

**Нестерова О.Ф.**

*Английский язык*

**Методические указания**  
для студентов,  
обучающихся по специальности 222000,  
«Инноватика в строительстве»  
(часть 1)



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Кафедра иностранных языков

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Содержат 10 уроков, рассчитанных для активного усвоения. В рамках указанных тем представлена лексика, необходимая для работы с предложенными текстами. Каждая тема содержит предтекстовые задания, текст и послетекстовые лексические, грамматические и речевые упражнения с целью формирования умений чтения, перевода и реферирования технической литературы, а также для развития навыков устной речи в рамках профессионального общения.

Предназначены для студентов дневного обучения специальности 222000 «Инноватика в строительстве».

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## ВВЕДЕНИЕ

Важным компонентом в обучении иностранному языку в строительном вузе является овладение базовыми понятиями, знание технологий строительного производства, что необходимо для студентов всех специальностей. Но для студентов специальности «Инноватика в строительстве» необходимы еще более широкие знания и представления о развитии современных технологий, их применении в различных областях строительства.

В связи с этим в данных методических указаниях представлены тексты освещающие вопросы инноватики, ее источники, цели и задачи, раскрывающие суть инновационного процесса.

Разнообразные упражнения способствуют продуктивному усвоению лексических единиц по темам, особое внимание уделяется интернациональной лексике и развитию речевых навыков в профессиональной сфере.

Задания на извлечение ключевой информации формируют реферативные навыки и несут прикладной характер. Упражнения по профессиональному переводу способствуют развитию концептуального мышления, а самостоятельные поисковые задания важны для приобретения и развития навыков поиска материала в Интернете и самостоятельной работы с ним.

Данная методическая разработка является актуальной для студентов специальности «Инноватика в строительстве», также она может быть интересна и полезна более широкому кругу студентов других специальностей, поскольку предлагает обширную познавательную информацию.

## LESSON 1. WHAT IS INNOVATION?

### Упражнения

#### 1. Переведите на русский язык слова с интернациональными корнями.

Innovation, form, electronic, encyclopedia, act, process, idea, method, service, economics, business, design, technology, sociology, product, revolutionary, organization, policy, positive, fundamental, effective, market.

#### 2. Что такое «инновация» в Вашем представлении? Прочитайте эпиграф к тексту и постарайтесь объяснить значение этого понятия при помощи следующих слов: idea, to be the first, to understand, to create, to feel.

#### 3. Образуйте от следующих глаголов существительные при помощи суффикса *-tion*. Переведите их на русский язык.

**Образец:** to locate – location; располагать – расположение

To prevent, to coordinate, to produce, to apply, to protect, to operate, to form, to install, to construct.

#### 4. Найдите в тексте существительные с суффиксом *-tion*, от каких глаголов они образованы?

#### 5. Переведите следующие предложения, обращая внимание на глагол *to be*:

1. Innovation is an important topic in the study of economics, business, entrepreneurship, design, technology, sociology, and engineering. 2. Innovation is considered a major driver of the economy. 3. The goal of innovation is positive change, to make someone or something better. 4. Innovation leading to increased productivity is the fundamental source of increasing wealth in an economy. 5. Innovation is the creation of better or more effective products, processes, services, technologies, or ideas that are accepted by markets, governments, and society.

#### 6. Отработайте произношение новых для вас слов и запомните их:

to derive – происходить

value – ценность, значимость

source – источник

goal – цель

improvement – улучшение

wealth – благосостояние

to introduce – вводить, внедрять

to accept – принимать

successful – успешный

society – общество

to increase – увеличивать

invention – изобретение

to refer – относиться к, ссылаться на

substantially – значительно,

существенно

**7. Внимательно прочитайте текст и переведите его. Важна ли инноватика в строительстве и как Вы ее представляете в этой отрасли?**

**ТЕКСТ: WHAT IS INNOVATION?**

“All great discoveries are made by men whose feelings run ahead of their thinking”

(Charles Parkhurst)

The word innovation derives from the Latin word *innovatus*, which is the noun form of *innovare* "to renew or change," stemming from *in*—"into" + *novus*—"new".

The electronic encyclopedia gives several classic definitions of innovation from different sources. They are as follows:

- The process of making improvements by introducing something new.
- The act of introducing something new.
- The introduction of something new.
- A new idea, method or service.
- The successful exploitation of new ideas.
- Change that creates a new dimension of performance.

Innovation is an important topic in the study of economics, business, entrepreneurship, design, technology, sociology, and engineering. Innovation is also considered a major driver of the economy, especially when it leads to new product categories or increasing productivity.

It may refer to revolutionary changes in thinking, products, processes, or organizations.

In many fields, such as the arts, economics and government policy, something new must be substantially different to be innovative. In economics the change must increase value, customer value, or producer value. The goal of innovation is positive change, to make someone or something better. Innovation leading to increased productivity is the fundamental source of increasing wealth in an economy.

While summing it up we can say that innovation is the creation of better or more effective products, processes, services, technologies, or ideas that are accepted by markets, governments, and society. Innovation differs from invention in that innovation refers to the use of a new idea or method, whereas invention refers more directly to the creation of the idea or method itself.

**8. Вставьте нужное по смыслу слово из приведенных в скобках.**

1. The word (innovating, innovate, innovation) derives from the Latin word *innovates*. 2. Innovation is the (introduction, introduce, introduced) of something new. 3. Innovation refers to revolutionary changes in thinking, products, processes, or (organized, organizations, organizer). 4. Innovation is the (creativity, creation,

created) of better or more effective products, processes etc. 5. We can give several classic (define, defining, definitions) of innovation from different sources.

