinical trials	0	28
• Real estate offer (m ²)	19000	87298

Our mission



University

Academic
research

Incubator
&
biotech

hospital

Rely on Genomics centers

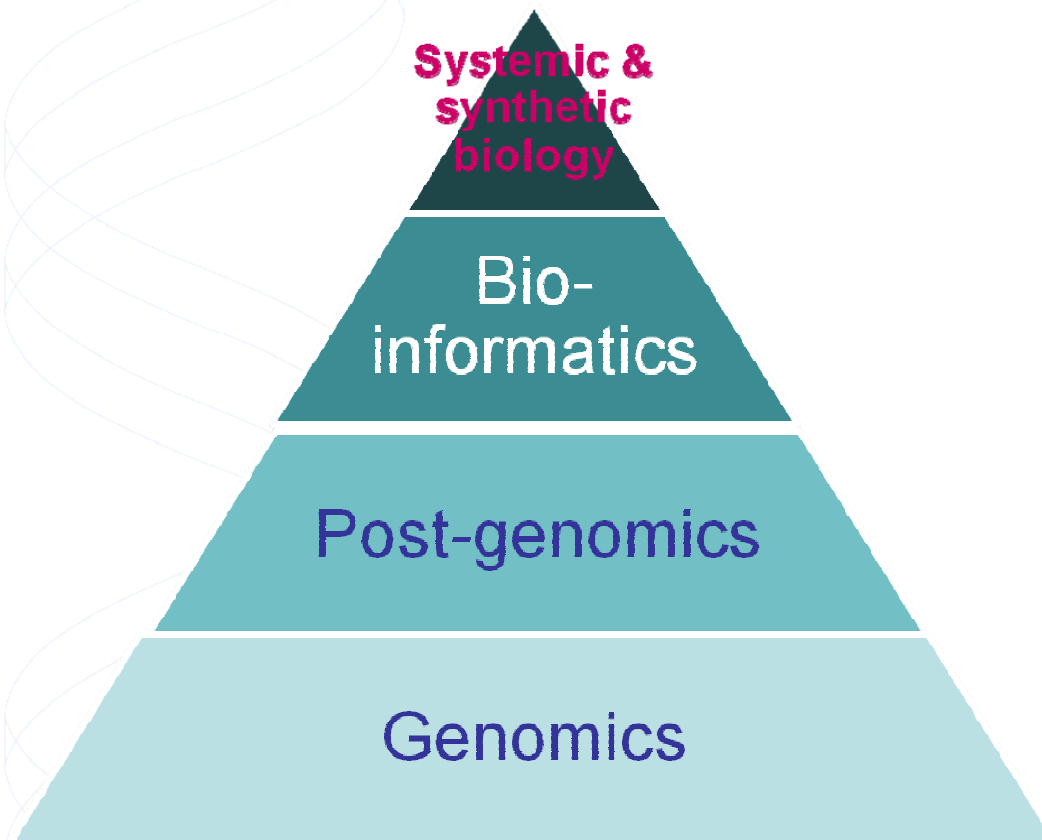
- National Sequencing Center
- National Genotyping Center
- Genethon (Gene therapy)
- Genoplante Program (Inra)

Rely on strong academic partnerships

- UEVE (University), CNRS, CEA, INSERM, INRA (4 research institutes)

Extend the partnerships when appropriate (PSEVS)

- ❖ TMSP, ENSMP, ENSIIE (3 engineers schools: IT, Materials, Electronics, Management)
- ❖ CHSF: the Hospital (1000 beds)



- **Creation of an Institute for Stem Cells (2005)**
- **Creation of an Institute of Systems and Synthetic Biology (2009)**
- **Creation of an Institute for Biomaterials (2010)**
- **Creation of a Center for Clinical and Translational Research (2011)**

Why SSB at Genopole

Education and training

The research

The core facilities

The industrial perspectives



Epigenomics Project:

2000: Inception & cooperation with IHÉS
2003: Physical space
2006: Increased operations and space
2010: Move in new building, pending Genopole® funding



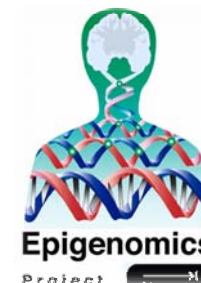
Systems Biology: 1999
Synthetic Biology: 2005



