

## UNIVERSITY-BUSINESS COOPERATION AND INNOVATION

*Universities are key players in the socio-economic development of the region. As such, the transfer of knowledge, recognized as the third university mission, has become an essential component of development, as it means that knowledge generated can be transferred to the wider economy.*

*University support for the third mission through promoting processes for creating value for research results and public-private collaboration in R&D activities is an example of these institutions' commitment to society. The major available indicators associated with the transfer of knowledge are related to the generation of patents, the creation of technology-based companies or spin-offs, and university-business chairs. These three indicators allow us to visualize a significant part of the efforts currently being made by universities to promote this third mission.*

*The first indicator shown in this chapter is the number of priority patent applications, regardless of country. In 2012, Catalan universities submitted 113 priority patent applications, an increase of 33% over 2011.*

*The second indicator shows international patent extensions via the Patent Cooperation Treaty (PCT). This shows that in 2012 the upward trend seen in recent years reached a plateau, with a total of 68 extensions.*

*University personnel cuts have also affected the technical staff holding responsibilities related to knowledge transfer, which has experienced a slight decline.*

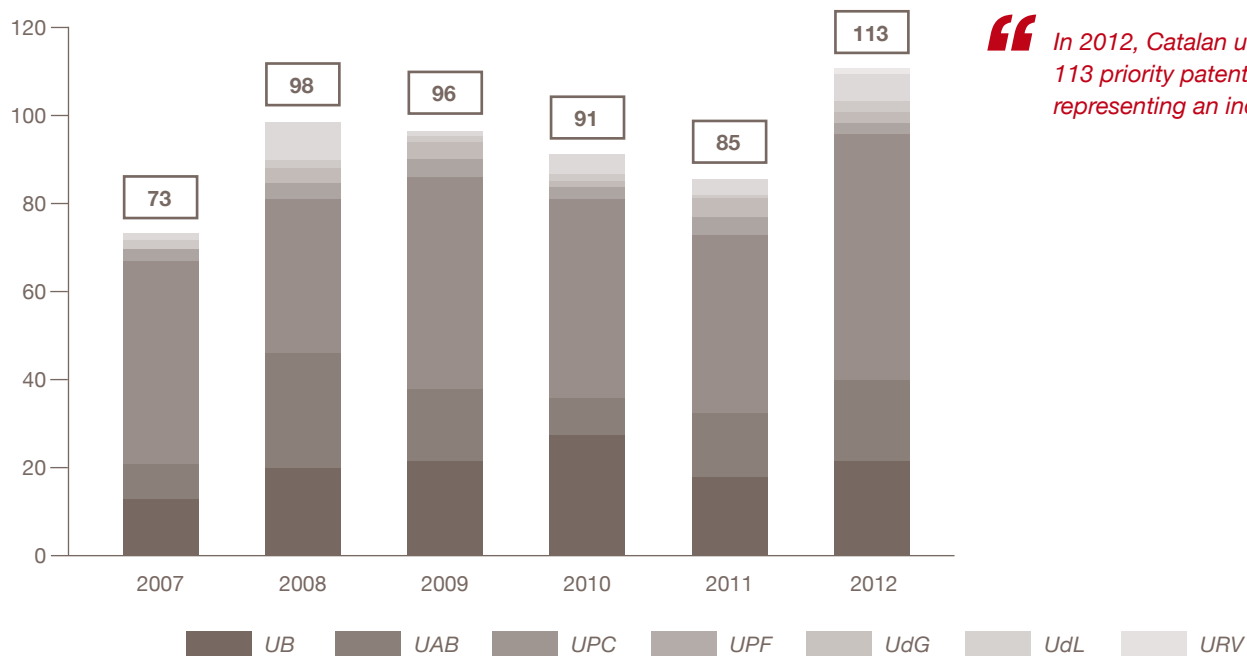
*With regard to spin-offs, there were some 118 active in 2012. This information highlights the fact that universities continue to promote the creation of technology-based companies as a means of knowledge transfer and the creation of wealth in the region.*

*The organization of the innovation system has based its strength on the creation of infrastructure for university-business collaboration, such as offices for transferring research results from universities or science and technology parks (spaces where research centres, transfer structures, and technology and corporate centres coexist), many of them promoted or created by universities.*

*In this context, considering the aggregate amount of non-competitive funding achieved by the universities and their affiliated centres, the resources obtained in 2012 show a continuation of the downward trend of recent years, totalling approximately 80 million euros.*

## 3.1 PATENTS AND LICENSES

Figure 16. Evolution of priority patent applications submitted or participated in by on-campus Catalan public universities. 2007-2012.



“ In 2012, Catalan universities submitted 113 priority patent applications, representing an increase of 33 %.”

Font: Elaboració pròpia a partir de dades facilitades per les universitats i en el format Informe-encuesta RedOtri. Diversos anys.