**9. Закончите предложение в соответствии с предложенными вариантами и согласно содержанию текста.**

Innovation is ...

- |                     |                     |
|---------------------|---------------------|
| a) creation ...     | g) method ...       |
| b) use ...          | h) service ...      |
| c) source ...       | i) idea ...         |
| d) process ...      | j) driver ...       |
| e) introduction ... | k) change ...       |
| f) act ...          | l) exploitation ... |

**10. А теперь что такое «инновация» в вашем представлении? Изменилось ли оно после прочтения текста? Подтвердите свое мнение цитатами из вышеуказанного текста.**

**11. Перед вами два определения. Переведите их на английский язык. Какое из них, на ваш взгляд, наиболее отражает сущность данного понятия?**

**Инновация (англ. innovation)** — это внедренное новшество, обеспечивающее качественный рост эффективности процессов или продукции, востребованное рынком. Является конечным результатом интеллектуальной деятельности человека, его фантазии, творческого процесса, открытий, изобретений и рационализации.

**Инновация** — это не всякое новшество или нововведение, а только такое, которое серьезно повышает эффективность действующей системы.

## LESSON 2. SOURCES OF INNOVATION

### Упражнения

**1. Какие английские соответствия приведенным ниже русским словам можно найти в тексте?**

Инновация, структура, модель, традиционный, бизнес, компания, продукт, проект, стабильность, эффективный, эффективность, ограниченный, финансовый, тип, ресурсы, фактор. экономичный, организация, промышленность, проблема, технология, потенциальный, процесс, организационный, креативный, группа, миссия, регулярный, общение.

**2. Образуйте прилагательные от приведенных ниже слов при помощи суффиксов –al, -ful, -ive.**

Success, organization, industry, technology, create, communicate, tradition, innovate.

**3. Что необходимо для образования отрицательных и вопросительных предложений в Simple Active? В соответствии с приведенным образцом преобразуйте утвердительные предложения в отрицательные и вопросительные.**

**Образец:** A person innovates in order to sell the innovation. – A person does not innovate in order to buy the innovation. Does a person innovate in order to sell the invention?

1. A company develops an innovation for their own use. 2. Existing products meet their own needs. 3. Sometimes user-innovators become entrepreneurs. 4. Innovators trade their innovation. 5. The most successful innovation occurs at the boundaries of organizations and industries. 6. The needs of users and the potential of technologies are linked together in a creative process. 7. The individuals are unified by a common mission. 8. Small businesses face a number of obstacles to effective innovation.

**4. Выучите необходимые для понимания темы слова.**

to recognize – узнавать

to sell – продавать

end-user – конечный пользователь

to develop – развивать

to meet the needs – отвечать потребностям

to trade – торговать

to occur – происходить, случаться

boundary – граница

to be linked – быть связанным с

to challenge – бросать вызов

to unify – объединять

common – общий

to face – сталкиваться

obstacle – препятствие

obvious – очевидный

to promote – продвигать, способствовать

support – поддержка (поддерживать)

owner – владелец

**5. Найдите соответствия:**

1. manufacturer innovation

2. end-user innovation

3. linear model

4. existing products

5. needs of users

6. creative process

7. organizational structure

8. common mission

9. a number of obstacles

10. manpower resources.

11. small business owner

а) общая миссия

б) человеческие ресурсы

в) инновация производителя

г) потребности пользователей

д) организационная структура

е) существующие изделия

ж) линейная модель

з) ряд препятствий

и) инновация конечного пользователя

л) владелец малого бизнеса

**6. Прочитайте и переведите текст. Какой источник инновации, на ваш взгляд, наиболее эффективен?**

### TEXT: SOURCES OF INNOVATION

There are several sources of innovation. In the linear model of innovation the traditionally recognized source is *manufacturer innovation*. This is where an agent (person or business) innovates in order to sell the innovation. Another source of innovation, only now becoming widely recognized, is *end-user innovation*. This is where an agent (person or company) develops an innovation for their own use because existing products do not meet their needs. Sometimes user-innovators may become entrepreneurs, selling their product, they may trade their innovation.

Much of the most successful innovation occurs at the boundaries of organizations and industries where the problems and needs of users, and the potential of technologies can be linked together in a creative process that challenges both. Here is no standard blueprint for these networks, because they are shaped by a company's business goals and organizational structure. However, the individuals who make up these groups are unified by a common mission and are in regular communication.

Small businesses face a number of obstacles to effective innovation, the most obvious being limited financial, knowledge, and manpower resources. In fact, one of the most important factors in promoting company-wide innovation is the support of the small business owner.

### 7. Закончите предложения в соответствии с содержанием текста.

1. In the linear model of innovation the traditionally recognized source is ... .  
 2. An agent innovates in order to ... . 3. In end-user innovation an agent develops an innovation for ... . 4. Sometimes user-innovators may become ... . 5. The problems and needs of users, and the potential of technologies can be linked together in a ... .  
 6. The individuals are unified by a common mission and are in ... . 7. Small businesses face different ... . 8. One of the most important factors in promoting company-wide innovation is the support of ... .

### 8. Поставьте вопросы к выделенным частям предложений.

1. In the linear model of innovation the traditionally recognized source is **manufacturer innovation**. 2. An agent (person or business) innovates **in order to sell the innovation**. 3. A person or a company develop an innovation for their own use **because existing products do not meet their needs**. 4. Sometimes user-innovators may become **entrepreneurs**. 5. Much of the most successful innovation occurs **at the boundaries of organizations and industries**. 6. The problems and needs of users, and the potential of technologies can be linked together **in a creative process**. 7. **The individuals** who make up these groups are unified by a common mission. 8. Small businesses face **a number of obstacles** to effective innovation. 9.