Scientific Director: François Kepes (CNRS)
Scientific Adjunct Directors: Vic Norris (Univ Rouen); Gilles Bernot (Univ Nice)

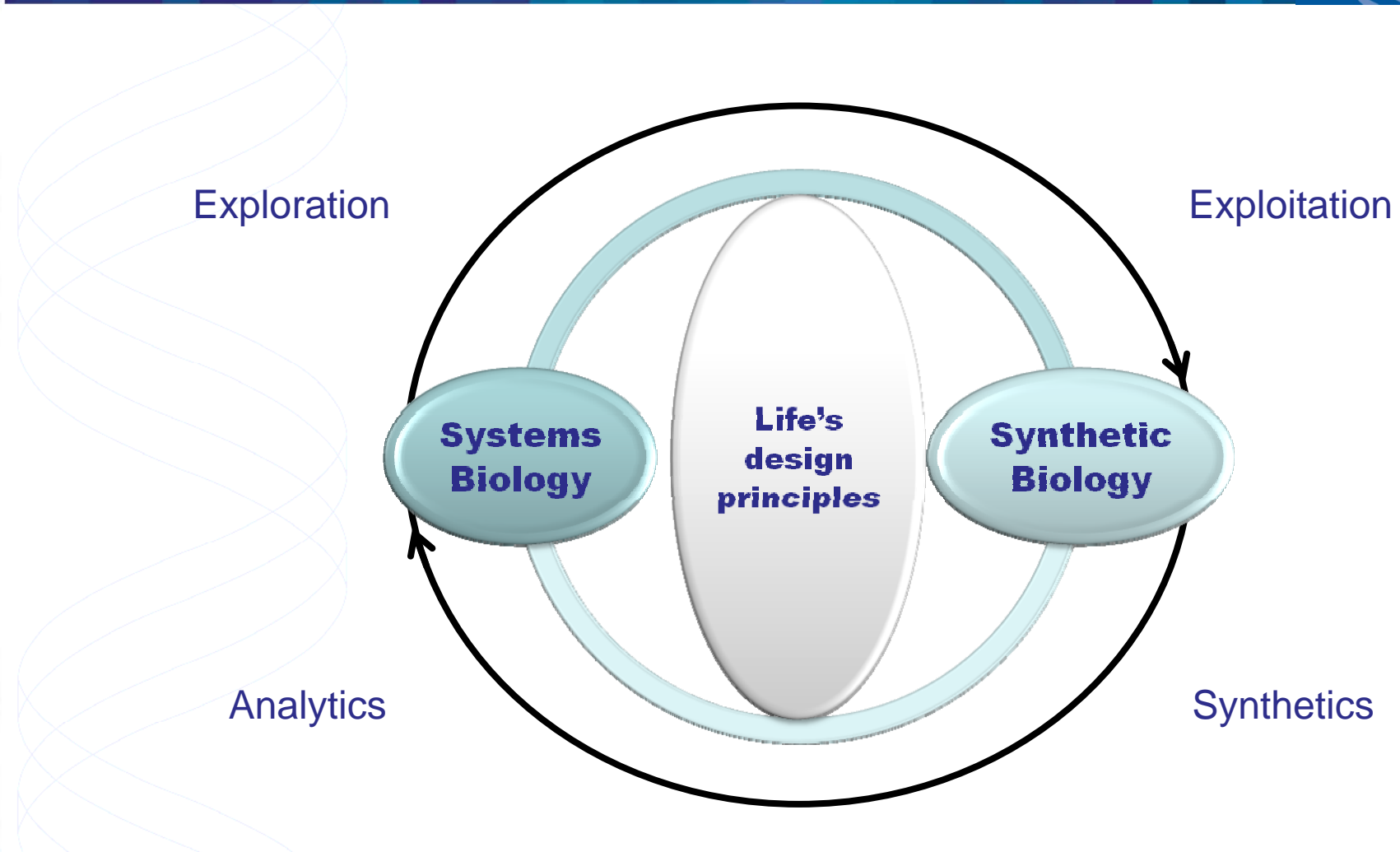
Activities:

Research Network
(9 virtual laboratories)
Visitor's Programme
Scientific Events Programme
(~75 effective days per year)



Partners:

France: Évry, Bordeaux, Montpellier, Brest, Rouen, Nice, Lyon, Grenoble, Orsay, Paris,
Foreign: UK, Spain, Belgium, ...