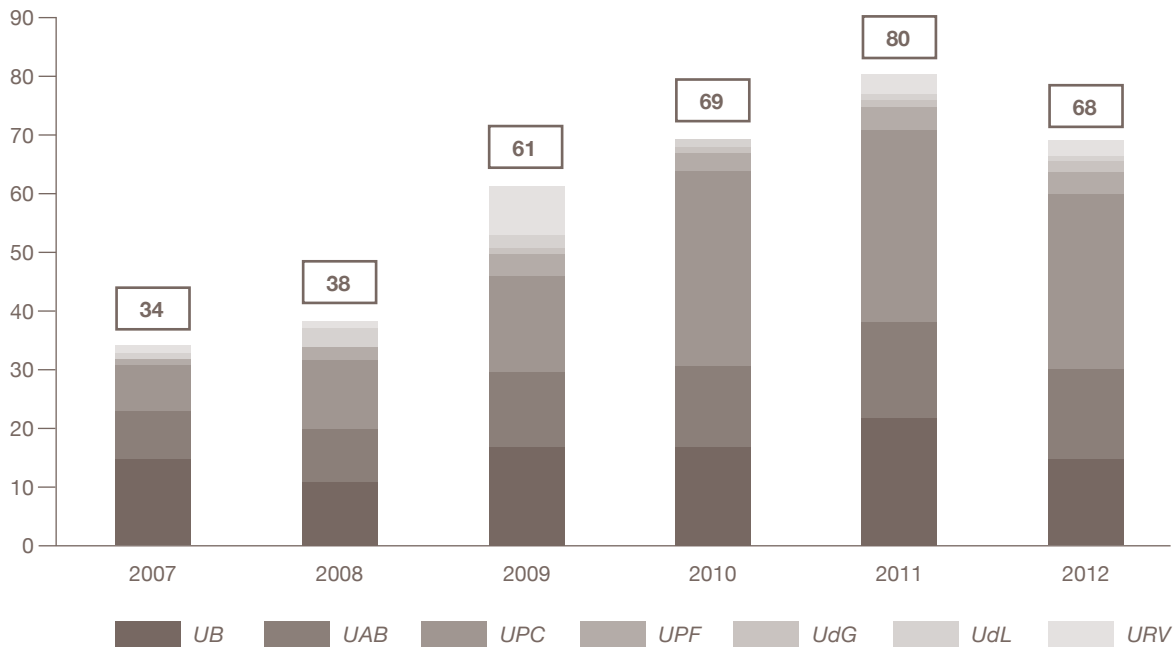
Table 6. Technical personnel involved in knowledge transfer at public universities, 2012.

Àmbit	Personal tècnic
Universitat de Barcelona	14
Universitat Autònoma de Barcelona	6
Universitat Politècnica de Catalunya	27
Universitat Pompeu Fabra	10
Universitat de Girona	5
Universitat de Lleida	3,5
Universitat Rovira i Virgili	8
Universitat Oberta de Catalunya	3

“ There was a slight decline in 2012 in the number of technical staff for the transfer of knowledge.”

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Figure 17. Evolution of international extensions of patent by the Patent Cooperation Treaty (PCT) channel (2007-2012).



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“ In 2012, the upward trend seen over previous years came to a stop with regard to requests for international extensions via the PCT. ”

## 3.2 TECHNOLOGY-BASED ENTERPRISES AND CHAIRS

Table 7. Active spin-offs and university-business chairs, 2012.

Universitat	Spin-off	Càtedres
Universitat de Barcelona	22	6
Universitat Autònoma de Barcelona	8	5
Universitat Politècnica de Catalunya	55	20
Universitat Pompeu Fabra	4	4
Universitat de Girona	14	9
Universitat de Lleida	5	9
Universitat Rovira i Virgili	10	8
Universitat Oberta de Catalunya	0	2
<b>Total</b>	<b>118</b>	<b>63</b>

Font: Elaboració pròpia. Per a les Spin-off amb dades UNEIX-Recerca i per a les Càtedres amb dades facilitades per les universitats.

Table 8. Revenue according to transfer activity in Catalan public universities, 2012.

	Universitats de l'ACUP
Import contractes d'R+D i consultoria (M€)	49,30
Import projectes de finançament públic de col·laboració amb empreses (M€) <sup>1</sup>	6,22
Import facturat per prestacions de servei (M€)	14,81
Ingressos per llicències (M€)	0,66
<b>TOTAL INGRESSOS (M€)</b>	<b>70,99</b>

“ In 2012 Catalan universities generated €71 M from technology transfer. ”

1. No s'inclou el finançament europeu

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### 3.3 SCIENCE AND TECHNOLOGY PARKS

Table 9. Indicators of Catalan science and technology parks, 2012.