One of the most important factors in promoting company-wide innovation is **the support of the small business owner.**

**9. Переведите на английский язык следующие предложения, согласно содержанию текста:**

1. Существует несколько источников инновации.
2. В линейной модели инновации традиционным источником является инновация производителя, где индивид совершает инновацию в целях ее продажи.
3. Другой источник инновации – инновация конечного пользователя, где индивид или компания разрабатывает инновацию для собственного пользования.
4. Иногда пользователи-инноваторы могут стать предпринимателями.
5. Самые успешные инновации случаются на границе организаций и промышленности.
6. Потребности потребителей и технологический потенциал соединяются в творческом процессе.
7. Малый бизнес сталкивается с рядом препятствий для эффективной инновации.
8. Это ограниченные финансовые, интеллектуальные и человеческие ресурсы.
9. Одним из самых важных факторов является поддержка владельцев малого бизнеса.

**10. Составьте предложения из нижеприведенных слов. Подсказка – выделенное слово в каждой строчке является началом предложения.**

- Several, of, are, there, sources.
- Innovates, an, in, innovation, agent, manufacturer, innovation, sell, to.
- Develops, end-user, in, innovation, agent, an, innovation, his, use, for, own.
- Users, potential, of, needs, the, technologies, and, of, together, be, can, linked.
- Innovation, small, obstacles, effective, businesses, face, to, effective, number, of, a.

### **LESSON 3. NECESSARY ELEMENTS OF INNOVATION**

#### **Упражнения**

**1. Дайте русские эквиваленты приведенным ниже английским словам:**

Element, basic, innovation, individual, idea, business, potential, capital, reality, step, to exploit.

**2. Запомните слова, необходимые для понимания текста.**

value –	to explore – исследовать
relationship – отношение	venture – предприятие
force – сила	to fail – провалиться, потерпеть неудачу
previously – предварительно, прежде	necessary – необходимый

### **3. Прочитайте текст, переведите его и скажите, что необходимо для успешной инновации?**

#### **TEXT. NECESSARY ELEMENTS OF INNOVATION**

There is no value in talking about innovation without talking about both creativity (having a new idea) and entrepreneurship (getting it done). Further, it's not the presence of these two activities that makes innovation successful, but rather the relationship between them.

Innovation is the basic driving force behind entrepreneurship and the creation of small businesses. When an individual comes up with an idea that has not previously been explored, or a niche that larger businesses have not been able to exploit, he or she may be able to turn that idea into a successful business venture.

Of course, not every new idea has the potential to become a successful business. And in many cases, individuals with good, marketable ideas fail to come up with the capital needed to turn their ideas into reality. But innovation is still a necessary first step for small business success in many instances.

### **4. Верны (True) или неверны (False) следующие утверждения. Исправьте неверные, предложив правильный ответ.**

1. Talking about innovation we should mention creativity and market researches.
2. The relationship between creativity and entrepreneurship makes innovation successful.
3. Entrepreneurship is the basic driving force behind innovation.
4. An individual can turn a new idea into a successful business venture.
5. Every new idea has the potential to become a successful business.
6. Sometimes individuals don't have the capital needed to turn their ideas into reality.
7. Creativity is the first step for small business success.

### **5. Усомнитесь в содержании следующих высказываний, превратив их в общие вопросы:**

1. The presence of creativity and entrepreneurship makes innovation successful.
2. Innovation is not the primary driving force.
3. An individual can turn any idea into a successful business venture.
4. Individuals need the capital to turn their ideas into reality.
5. Innovation is the first step for small business success.

### **6. Расскажите о необходимых элементах инновации и их взаимосвязи, используя следующие выражения:**

creativity and entrepreneurship; relationship; makes innovation successful; is the basic driving force; to turn the idea into a successful business venture; the potential to become a successful business; the capital needed; to turn the ideas into reality; necessary first step.

## LESSON 4. GOALS OF INNOVATION

### Упражнения

**1. Найдите в тексте интернациональные слова и переведите их на русский язык.**

**2. Найдите в тексте соответствия приведенным русским фразам:**

цель инновации, организационные цели и задачи, значительное количество, оборот, внося изменения в утвердившиеся процессы, количество вложений, средние вложения, усовершенствование изделий, разработка нового изделия.

**3. Выучите новые слова, встречающиеся в тексте.**

goal – цель	shareholder –
to achieve – достигать	significant – значительный, значимый
growth – рост	turnover – оборот
to improve – улучшать,	average – средний показатель
усовершенствовать	

**4. Прочитайте, переведите текст. Какова, по-вашему, главная цель инновации?**

### TEXT. GOALS OF INNOVATION

The goal of innovation is to create business value by developing ideas from mind to market. Programs of organizational innovation are typically linked to organizational goals and objectives, to the business plan, and to market competitive positioning.

For example, one driver for innovation programs in corporations is to achieve growth objectives. It is not surprising, therefore, that companies such as General Electric and Procter & Gamble have embraced the management of innovation enthusiastically, with the primary goal of driving growth and, consequently, improving shareholder value.

In general, business organizations spend a significant amount of their turnover on innovation i.e. making changes to their established products, processes and services. The amount of investment can vary from as low as a half a percent of turnover for organizations with a low rate of change to anything over twenty percent of turnover for organizations with a high rate of change.

The average investment across all types of organizations is four percent. These goals vary between improvements to products, processes and services and new product development.

