

PENTAIR plc  
Form SC 13D/A  
May 10, 2016

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13D  
Under the Securities Exchange Act of 1934

(Amendment No. 5)\*

PENTAIR PLC  
(Name of Issuer)

Ordinary Shares, nominal value \$0.01 per share  
(Title of Class of Securities)

G7S00T 104  
(CUSIP Number)

Brian L. Schorr, Esq.  
Trian Fund Management, L.P.  
280 Park Avenue, 41 st Floor  
New York, New York 10017  
Tel. No.: (212) 451-3000

(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

May 10, 2016  
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box [ ].

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The Information required on the remainder of this cover page shall not be deemed to be “filed” for the purpose of Section 18 of the Securities Exchange Act of 1934 (“Act”) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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1 NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
Nelson Peltz

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
United States

<p>NUMBER OF SHARES  BENEFICIALLY OWNED BY  EACH REPORTING PERSON  WITH</p>	<p>7</p>	<p>SOLE VOTING POWER  0</p>
	<p>8</p>	<p>SHARED VOTING POWER  14,335,888</p>
	<p>9</p>	<p>SOLE DISPOSITIVE POWER  0</p>
	<p>10</p>	<p>SHARED DISPOSITIVE POWER  14,335,888</p>

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
14,335,888

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
7.93%\*

14 TYPE OF REPORTING PERSON  
IN

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\*Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (the "Form 10-Q").

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1 NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
Peter W. May

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
United States

<p>NUMBER OF SHARES  BENEFICIALLY OWNED BY  EACH REPORTING PERSON  WITH</p>	<p>7</p>	<p>SOLE VOTING POWER  0</p>
	<p>8</p>	<p>SHARED VOTING POWER  14,335,888</p>
	<p>9</p>	<p>SOLE DISPOSITIVE POWER  0</p>
	<p>10</p>	<p>SHARED DISPOSITIVE POWER  14,335,888</p>

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
14,335,888

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
7.93%\*

14 TYPE OF REPORTING PERSON  
IN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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1 NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
Edward P. Garden

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
United States

<p>NUMBER OF SHARES  BENEFICIALLY OWNED BY  EACH REPORTING PERSON  WITH</p>	<p>7</p>	<p>SOLE VOTING POWER  0</p>
	<p>8</p>	<p>SHARED VOTING POWER  14,335,888</p>
	<p>9</p>	<p>SOLE DISPOSITIVE POWER  0</p>
	<p>10</p>	<p>SHARED DISPOSITIVE POWER  14,335,888</p>

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
14,335,888

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
7.93%\*

14 TYPE OF REPORTING PERSON

IN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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1 NAME OF REPORTING PERSON  
Trian Fund Management, L.P.

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
20-3454182

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 14,335,888
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 14,335,888

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
14,335,888

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
7.93%\*

14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
 Trian Fund Management GP, LLC
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
 20-3454087
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
 (b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
 AF
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
 Delaware
- |  |   |  |
|--|---|--|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7<br><br><br><br><br><br><br><br>8<br><br><br><br><br><br><br><br>9<br><br><br><br><br><br><br><br>10 | SOLE VOTING POWER<br>0<br><br><br><br><br><br><br><br>SHARED VOTING POWER<br>14,335,888<br><br><br><br><br><br><br><br>SOLE DISPOSITIVE POWER<br>0<br><br><br><br><br><br><br><br>SHARED DISPOSITIVE POWER<br>14,335,888 |
|--|---|--|
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 14,335,888
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
 7.93%\*
- 14 TYPE OF REPORTING PERSON

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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1 NAME OF REPORTING PERSON  
 Trian Partners Master Fund (ERISA), L.P.

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
 98-0682467

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a)   
 (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
 WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT  
 TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
 Cayman Islands

NUMBER OF SHARES 7  
 BENEFICIALLY OWNED BY  
 EACH REPORTING PERSON  
 WITH

SOLE VOTING POWER  
 0

8

SHARED VOTING POWER  
 182,740

9

SOLE DISPOSITIVE POWER  
 0

10

SHARED DISPOSITIVE POWER  
 182,740

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 182,740

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN  
 SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
 0.10%\*

14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
Trian Partners, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
20-3453988
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |    |                                       |
|--|----|---------------------------------------|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7  | SOLE VOTING POWER<br>0                |
|  | 8  | SHARED VOTING POWER<br>2,670,342      |
|  | 9  | SOLE DISPOSITIVE POWER<br>0           |
|  | 10 | SHARED DISPOSITIVE POWER<br>2,670,342 |
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
2,670,342
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
1.48%\*
- 14 TYPE OF REPORTING PERSON

PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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1 NAME OF REPORTING PERSON  
 Trian Partners Master Fund, L.P.

