Why Pain Research Matters

Introduction: What is the problem?
Pain is the most common reason people seek medical help across Europe. While short-term pain (like that from an injury) plays a protective role, long-term or chronic pain (pain that lasts more than three months) can seriously affect a person's quality of life. It impacts not only physical and mental health but also work, education, and relationships. Pain is not a symptom but a serious health problem on it's own.

Over 150 million people in Europe experience chronic pain, making it a major public health issue. It affects people of all ages and from all parts of Europe, but people in vulnerable situations, such as those with lower incomes, limited access to care, or have other health problems, are often more severely affected. Current care is often fragmented, and treatments can fail to meet people's needs. As a result, many people do not receive effective or coordinated care.

Even though it is very common, chronic pain is still not well understood or prioritised in terms of funding for research or in healthcare systems. Pain also creates major challenges for society across Europe. It affects the economy because people living with pain may find it difficult to work or may have to retire early. Chronic pain is estimated to cost European countries between 1.5% and 3% of their gross domestic product (GDP) each year, mainly due to lost productivity and increased healthcare use. Its impact is not felt equally, chronic pain often affects women, older adults, and people with lower incomes more severely. It also contributes to loneliness, unemployment, and greater demand for health and social services.

To respond to these challenges, the European Pain Federation (EFIC) developed a detailed plan called the Pain Research Strategy for Europe (PRiSE). This strategy outlines the key steps needed to prioritise pain research and make sure it leads to real changes in policy and healthcare.

<u>Key points</u>

- Over 150 million people in Europe affected by chronic pain
- Chronic pain should be thought of as a complex condition in its own right, reflecting its complex biological, psychological, and social dimensions
- Recent studies estimate an economic cost of unmanaged pain between 1.5-4% of GDP
- Current care models are fragmented and treatment options often fail

Are current efforts enough?
Even though more people are aware of chronic pain, research is still underfunded and poorly coordinated. Many studies use different measures and outcomes, making it hard to compare results or draw clear conclusions. For example, research suggests that pain studies use around 34 different outcomes, with no standard way to measure pain across studies. This makes it difficult to understand what treatments work best.

There is also a gap between basic science and patient care. Although scientists have made big discoveries about how pain works in the body and brain, these findings often don't lead to new treatments. Research done in animal models doesn't always apply well to humans, which slows down the development of new therapies.

In addition, pain research is not making full use of new tools and technologies. For instance, machine learning has been used to predict when back pain might return, but these tools are not yet used in most clinics. This means helpful innovations aren't reaching the people who need them.

The case for a coordinated research strategy
The PRiSE strategy is designed to create a more coordinated approach to pain research in Europe. It was developed with input from healthcare professionals, researchers, and people who live with pain. The goal is to focus research efforts on the most important issues and improve how pain is studied and treated.

Without a shared plan, pain research is often repeated or doesn't focus on what matters most. Resources may be wasted, and improvements are slow. PRiSE aims to solve these problems by bringing together different countries,

research groups, and fields of study. This will help guide future funding and support more effective healthcare solutions for chronic pain.

Strategic priorities
PRiSE has identified five main research goals:

- Understand pain better by studying the many factors that influence it, including biological, psychological, and social factors.
- Study conditions that impact or are impacted by pain like depression, sleep problems, and obesity and learn how they affect pain and treatment outcomes.
- Evaluate current and newly emerging treatments, including medications, physiotherapy, and behavioural approaches, to find out what works best.
- Develop new personalised treatments that match care to the needs of individual patients, using new technologies.
- Study how pain affects society and the economy, to support better health planning and funding decisions.

These goals were shaped by a large European survey and expert input. They are designed to work alongside other major health research efforts, including mental health and long-term disease management.

From Strategy to Impact
One of the most important parts of the PRiSE strategy is making sure research leads to real change. That means studies should be useful to healthcare providers, policymakers, and people with pain. Research should also be easier to compare by using standard outcome measures and involving patients in the design of studies.

Recent research shows that using a mix of information (like clinical data, mental health scores, and brain imaging) can help predict how pain will develop. But to make this happen, researchers need good data systems and better connections between research and clinical practice.

To support this, PRiSE recommends:

- Using shared standards to measure pain
- Involving patients in research planning
- Aligning studies with international systems, like ICD-11

Conclusion: From strategy to action
Pain affects millions of people across Europe and causes major personal, social, and economic problems. With a strong research strategy, better policies, and teamwork between researchers, clinicians, and people living with pain, we can make real progress.

The PRiSE strategy provides a roadmap for achieving this. You can read the full research strategy in the European Journal of Pain here.

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