**5. Заполните пропуски подходящими по смыслу словами, данными ниже.**

1. The goal of innovation is ... business value by developing ideas from mind to market. 2. Business organizations spend a significant amount of their turnover on ... . 3. Goals vary between improvements to ..., processes and services and new

product development. 4. Programs of organizational innovation are linked to organizational goals and objectives, to the business plan, and to ... .

Market competitive positioning, to create, products, innovation.

### **6. Выберите правильную форму слова.**

1. The goal of innovation is to *create/creation* business value by developing ideas from mind to market. 2. Programs of organizational innovation are typically linked to *organizational/organization* goals and objectives. 3. Some companies have the primary goal of driving growth and *improvement/improving* shareholder value. 4. Business organizations spend a significant/significance amount of their turnover on innovation. 5. The amount of *investment/investing* can vary from a half percent of turnover to over twenty percent. 6. The average investment across all types of *organizations/organizers* is four percent. 7. These goals *vary/various* between improvements to products, processes and services and new product development.

### **7. Поставьте разделительные вопросы к следующим предложениям.**

**Образец:** Every new idea has the potential to become a successful business. - Every new idea has the potential to become a successful business, doesn't it?

1. Programs of organizational innovation are typically linked to the business plan. 2. Business organizations spend a significant amount of their turnover on innovation. 3. The amount of investment can vary for organizations with a low and high rate of change. 4. The average investment is four percent. 5. These goals vary between improvements to products, processes and services and new product development.

### **8. Ответьте на поставленные вопросы.**

1. What is the goal of innovation? 2. What are programs of organizational innovation linked to? 3. Where do business organizations spend their turnover? 4. How can the amount of investment vary? 5. What is the average investment? 6. Are the goals vary between improvements and new developments?

## **LESSON 5. TYPES OF INNOVATION**

### Упражнения

#### **1. Дайте русские эквиваленты следующим английским словам:**

concept, type, to identify, model, method, product, design, organizational, structure, practice, process, production, functional, characteristic, technical, service, financial, to combine, basic, credit, progressive.

**Найдите в тексте предложения с данными словами и переведите их на русский язык.**

**2. Прочитайте внимательно эпиграф, переведите его на русский язык. Согласны ли вы с автором?**

### 3. Выучите новые для вас слова, необходимые для понимания текста.

truth – правда, истина

to ridicule –

to accept – принимать

self-evident –

to imply –

alteration – изменение

implementation –

substantially – существенно

to include – включать

to relate – относиться

supply –

input –

delivery –

output –

customer – покупатель

### 4. Прочитайте и переведите текст, обращая особое внимание на характеристику различных типов инновации.

#### ТЕКСТ. Types of Innovation

“All truth passes through three stages.

First, it is ridiculed.

Second, it is violently opposed.

Third, it is accepted as being self-evident”

Arthur Schopenhauer (1788-1860)

The concept of innovation implies different types of innovation. Scholars have identified a variety of innovation including the following:

- Business model innovation – changing the way business is done;
- Marketing innovation – development of new marketing methods with improvement in product design or packaging, product promotion or pricing;
- Organizational innovation – the creation or alteration of business structures, practices and models;
- Process innovation – the implementation of a new or significantly improved production or delivery method;
- Product innovation – the introduction of a new good that is new or substantially improved. This can include improvements in functional characteristics or technical abilities;
- Service innovation – similar to product innovation except that it relates to services;
- Supply chain innovation – occur in the sourcing of input products from suppliers and the delivery of output products to customers;
- Financial innovation – through which new financial services and products are developed by combining basic financial attributes (ownership, risk-sharing, liquidity, credit) in progressive innovative ways.

**5. Дайте краткое определение различным типам инноваций, пользуясь текстом.**

**Образец:** Financial innovation – combining basic financial attributes in progressive innovative ways.

**6. Закончите предложения нижеприведенными фразами:**

1. The concept of innovation ...
2. Business model innovation – ...
3. Marketing innovation – ...
4. Organizational innovation – ...
5. Process innovation – ...
6. Product innovation – ...
7. Service innovation - ...
8. Supply chain innovation – ...
9. Financial innovation – ...

- a) the creation or alteration of business structures, practices and models;
- b) through which new financial services and products are developed by combining basic financial attributes in progressive innovative ways;
- c) implies different types of innovation;
- d) the introduction of new service that is new or substantially improved;
- e) development of new marketing methods with improvement in product design or packaging, product promotion or pricing;
- f) occur in the sourcing of input products from suppliers and the delivery of output products to customers;
- g) changing the way business is done;
- h) the implementation of a new or significantly improved production or delivery method;
- i) the introduction of a new good that is new or substantially improved.

**7. Задайте собеседнику следующие вопросы:**

1. What does the concept of innovation imply?
2. What is business model innovation?
3. How do product and service innovations differ?
4. What does marketing innovation presuppose?
5. Organizational innovation is the creation or alteration of business structures, practices and models, isn't it?
6. Where does supply chain innovation occur?
7. What type of innovation develop financial services and products?

## LESSON 6. INNOVATIVE ACTIVITY AND CREATIVITY

### Упражнения

**1. Найдите в тексте интернациональные слова и дайте их соответствия на русском языке.**

**2. Обратите внимание на фразы, содержащие модальные глаголы. Переведите их.**

Everything new should be substantially different from others; all organizations can innovate; it may also have a negative or destructive effect; organizations may be destroyed; the smallest idea can be the cause of an improvement.

