

**ÉCOLES NORMALES SUPÉRIEURES
ÉCOLE NATIONALE DES PONTS ET CHAUSSÉES**

CONCOURS D'ADMISSION SESSION 2018

FILIÈRE BCPST

COMPOSITION DE LANGUE VIVANTE ÉTRANGÈRE

Épreuve commune aux ENS de Lyon, Paris, Paris-Saclay et à l'ENPC

Durée : 2 heures

L'utilisation des calculatrices n'est pas autorisée pour cette épreuve.

L'usage de dictionnaire est interdit.

Parmi les sujets proposés, le candidat doit traiter celui correspondant à la langue vivante étrangère qu'il a choisie lors de son inscription.

Toute copie rédigée dans une langue qui ne correspondrait pas au choix apparaissant dans le dossier d'inscription définitif du candidat sera considérée comme nulle.

Sujets proposés :

- Allemand
- Anglais
- Espagnol

ANGLAIS

I. VERSION (12 points)

In most parts of the world, you could — if you wished — do some simple molecular-biology tricks in your kitchen. You might, for instance, insert the gene for the green fluorescent protein into harmless *Escherichia coli*, and cause the bacteria to glow green. But do so in the German state of Bavaria, and you could go to prison.

Germany's attitudes towards biology can seem inconsistent, but they stem from a deep fear of repeating history. Many of the country's politicians see biology as a terrifying business. They sense the nervousness of their electorate towards anything that smacks of interfering with nature. Politicians are also exquisitely attuned to the more fundamental, evolutionary fear of unleashing uncontrollable disease.

These deep-seated concerns present a dilemma because those politicians would also like biology — now a major, highly competitive international business — to contribute to the German economy, and overzealous regulations make the country a less attractive place for scientists to develop it. Strict monitoring and control over experimental biology is non-negotiable: mistakes could lead to catastrophic consequences for health or the environment, should pathogens or, say, invasive plant species accidentally escape from labs. But overextension of these regulations into areas of biology known to be safe is counterproductive.

Although European Union member states are obliged to comply with EU legislation on genetically modified (GM) organisms, they have some flexibility over how those rules are written into their national laws. In Germany, regulations for GM organisms are strict: it is the only country in which infringement can lead to imprisonment of up to three years. Each of the country's 16 states hold responsibility for how the rules are implemented.

It's time the country took a sensible look at the inconsistencies that have arisen, and began to do something about it. Germany ought to develop a more rational approach to evaluating the promise and perils of biology.

Nature, 20/12/2017

II. QUESTIONS (8 points, 100 mots minimum par question)

1. Explain the dilemma faced by politicians in Germany.
2. Would you consider precaution as an obstacle to scientific innovation?