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
 98-0468601

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
 (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
 WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
 Cayman Islands

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 5,959,332
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 5,959,332

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 5,959,332

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
 3.30%\*

14 TYPE OF REPORTING PERSON

PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
Trian Partners Parallel Fund I, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
20-3694154
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |    |                                     |
|--|----|-------------------------------------|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7  | SOLE VOTING POWER<br>0              |
|  | 8  | SHARED VOTING POWER<br>261,894      |
|  | 9  | SOLE DISPOSITIVE POWER<br>0         |
|  | 10 | SHARED DISPOSITIVE POWER<br>261,894 |
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
261,894
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
0.14%\*

14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
Trian Partners Strategic Investment Fund-A, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
27-4180625
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |    |                                       |
|--|----|---------------------------------------|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7  | SOLE VOTING POWER<br>0                |
|  | 8  | SHARED VOTING POWER<br>2,008,726      |
|  | 9  | SOLE DISPOSITIVE POWER<br>0           |
|  | 10 | SHARED DISPOSITIVE POWER<br>2,008,726 |
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
2,008,726
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
1.11%\*
- 14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q

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- 1 NAME OF REPORTING PERSON  
Trian Partners Strategic Investment Fund-N, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
80-0958490
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |   |  |
|--|---|--|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7<br><br><br><br><br><br><br>8<br><br><br><br>9<br><br><br><br>10 | SOLE VOTING POWER<br>0<br><br><br><br>SHARED VOTING POWER<br>569,800<br><br><br><br>SOLE DISPOSITIVE POWER<br>0<br><br><br><br>SHARED DISPOSITIVE POWER<br>569,800 |
|--|---|--|
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
569,800
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
0.32%\*
- 14 TYPE OF REPORTING PERSON

PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
Trian Partners Strategic Investment Fund II, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
45-4929803
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |    |                                     |
|--|----|-------------------------------------|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7  | SOLE VOTING POWER<br>0              |
|  | 8  | SHARED VOTING POWER<br>902,609      |
|  | 9  | SOLE DISPOSITIVE POWER<br>0         |
|  | 10 | SHARED DISPOSITIVE POWER<br>902,609 |
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
902,609
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
0.50%\*
- 14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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1 NAME OF REPORTING PERSON  
 Trian Partners Strategic Investment Fund-D, L.P.

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
 98-1108184

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
 (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
 WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
 Cayman Islands

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7       8    9    10	SOLE VOTING POWER 0       SHARED VOTING POWER 446,245       SOLE DISPOSITIVE POWER 0       SHARED DISPOSITIVE POWER 446,245
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11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 446,245

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
 0.25%\*

14 TYPE OF REPORTING PERSON  
 PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
Trian Partners Fund (Sub)-G, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
90-1035117
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |    |                                     |
|--|----|-------------------------------------|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7  | SOLE VOTING POWER<br>0              |
|  | 8  | SHARED VOTING POWER<br>106,099      |
|  | 9  | SOLE DISPOSITIVE POWER<br>0         |
|  | 10 | SHARED DISPOSITIVE POWER<br>106,099 |
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
106,099
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
0.06%\*
- 14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- |    |   |  |
|----|---|--|
| 1  | NAME OF REPORTING PERSON<br>Trian Partners Strategic Fund-G II, L.P.                    |  |
|    | S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON<br>46-5509975                         |  |
| 2  | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  | (a) <input type="checkbox"/><br>(b) <input type="checkbox"/> |
| 3  | SEC USE ONLY  |  |
| 4  | SOURCE OF FUNDS<br>WC   |  |
| 5  | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) | <input type="checkbox"/>                                     |
| 6  | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Delaware  |  |
|    | NUMBER OF SHARES  | 7  |
|    | BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH  | SOLE VOTING POWER<br>0                                       |
|    |   | 8  |
|    |   | SHARED VOTING POWER<br>361,725                               |
|    |   | 9  |
|    |   | SOLE DISPOSITIVE POWER<br>0                                  |
|    |   | 10   |
|    |   | SHARED DISPOSITIVE POWER<br>361,725                          |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>361,725                 |  |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES                   | <input checked="" type="checkbox"/>                          |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)<br>0.20%*                            |  |

14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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- 1 NAME OF REPORTING PERSON  
Trian Partners Strategic Fund-G III, L.P.
- S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
47-2121971
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(b)
- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS  
WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION  
Delaware
- |  |    |                                     |
|--|----|-------------------------------------|
| NUMBER OF SHARES<br>BENEFICIALLY OWNED BY<br>EACH REPORTING PERSON<br>WITH | 7  | SOLE VOTING POWER<br>0              |
|  | 8  | SHARED VOTING POWER<br>212,365      |
|  | 9  | SOLE DISPOSITIVE POWER<br>0         |
|  | 10 | SHARED DISPOSITIVE POWER<br>212,365 |
- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
212,365
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
0.12%\*
- 14 TYPE OF REPORTING PERSON  
PN

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\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.

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1 NAME OF REPORTING PERSON  
 Trian Partners Strategic Fund-K, L.P.

S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
 47-5116069

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
 (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS  
 WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION  
 Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7       8    9    10	SOLE VOTING POWER 0    SHARED VOTING POWER 654,011    SOLE DISPOSITIVE POWER 0    SHARED DISPOSITIVE POWER 654,011
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11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 654,011

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  
 0.36%\*

14 TYPE OF REPORTING PERSON  
 PN

\* Calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer's Form 10-Q.