**3. Запомните следующие слова, необходимые для понимания текста:**

to modify –	deliberation –
saleable –	variety –
incremental –	to cause –
destructive –	improvement -

**4. Прочитайте и переведите текст.**

### TEXT. Innovative Activity and Creativity

“All progress, all success springs from thinking”

Thomas Edison (1847-1931)

Being first in the field of inventions is not enough. Innovation is the process that modifies new and original ideas through their thorough development and wide business activity into saleable goods, processes and services in demand.

In economics, business and government policy everything new should be substantially different from others. The innovative activity concerns as a rule both radical and incremental changes to required products, processes and services. Goal of innovation is to solve a problem. Innovation is a key issue in the fields of economics, business, technology, sociology and engineering. Innovation is thought to be a major driver of the economy.

All organizations can innovate, including, for example, hospitals, universities and local governments. While innovation typically adds value to some existed thing, it may also have a negative or destructive effect as new developments clear away or change old organizational forms and practices. Organizations that do not innovate effectively may be destroyed by those that do.

In addition, it is of great importance that everyone in the business has the potential to be creative. Each member of the organization has a different viewpoint. This will help in deliberation of the variety of ideas created. Even the smallest idea can be the cause of an improvement in various spheres.

**5. Задайте собеседнику вопросы по тексту, требующие краткие ответы (yes/no questions), предложите ему ответить на них.**

**Образец:** 1. Is it enough to be first in the field of inventions? No, it isn't.

2. Does the innovative activity concern both radical and incremental changes? Yes, it does.

**6. Закончите следующие предложения, исходя из содержания текста:**

1. Innovation is the process that ... new and original ideas through their thorough development and wide business activity. 2. Everything new should be substantially ... from others. 3. The innovative activity concerns both ... changes. 4. Goal of innovation is to ... . 5. Innovation is considered... of the economy. 6. Innovation may also have ... effect. 7. Organizations that do not innovate effectively may be ... by those that do. 8. Everyone in the business has the potential to be ... . 9. Even the smallest idea can be the cause of ... .

**7. Найдите в тексте ответы на следующие вопросы:**

1. Что представляет из себя инновация? 2. Какие изменения влечет за собой инновационная деятельность? 3. Какова цель инновации? 4. Какое место занимает инновация в разных отраслях? 5. Какие организации могут заниматься инновационной деятельностью? 6. Только ли положительный эффект оказывает инновация? 7. Всякая ли идея может быть инновационной в различных сферах?

## **LESSON 7. THE INNOVATION PROCESS. WHAT INNOVATION PROCESS INCLUDES**

### Упражнения

**1. Дайте русские эквиваленты следующим словам:**

Company, competence, corporate, culture, systematic, phase, idea, market, commercial, series, step, form, experimentation, real, chance, program, typically, plan, positioning, type, definition, action, monitoring, result, communication, information, analyst, context, traditional, manage, expertise, service, product, extract, technology, resources, focus, generate.

**2. Запомните следующие слова, необходимые для понимания текста:**

core –	confirmation –
approach – поход	alignment –
to select –	participation – участие
penetration – проникновение	access – доступ
gain – выгода	seamless –
attitude – отношение	breakthrough –
to adopt – принимать	available –
to reject – отвергать	opportunity – возможность

to squander –  
to allow – позволять

to benefit –  
memory – память

### **3. Прочитайте и переведите текст. Проанализируйте его содержание.**

#### **TEXT. THE INNOVATION PROCESS. WHAT INNOVATION PROCESS INCLUDES**

Innovation in a business organization requires an understanding of the company's core competencies, an innovative corporate culture, and a systematic approach. We can describe three phases in the innovation process: 1) the invention phase, in which ideas are generated; 2) the implementation phase, in which the best ideas are selected and developed further; and 3) the market penetration phase, in which ideas are exploited for commercial gain.

Researcher Gabriel Tarde defined the innovation-decision process as a series of steps that includes:

- 1. First knowledge**
- 2. Forming an attitude**
- 3. A decision to adopt or reject**
- 4. Implementation and use**
- 5. Confirmation of the decision**
- 6. Value of experimentation**

When an innovative idea requires a better business model a real world experimentation approach increases the chances of market success.

#### **7. Goals**

Programs of organizational innovation are typically tightly linked to organizational goals and objectives, to the business plan, and to market competitive positioning.

#### **8. Failures**

Common causes of failure within the innovation process in most organizations can be distilled into five types: Poor goal definition, Poor alignment of actions to goals, Poor participation in teams, Poor monitoring of results, Poor communication and access to information.

Analysts agree that companies of all sizes need to place innovation in a broader context than just traditional research and development and manage the process of innovation in a structured way. Companies need to establish a seamless innovation process—an enterprise-wide exchange of ideas that will ensure that the information and expertise required to create, market, and service breakthrough products is available and accessible to those who need it. Making use of the information resources available within a company allows employees to benefit from "corporate memory." They are better able to focus on innovation because they know where others have been before them.

**4. Подтвердите или опровергните следующие утверждения, начиная свое высказывание соответствующей фразой: *I agree, you are right* или *I don't agree, you are not right, you are wrong*. Исправьте неверное утверждение.**

1. Innovation in a business organization does not require a systematic approach. 2. We can describe four phases in the innovation process. 3. When an innovative idea requires a better business model a theoretical approach increases the chances of market success. 4. Programs of organizational innovation are typically tightly linked to the business plan. 5. Poor monitoring of results can be a common cause of failure within the innovation process. 6. "Corporate memory" is benefitable within a company.

**5. Поставьте общие вопросы к следующим предложениям:**

**Образец:** Innovation in a business organization requires an understanding of an innovative corporate culture. – Does innovation in a business organization require an understanding of an innovative corporate culture?