<b>Parcs</b>	<b>22</b>
<b>Treballadors</b>	<b>99.458</b>
% treballadors en R+D	50 %
<b>Empreses innovadores instal·lades</b>	<b>2.769</b>
% empreses petites i microempreses	80 %
% empreses de base tecnològica	63 %
% SpinOff	50 %
% empreses catalanes	83 %
% empreses origen internacional	5 %
<b>Centres d'R+D i centres tecnològics instal·lats</b>	<b>223</b>
<b>Incubadores</b>	<b>29</b>
<b>Empreses en incubadores</b>	<b>355</b>

Font: XPCAT. Memòria 2012.

“ Catalan universities have been instrumental in creating and supporting science and technology parks in order to promote knowledge transfer in conjunction with the private sector. ”

## 3.3 TECHNOLOGY-BASED ENTERPRISES AND CHAIRS

Mapa 2. Catalan science and technology park network, 2012.



1. La Salle Technova Barcelona
2. Parc UPC. Parc de la Recerca i Innovació de la UPC
3. Parc Científic de Barcelona
4. BZ. Barcelona Zona Innovació
5. Barcelona Activa. Parc Tecnològic Barcelona Nord
6. PRBB. Parc de Recerca Biomèdica de Barcelona
7. Parc de Recerca UPF
8. 22 @ Barcelona
9. b\_TEC. Barcelona Innovació Tecnològica



Font: XPCAT. Memòria 2012.

Figure 18. Non-competitive funding obtained by Catalan public universities and associated entities, 2012.

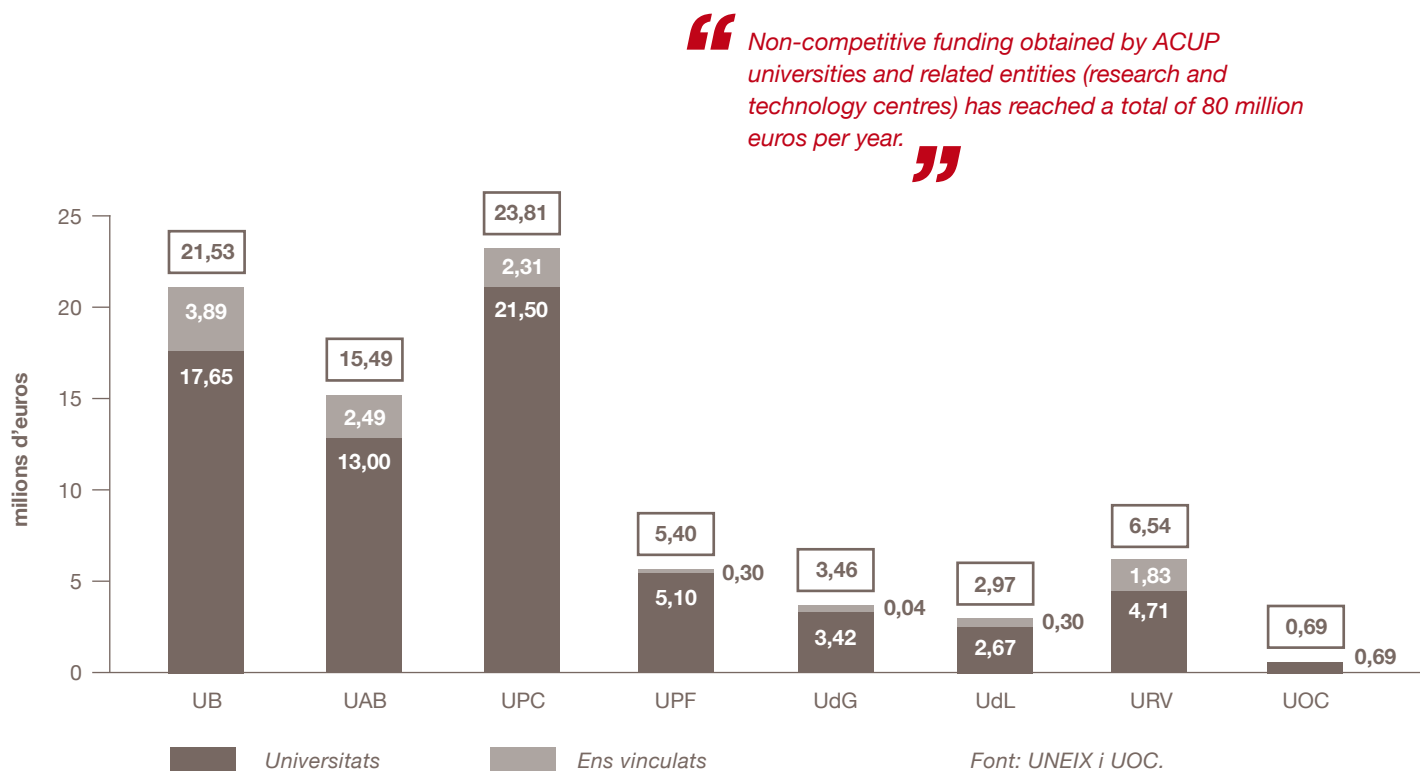


Figure 19. Evolution of non-competitive funding obtained by traditional Catalan public universities and associated entities, 2008-2012.