This Amendment No. 5 amends and supplements the Schedule 13D filed with the Securities and Exchange Commission on June 30, 2015 (the “Original Statement”), as amended by Amendment No. 1 filed on July 13, 2015, as amended by Amendment No. 2 filed on July 29, 2015, as amended by Amendment No. 3 filed on September 8, 2015, and as amended by Amendment No. 4 (“Amendment No. 4”) filed on February 22, 2016 (as amended, the “Schedule 13D”), relating to the Ordinary Shares, nominal value \$0.01 per share (the “Shares”), of Pentair plc, an Irish public limited company (the “Issuer”). The address of the principal executive office of the Issuer is P.O. Box 471, Sharp Street, Walkden, Manchester, M28 8BU United Kingdom.

Capitalized terms not defined herein shall have the meanings ascribed to them in the Schedule 13D. Except as set forth herein, the Schedule 13D is unmodified.

Items 4 and 5 of the Schedule 13D are hereby amended and supplemented as follows:

Item 4. Purpose of Transaction

Item 4 of the Schedule 13D is hereby amended and supplemented by adding the following information:

As a result of the shareholders of the Issuer approving at its 2016 annual general meeting of shareholders on May 10, 2016 the Amendment Resolution to increase the maximum number of directors of the Issuer from eleven to twelve, Ed Garden, Chief Investment Officer and a Founding Partner of Trian Management, was appointed as a director of the Issuer and as a member of the Compensation Committee and the Governance Committee of the Board of Directors of the Issuer immediately following the meeting. Mr. Garden was appointed as director of the Issuer pursuant to the terms of the Letter Agreement. Pursuant to the Letter Agreement, Mr. Garden has been attending and participating in all Board of Directors and Compensation Committee meetings in a non-voting participant capacity since September 2015.

Item 5. Interest in Securities of the Issuer

Item 5 of the Schedule 13D is hereby amended and supplemented by adding the following information:

(a) As of 4:00 p.m., New York City time, on May 9, 2016, the Reporting Persons beneficially owned, in the aggregate, 14,335,888 Shares, representing approximately 7.93% of the Issuer’s outstanding Shares (calculated based on 180,716,339 ordinary shares outstanding as of March 31, 2016, as reported in the Issuer’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2016).

(c) There have been no new transactions by the Reporting Persons since the filing of Amendment No. 4.

[INTENTIONALLY LEFT BLANK]

SIGNATURE

After reasonable inquiry and to the best of each of the undersigned knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: May 10, 2016

TRIAN FUND MANAGEMENT, L.P.

By: Trian Fund Management GP, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN FUND MANAGEMENT GP, LLC

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS, L.P.

By: Trian Partners GP, L.P., its general partner

By: Trian Partners General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS MASTER FUND (ERISA) L.P.

By: Trian Partners (ERISA) GP, L.P., its general partner

By: Trian Partners (ERISA) General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member



TRIAN PARTNERS MASTER FUND, L.P.

By: Trian Partners GP, L.P., its general partner

By: Trian Partners General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS PARALLEL FUND I, L.P.

By: Trian Partners Parallel Fund I General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS STRATEGIC INVESTMENT FUND-A, L.P.

By: Trian Partners Strategic Investment Fund-A GP, L.P., its general partner

By: Trian Partners Strategic Investment Fund-A General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS STRATEGIC INVESTMENT FUND-N, L.P.

By: Trian Partners Strategic Investment Fund-N GP, L.P., its general partner

By: Trian Partners Strategic Investment Fund-N General Partner, LLC., its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member





TRIAN PARTNERS STRATEGIC INVESTMENT FUND II, L.P.

By: Trian Partners Strategic Investment Fund II GP, L.P., its general partner

By: Trian Partners Strategic Investment Fund-II General Partner, LLC., its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS STRATEGIC INVESTMENT FUND-D, L.P.

By: Trian Partners Strategic Investment Fund-D GP, L.P., its general partner

By: Trian Partners Strategic Investment Fund-D General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS FUND (SUB)-G, L.P.

By: Trian Partners Investment Fund-G GP, L.P., its general partner

By: Trian Partners Investment Fund-G General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS STRATEGIC FUND-G II, L.P.

By: Trian Partners Strategic Fund-G II GP, L.P., its general partner

By: Trian Partners Strategic Fund-G II General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name: Edward P. Garden

Title: Member

TRIAN PARTNERS STRATEGIC FUND-G III, L.P.

By: Trian Partners Strategic Fund-G III GP, L.P., its general partner

By: Trian Partners Strategic Fund-G III General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name Edward P. Garden

Title Member

TRIAN PARTNERS STRATEGIC FUND-K, L.P.

By: Trian Partners Strategic Fund-K GP, L.P., its general partner

By: Trian Partners Strategic Fund-K General Partner, LLC, its general partner

By: /s/ EDWARD P. GARDEN

Name Edward P. Garden

Title Member

/s/NELSON PELTZ

Nelson Peltz

/s/PETER W. MAY

Peter W. May

/s/EDWARD P. GARDEN

Edward P. Garden