1. We can describe three phases in the innovation process. 2. Researcher Gabriel Tarde defined the innovation-decision process as a series of steps. 3. An innovative idea requires a better business model. 4. Programs of organizational innovation are typically tightly linked to organizational goals and objectives. 5. Common causes of failure within the innovation process can be distilled into five types. 6. Companies of all sizes need to place innovation in a broader context. 7. Making use of the information resources allows employees to benefit from "corporate memory."

**6. Найдите в тексте ответы на следующие вопросы:**

1. Какие требования предъявляет инновация в бизнесе? 2. Каковы три фазы инновационного процесса? 3. Какие шаги включает инновационный процесс? 4. С чем тесно связаны программы организационной инновации? 5. Каковы общие причины неудач инновационного процесса в организациях? 6. Что позволяет использовать «корпоративную память»?

**7. Охарактеризуйте инновационный процесс, используя ключевые слова и фразы:** the invention phase, the implementation phase, the market penetration phase, first knowledge, forming an attitude, a decision to adopt or reject, implementation and use, confirmation of the decision, value of experimentation, goals, failures, seamless innovation process, "corporate memory".

## LESSON 8. INNOVATION SYSTEM

### Упражнения

**1. Какие английские соответствия приведенным ниже русским словам можно найти в тексте?**

Понятие, технология, информация, взаимодействие, рынок, национальность, деятельность, импортировать, производство, экономичный, определять, индивидуальность, передавать, артефакты.

**2. Найдите в тексте слова, образованные от приведенных ниже:**

nation, produce, economic, direct, joint, individual, develop.

**3. Выберите правильный вариант перевода фразы на английском языке.**

In order to turn an idea into a process

- а) для совершенствования идеи на пути к процессу;
- б) чтобы превратить идею в процесс.

Determine the rate and direction

- а) определить качество и направление;
- б) определить степень и направление.

To create, store and transfer the knowledge

- а) для создания, приумножения и передачи знаний;
- б) для создания, хранения и передачи знаний.

**4. Выучите следующие слова, необходимые для понимания текста:**

to root – укоренять

to influence – влиять

performance –

interconnected – взаимосвязанный

incentive –

to store – хранить

to provide – обеспечивать

skill –

framework – каркас, рамки

**5. Прочитайте и переведите текст. Какое определение термина «инновация» вам больше понравилось? Почему?**

**TEXT. INNOVATION SYSTEM**

The concept of the **innovation system** stresses that the flow of technology and information among people, enterprises and institutions is key to an innovative process. It contains the interaction between the actors who are needed in order to turn an idea into a process, product or service on the market.

A national system of innovation has been defined as follows:

- “ .. the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies.” (Freeman, 1987)
- “ .. the elements and relationships which interact in the production, diffusion and use of new, and economically useful, knowledge ... and are either located within or rooted inside the borders of a nation state.” (Lundvall, 1992)
- “... a set of institutions whose interactions determine the innovative performance ... of national firms.” (Nelson, 1993)
- “ .. the national institutions, their incentive structures and their competencies, that determine the rate and direction of technological learning in a country.” (Patel and Pavitt, 1994)

- “.. the set of distinct institutions which jointly and individually contribute to the development and diffusion of new technologies and which provides the framework within which governments form and implement policies to influence the innovation process. As such it is a system of interconnected institutions to create, store and transfer the knowledge, skills and artefacts which define new technologies.” (Metcalfe, 1995)

**6. Заполните пропуски подходящими по смыслу предложениями, приведенными ниже:  
Between, to, of, within.**

1. The flow of technology and information among people, enterprises and institutions is key ... an innovative process. 2. The elements which are located ... or rooted inside the borders of a nation state is a national system of innovation. 3. A set ... institutions determine the innovative performance of national firms. 4. The innovation system contains the interaction ... the actors who are needed in order to turn an idea into a process, product or service on the market.

**7. Продолжите определения, дав краткое описание национальной системы инновации.**

A national system of innovation is ...

1. ... the network of institutions whose activities are to ... .
2. ... the elements which interact in ... and are located ... .
3. ... a set of institutions which determine... .
4. ... the national institutions that determine... .
5. ... the set of distinct institutions which contribute to the ... .

**LESSON 9. INNOVATION IN EVERYDAY LIFE**

Упражнения

**1. Переведите на русский язык слова с интернациональными корнями.**

Popular, company, industrial, progress, transport, modern, constant, material, patent, production.

**2. Найдите в тексте слова, образованные по типу конверсии, переведите их и приведите примеры их использования в качестве другой части речи.**

**3. Прочитайте текст и найдите в словаре незнакомые вам слова. Запомните их значение. Переведите текст.**

**TEXT. INNOVATION IN EVERYDAY LIFE**



Everybody knows one of the most popular companies under the title “Michelin”.

Everybody knows what this company produces. But who knows how it all began?

In 1889 two brothers, André and Eduard Michelin embarked one of the great human and industrial adventure of our times: one that has shaped and continues to drive progress in modern means of transport through constant innovation.

A cyclist came to the plant to buy the materials needed to repair the Dunlop tires on his bicycle. It took three hours of labor and overnight drying to repair the tire and glue it to the rim. Eduard Michelin dreamed about a tire for the future... a tire that is easy to repair.

Michelin filed its first patents for detachable tires that can be repaired in a quarter of an hour.

The Paris-Brest-Paris bicycle race, ultimately won by Charles Terront on Michelin detachable tires, provided the occasion to give the public a chance to see them. They started to work hard and at the end they became one the best company for the production of tires.