The partners for iSSB



Why SSB at Genopole

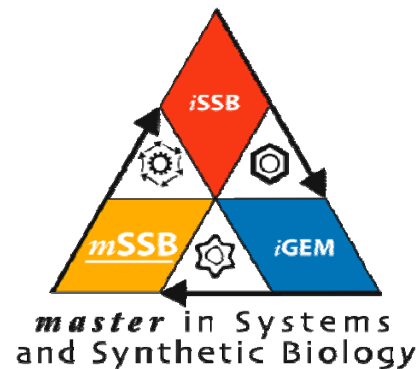
Education and training

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2010: Opening



Partners:

**PRES UniverSud Paris: ECP, AgroParisTech; Telecom Sud Paris
Europe: Negotiations with European partners**

Why SSB at Genopole

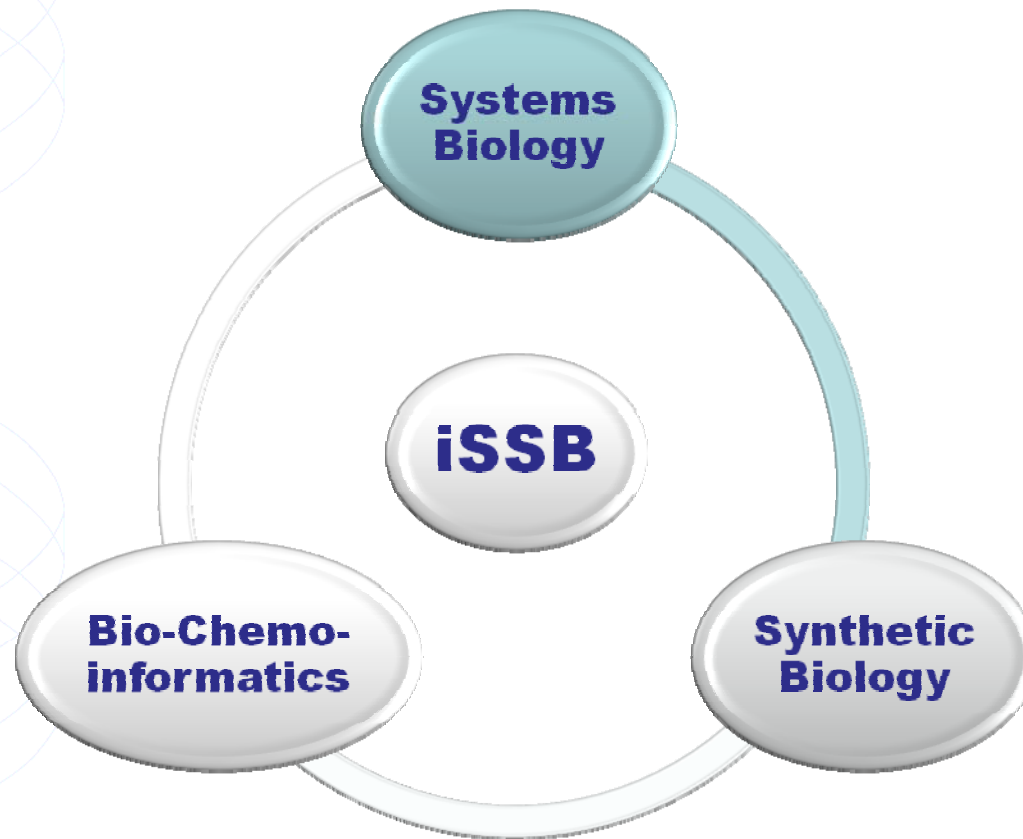
Education and training

The research

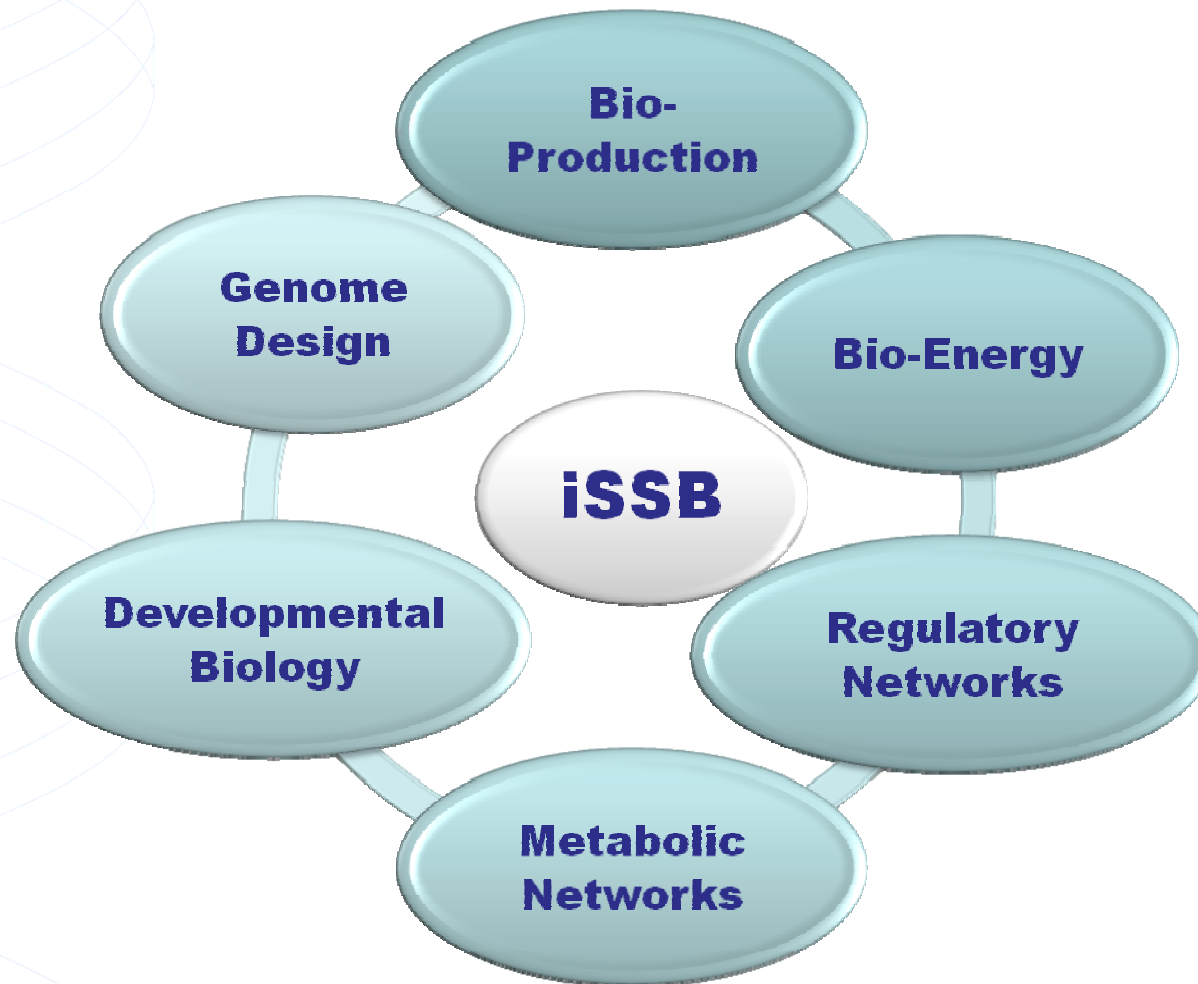
The core facilities

The industrial perspectives

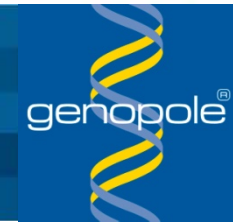
Teams: Subdisciplines



Teams: Objectives



The research teams



Metamorphosys

- P.I.: **Nicolas POLLET**
 - Team (ATIGE 2007)
- CR1** **CNRS UPS3201** **since Jan 2009**
9 people **Epigenomics Project** **since March 2007**

Modelling and Engineering Genome Architecture

- P.I.: **François KEPES**
 - Team
- DR2** **CNRS UMR8071** **since Feb 1999**
9 people **Epigenomics Project** **since Feb 1999**

Synth-Bio

- P.I.: **Alfonso JARAMILLO**
 - Team (ATIGE 2008)
- CR1** **(Epigenomics Project)** **since Jan 2009**
9 people **Epigenomics Project** **since March 2008**