#### **4. Обратите внимание на косвенный вопрос. Задайте косвенные вопросы к нижеприведенным предложениям.**

##### **Образец: Who knows how it all began?**

1. Everybody knows one of the most popular companies “Michelin”. 2. Everybody knows what this company produces. 3. In 1889 two brothers, André and Eduard Michelin embarked one of the great human and industrial adventure of our times. 4. It took three hours of labor and overnight drying to repair the tire and glue it to the rim. 5. Michelin filed its first patents for detachable tires that can be repaired in a quarter of an hour. 6. They started to work hard and at the end they became one the best company for the production of tires.

#### **5. Закончите предложения нижеприведенными фразами.**

1. Everybody knows the company...
2. Two brothers embarked ...
3. It takes three hours of labour ...
4. The bicycle race gives the public a chance ...
5. They worked hard and became ...

- a)...one of the best company.
- b)...the great human and industrial adventure.
- c)...to repair the tire.
- d)... under the title “Michelin.
- e)...to see detachable tires.

#### **6. Переведите письменно следующий диалог, запомните его и воспроизведите, используя перевод фраз, выделенных курсивом:**

A: Ты знаешь компанию под названием «Мишлен»?

B: Да, это одна из самых популярных компаний.

A: И что она производит?

B: Каждый знает это. Съемные шины.

А: А ты знаешь как все это начиналось?

В: Я слышал (*I've heard*), что у истоков (*at the beginning*) этой компании стояли два брата...

А: Да, требовалось много времени, чтобы произвести ремонт шины...и один из братьев мечтал как ускорить этот процесс.

В: Теперь съемные шины можно отремонтировать за четверть часа.

А: И это все заслуга (*And that is the deserts*) братьев Мишлен. Они первыми запатентовали съемные шины.

В: Это их шины стояли на велосипеде Чарльза Террона, который выиграл велогонку Париж-Брест-Париж?

А: Да, точно (*exactly*). И теперь они считаются (*they are considered*) лучшей компанией по производству велошин.

### **7. Найдите в тексте ответы на следующие вопросы:**

1. Как называется одна из самых популярных компаний?
2. Кто и когда стал основателем этой компании?
3. Что производит эта компания?
4. Сколько раньше требовалось времени на ремонт шины?
5. Сколько теперь требуется на это времени?
6. Каково главное изобретение этой компании?

## **LESSON 10. INNOVATION IN ECONOMICS AND BUSINESS**

### Упражнения

#### **1. Найдите в тексте слова, образованные от приведенных ниже.**

Innovate, know, inform, wide, value, differ, produce, change.

#### **2. Подберите русские эквиваленты к следующим английским словам.**

Drives, occurred, scarce resources, wealth, despite, free trade, prosperity.

Благосостояние, несмотря на, движет, произошли, свободная торговля, скудные ресурсы, процветание.

#### **3. Выучите следующие слова, необходимые для понимания текста.**

commodity – товар, продукт

decline – упадок

cumulative – нарастающий

diversified - расширенный

**4. Прочитайте и переведите текст. Скажите, благодаря чему в экономике США за последние годы произошли значительные изменения?**

**TEXT. INNOVATION IN ECONOMICS AND BUSINESS**

Innovation economists believe it is innovation that primarily drives economic growth in today's knowledge-based economy. The major changes in the US economy of the last 15 years have occurred not because the economy accumulated more capital to invest in big steel mills or car factories; rather they have occurred because of innovation. The US economy developed a wide area of new technologies, particularly information technologies, and used them widely.

If the focus in neoclassical economics is "the study of how societies use scarce resources to produce valuable commodities and distribute them among different people," the focus in innovation economics is "the study of how societies create new forms of production, products and business models to expand wealth and quality of life."

Despite a common perception that humankind is in a period of decline a British journalist Matt Ridley says progress is accelerating thanks to entrepreneurs. He also reaches a surprising conclusion: innovation and free trade made us human.

Because of innovation life has been getting better much faster than we recognize. At a certain point, we see a flowering of the human race. If two tribes invent two different technologies and then go to war, they've made no real progress. But if they trade those technologies, then the changes become cumulative.

What is prosperity? It's people working for each other. The whole story of economic progress is one of increasingly specialized production and increasingly diversified consumption. Exchange led to specialization and innovation. Innovation is a sort of product of exchange.

**5. Закончите данные предложения в соответствии с содержанием текста.**

1. Innovation primarily drives ...
2. The major changes in the US economy have occurred because of ...
3. The focus in neoclassical economics is ...
4. The focus in innovation economics is ...
5. Innovation and free trade ...
6. Prosperity is...
7. Innovation is...

**6. Каждому вопросу найдите соответствующий ответ.**

1. What do innovation economists believe?
2. What is the reason of the major changes in the US economy?
3. What is the difference between the focus in neoclassical and innovation economics?
4. What is progress accelerating due to?
5. Did innovation and free trade make us human?
6. When do the changes become cumulative?

7. What is prosperity?
8. What led to specialization and innovation?
9. Is innovation a sort of product of exchange?

- a) People working for each other.
- b) Innovation drives economic growth.
- c) Entrepreneurs.
- d) Yes, it is.
- e) Yes, they did.
- f) When people trade their technologies.
- g) Exchange.
- h) The first one studies how societies produce and distribute commodities and the second – how societies create new forms of production, products and business models.
- i) Innovation.

**7. Расскажите о значении инновации для экономики и предпринимательства.**

## **LESSON 11. THE PROBLEM OF INNOVATION**

### Упражнения

**1. Какие существуют русские соответствия приведенным ниже английским словам:**

Technology, original, pioneer, idea, commercial, vacuum, element, patent, documentary, civilization, generate, conflict, interpretation, transmission, theory, spontaneous, modernization, social, address.