Metabolic Engineering for Bioproduction

- P.I.: **Jean-Loup FAULON**
 - Team (ATIGE 2009)
- PR2 UEVE** **CNRS UMR8030** **since Sept 2008**
8 people **Epigenomics Project** **since April 2009**

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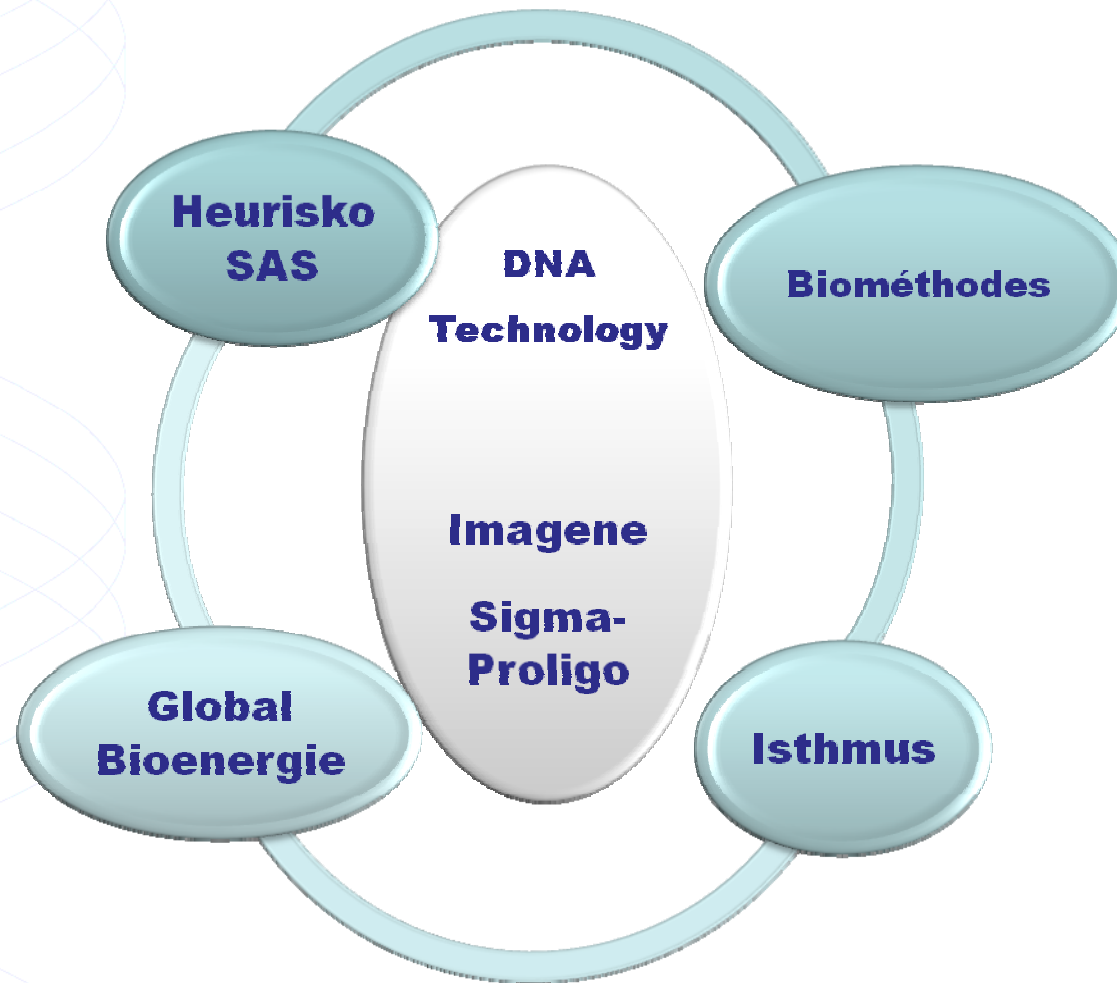
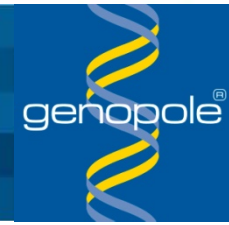
Education and training

The research

The core facilities

The industrial perspectives

The SME/Biotech



Synthetic Biology present & future ???





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