**2. Образуйте наречия от следующих прилагательных при помощи суффикса –ly. Какие из образованных наречий встречаются в тексте?**

**Образец:** high – highly.

Close, entire, original, commerce, successful, complete, relative, easy, previous, frequent, particular, independent, spontaneous, great, primary, social.

**3. Переведите следующие предложения с местоимением it на русский язык и объясните функцию, которую выполняет местоимение it, в каждом предложении.**

1. It is impossible for an inventor to work in a vacuum. 2. It is frequently difficult to explain how particular innovations of the ancients have been introduced to Western Europe. 3. It is known that many inventions had been developed previously and independently in other civilizations. 4. It generates a conflict of interpretations about the transmission of technology. 5. It is quite certain that in the early centuries Western civilization addressed to the East for ideas and inspiration.

**4. Выберите правильный вариант перевода выделенной фразы.**

1. Any innovation is something **new and original**.

Любая инновация – это что-то ...

- а) новое и оригинальное
- б) старое и использованное.

2. Any technological innovation must arise out of an inventor's own **previous experience**.

Любая технологическая инновация должна возникать из ... самого изобретателя.

- а) фантастических идей
- б) предыдущего опыта.

3. It is frequently difficult to explain how particular innovations of the ancients **have been introduced** to Western Europe.

Часто бывает трудно объяснить, как отдельные инновации древности ... (на) в Западную Европу.

- а) повлияли
- б) проникли.

4. The problem is important because it generates a conflict of interpretations about the **transmission** of technology.

Проблема важна, потому что она порождает конфликт по поводу интерпретации ... технологии.

- а) передачи
- б) возникновения.

5. In the early centuries **Western** civilization addressed to the East for ideas and inspiration.

В ранние века ... цивилизация обратилась к Востоку за идеями и вдохновением.

- а) Арабская
- б) Западная.

**5. Найдите в тексте английские эквиваленты следующих словосочетаний:**

тесно связан; коммерческий успех; предыдущий опыт; полные документальные записи; порождает конфликт; теория спонтанной инновации; первичные социальные нужды; Западная цивилизация обратилась к Востоку.

**6. Прочитайте и переведите текст.**

#### TEXT. THE PROBLEM OF INNOVATION

The notion "innovation" is very closely connected with the problem of great importance in the history of technology. Any innovation is something entirely new and original, but the pioneers of inventions and innovations are often not the ones

who develop their ideas into commercial success because it is impossible for an inventor to work in a vacuum. Any technological innovation must arise out of an inventor's own previous experience. The task of distinguishing an element of novelty in an invention is completed according to the patent law, but the problem becomes relatively easy by the possession of full documentary records covering previous inventions in many countries.

However, very few such records exist, and it is frequently difficult to explain how particular innovations of the ancients have been introduced to Western Europe. The problem is rather complicated, especially because it is known that many inventions had been developed previously and independently in other civilizations.

The problem is important because it generates a conflict of interpretations about the transmission of technology. On the one hand, the theory exists, according to which all innovation has moved westward from the long-established civilizations of the ancient world. On the other hand, there is the theory of spontaneous innovation, according to which technological modernization is greatly dependable on the primary social needs. It is quite certain, however, that in the early centuries Western civilization addressed to the East for ideas and inspiration.

**7. Заполните пропуски подходящими по смыслу словами, данными ниже.**

1. The pioneers of inventions and innovations are often not the ones who develop their ideas into ... success.
  2. Any technological innovation must arise out of an inventor's own previous ... .
  3. The task of ... an element of novelty is completed according to the patent law.
  4. It is known that many ... had been developed previously and independently in other civilizations.
  5. The problem is important because it generates a ... of interpretations about the transmission of technology.
  6. There is the theory of spontaneous innovation, according to which technological... is greatly dependable on the primary social needs.
- Inventions, modernization, commercial, conflict, distinguishing, experience.

**8. Ответьте на вопросы, используя вводные фразы: it should be said, it is noted that, it is important to stress (underline).**

1. What is the notion "innovation" closely connected with?
2. Do the pioneers of inventions and innovations always develop their ideas into commercial success?
3. Whose experience must any technological innovation arise out of?
4. When does the problem of innovation become relatively easy?
5. What is frequently difficult to explain?
6. Why is the problem rather complicated?
7. What does the problem generate?
8. What two theories exist?
9. What did Western civilization address to the East for?

**9. Переведите на английский язык следующие предложения, используя материал текста.**

1. Термин «инновация» тесно связан с очень важной проблемой в истории технологии.
2. Любая инновация – это что-то полностью новое и оригинальное.
3. Но часто инноваторы не являются разработчиками идей в коммерческих целях.
4. Любая технологическая инновация должна возникать из предыдущего опыта самого инноватора.
5. Задача выявления элемента новизны в изобретении происходит согласно закону о патенте.
6. Но проблема облегчается после получения полных документальных записей, освещающих предыдущие изобретения во многих странах.
7. Но зачастую трудно объяснить, как отдельные инновации древности попали в Западную Европу.
8. Проблема важна, потому что она порождает конфликт в толкованиях по поводу передачи технологий.
9. Существует теория, согласно которой все инновации пришли на запад из древних цивилизаций.
10. С другой стороны, существует теория спонтанной инновации, согласно которой технологическая модернизация в значительной степени зависит от социальных потребностей.
11. Но известно наверняка, что в ранние века западная цивилизация обращалась за идеями и вдохновением на восток.

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Методические указания  
по английскому языку для студентов,  
обучающихся по специальности 222000  
«Инноватика в строительстве»  
(часть 1)

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